4 -



SM No. CMP1009780041

# PROPOSAL AND CONTRACT DOCUMENTS

### FOR THE CONSTRUCTION OF

4

Mill and Overlay SR 9 From the Choctaw County Line to SR 182, known as State Project No. MP-1009-78(004) / 305279301 in Webster County.

Project Completion: September 25, 2014

(STATE **DELEGATED**)

### NOTICE

BIDDERS MUST PURCHASE A BOUND PROPOSAL FROM MDOT CONTRACT ADMINISTRATION DIVISION TO BID THIS PROJECT.

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

### **SECTION 900**

OF THE CURRENT
2004 STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
JACKSON, MISSISSIPPI

# BIDDER CHECK LIST (FOR INFORMATION ONLY)

	All unit prices have been entered into Expedite Bid in accordance with Subsection 102.06 of the Mississippi Standard Specifications for Road and Bridge Construction.
	Expedite bid sheets have been stapled and inserted into the proposal package.
	First sheet of SECTION 905PROPOSAL has been completed.
	Second sheet of SECTION 905PROPOSAL has been completed and signed.
	Addenda, if any, have been acknowledged. Second sheet of Section 905 listing the addendum number has been substituted for the original second sheet of Section 905. Substituted second sheet of Section 905 has been properly completed, <u>signed</u> , and added to the proposal.
	DBE/WBE percentage, when required by contract, has been entered on last sheet of the bid sheets of SECTION 905 - PROPOSAL.
	Form OCR-485, when required by contract, has been completed and signed.
	The last sheet of the Expedite bid sheets of SECTION 905PROPOSAL has been <u>signed</u> .
	Combination Bid Proposal of SECTION 905PROPOSAL has been completed for each project which is to be considered in combination (See Subsection 102.11).
	Equal Opportunity Clause Certification, when included in contract, has been completed and <u>signed</u> .
	The Certification regarding Non-Collusion, Debarment and Suspension, etc. has been <u>executed in duplicate</u> .
	A certified check, cashier's check or bid bond payable to the State of Mississippi in the principal amount of 5% of the bid has been included with project number identified on same. A bid bond has been signed by the bidder and has also been signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent for the Surety with Power of Attorney attached.
	ON FEDERAL FUNDED PROJECTS, the Notice To Bidders regarding DUNS Requirements has been completed and included in the contract documents.
	Non-resident Bidders: ON STATE FUNDED PROJECTS ONLY, a copy of the current laws regarding any preference for local Contractors from State wherein domiciled has been included. See Subsection 103.01, Mississippi Standard Specifications for Road and Bridge Construction, and Section 31-7-47, MCA, 1972 regarding this matter.
entirety in a an addendu	MDOT flash drive with completed EBS file, proposal and contract documents in its a sealed envelope. <u>DO NOT</u> remove any part of the contract documents; exception - m requires substitution of second sheet of Section 905. A stripped proposal is as an irregular bid and will be rejected.

Failure to complete any or all of the applicable requirements will be cause for the proposal to be considered irregular.

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907-618-13: Temporary Construction Signs

907-618-14: Additional Signing Requirements, <u>W/ Supplement</u> 907-626-5: Inverted Profile Thermoplastic Traffic Markings

907-626-25: Thermoplastic Traffic Markings

907-702-3: Polyphosphoric Acid (PPA) Modification of Petroleum Asphalt Cement

907-703-11: Aggregates

907-710-1: Fast Dry Solvent Traffic Paint 907-720-2: Pavement Marking Materials

### Page 2 - PROJECT: MP-1009-78(004) / 305279301 - Webster County

SECTION 905 - PROPOSAL, PROPOSAL BID ITEMS COMBINATION BID PROPOSAL STATE BOARD OF CONTRACTORS REQUIREMENT STATE CERTIFICATION REGARDING NON-COLLUSION, DEBARMENT AND SUSPENSION SECTION 902- CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORMS

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

### **SECTION 901 - ADVERTISEMENT**

Sealed bids will be received by the Mississippi Transportation Commission in the Office of the Contract Administration Engineer, Room 1013, Mississippi Department of Transportation Administration Building, 401 North West Street, Jackson, Mississippi, until 10:00 o'clock A.M., Tuesday, July 22, 2014, and shortly thereafter publicly opened on the Sixth Floor for:

Mill and Overlay SR 9 From the Choctaw County Line to SR 182, known as State Project No. MP-1009-78(004) / 305279301 in Webster County.

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

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

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

Bid proposals must be purchased online at <a href="https://shopmdot.ms.gov">https://shopmdot.ms.gov</a>. Specimen proposals may be viewed and downloaded online at no cost at <a href="http://mdot.ms.gov">http://mdot.ms.gov</a> or purchased online. Proposals are available at a cost of Ten Dollars (\$10.00) per proposal plus a small convenience fee. <a href="Cash or checks will not be accepted as payment">Cash or checks will not be accepted as payment</a>.

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

CODE: (IS)

### **SECTION 904 - NOTICE TO BIDDERS NO. 1**

DATE: 05/03/2004

**SUBJECT:** Governing Specifications

The current (2004) 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 herein. Copies of the specification book may be purchased from the MDOT Construction Division.

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 1990 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 2004 Edition of the Standard Specifications.

CODE: (SP)

### **SECTION 904 - NOTICE TO BIDDERS NO. 3**

DATE: 05/03/2004

**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.

CODE: (IS)

### SECTION 904 - NOTICE TO BIDDERS NO. 1405

DATE: 03/15/2007

## SUBJECT: ERRATA AND MODIFICATIONS TO THE 2004 STANDARD SPECIFICATIONS

Page	<u>Subsection</u>	<u>Change</u>
101	201.01	In the second sentence of the first paragraph, change "salvable" to "salvageable".
107	202.04	In the fourth sentence of the fourth paragraph, change "yard" to "feet".
107	202.05	In the list of units measurements for 202-B, add "square foot".
132	211.03.4	In the second sentence of the second paragraph, change "planted" to "plated".
192	306.02.4	In the first line of the first paragraph, delete the word "be".
200	307.03.7	In the fourth sentence of the second paragraph, change "lime-fly ash" to "treated".
236	401.01	Change the header from "Section 403" to "Section 401".
242	401.02.3.2	In the first sentence of the third full paragraph, add "1/8" in the blank before the inch mark.
250	401.02.6.3	In the second sentence of the first paragraph on page 250, change "rutting over" to "rutting over 1/8"".
253	401.02.6.4.2	In the paragraph preceding the table, change "91.0" to "89.0".
259	401.03.1.4	In the first paragraph, change "92.0 percent" to "the specified percentage (92.0 or 93.0)".
269	403.03.2	In the table at the top of page 269, change the PI requirement from " = " to " $\leq$ ".

278	404.04	In the second sentence, change the subsection from "401.04" to "403.04".
283	409.02.2	Change "PG 64-22" to "PG 67-22".
294	413.02	In the first sentence of the second paragraph, change "707.02.1.3" to "Subsection 707.02.1.3".
340	511.04	In the second sentence of the second paragraph, change "412" to "512".
349	601.03.3	In the first sentence, change "804.03.2" to "804.03.5".
355	603.02	Change the subsection reference for Joint mortar from "707.03" to "714.11".
369	604.04	In the first sentence, change "601.04" to "Subsection 601.04".
427	619.04	Delete the second paragraph.
442	625.04	In the third paragraph, change "626.04" to "Subsection 626.04".
444	626.03.1.2	Delete the third sentence of the first paragraph.
464	631.02	Change the subsection reference for Water from "714.01.0" to "714.01.1".
570	682.03	Change the subsection number from "682-03" to "682.03".
575	683.10.4	Change the subsection number from "683.10.4" to "683.04".
575	683.10.5	Change the subsection number from "683.10.5" to "683.05".
596	701.02	In the table under the column titled "Cementations material required", change "Class F, FA" to "Class F FA,".
603	702.11	In the first sentence, change "702.12" to "Subsection 702.12".
612	703.04.2	In the fifth paragraph, delete "Subsection 703.11 and".
616	703.07.2	In the Percentage By Weight Passing Square Mesh Sieves table, change the No. 10 requirement for Class 7 material from "30 - 10" to "30 - 100".

618	703.13.1	In the first sentence of the first paragraph, change "703.09" to "703.06".
618	703.13.2	In the first sentence, change "703.09" to "703.06".
671	712.06.2.2	In the first sentence, change "712.05.1" to "Subsection 712.05.1".
689	714.11.2	In the first sentence, change "412" to "512".
709	715.09.5	In the first sentence of the first paragraph, change "guage" to "gauge".
717	717.02.3.4	In the top line of the tension table, change "1 1/2" to "1 1/8" and change "1 1/8" to "1 1/2".
741	720.05.2.2	In the last sentence of this subsection, change "720.05.2.1" to "Subsection 720.05.2.1".
827	803.03.2.3.7.5.2	In the first sentence of the second paragraph, change "803.03.5.4" to "803.03.2.3.4".
833	803.03.2.6	In the first sentence, change "803.03.7" to "803.03.2.5".
854	804.02.11	In the last sentence of the first paragraph, change "automatically" to "automatic".
859	804.02.13.1.3	In the last sentence, change Subsection "804.02.12.1" to "804.02.12".
879	804.03.19.3.2	In the first sentence of the third paragraph, change "listed on of Approved" to "listed on the Approved".
879	804.03.19.3.2	In the last sentence of the last paragraph, change "804.03.19.3.1" to "Subsection 804.03.19.3.1".
962	814.02.3	In the first sentence, change "710.03" to "Subsection 710.03".
976	820.03.2.1	In the first sentence, change "803.02.6" to "803.03.1.7".
976	820.03.2.2	In the first sentence, change "803.03.9.6" to "803.03.1.9.2".
985	Index	Change the subsection reference for Petroleum Asphalt Cement from "702.5" to "702.05".

985	Index	Change the subsection reference for the Definition of Asphaltic Cement or Petroleum Asphalt from "700.2" to "700.02".
985	Index	Change the subsection reference for Automatic Batchers from "501.03.2.4" to "804.02.10.4".
986	Index	Delete "501.03.2" as a subsection reference for Batching Plant & Equipment.
988	Index	Change the subsection reference for the Central Mixed Concrete from "501.03.3.2" to "804.02.11".
988	Index	Change the subsection reference for the Concrete Batching Plant & Equipment from "501.03.2" to "804.02.11".
999	Index	Delete "501.03.3.3" as a subsection reference for Truck Mixers.
1001	Index	Change the subsection reference for Edge Drain Pipes from "605.3.5" to "605.03.5".
1002	Index	Change the subsection reference for Metal Posts from "713.05.2" to "712.05.2".
1007	Index	Change the subsection reference for Coarse Aggregate of Cement Concrete Table from "703.3" to "703.03".
1007	Index	Change the subsection reference for Composite Gradation for Mechanically Stabilized Courses Table from "703.8" to "703.08".
1009	Index	Delete "501.03.3.3" as a subsection reference for Truck Mixers and Truck Agitators.
1010	Index	Delete reference to "Working Day, Definition of".

**SECTION 904 - NOTICE TO BIDDERS NO. 1928** 

CODE: (IS)

**DATE:** 04/14/2008

**SUBJECT:** Federal Bridge Formula

Bidders are hereby advised that Federal Highway Administration Publication No. FHWA-MC-94-007, **BRIDGE FORMULA WEIGHTS**, dated January 1994, 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 7<sup>th</sup> Street, SW Washington, DC 20590 (202) 366-2212

or

http://ops.fhwa.dot.gov/freight/sw/brdgcalc/calc\_page.htm

SECTION 904 - NOTICE TO BIDDERS NO. 2937

CODE: (SP)

**DATE:** 01/11/2010

**SUBJECT: Reduced Speed Limit Signs** 

Bidders are advised that all black and white speed limits signs that are used to reduce the speed limit through construction zones shall be covered or removed during times when the Contractor is not performing work. If the Contractor has a routine daytime operation and is not working at night, the signs shall be covered or removed during the nighttime when there is no work activity.

CODE: (SP)

SECTION 904 - NOTICE TO BIDDERS NO. 3039

**DATE:** 03/23/2010

**SUBJECT:** Alternate Asphalt Mixture Bid Items

Bidders are advised that the asphalt mixture used on this project will be bid as an alternate pay item: Hot Mix Asphalt (HMA) or Warm Mix Asphalt (WMA). Bidders must select one of the alternates at the time of bid. The Contractor must use the selected asphalt mixture, HMA or WMA, throughout the entire project.

CODE: (SP)

### **SECTION 904 - NOTICE TO BIDDERS NO. 3131**

**DATE:** 06/24/2010

**SUBJECT:** Temporary Traffic Paint

Bidders are hereby advised that the temporary traffic paint for this project can be waterborne paint as specified in the 2004 Mississippi Standard Specifications For Road and Bridge Construction or fast dry solvent traffic paint meeting the requirements set out in 907-710-1 (Fast Dry Solvent Traffic Paint).

Payment for all temporary traffic paint shall be paid under the appropriate 619 pay items.

When using fast dry solvent traffic stripe, no paint can be sprayed or placed on the ground during set-up or clean-up.

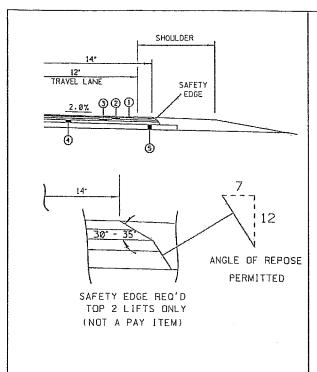
CODE: (SP)

SECTION 904 - NOTICE TO BIDDERS NO. 3585

**DATE:** 06/22/2011

**SUBJECT:** Safety Edge

Bidders are hereby advised that the Shoulder Wedge (Safety Edge) specified in the Supplement to Special Provision 907-401-2 shall only apply to the top two (2) lifts of asphalt. Attached is a drawing showing the safety edge.



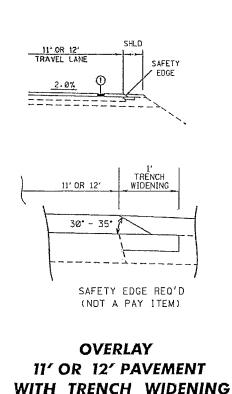
# SAFETY EDGE REQ'D TOP 2 LIFTS ONLY (NOT A PAY ITEM)

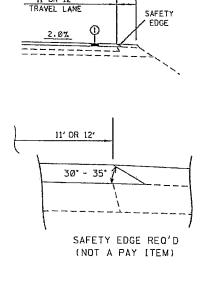
### **NEW CONSTRUCTION**

# OVERLAY 14' PAVEMENT

SHLD

11' OR 12'





# OVERLAY 11' OR 12' PAVEMENT WITHOUT TRENCH WIDENING

SAFETY EDGE DETAILS 15

4/8/2011

CODE: (SP)

### SECTION 904 - NOTICE TO BIDDERS NO. 3655

**DATE:** 10/04/2011

**SUBJECT:** Type III Barricade Rails

Bidders are advised that the use of 2-inch nominal thickness timber for rails on Type III barricades has not been approved by NCHRP as a crashworthy device. Therefore, the use of 2-inch nominal thickness timbers <u>will not be allowed</u> for rails on Type III Barricades. Timber rails for Type III Barricades shall be as follows.

- For barricades up to four feet (4') wide, the maximum thickness of timber rails shall be one inch (1") and the material shall be pine timber or ¾-inch ACX plywood.
- For barricades more than four feet (4') wide, timber rails shall be constructed of ¾-inch ACX plywood.

A list of crashworthy Type III Barricades can be found at the below FHWA website.

http://safety.fhwa.dot.gov/roadway\_dept/policy\_guide/road\_hardware/wzd/

SECTION 904 - NOTICE TO BIDDERS NO. 3893 CODE: (SP)

**DATE:** 04/10/2012

**SUBJECT:** Petroleum Products Base Prices

Bidders are advised that monthly petroleum products base prices will be available at the web site listed below. Current monthly prices will be posted to this web site on or before the 15<sup>th</sup> of each month. Bidders are advised to use the petroleum base prices on this web site when preparing their bids. The current monthly petroleum products base prices will be acknowledged by the Bidder and become part of the contract during the execution process.

Monthly Petroleum Products Base Prices can be viewed at:

http://sp.gomdot.com/Contract%20Administration/BidSystems/Pages/letting%20calendar.aspx

CODE: (IS)

SECTION 904 - NOTICE TO BIDDERS NO. 4214

**DATE:** 11/29/2012

**SUBJECT:** Safety Apparel

Bidders are advised that the Code of Federal Regulations CFR 23 Part 634 final rule was adopted November 24, 2006 with an effective date of November 24, 2008. This rule requires that "All workers within the right-of-way of a Federal-Aid Highway who are exposed either to traffic (vehicles using the highway for the purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel". High-visibility safety apparel is defined in the CFR as "personnel protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage, and that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled American National Standard for High-Visibility Safety Apparel and Headwear". All workers on Mississippi State Highway right-of-way shall comply with this Federal Regulation. Workers are defined by the CFR as "people on foot whose duties place them within the right-of way of a Federal-Aid Highway, such as highway construction and maintenance forces, survey crews, utility crews, responders to incidents within the highway right-of-way, and law enforcement personnel when directing traffic, investigating crashes, and handling lane closures, obstructed roadways, and disasters within the right-of-way of a Federal-Aid Highway".

More information regarding high visibility safety apparel can be found at the following sites.

 $http://www.gpo.gov/fdsys/pkg/CFR-20\underline{08-title23-vol1/pdf/CFR-2008-title23-vol1-sec634-1.pdf}$ 

http://ops.fhwa.dot.gov/wz/resources/policy.htm#hv

SECTION 904 - NOTICE TO BIDDERS NO. 4524 CODE: (SP)

**DATE:** 05/13/2013

**SUBJECT:** Warm Mix Asphalt

Bidders are advised that MDOT approved products and processes for the production of Warm Mix Asphalt are available at the following MDOT website.

http://sp.mdot.ms.gov/Materials/Pages/MPL.aspx

SECTION 904 - NOTICE TO BIDDERS NO. 4526 CODE: (SP)

**DATE:** 06/11/2013

**SUBJECT: Electronic Addendum Process** 

Bidders are advised that hard copies of any addenda for this project will no longer be mailed to prospective bidders. All addenda for this project will be posted to the <u>mdot.ms.gov</u> webpage under the Proposal Addenda column for the current letting and appropriate call number. Bidders will have to download addenda from the webpage and process the addenda in the same manner as previous lettings. Addenda will be posted by 10:00 a.m. on Friday prior to the letting. It will be the Bidder's responsibility to check and see if any addenda have been posted for this project. Any questions regarding the downloading process of the addenda shall be directed to the Contract Administration Division at 601-359-7700. Any questions regarding the content of the addenda shall be submitted as a question in accordance with the Notice To Bidders entitled "Questions Regarding Bidding".

SECTION 904 - NOTICE TO BIDDERS NO. 4565 CODE: (SP)

**DATE:** 06/27/2013

**SUBJECT:** Manual on Uniform Traffic Control Devices

Any reference in the Standard Specifications or contract documents to a particular Section of the Manual on Uniform Traffic Control Devices (MUTCD) it shall mean that Section of the latest version of the Manual on Uniform Traffic Control Devices.

**SECTION 904 - NOTICE TO BIDDERS NO. 4661** 

CODE: (IS)

**DATE:** 10/16/2013

**SUBJECT:** Payroll Requirements

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

On Federal-Aid Projects, CAD-880, CAD-881 and certified payroll submissions are required each week the Contractor or a Subcontractor performs work on the project. This is addressed in Section IV of Form FHWA-1273.

On State-Funded Projects, CAD-880 is required each week the Contractor or a Subcontractor performs work on the project.

When no work is performed on either Federal-Aid or State-Funded Projects, 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 Section 110 of the Standard Specifications.

SECTION 904 - NOTICE TO BIDDERS NO. 5044 CODE: (SP)

**DATE:** 05/13/2014

**SUBJECT: Questions Regarding Bidding** 

Bidders are advised that all questions that arise regarding the contract documents (proposal) or plans on this project shall be directed to the <a href="www.gomdot.com">www.gomdot.com</a> current letting webpage. Click on the call number for this project to open an email form to submit your question. Questions must be submitted by 8:00 a.m. on the day prior to the letting. Answers to questions will be posted by 6:00 p.m. on the day prior to the letting. Answers can be viewed by clicking on Q&A link under the Proposal Addenda column.

It shall be the Bidders responsibility to familiarize themselves with the questions and answers that have been submitted on this project. Bidders are advised that by signing the contract documents for this project, they agree that the on-line Questions and Answers submitted on this project shall be added to and made part of the official contract.

CODE: (SP)

**SECTION 904 - NOTICE TO BIDDERS NO. 5050** 

DATE: 05/28/2014

**SUBJECT:** Adjustments for Bituminous Materials

Bidders are advised that Subsection 907-402.03.1.2, Tack Coat, in Special Provision 907-402, allows the Contractor several options for OGFC tack coat. Regardless of the tack coat used, the monthly material adjustment, as referenced in Section 109 of the Standard Specifications, will be made using the base and current prices of tack coat Grade PG 76-22.

Bidders are also advised that the specifications allow the use of RC-70, RC-250, RC-800, RS-1, RS-2, MC-30, MC-250, MS-2h, LD-7, CQS-1h, and CMS-2h in various other construction operations. If the Contractor uses one of these bituminous materials, the monthly material adjustment will be made using the base and current prices of the materials shown below.

Materials Used	Material Adjustment Made Based on Prices For
RC-70, 250, 800	MC-70
RS-1, 2	CRS-2
MC-30, 250	MC-70
MS-2h	SS-1
LD-7, CQS-1h	CSS-1
CMS-2h	SS-1

SECTION 904 - NOTICE TO BIDDERS NO. 5053

CODE: (SP)

**DATE:** 06/03/2014

**SUBJECT:** Contractor Correspondence

Bidders are advised that all correspondence concerning this project, other than correspondence related to the execution of the contract and sub-contracting, shall be sent to the Project Engineer. The Project Engineer will then forward any necessary correspondence to the appropriate Division. This includes general correspondence, submittals, shop drawings, requests for advancement of materials, etc.

### SECTION 904 – NOTICE TO BIDDERS NO. 5080

CODE: (SP)

**DATE:** 06/10/2014

**SUBJECT: Standard Drawings** 

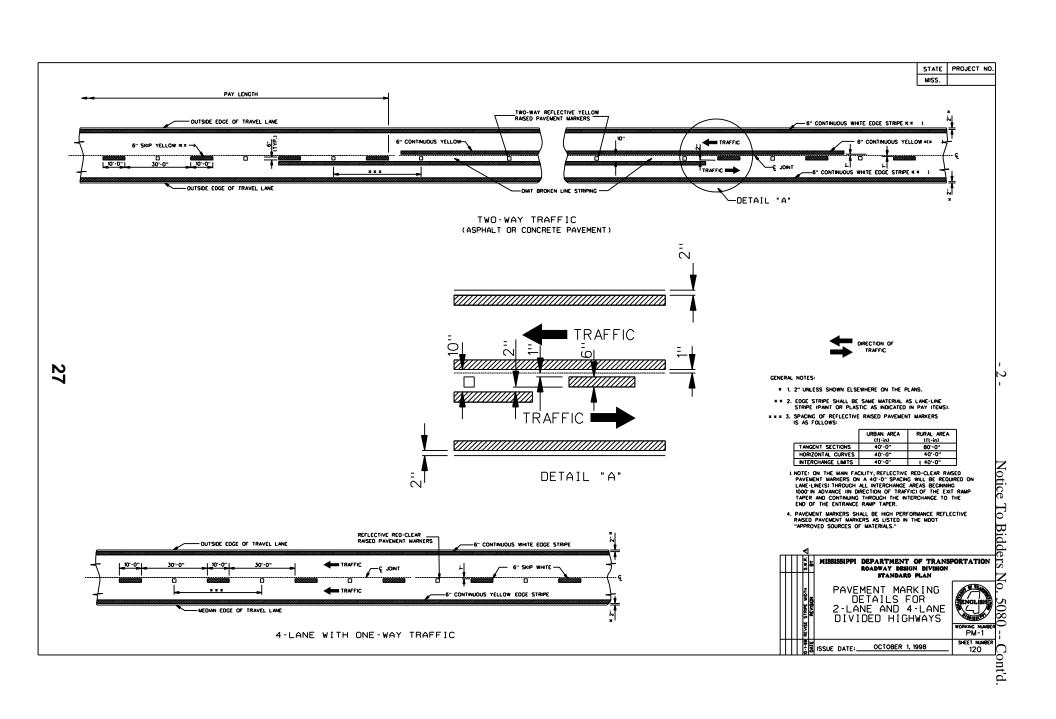
Standard Drawings attached hereto shall govern appropriate items of required work.

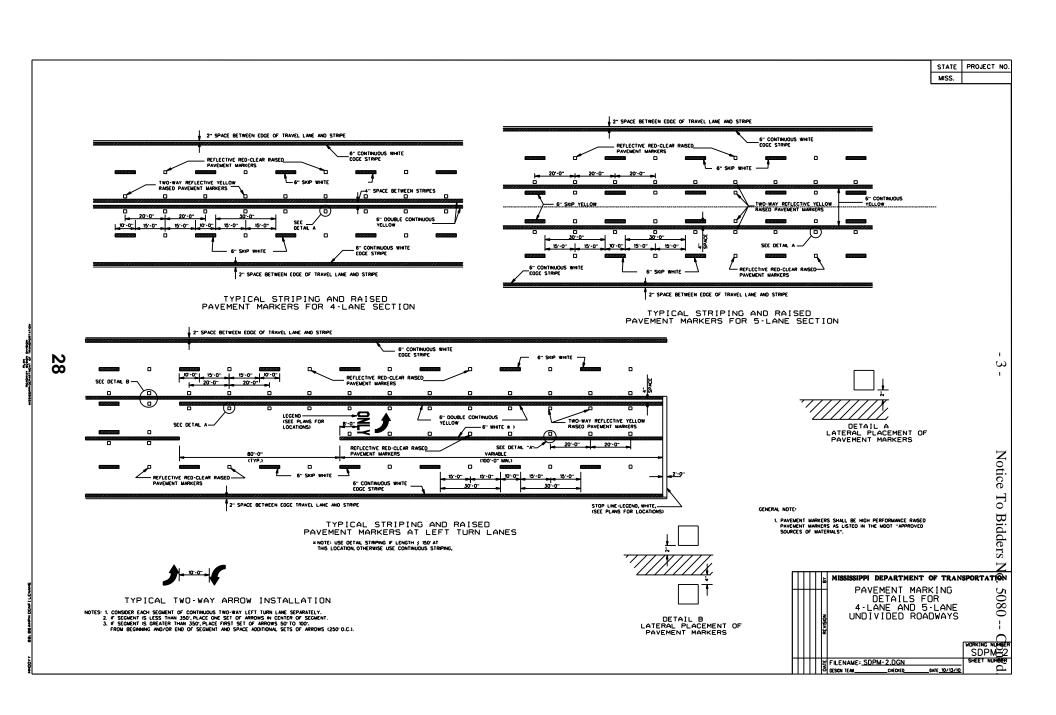
Larger copies of Standard Drawings may be purchased from:

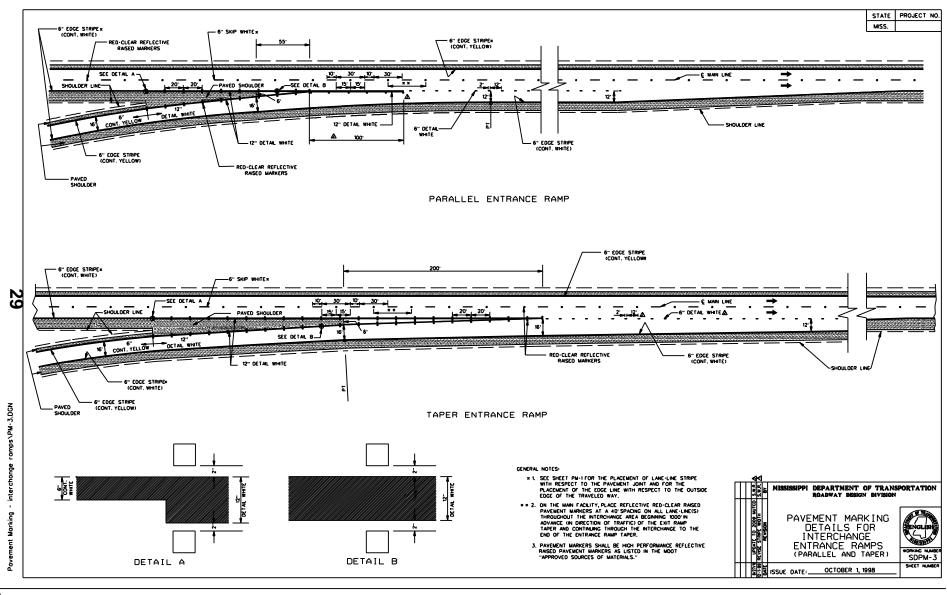
MDOT Plans Print Shop MDOT Shop Complex, Building C, Room 114 2567 North West Street P.O. Box 1850 Jackson, MS 39215-1850

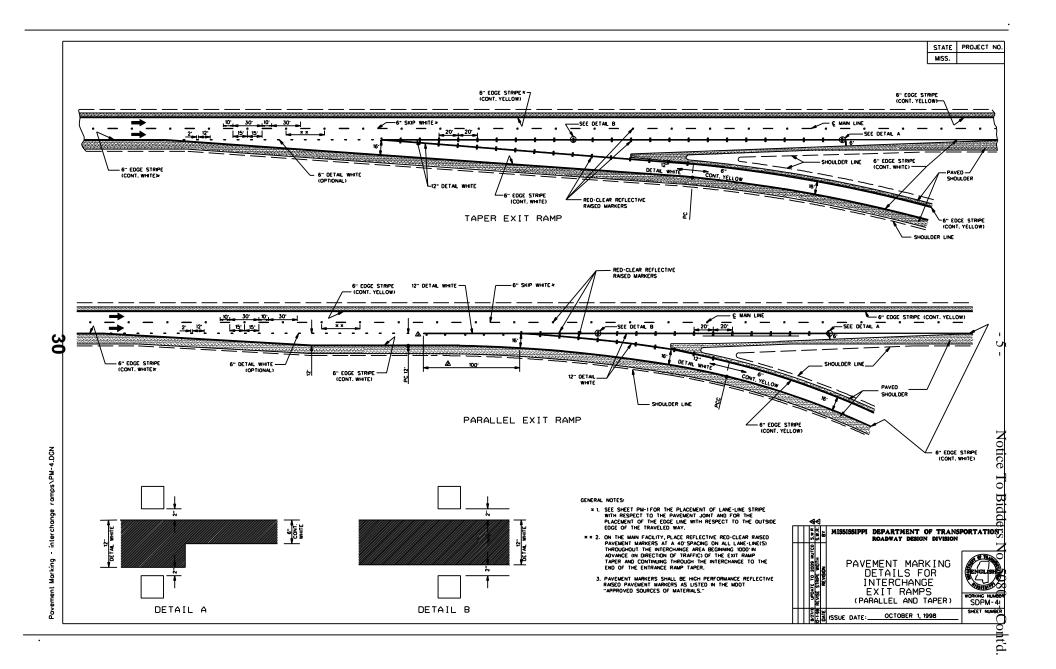
Telephone: (601) 359-7460 or FAX: (601) 359-7461

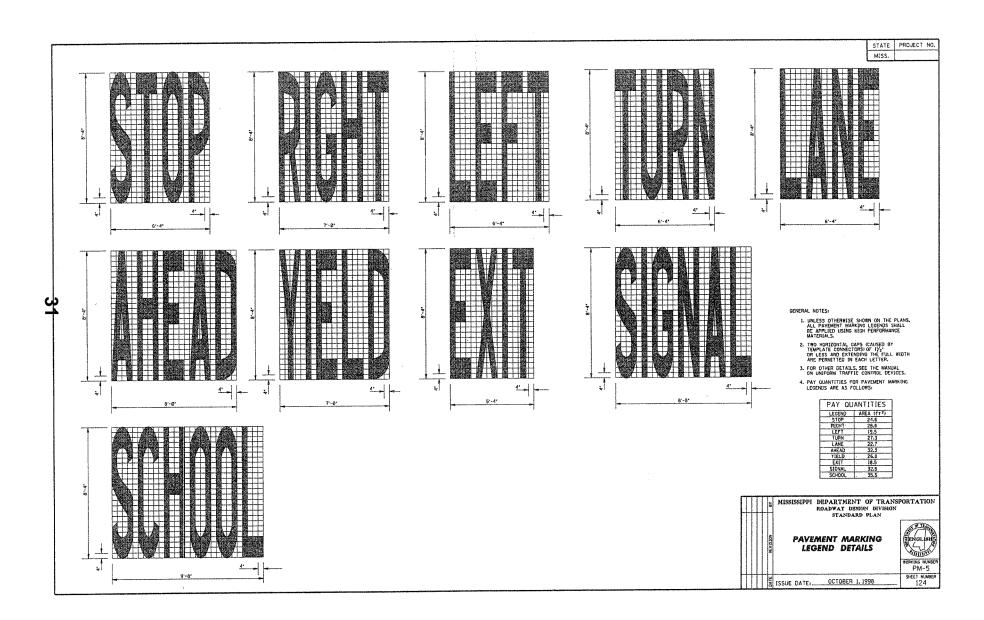
or e-mail: <a href="mailto:plans@mdot.state.ms.us">plans@mdot.state.ms.us</a>





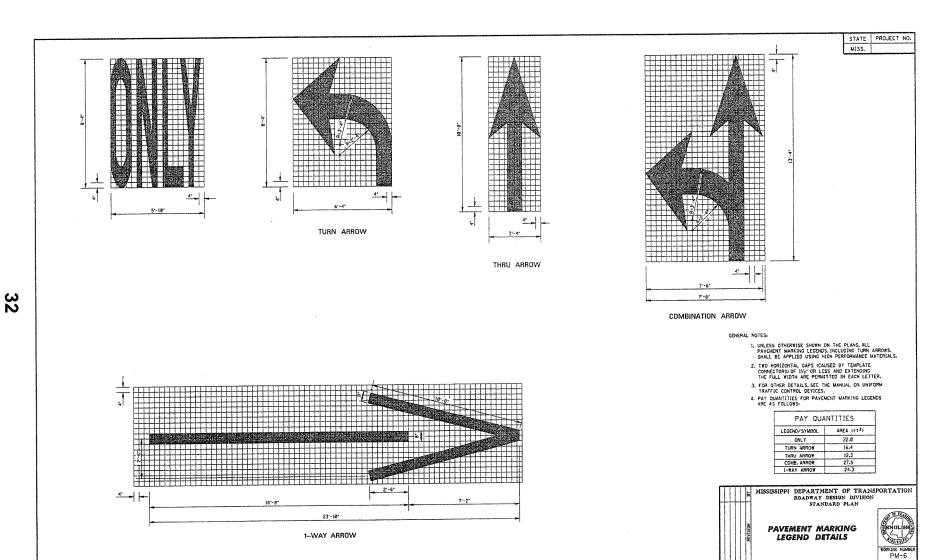


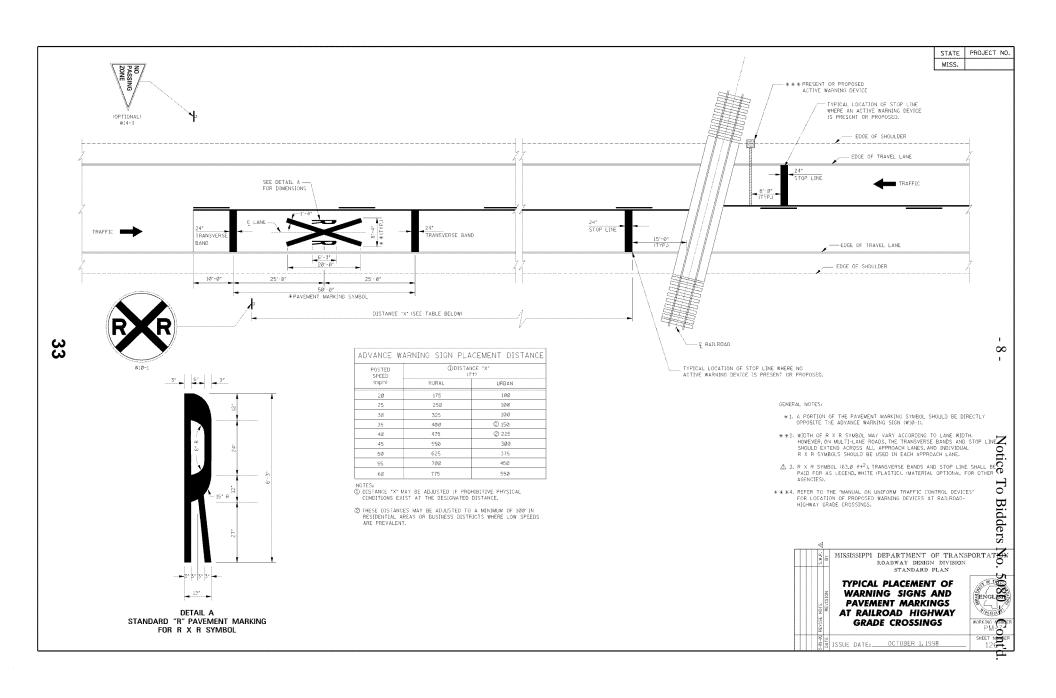


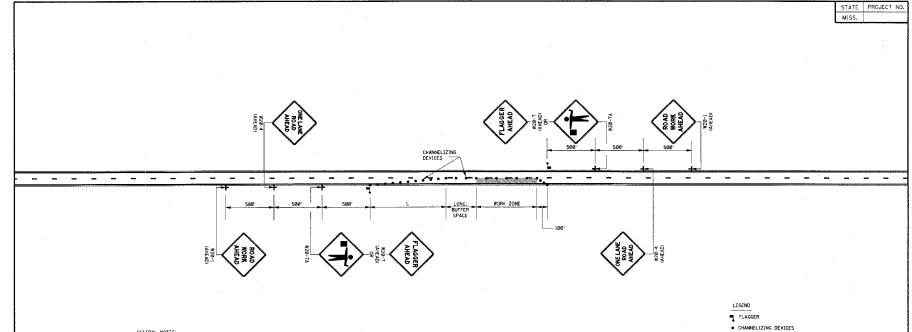


SHEET HUMBER

S ISSUE DATE: OCTOBER I, 1998







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

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (f†)		MJNEMUM LONGITUDINAL	TAPER †
	TAPER	ALONG LANE LINE & WORK ZONE	BUFFER SPACE (ft)	KATES
mph				
≤40	40	80	170	27:1
45	45	98	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

- \* NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
  L = WS FOR SPEEDS OF 45 mph OR GREATER
  L = WS-FOR FOR SPEEDS OF 48 mph OR LESS
  WHERE L = WINIMAM LENGTH OF TAPER IN FEET
  S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN
  MILES PER NOSE.

- 2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 24' IN HEIGHT.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- 4. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48' × 48'.
- 5. WHEN THERE IS NO EXISTING HAZARD OR AT THE END OF THE WORK DAY. ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
- WHERE THE WORK ZONE IS STATIONARY, THE W20-7 (500 FT.) SIGN OR THE W20-TA SIGN TOGETHER WITH THE W20-7 (500 FT.) SUPPLEMENTAL PLATE SHOULD BE USED TO INDICATE THE DISTANCE TO THE FLAGGER.

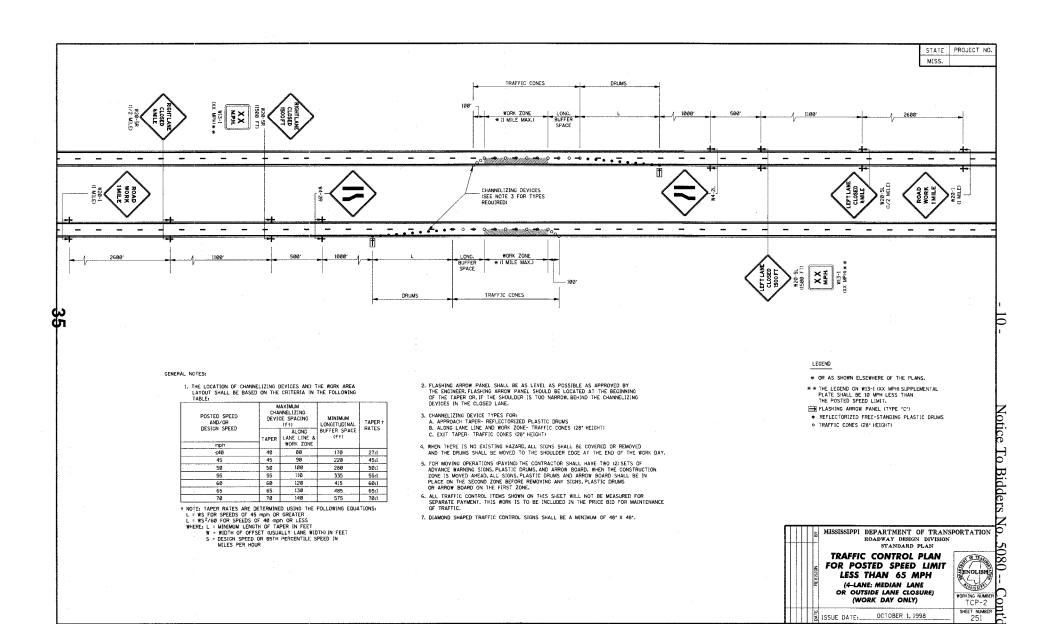
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN

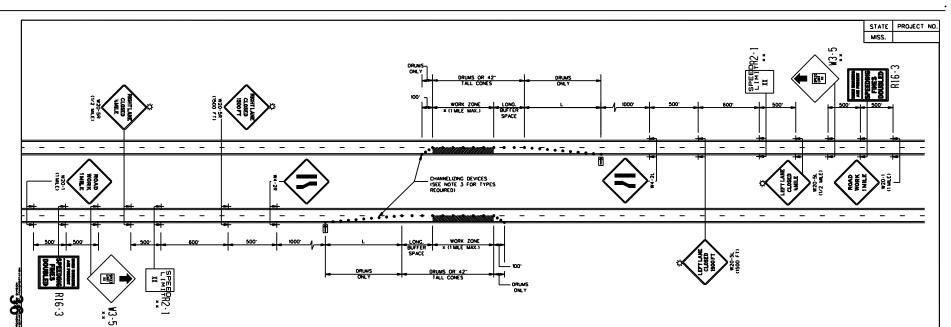
TRAFFIC CONTROL PLAN WITH FLAGGER (ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)

WORKING NUMBE TCP-1

ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER





#### GENERAL NOTES:

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

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (11)		MINIMUM LONGITUDINAL	TAPERI RATES
	TAPER	ALONG BUFFER SPACE & WORK ZONE	BUFFER SPACE	KAILS
mph		WORK ZONE		
<b>≤40</b>	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

- I NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:

  L \*\*WS FOR SPECDS OF 40 min OR GREATER

  L \*\*WS FOR SPECDS OF 40 min OR LESS

  WHERE: L \*\*MINIMUM LENGTH OF TAPER IN FEET

  W \*\* WOTH OF OF SPEED (USUALLY, LANE WIDTH) IN FEET

  S \*\*DESIGN SPEED OR BSTH PERCENTILE SPEED IN

  MILES PER HOUR

- 2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR.F. THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
- 3. CHANNELIZING DEVICES:
- A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE REFLECTORIZED FREE STANDING PLASTIC DRUMS. 8. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER REFLECTORIZED FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
- C. FOR NICHTIME USE.ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.
  D. RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MJJ.T.C.D.
- 4. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARRING SIGNS, PLASTIC DRIMS, AND ARROW BOARD, WHEN THE CONSTRUCTION COME SHOVED AREA, ALL SENS, PLASTIC DRIUMS AND ARROW BOARD SHALL BE N PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRIMS OR ARROW BOARD ON THE FIRST ZONE.
- 5. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- 6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".

#### LEGEND

- \* OR AS SHOWN ELSEWHERE OF THE PLANS.
- \*\* THE LEGEND ON R2-1% W3-5 SPEED LIMIT SIGNS SHALL BE 10 MPH LESS THAN THE ORIGINAL POSTED SPEED LIMIT.

FLASHING ARROW PANEL (TYPE "C")

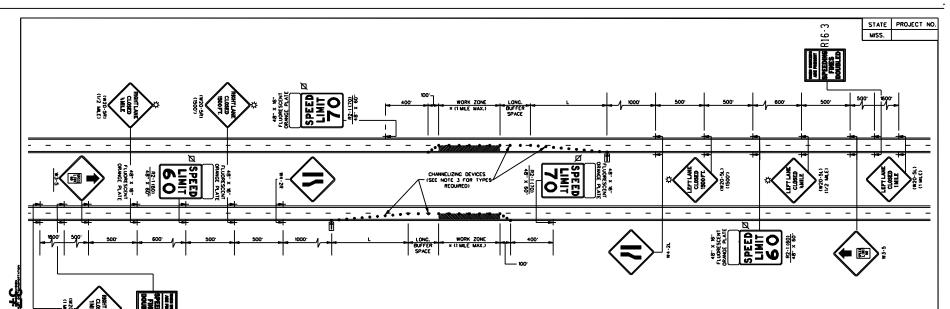
- . REFLECTORIZED FREE-STANDING PLASTIC DRUMS
- TYPE "B" WARNING LIGHTS



(4-LANE: MEDIAN OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)

FOR POSTED SPEED LIMIT LESS THAN 65 MPH

FILENAME: OVERNIGHTCLOSR\SDTCP-3 SHEET NUMBER OLSON IT NUMBER OLSON IT NUMBER



#### GENERAL NOTES:

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

TABLE:				
POSTED SPEED AND/OR	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		MINIMUM L ONGITUDINAL	TAPER I
DESIGN SPEED	TAPER	ALONG BUFFER SPACE &	BUFFER SPACE	KAIES
mph		WORK ZONE		
<b>{40</b>	40	80	170	27:1
45	45	90	220	45:1
50	50	100	260	50:1
55	55	110	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	70	140	575	70:1

- I NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
  L · WS FOR SPECDS OF 45 mph OR GREATER
  L · WS FOR FOR SPECDS OF 40 mph OR LESS
  W-REL L · MINNAUM LENGTH OF TAPER IN FEET
  S · DESIGN SPEED OR SSTIM DEALY LANK WOTHIN IN FEET
  S · DESIGN SPEED OR SSTIM PERCENTILE SPEED IN
  MILES PER HOUR
- 2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER, FLASHING ARROW PANEL SHOULD BE LICATED AT THE BECOMMING OF THE TAPER OR, IF THE SHOULDER IS TOO MARROW, BEHIND THE CHAMMELIZING DEVICES IN THE CLOSED LAWE.

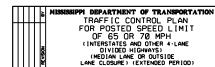
#### 3. CHANNELIZING DEVICES:

- A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE REFLECTORIZED FREE STANDING PLASTIC DRUMS.
- B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER REFLECTORIZED FREE STANDING PLASTIC DRUMS OR 42" TALL CONES.
- C. FOR NIGHTTME USE, ALL CHANNELIZING DEVICES SHALL BE RETROREFLECTIVE.

  O. RETROREFLECTORIZATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE M.U.T.C.D.
- 4. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
- 5. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48" X 48".
- 6. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REDUCED SPEED LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON FACE OF SIGN.
- ADDITIONAL REDUCED SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. A MINIMUM OF TWO (2) WILL BE REQUIRED FOR EACH RAMP, LOCATION AND NUMBER REQUIRED WILL BE DETERMINED
- 8. THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
- 9. LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH, FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
- 10. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS REQUIRED FOR LANE CLOSURE.

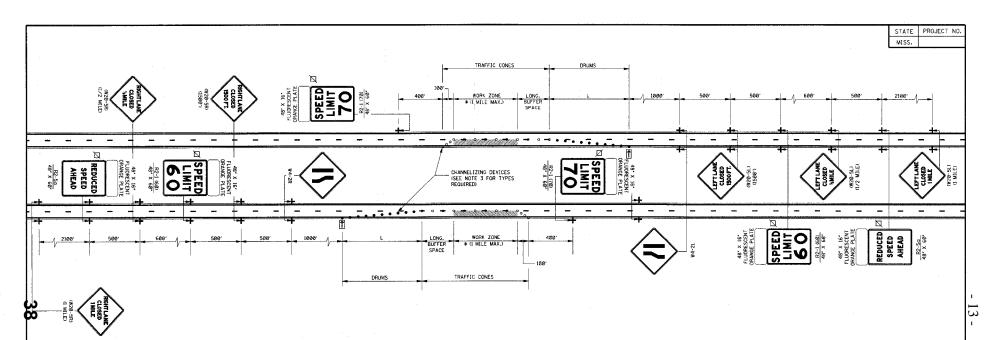
#### LEGEND

- \* OR AS SHOWN ELSEWHERE OF THE PLANS. FLASHING ARROW PANEL (TYPE "C")
- N BLACK LEGEND AND BORDER ON WHITE BACKGROUND
- TYPE "B" WARNING LIGHTS
- . REFLECTORIZED FREE-STANDING PLASTIC DRUMS



SDTCP-4 FILENAME: <u>OVERNIGHTCLOSR\SDTCP-4</u> SHEET NUMBER





GENERAL NOTES:

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

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (f†)		MINIMUM LONGITUDINAL	TAPER+
	TAPER	ALONG LANE LINE & WORK ZONE	BUFFER SPACE (f+)	RAIES
mph				
≤40	40	80	170	27:1
45	45	90	220	45:1
50	50	100	280	50:1
55	55	116	335	55:1
60	60	120	415	60:1
65	65	130	485	65:1
70	78	140	575	70:1

- + NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS: NUTS TAPEN MAILS AND DETERMINED USING THE FULLOWING E L = MS FOR SPEEDS OF 40 mph OR GREATER L = MS FOR SPEEDS OF 40 mph OR LESS W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET S = DESIGN SPEED OR 85TH PERCENTLE SPEED IN
  - - MILES PER HOUR
- 2. FLASHING ARROW PANEL SHALL BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING
- 3. CHANNELIZING DEVICE TYPES FOR:

  A. APPROACH TAPER- REFLECTORIZED PLASTIC DRUMS
  B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
  C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT)

- 4. WHEN THERE IS NO EXISTING HAZARD, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
- 5. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING AND REGULATORY SIGNS, PLASTIC DRUMS, AND ARROW BOARD, WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE. IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE
- 7. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 48' X 48'.
- 8. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REQUEDS SPEED LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON THE FACE OF SIGN.
- ADDITIONAL REDUCED SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP HITHIN THE SPEED ZONE. A MINIMOM OF TWO C2) WILL BE REQUIRED FOR EACH RAMP. LOCATION AND NUMBER REQUIRED WILL BE DETERMINED BY THE ENGINEER.
- 10. THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
- 1). LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
- 12. A FLUORESCENT ORANGE PLATE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS AND "REDUCED SPEED AHEAD" SIGNS REQUIRED FOR LANE CLOSURE.

#### LEGEND

- \* OR AS SHOWN ELSEWHERE OF THE PLANS.
- FLASHING ARROW PANEL (TYPE 'C')

TO BLACK LEGEND AND BORDER ON WHITE BACKGROUND

- REFLECTORIZED FREE-STANDING PLASTIC DRUMS
- o TRAFFIC CONES (28" HEIGHT)



OF 65 OR 70 MPH (INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS) (MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)

WORKING NUMBE TCP-5 SHEET NUMBE 254

ISSUE DATE:\_ OCTOBER 1, 1998 SET OF TRANSPORT

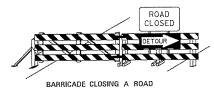
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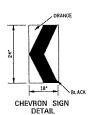


#### STANDARD BARRICADES

- A TYPE I BARRICADE CONSISTS OF ONE (I) HORIZONTAL RAIL SUPPORTED BY A DEMOUNTABLE FRAME OR A LIGHT 'A' FRAME, A TYPE I BARRICADE NORMALLY WOULD BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND ARTERIALS.
- A TYPE II BARRICADE CONSISTS OF TWO (2) HORIZONTAL RAILS ON A LIGHT "A" FRAME, TYPE II BARRICADES
  ARE INTENDED FOR USE ON EXPRESSWAYS AND FREEWAYS AND OTHER HIGH-SPEED ROADWAYS.
- 3. TYPE I AND TYPE II BARRICADES ARE INTENDED FOR USE WHERE THE HAZARD IS RELATIVELY SMALL AS, FOR EXAMPLE, ON CITY STREETS, OR FOR THE MORE OR LESS CONTINUOUS DELIMITING OF A RESTRICTED ROADWAY, OR FOR TEMPORARY DAYTIME USE.
- A TYPE III BARRICADE CONSISTS OF THREE (3) HORIZONTAL RAILS SUPPORTED BY FIXED POSTS, A RIGIO SKID, A HEAVY DEMOUNTABLE FRAME OR A HEAVY, HINGED "A" FRAME.
- 5. TYPE III BARRICADES ARE INTENDED FOR USE ON CONSTRUCTION AND MAINTENANCE PROJECTS AS WING BARRICADES AND AT ROAD CLOSURES, WHERE THEY MUST REMAIN IN PLACE FOR EXTENDED PERIODS.
- 6. THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
- DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
- 8. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCO, LATEST EDITION.
- 9 BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES WHICH REQUIRE CRASHWORTHINESS ACCEPTANCE LETTERS. TO DATE, 2-IN. THICK TIMER RAILS HAVE NOT BEEN SUCCESSFULLY CRASH TESTED. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON PHWA'S WEBSITE http://safety.fhwa.dot.gov/roadway\_dept/pollcy\_guide/road\_hardware/cat2.cfm

# TYPE 3 OBJECT MARKER

(OM-3R)



- A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
- 2. THE CHEVRON SIGN SHALL BE MOUNTED ON FIXED POST OR RIGID SKID.
- CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE DNE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHALL BE PLACED APPROXIMATELY 2"-0" BEHIND THE LANE TRANSITION STRIPE.
- 1. TYPE 3 OR JECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE
- 2. THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
- 3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.

#### BARRICADE CHARACTERISTICS

	I	I	m
WIDTH OF RAIL **	8" MIN 12" MAX.	8" MIN 12" MAX.	8" MIN 12" MAX.
LENGTH OF RAIL**	24° MIN.	24° MIN.	48' MIN.
WIDTH OF STRIPE *	6*	6*	6*
HEIGHT	36, MIN*	36° MIN.	60° MIN.
NUMBER OF REFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS
TYPE OF FRAME	LIGHT	LIGHT 'A' FRAME	POST OR SKID

- \* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
- \*\* 2. BARRICADES INTENDED FOR USE ON EXPRESSMAYS, FREEMAYS AND OTHER HIGH SPEED ROADMAYS, SHALL HAVE A MINIMUM OF 270 Inf OF REFLECTIVE AREA FACING TRAFFIC.

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#### VERTICAL PANEL

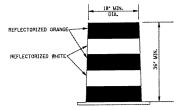
- 1. VERTICAL PANELS CONSIST OF AT LEAST ONE PANEL 8" TO 12" IN WIDTH AND A MINIMUM OF 24' IN HEIGHT.
- 2. THE DIAGONAL STRIPES SHALL SLOPE DOWNWARD IN THE DIRECTION THAT TRAFFIC IS TO PASS THE PANEL. THE PANELS SHALL BE MOUNTED WITH THE TOP A MINIMUM OF 36 ABOVE THE ROADWAY ON A SINGLE LIGHTWASS POST.
- 3, VERTICAL PANELS USED ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH-SPEED ROADWAYS SHALL HAVE A MINIMUM OF 270 In<sup>2</sup> OF RETROREFLECTIVE AREA FACING TRAFFIC.
- 4. FOR TWO-WAY TRAFFIC OPERATIONS, BACK-TO-BACK PANELS SHALL BE USED.

#### GENERAL NOTES:

- MARKINGS ON ALL DEVICES SHOWN ON THIS SHEET SHALL BE HIGH INTENSITY REFLECTIVE SHEETING.
- THE TRAFFIC CONTROL PLAN WILL LIST THE VARIOUS TRAFFIC CONTROL DEVICES REQUIRED FOR EACH PROJECT.

#### WING BARRICADES

- WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAYEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROLDWAY, WIND BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
- WING BARRICADES SHOULD BE USED:
   A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED. B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



#### PLASTIC DRUM STRIPING DETAIL

- PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARRING OF DRUMS SHALL BE CONSISTENT WITH MARRING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON DRUMS SHALL BE GRANGE WITH FOUR (4) REFLECTORIZED, HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
- 2. DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
- 3. WHERE PRACTICAL PLASTIC DRUMS SHALL BE PLACED NO CLOSER THAN 3'-8' FROM THE EDGE OF TRAVELED LANE.

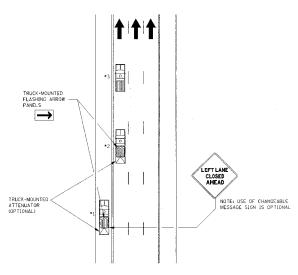




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#### MOBILE OPERATIONS ON MULTILANE ROAD A

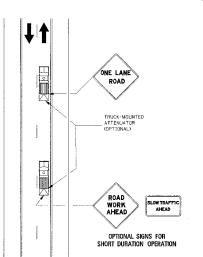


#### MOBILE OPERATIONS ON MULTILANE ROAD

#### NOTES:

- 1. VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
- 2. PROTECTION VEHICLE \*1 SHOULD BE EQUIPPED WITH AN ARROW PANEL. AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON PROTECTION VEHICLE "1 SO AS NOT TO OBSCURE THE ARROW PANEL.
- PROTECTION VEHICLE "2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENDATOR (TMA).
- PROTECTION VEHICLE "I SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR,
- 5. WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, PROTECTION VEHICLE \*1 SHOULD BE ELIMINATED.
- 6. ON HIGH-SPEED ROADWAYS, A THIRD PROTECTION VEHICLE SHOULD BE USED (I.e., VEHICLE "I DN THE SHOULDER (IF PRACTICAL), VEHICLE "2 IN THE CLOSED LANE, AND VEHICLE "5 IN THE CLOSED LANE.)
- 7. ARROW PANELS SHALL BE AS A MINIMUM TYPE B. 60° X 30° IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
- 8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
- ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SMEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

#### MOBILE OPERATIONS ON TWO-LANE ROAD



MOBILE OPERATIONS ON TWO-LANE ROAD

- NOTES:

  1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND PROTECTION VEHICLES
  SMOULD PULL DIVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN
  NOT BE DONE PREQUENTLY, AS AN ALTERNATIVE, A "DO NOT PASS" SIGN MAY BE
  PLACED ON THE REAR OF THE VEHICLE BLOCKING THE LANE.
- 2. THE DISTANCE BETWEEN THE WORK AND PROTECTION VEHICLES MAY VARY ACCORDING
- ADDITIONAL PROTECTION VEHICLES TO WARM AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
- 4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE PROTECTION VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
- 5. THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE PROTECTION VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REPARA JULICENT TO THE SIGN, PROTECTION AND WORK VEHICLES SHOULD DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND
- VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN
- 7. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED : FOR SEPARATE PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

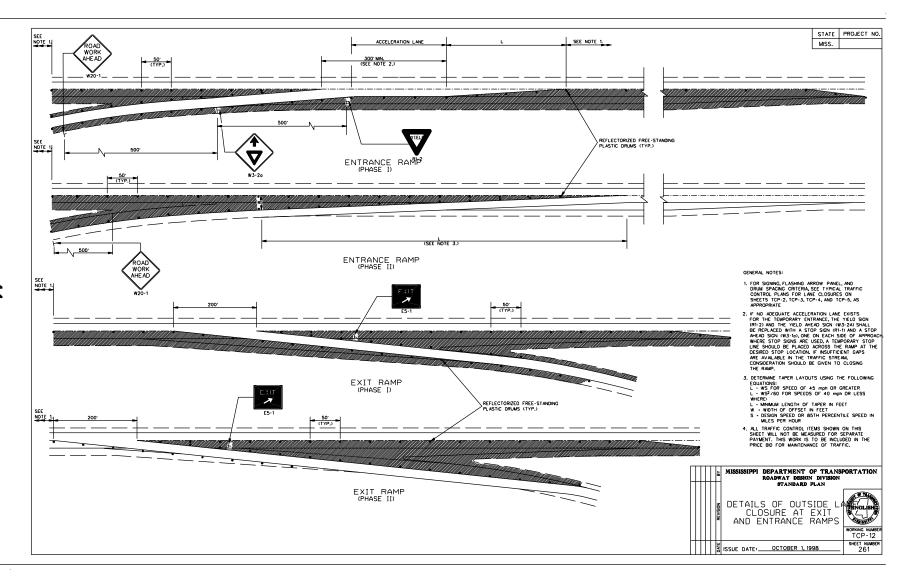
MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD PLAN ST 99 784VA

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

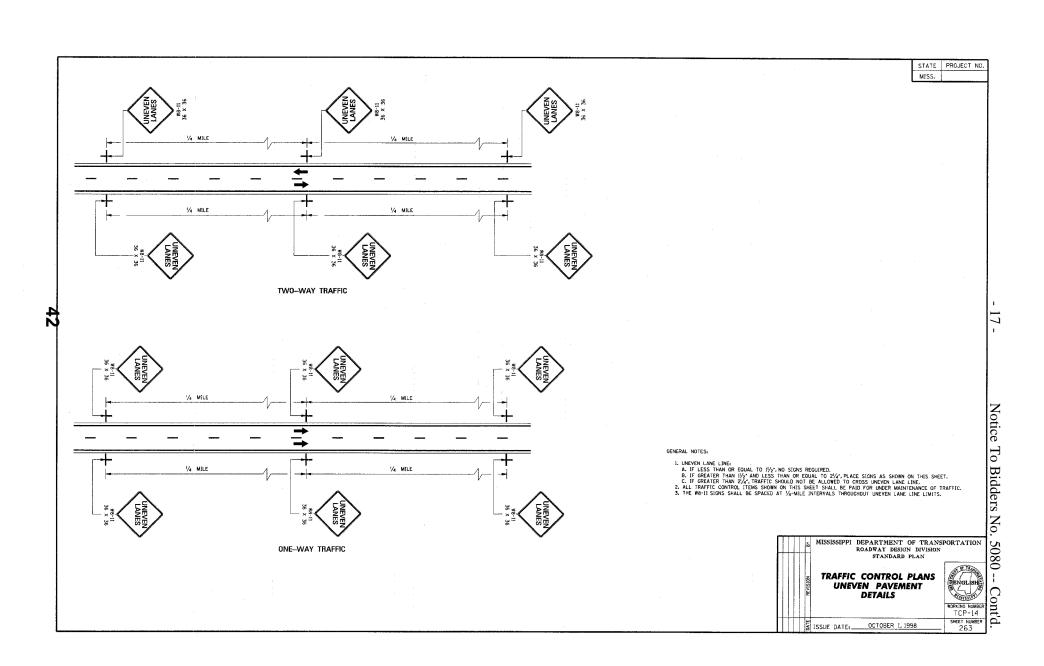


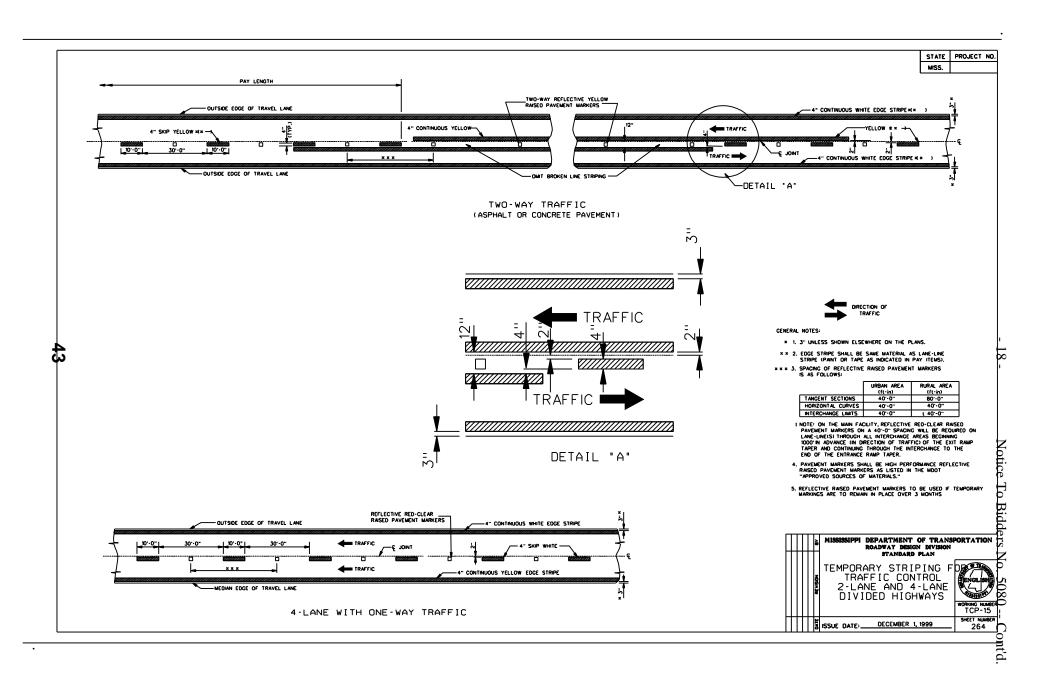
ISSUE DATE: OCTOBER 1, 1998

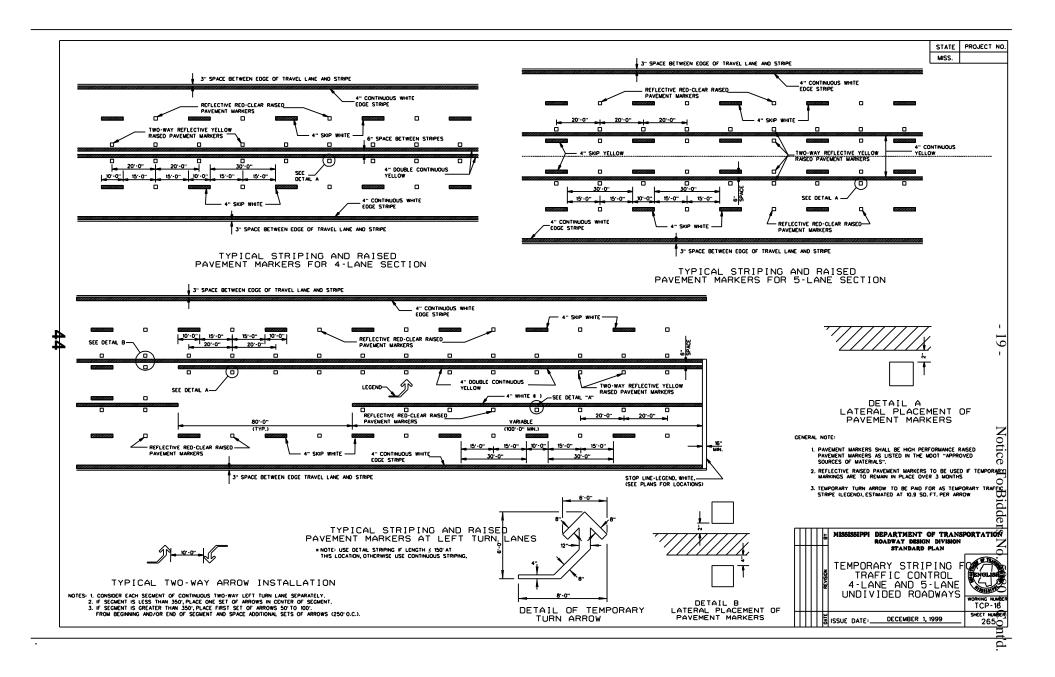
STATE PROJECT NO. MISS.

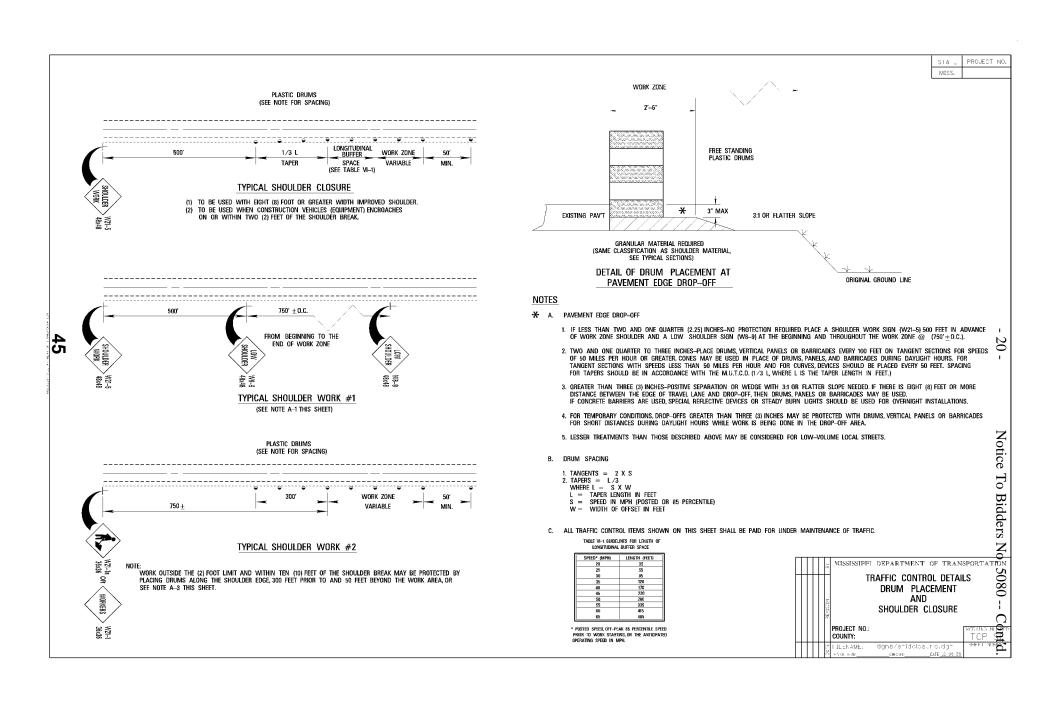


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SECTION 904 - NOTICE TO BIDDERS NO. 5096 CODE: (SP)

DATE: 06/16/2014

**SUBJECT:** Contract Time

**PROJECT:** MP-1009-78(004) / 305279301 – Webster County

The calendar date for completion of work to be performed by the Contractor for this project shall be **September 25, 2014** which date or extended date as provided in Subsection 907-108.06 shall be the end of contract time. It is anticipated that the Notice of Award will be issued no later than **July 22, 2014** and the effective date of the Notice to Proceed / Beginning of Contract Time will be simultaneous with the execution of the contract.

The available productive days for this project are 38.

CODE: (SP)

SECTION 904 - NOTICE TO BIDDERS NO. 5097

**DATE:** 06/16/2014

**SUBJECT:** Scope of Work

**PROJECT:** MP-1009-78(004) / 305279301 – Webster County

The contract documents do not include an official set of construction plans, but may, by reference, include some Standard Drawing or Special Design Drawings. All other references to plans in the contract documents and Standard Specifications for Road and Bridge Construction are to be disregarded.

Work on the project shall be in accordance with the attached typical sections and consist of the following:

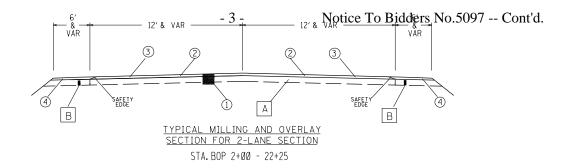
# HIGHWAY 9 MILL AND OVERLAY FROM THE CHOCTAW COUNTY LINE TO SR 182 IN WEBSTER COUNTY

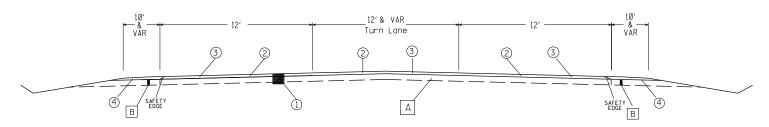
- 1. The Contractor shall erect and maintain construction signing, and provide all signs and traffic handling devices in accordance with the Traffic Control Plan. The cost is to be included in the price bid for pay item No. 907-618-A001, Maintenance of Traffic. All traffic control devices on this project should comply with Part VI of the MUTCD (Latest Edition). Fluorescent orange sheeting shall be used on all construction and traffic control signs except for those designated in plans to be black legend and border on white background.
- 2. Repair failed areas in asphalt roadway.
- 3. 1½" cold milling of bituminous pavement from BOP 2+00 Choctaw County Line to EOP 91+84 SR 182, including 159 SY of paved aprons, 2301 SY of County Roads, and 8079 SY of Interchange Ramps.
- 4. Place 1½" of 9.5-mm, MT, asphalt from BOP 2+00 Choctaw County Line to EOP 901+84 SR 182, including 13 tons of paved aprons, 190 tons of County Roads, 666 tons of Interchange Ramps, and 223 tons of repairing failed areas.
- 5. Place variable granular material on shoulders from BOP 2+00 Choctaw County Line to 35+00 and Interchange Ramps.

# **General Notes:**

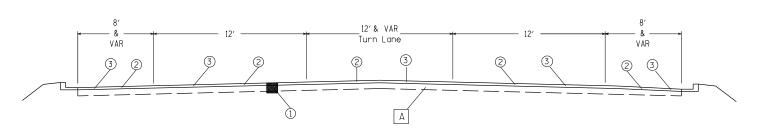
1. The location and spacing of signs shown on the traffic control plans are approximate and may be adjusted as necessary to fit field conditions.

- 2 -
- 2. The Contractor shall be responsible for protecting existing structures such as, but not limited to, pipes, inlets, aprons, and bridges from damage which might occur during construction. The Contractor shall replace or repair, as directed by the engineer, any structures damaged during the life of the contract. No payment will be made for replacement or repair of damaged items.
- 3. Temporary striping shall conform to finished stripe specifications for alignment, reflectivity, straightness, and neatness. Temporary stripe shall be placed daily as needed for safe movement of traffic. All permanent pavement markings are to be hot Thermoplastic.





TYPICAL MILLING AND OVERLAY
SECTION FOR 3-LANE SECTION WITHOUT CURB
STA. 22+25 - 35+00

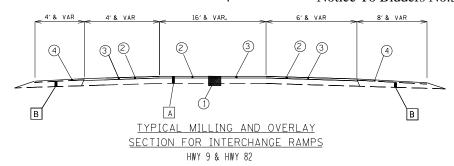


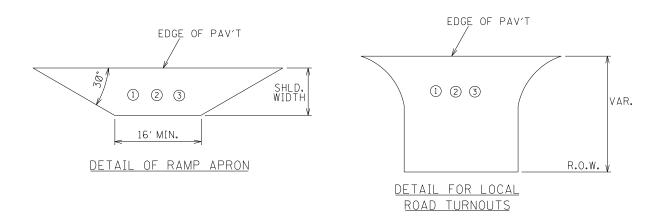
TYPICAL MILLING AND OVERLAY
SECTION FOR 3-LANE SECTION WITH CURB
STA. 35+00 - EOP 91+84

- 1 REMOVE AND UNDERCUT FAILED AREAS AS DIRECTED BY THE ENGINEER. REMOVAL OF ASPHALT PAVEMENT TO BE PAID FOR UNDER PAY ITEM NO. 202-B005. REMOVAL OF UNDERCUT MATERIAL TO BE PAID FOR UNDER EXCESS EXCAVATION, FM, AH, PAY ITEM NO. 203-G003. BACKFILL WITH HOT MIX ASPHALT, MT, 9.5-MM MIXTURE, PAY ITEM NO. 907-403-A010, OR WARM MIX ASPHALT, MT, 9.5-MM MIXTURE, PAY ITEM 907-403-M006 FOR A MAX. DEPTH OF 1'. IF ADDITIONAL BACKFILL MATERIAL IS REQUIRED USE GRANULAR MATERIAL, LVM, CLASS 3, GROUP C. PAY ITEM NO. 907-304-A008.
- (2) 1.5" & VARIABLE COLD MILLING OF BITUMINOUS PAVEMENT REQUIRED, PAY ITEM NO. 406-A001.
- 3 1.5" HOT MIX ASPHALT, MT, 9.5-MM MIXTURE, PAY ITEM NO. 907-403-A010 OR 1.5" WARM MIX ASPHALT, MT, 9.5-MM MIXTURE, PAY ITEM NO. 907-403-M006.
- (4) VARIABLE GRANULAR MATERIAL, LVM, CLASS 3, GROUP C, REQUIRED ON SHOULDERS PAY ITEM NO. 907-304-A008.

#### NOTE:

- NO GRANULAR MATERIAL SHALL BE PLACED DIRECTLY UPON THE FINISHED SURFACE COURSE.
- 2 VEGETATIVE MATERIAL WILL BE REMOVED PRIOR TO PLACEMENT OF GRANULAR MATERIAL. COST TO BE ABSORBED IN OTHER ITEMS.
- 3 WHERE MILLING OF THE ROADWAY LANES IS REQUIRED, THE CONTRACTOR SHALL PROVIDE OUTLETS IN THE EXISTING SHOULDERS AT SUFFICIENT INTERVALS TO PREVENT POOLING OR STANDING WATER ON THE MILLED SURFACE.(ABSORBED ITEM)
- A VAR. THICKNESS ASPHALT PAVEMENT IN PLACE.
- B VAR. THICKNESS GRANULAR MATERIAL IN PLACE.





- 1 REMOVE AND UNDERCUT FAILED AREAS AS DIRECTED BY THE ENGINEER. REMOVAL OF ASPHALT PAVEMENT TO BE PAID FOR UNDER PAY ITEM NO. 202-B005. REMOVAL OF UNDERCUT MATERIAL TO BE PAID FOR UNDER EXCESS EXCAVATION, FM, AH, PAY ITEM NO. 203-G003. BACKFILL WITH HOT MIX ASPHALT, MT, 9.5-MM MIXTURE, PAY ITEM NO. 907-403-A010, OR WARM MIX ASPHALT, MT, 9.5-MM MIXTURE, PAY ITEM 907-403-M006 FOR A MAX. DEPTH OF 1'. IF ADDITIONAL BACKFILL MATERIAL IS REQUIRED USE GRANULAR MATERIAL, LVM, CLASS 3, GROUP C. PAY ITEM NO. 907-304-A008.
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#### NOTE:

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- A VAR. THICKNESS ASPHALT PAVEMENT IN PLACE.
- B VAR. THICKNESS GRANULAR MATERIAL IN PLACE.

Failed Areas			
Station	RT/LT	Area (SY)	
2+00	RT	80	
2+00	LT	27	
17+00	RT	20	
20+35	LT	36	
20+40	RT	27	
39+90	RT	53	
50+40	RT	20	
55+35	RT	40	
56+60	RT	33	
87+40	RT	4	

CODE: (IS)

#### SPECIAL PROVISION NO. 907-101-4

DATE: 11/05/2008

**SUBJECT:** Definitions

Section 101, Definitions and Terms, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-101.02--Definitions.** Replace the following definitions in Subsection 101.02 on pages 3 through 13.

**Contract** - The written agreement between the Mississippi Transportation Commission and the Contractor setting forth the obligations of the parties thereunder, including but not limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

The contract includes the invitation for bids, proposal, contract form and contract bonds, specifications, supplemental specifications, interim specifications, general and detailed plans, special provisions, notices to bidders, notice to proceed, and also any agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, all of which constitute one instrument.

**Contract Bonds** - The approved form of security, executed by the Contractor and the Contractor's Surety(ies), guaranteeing complete execution of the contract and all supplemental agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the project. This term includes Performance and Payment Bond(s).

**Surety** - A corporate body, qualified under the laws of Mississippi, which is bound with and for the successful bidder by "contract bond(s)" to guarantee acceptable performance of the contract and payment of all legal taxes and debts pertaining to the construction of the project, including payment of State Sales Tax as prescribed by law, and any overpayment made to the Contractor.

Add the following to the list of definitions in Subsection 101.02 on pages 3 through 13.

**Performance Bond** - The approved form of security, executed by the Contractor and issued by the Contractor's Surety(ies), guaranteeing satisfactory completion of the contract and all supplemental agreements pertaining thereto.

**Payment Bond** - The approved form of security, executed by the Contractor and issued by the Contractor's Surety(ies), guaranteeing the payment of all legal debts pertaining to the construction of the project including, but not limited to, the labor and materials of subcontractors and suppliers to the prime contractor.

CODE: (IS)

SPECIAL PROVISION NO. 907-102-10

**DATE:** 05/01/2013

**SUBJECT: Bidding Requirements and Conditions** 

Section 102, Bidding Requirements and Conditions, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

<u>907-102.06--Preparation of Proposal.</u> Delete the first paragraph of Subsection 102.06 on page 17, and substitute the following.

The bidder's complete original proposal shall be submitted upon the forms (Certification of Performance, Certification Regarding Non-Collusion, etc.) furnished by the Department and shall include Expedite Bid printed bid sheets along with the bid data on the MDOT-supplied USB Flash Drive. Expedite Bid System (EBS) files shall be downloaded from the Department's website <a href="http://mdot.ms.gov">http://mdot.ms.gov</a>. In case of discrepancy between a unit price and the extension, the unit price will govern and the extension along with the total amount of the proposal will be corrected.

Delete the fifth, sixth, and seventh paragraphs of Subsection 102.06 on page 18, and substitute the following.

Bid sheets generated by the Department's Electronic Bid System (Trns•port Expedite Bid) along with a completed proposal package (with all forms completed and signed) will constitute the official bid and shall be signed on the last sheet of the Expedite Bid generated bid sheets and delivered to the Department in accordance with the provisions of Subsection 102.09. Bids submitted using any other form, format or means will result in an irregular bid. The bidder's bid data shall be saved on the MDOT-supplied USB Flash Drive and submitted with the bid. Failure to return the USB Flash Drive with bid data will result in an irregular bid. If a Bidder is submitting bids on multiple proposals, the bid data for all proposals can be included on one flash drive and submitted with any of the bid envelopes.

Bidders are cautioned that using other versions of the Expedite Bid may result in improperly printed bid sheets. The correct version of Expedite Bid can be obtained at no cost from the MDOT Contract Administration Division or at the MDOT website, <a href="http://mdot.ms.gov">http://mdot.ms.gov</a>. The current version of Expedite Bid is also included on the MDOT-supplied USB Flash Drive.

The Expedite Bid generated bid sheets should be stapled together in order beginning with page 1, signed and included in the bid proposal package in the sealed envelope. Only the Expedite Bid generated sheets will be recognized as the official bid. The MDOT-provided USB Flash Drive containing the information printed on the Expedite Bid generated bid sheets should be placed in the padded envelope included with the bid proposal package and enclosed in the sealed envelope. Bid sheets printed from Expedite Bid should be a representation of the data returned on the flash

drive. To have a true representation of the bid sheets, the Bidder must copy the EBS and EBS amendment files used to prepare the bid sheets to the flash drive. Otherwise, the unit prices bid will not be recorded to the flash drive. Bidders are cautioned that failure to follow proper flash drive handling procedures could result in the Department being unable to process the flash drive. Any modification or manipulation of the data contained on the flash drive, other than entering unit bid prices and completing all required Expedite Bid sections, will not be allowed and will cause the Contractor's bid to be considered irregular.

<u>907-102.08--Proposal Guaranty</u>. Delete the first and second paragraphs in Subsection 102.08 on page 20 and substitute the following.

No proposal will be considered unless accompanied by certified check, cashier's check or bid bond, made payable to the State of Mississippi, in an amount of not less than five percent (5%) of the total amount of the proposal offered. The guaranty shall be evidence of good faith that, if awarded the contract, the bidder will execute the contract and give performance and payment contract bond(s) as stipulated in Subsection 907-103.05.1, 907-103.05.2, and as required by law.

If a bid bond is offered as guaranty, the bond must be on a form approved by the Executive Director, made by a Surety acceptable to the Executive Director and signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent and the Bidder. Such bid bond shall also conform to the requirements and conditions stipulated in Subsection 907-103.05.2 as applicable.

CODE: (SP)

SPECIAL PROVISION NO. 907-103-8

DATE: 12/15/2009

**SUBJECT:** Award and Execution of Contract

Section 103, Award and Execution of Contract, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

<u>907-103.04--Return of Proposal Guaranty</u>. Delete the second paragraph of Subsection 103.04 on page 23 and substitute the following:

Certified checks or cashier's checks submitted as proposal guaranties, except those of the two lowest bidders, will be returned within 10 days of contract award. The retained proposal guaranty of the unsuccessful of the two lowest bidders will be returned within ten days following the execution of a contract with the successful low bidder. The retained proposal guaranty of the successful bidder will be returned after satisfactory performance and payment bonds have been furnished and the contract has been executed.

In the event all bids are rejected by the Commission, certified checks or cashier's checks submitted as proposal guaranty by all bidders will be returned within 10 days of rejection.

Delete Subsection 103.05 on page 23 and substitute the following:

# **907-103.05--Contract Bonds**.

<u>907-103.05.1--Requirement of Contract Bonds</u>. Prior to the execution of the contract, the successful bidder shall execute and deliver to the Executive Director a performance and payment bond(s), in a sum equal to the full amount of the contract as a guaranty for complete and full performance of the contract and the protection of the claimants and the Department for materials and equipment and full payment of wages in accordance with Section 65-1-85 Miss. Code Ann. (1972 as amended). In the event of award of a joint bid, each individual, partnership, firm or corporation shall assume jointly the full obligations under the contract and the contract bond(s).

907-103.05.2--Form of Bonds. The form of bond(s) shall be that provided by or acceptable to the Department. These bonds shall be executed by a Mississippi agent or qualified nonresident agent and shall be accompanied by a certification as to authorization of the attorney-in-fact to commit the Surety company. A power of attorney exhibiting the Surety's original seal supporting the Mississippi agent or the qualified nonresident agent's signature shall be furnished with each bond. The Surety company shall be currently authorized and licensed in good standing to conduct business in the State of Mississippi with a minimum rating by A.M. Best of (A-) in the latest printing "Best's Key Rating Guide" to write individual bonds up to ten percent of the policy holders' surplus or listed on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as

published by the United States Department of the Treasury, Financial Management Service, Circular 570 (latest revision as published and supplemented on the Financial Management Service Web site and in the Federal Register) within the underwriting limits listed for that Surety. All required signatures on the bond(s) and certifications shall be original signatures, in ink, and not mechanical reproductions or facsimiles. The Mississippi agent or qualified nonresident agent shall be in good standing and currently licensed by the Insurance Commissioner of the State of Mississippi to represent the Surety company(ies) executing the bonds.

Surety bonds shall continue to be acceptable to the Commission throughout the life of the Contract and shall not be canceled by the Surety without the consent of the Department. In the event the Surety fails or becomes financially insolvent, the Contractor shall file a new Bond in the amount designated by the Executive Director within thirty (30) days of such failure, insolvency, or bankruptcy. Subsequent to award of Contract, the Commission or the Department may require additional security for any supplemental agreements executed under the contract or replacement security in the event of the surety(ies) loss of the ratings required above. Suits concerning bonds shall be filed in the State of Mississippi and adjudicated under its laws without reference to conflict of laws principles.

<u>907-103.08--Failure to Execute Contract.</u>. In the first sentence of Subsection 103.08 on page 24, change "bond" to "performance and payment bonds".

CODE: (IS)

# **SPECIAL PROVISION NO. 907-104-5**

**DATE:** 05/01/2013

**SUBJECT:** Scope of Work

Section 104, Scope of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

<u>907-104.05--Removal and Disposal of All Materials From the Project.</u> Delete the second sentence of the first full paragraph of Subsection 104.05 on page 30 and substitute the following:

The Contractor shall also furnish the Engineer a certified letter stating that the area of disposal is not in a wetland or in Waters of the U.S.

# **SUPPLEMENT TO SPECIAL PROVISION NO. 907-105-7**

**DATE:** 04/02/2014

**SUBJECT:** Control of Work

Before Subsection 907-105.05 on page 1, add the following.

<u>907-105.04--Coordination of Plans, Specifications, Interim Specifications, Special Provisions and Notice to Bidders.</u> Delete the second full paragraph of Subsection 105.04 on page 35, and substitute the following.

In case of a conflict between plan quantities, advertisement quantities, and/or bid sheet quantities, the bid sheet quantities shall prevail.

CODE: (IS)

SPECIAL PROVISION NO. 907-105-7

**DATE:** 05/01/2013

**SUBJECT:** Control of Work

Section 105, Control of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is modified as follows.

<u>907-105.05--Cooperation by Contractor.</u> In the third sentence of the second paragraph of Subsection 105.05 on page 35, change "Notice to Proceed" to "Notice of Award".

Delete the fourth paragraph of Subsection 105.05 on page 35, and substitute the following.

On projects that include erosion control pay items, the Contractor shall also designate a responsible person whose primary duty shall be to monitor and maintain the effectiveness of the erosion control plan, including NPDES permit requirements. This responsible person must be a Certified Erosion Control Person certified by an organization approved by the Department. Prior to or at the pre-construction conference, the Contractor shall designate in writing the Certified Erosion Control Person to the Project Engineer. The designated Certified Erosion Control Person shall be assigned to only one (1) project. When special conditions exist, such as two (2) adjoining projects or two (2) projects in close proximity, the Contractor may request in writing that the State Construction Engineer approve the use of one (1) Certified Erosion Control Person for both projects. The Contractor may request in writing that the Engineer authorize a substitute Certified Erosion Control Person to act in the absence of the Certified Erosion Control Person. The substitute Certified Erosion Control Person must also be certified by an organization approved by the Department. A copy of the Certified Erosion Control Person's certification must be included in the Contractor's Protection Plan as outlined in Subsection 907-107.22.1. This in no way modifies the requirements regarding the assignment and availability of the superintendent.

**907-105.14--Maintenance During Construction**. Before the first sentence Subsection 105.14 on page 39, add the following.

The Contractor will be responsible for the maintenance of existing roadways within the limits of this project starting on the date of the Notice To Proceed / Beginning of Contract Time. Anytime work is performed in a travel lane, the Contractor shall install portable lane closure signs meeting the requirement of the MDOT Standard Drawing or MUTCD.

CODE: (IS)

SPECIAL PROVISION NO. 907-107-13

**DATE:** 05/01/2013

**SUBJECT:** Legal Relations and Responsibility to Public

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

<u>907-107.02--Permits, Licenses and Taxes</u>. Delete in toto Subsection 107.02 on page 49 and substitute the following.

The Contractor or any Subcontractor shall have the duty to determine any and all permits and licenses required and to procure all permits and licenses, pay all charges, fees and taxes and issue all notices necessary and incidental to the due and lawful prosecution of the work. At any time during the life of this contract, the Department may audit the Contractor's or Subcontractor's compliance with the requirements of this section.

The Contractor or any Subcontractor is advised that the "Mississippi Special Fuel Tax Law", Section 27-55-501, et seq. and the Mississippi Use Tax Law, Section 27-67-1, et seq., and their requirements and penalties, apply to any contract or subcontract for construction, reconstruction, maintenance or repairs, for contracts or subcontracts entered into with the State of Mississippi, any political subdivision of the State of Mississippi, or any Department, Agency, Institute of the State of Mississippi or any political subdivision thereof.

The Contractor or any Subcontractor will be subject to one or more audits by the Department during the life of this contract to make certain that all applicable fuel taxes, as outlined in Section 27-55-501, et seq., and any sales and/or use taxes, as outlined in Section 27-67-1, et seq. are being paid in compliance with the law. The Department will notify the Mississippi State Tax Commission of the names and addresses of any Contractors or Subcontractors.

#### 907-107.14--Damage Claims and Insurance.

<u>907-107.14.2--Liability Insurance.</u> Delete Subsection 107.14.2 beginning on page 60 and substitute the following.

**907-107.14.2.1--General.** The Contractor shall carry Contractor's liability, including subcontractors and contractual, with limits not less than: \$500,000 each occurrence; \$1,000,000 aggregate; automobile liability - \$500,000 combined single limit - each accident; Workers' Compensation and Employers' Liability - Statutory & \$100,000 each accident; \$100,000 each employee; \$500,000 policy limit. Each policy shall be signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent of the Insurance Company.

The Contractor shall have certificates furnished to the Department from the insurance companies providing the required coverage. The certificates shall be on the form furnished by the Department and will show the types and limits of coverage.

<u>907-107.14.2.2--Railroad Protective.</u> The following provisions are applicable to all work performed under a contract on, over or under the rights-of-way of each railroad shown on the plans.

The Contractor shall assume all liability for any and all damages to work, employees, servants, equipment and materials caused by railroad traffic.

Prior to starting any work on railroad property, the Contractor shall furnish satisfactory evidence to the Department that insurance of the forms and amounts set out herein in paragraphs (a) and (b) has been obtained. Also, the Contractor shall furnish similar evidence to the Railroad Company that insurance has been obtained in accordance with the Standard Provisions for General Liability Policies and the Railroad Protective Liability Form as published in the Code of Federal Regulations, 23 CFR 646, Subpart A. Evidence to the Railroad Company shall be in the form of a Certificate of Insurance for coverages required in paragraph (b), and the original policy of the Railroad Protective Liability Insurance for coverage required in paragraph (a).

All insurance herein specified shall be carried until the contract is satisfactorily complete as evidenced by a release of maintenance from the Department.

The Railroad Company shall be given at least 30 days notice prior to cancellation of the Railroad Protective Liability Insurance policy.

For work within the limits set out in Subsection 107.18 and this subsection, the Contractor shall provide insurance for bodily injury liability, property damage liability and physical damage to property with coverages and limits no less than shown in paragraphs (a) and (b). Bodily injury shall mean bodily injury, sickness, or disease, including death at anytime resulting therefrom. Property damage shall mean damages because of physical injury to or destruction of property, including loss of use of any property due to such injury or destruction. Physical damage shall mean direct and accidental loss of or damage to rolling stock and their contents, mechanical construction equipment or motive power equipment.

(a) **Railroad Protective Liability Insurance** shall be purchased on behalf of the Railroad Company with limits of \$2,000,000 each occurrence; \$6,000,000 aggregate applying separately to each annual period for lines without passenger trains. If the line carries passenger train(s), railroad protective liability insurance shall be purchased on behalf of the Railroad Company with limits of \$5,000,000 each occurrence; \$10,000,000 aggregate applying separately to each annual period.

Coverage shall be limited to damage suffered by the railroad on account of occurrences arising out of the work of the Contractor on or about the railroad right-of-way, independent of the railroad's general supervision or control, except as noted in paragraph 4 below.

Coverage shall include:

- (1) death of or bodily injury to passengers of the railroad and employees of the railroad not covered by State workmen's compensation laws,
- (2) personal property owned by or in the care, custody or control of the railroads,
- (3) the Contractor, or any of the Contractor's agents or employees who suffer bodily injury or death as a result of acts of the railroad or its agents, regardless of the negligence of the railroads, and
- (4) negligence of only the following classes of railroad employees:
  - (i) any supervisory employee of the railroad at the job site
  - (ii) any employee of the railroad while operating, attached to, or engaged on, work trains or other railroad equipment at the job site which are assigned exclusively to the Contractor, or
  - (iii) any employee of the railroad not within (i) or (ii) above who is specifically loaned or assigned to the work of the Contractor for prevention of accidents or protection or property, the cost of whose services is borne specifically by the Contractor or Governmental authority.
- (b) Contractor's Liability Railroad, including subcontractors, XCU and railroad contractual with limits of \$1,000,000 each occurrence; \$2,000,000 aggregate. Automobile with limits of \$1,000,000 combined single limit any one accident; Workers' Compensation and Employer's Liability statutory and \$100,000 each accident; \$100,000 each employee; \$500,000 policy limit. Excess/Umbrella Liability \$5,000,000 each occurrence; \$5,000,000 aggregate. All coverage to be issued in the name of the Contractor shall be so written as to furnish protection to the Contractor respecting the Contractor's operations in performing work covered by the contract. Coverage shall include protection from damages arising out of bodily injury or death and damage or destruction of property which may be suffered by persons other than the Contractor's own employees.

In addition, the Contractor shall provide for and on behalf of each subcontractor by means of a separate and individual liability and property damage policy to cover like liability imposed upon the subcontractor as a result of the subcontractor's operations in the same amounts as contained above; or, in the alternative each subcontractor shall provide same.

<u>907-107.15--Third Party Beneficiary Clause.</u> In the first sentence of the first paragraph of Subsection 107.15 on page 61, change "create the public" to "create in the public".

<u>907-107.17--Contractor's Responsibility for Work.</u> Delete the fifth sentence of the fifth paragraph of Subsection 107.17 on page 63 and substitute the following.

The eligible permanent items shall be limited to traffic signal systems, changeable message signs, roadway signs and sign supports, lighting items, guard rail items, delineators, impact

attenuators, median barriers, bridge railing or pavement markings. The eligible temporary items shall be limited to changeable message signs, guard rail items, or median barriers.

<u>907-107.18--Contractor's Responsibility for Utility Property and Services</u>. After the first sentence of Subsection 107.18 on page 63, add the following:

Prior to any excavation on the project, the Contractor shall contact MS 811 and advise them to mark all known utilities in the area of the excavation.

SPECIAL PROVISION NO. 907-108-30

-108-30 CODE: (IS)

**DATE:** 05/22/2013

**SUBJECT: Prosecution and Progress** 

Section 108, Prosecution and Progress, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

#### 907-108.01--Subletting of Contract.

<u>907-108.01.1--General</u>. At the end of the last paragraph of Subsection 108.01.1 on page 73, add the following.

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 make prompt payment within 15 calendar days as required above, or failure to submit the required OCR-484 Form, Certification of Payments to Subcontractors, which is also designed to comply with prompt payment requirements.

<u>907-108.02--Notice To Proceed</u>. Delete the second paragraph of Subsection 108.02 on page 75 and substitute the following.

The anticipated date of the Notice to Proceed (NTP) / Beginning of Contract Time (BCT) will be specified in the proposal.

Delete the fourth paragraph of Subsection 108.02 on page 75 and substitute the following.

Upon written request from the Contractor and if circumstances permit, the Notice to Proceed may be issued at an earlier date subject to the conditions stated therein. The Contractor shall not be entitled to any monetary damages or extension of contract time for any delay claim or claim of inefficiency occurring between the early issuance Notice To Proceed date and the Notice to Proceed date stated in the contract.

<u>907-108.03--Prosecution and Progress.</u> Delete Subsection 108.03.1 on pages 75 & 76, and substitute the following.

**907-108.03.1--Progress Schedule.** Prior to or at the Pre-Construction Conference, the Contractor shall furnish a progress schedule and be prepared to discuss both its proposed methodologies for fulfilling the scheduling requirements and its sequence of operations. The Engineer will review the schedule and approve the schedule as it relates to compliance with the specifications and logic. The progress schedule must be approved by the Engineer prior to commencing work. The schedule shall be a bar-chart type schedule submitted on 11"x17" paper meeting the below minimum requirements. These activities shall be significantly detailed enough to communicate the Contractor's understanding of the construction sequencing and phasing of the project.

When preparing the progress schedule, the Contractor shall include the following:

- Show a time scale to graphically show the completion of the work within contract time.
- Define and relate activities to the contract pay items.
- Show all activities in the order the work is to be performed including submittals, submittal reviews, fabrication and delivery.
- Show all activities that are controlling factors in the completion of the work.
- Show the time needed to perform each activity and its relationship in time to other activities.

Should the schedule not include the above requirements or becomes unrealistic during construction, the Contractor should immediately submit a revised, more realistic schedule for approval.

<u>907-108.03.2--Preconstruction Conference</u>. Delete the first paragraph of Subsection 108.03.2 on page 76 and substitute the following.

Prior to commencement of the work, a preconstruction conference shall be held for the purpose of discussing with the Contractor essential matters pertaining to the prosecution and satisfactory completion of the work. The Contractor will be responsible for scheduling the preconstruction conference. The Contractor will advise the Project Engineer in writing 14 days prior to the requested date that a conference is requested. When the contract requires the Contractor to have a certified erosion control person, the Contractor's certified erosion control person shall be at the preconstruction conference. The Department will arrange for utility representatives and other affected parties to be present.

Delete the third paragraph of Subsection 108.03.2 on page 76.

**907-108.06--Determination and Extension of Contract Time.** Delete Subsections 108.06.1 and 108.06.2 on pages 79 thru 85 and substitute the following.

# 907-108.06.1--Blank.

#### 907-108.06.2-Based on Calendar Date Completion.

<u>907-108.06.2.1--General.</u> Contract Time will be established on the basis of a Completion Date, as indicated in the contract. The span of time allowed for the completion of the work included in the contract will be indicated in the contract documents and will be known as "Contract Time".

The span of time allowed in the contract as awarded is based on the quantities used for comparison of bids. If satisfactory fulfillment of the contract requires performance of work in greater quantities than those set forth in the proposal, the time allowed for completion shall be increased in Calendar Days in the same ratio that the cost of such added work, exclusive of the cost of work altered by Supplemental Agreement for which a time adjustment is made for such altered work in the Supplemental Agreement, bears to the total value of the original contract unless it can be established that the extra work was of such character that it required more time

than is indicated by the money value.

The Contractor shall provide sufficient materials, equipment and labor to guarantee the completion of the work in the contract in accordance with the plans and specifications within the Contract Time.

<u>907-108.06.2.2--Contract Time.</u> The following TABLE OF ANTICIPATED PRODUCTIVE DAYS indicates an average/anticipated number of productive days per month.

TABLE OF ANTICIPATED PRODUCTIVE DAYS

Month	Available Productive Days
January	6
February	7
March	11
April	15
May	19
June	20
July	21
August	21
September	20
October	16
November	11
December	5
Calendar Year	172

Allocation of anticipated productive days for a fractional part of the month will be computed as a proportion of the listed anticipated productive days for the applicable month.

Available productive days will start being assessed at the original Notice to Proceed/Beginning of Contract Time date shown in the contract documents, regardless of whether or not the Contractor has been issued an early Notice to Proceed.

Available productive days will be based on soil and weather conditions and other specific conditions cited in the contract. The Engineer will determine on each applicable day the extent to which work in progress could have been productive, regardless of whether the Contractor actually worked.

An available productive day will be assessed as follows:

(a) any day of the week, Monday through Friday, exclusive of legal holidays recognized by the Department in Subsection 108.04.1, in which the Contractor works or could have worked for more than six (6) consecutive hours on the controlling item(s) of work, as determined by the

Engineer from the Contractor's approved progress schedule. When the Contractor works or could work more than four but less than six consecutive hours, one-half (0.5) of an available work day will be charged for that day. When the Contractor works or could work six or more consecutive hours during the day, one (1.0) available work day will be charged for that day, or

(b) any Saturday, exclusive of legal holidays recognized by the Department in Subsection 108.04.1, in which the Contractor works for more than six (6) consecutive hours on the controlling item(s) of work, as determined by the Engineer from the Contractor's approved progress schedule. When the Contractor works less than four consecutive hours during the day, no time will be charged for that day. When the Contractor works more than four but less than six consecutive hours, one-half (0.5) of an available work day will be charged for that day. When the Contractor works six or more consecutive hours during the day, one (1.0) available work day will be charged for that day.

Should the weather or other conditions be such that four (4) consecutive satisfactory hours are not available prior to noon (for daytime operations) or midnight (for nighttime operations), no time will be assessed for that day regardless of the above conditions. However, if the Contractor elects to work, time will be assessed in accordance with the previous paragraph.

Weather delays will not be considered for Saturdays, Sundays or legal holidays recognized by the Department in Subsection 108.04.1.

Each month the Engineer will complete, and furnish to the Contractor, an "Assessment Report for Available Productive Days" (CSD-765). This report shows the number of available productive days during the estimate period and the cumulative available productive days to date. The Contractor should review the Engineer's report as to the accuracy of the assessment and confer with the Resident or Project Engineer to rectify any differences. Each should make a record of the differences, if any, and conclusions reached. In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of 15 calendar days following the ending date of the monthly report in question to file a protest Notice of Claim in accordance with the provisions of Subsection 105.17. Otherwise, the Engineer's assessment shall be final unless mathematical errors of assessment are subsequently found to exist, and any claim of the Contractor as to such matter shall be waived.

The Contractor's progress will be determined monthly at the time of each progress estimate and will be based on the percentage of money earned by the Contractor compared to the percentage of elapsed time.

The percentage of money earned will be determined by comparing the total money earned todate by the Contractor, minus any payment for advancement of materials, to the total dollar amount of the contract. The percentage of time elapsed will be determined by comparing the available productive days assessed to-date on Form CSD-765 to the total available productive days for the contract.

When the "percent complete" lags more than 20 percent behind the "percentage of elapsed time", the Contractor shall immediately submit a written statement and revised progress schedule

indicating any additional equipment, labor, materials, etc. to be assigned to the work to ensure completion within the specified contract time. When the "percent complete" lags more than 40 percent behind the "percentage of elapsed time", the contract may be terminated.

<u>907-108.06.2.3--Extension of Time</u>. The Contractor may, prior to the expiration of the Contract Time, make a written request to the Engineer for an extension of time with a valid justification for the request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time.

No extension of the specified completion date will be granted except as provided herein. An extension of contract time may be granted for unusually severe weather, abnormal delays caused solely by the State or other governmental authorities, or unforeseeable disastrous phenomena of nature of the magnitude of earthquakes, hurricanes, tornadoes, or flooded essential work areas which are deemed to unavoidably prevent prosecuting the work.

Unusually severe weather is defined as when the actual available productive days for the contract time are less than the number of available productive days shown in the Table of Anticipated Productive Days. Any extension of contract time will be based on a calendar days basis, excluding Saturdays, Sundays or legal holidays recognized by the Department in Subsection 108.04.1. Any extension of contract time will be made on or after the specified completion date. No extension of contract time will be made on a monthly basis.

If the specified completion date of the project is extended into a season of the year in which completion of certain items of work would be prohibited or delayed because of seasonal or temperature limitations, the Engineer may waive the limitations provided the completion of the work will not result in a reduction in quality. When determined that the completion of the out-of-season items will cause a reduction in the quality of the work, the completion of the project will be further extended so the items may be completed under favorable weather conditions. In either case, the Engineer will notify the Contractor in writing.

Liquidated damages as set forth in Subsection 108.07 under the heading "Daily Charge Per Calendar Day" in the Table titled "Schedule of Deductions for Each Day of Overrun in Contract Time", shall be applicable to each calendar day after the specified completion date, or authorized extension thereof, and until all work under the contract is completed.

907-108.06.2.4--Cessation of Contract Time. When the Engineer by written notice schedules a final inspection, time will be suspended until the final inspection is conducted and for an additional 14 calendar days thereafter. If after the end of the 14-day suspension all necessary items of work have not been completed, time charges will resume. If the specified completion date had not been reached at the time the Contractor called for a final inspection, the calendar day difference between the specified completion date and the date the Contractor called for a final inspection will be added after the 14-day period before starting liquidation damages. If a project is on liquidated damages at the time a final inspection is scheduled, liquidated damages will be suspended until the final inspection is conducted and for seven (7) calendar days thereafter. If after the end of the 7-day suspension all necessary items of work have not been completed, liquidated damages will resume. When final inspection has been made by the

Engineer as prescribed in Subsection 105.16 and all items of work have been completed, the daily time charge will cease.

<u>907-108.07--Failure to Complete the Work on Time</u>. Delete the Schedule of Deductions table in Subsection 108.07 on page 85, and substitute the following.

# **Schedule of Deductions for Each Day of Overrun in Contract Time**

Original Contract Amount		<b>Daily Charge</b>
From More Than	To and Including	Per Calendar Day
\$ 0	100,000	\$ 150
100,000	500,000	360
500,000	1,000,000	540
1,000,000	5,000,000	830
5,000,000	10,000,000	1,200
10,000,000	20,000,000	1,800
20,000,000		3,500

**907-108.10--Termination of Contractor's Responsibility**. In the last sentence of Subsection 108.10 on page 88, change "bond" to "performance and payment bond(s)".

#### SUPPLEMENT TO SPECIAL PROVISION NO. 907-109-6

**DATE:** 06/03/2014

**SUBJECT:** Measurement and Payment

Before the first sentence of Subsection 907-109.04 on page 1, add the following.

Delete the first paragraph under Subsection 109.04 on page 91, and substitute the following.

When extra work results for any reason and is not handled as prescribed elsewhere herein, the Engineer and the Contractor will attempt to agree on equitable prices. When such prices are agreed upon, a Supplemental Agreement will be issued by the Engineer.

When the Supplemental Agreement process is initiated, the Contractor will be required to submit to the Engineer a detailed breakdown for Material, Labor, Equipment, Profit and Overhead. The total allowable markup (which includes Prime Contractor and Subcontractor work, if applicable) for Supplemental Agreement work shall not exceed 20%.

The requirement for detailed cost breakdowns may be waived when a Department's Bid Item History exists for the proposed item(s), and the Contractor's requested price, including mark-up, is within 20% of the Department's Bid History cost for that item(s). In any case, the Department reserves the right to request detailed cost breakdowns from the Contractor on any Supplemental Agreement request.

When equitable prices cannot be agreed upon mutually by the Engineer and the Contractor, the Engineer will issue a written order that work will be completed on a force account basis to be compensated in the following manner:

After the last paragraph of Subsection 907-109.07 on page 2, add the following.

Delete the last paragraph of Subsection 109.07 on pages 97 & 98, and substitute the following.

Adjustments herein provided shall not apply to fuels consumed or materials incorporated into the work during any monthly estimate period falling wholly after the expiration of contract time as defined in Subsection 101.02 of the applicable Mississippi Standard Specifications for Road and Bridge Construction, and as determined by checked final quantities..

CODE: (IS)

# SPECIAL PROVISION NO. 907-109-6

**DATE:** 05/01/2013

**SUBJECT:** Measurement and Payment

Section 109, Measurement and Payment, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

<u>**907-109.01--Measurement of Quantities.**</u> Delete the third full paragraph of Subsection 109.01 on page 90 and substitute the following.

When requested by the Contractor, material specified to be measured by the cubic yard or ton may be converted to the other measure as appropriate. 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.

After the second sentence of the fourth full paragraph of Subsection 109.01 on page 90, add the following.

Where loose vehicle measurement (LVM) is used, the capacity will be computed to the nearest one-tenth cubic yard and paid to the whole cubic yard. Measurements greater than or equal to nine-tenths of a cubic yard will be rounded to the next highest number. Measurements less than nine-tenths of a cubic yard will not be rounded to the next highest number. Example: A vehicle measurement of 9.9 cubic yards will be classified as a 10-cubic yard vehicle. A vehicle measurement of 9.8 cubic yards will be classified as a 9-cubic yard vehicle.

<u>907-109.04--Extra and Force Account Work</u>. In the last sentence of subparagraph (b) in Subsection 109.04 on page 91, change "bond" to "bond(s)".

Delete the first sentence of the second paragraph of subparagraph (d) in Subsection 109.04 on page 92 and substitute the following.

In the event an agreement cannot be reached for a particular piece of equipment, the book entitled "Rental Rate Blue Book For Construction Equipment" as published by EquipmentWatch® and is current at the time the force account work is authorized will be used to determine equipment ownership and operating expense rates.

#### 907-109.06--Partial Payment.

<u>907-109.06.1--General</u>. Delete the fourth and fifth sentences of the third paragraph of Subsection 109.06.1 on page 94, and substitute the following.

In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of

25 calendar days following the Contractor's receipt of the monthly estimate in question to file in writing, a protest Notice of Claim in accordance with the provisions Subsection 105.17. Otherwise, the Engineer's estimated quantities shall be considered acceptable pending any changes made during the checking of final quantities.

<u>907-109.07--Changes in Material Costs</u>. Delete the third full paragraph of Subsection 109.07 on page 96 and substitute the following.

A link to the established base prices for bituminous products and fuels will be included in the contract documents under a Notice to Bidders entitled "Petroleum Products Base Prices."

CODE: (SP)

# SPECIAL PROVISION NO. 907-304-13

**DATE:** 06/06/2012

**SUBJECT:** Granular Courses

Section 907-304, Granular Courses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-304.02--Materials.** After the first paragraph of Subsection 304.02.1 on page 183, add the following.

Crushed concrete meeting the requirements of Subsection 907-703.04.3 may be used in lieu of granular courses or crushed stone courses specified in the contract. This applies to base courses, shoulders, or other required construction on a prepared foundation.

# 907-304.03--Construction Requirements.

**907-304.03.5--Shaping, Compacting and Finishing.** Delete the sixth paragraph of Subsection 304.03.5 on page 185.

Delete the first table in Subsection 304.03.5 on page 186 and substitute the following.

Granular Material	Lot	Individual
Class	<u>Average</u>	<u>Test</u>
7,8,9 or 10	97.0	93.0
5 or 6	99.0	95.0
3 or 4	100.0	96.0
1 or 2	102.0	98.0
Crushed Courses*	99.0	95.0

<sup>\*</sup> When placed on filter fabric on untreated subgrade, the individual tests and the average of the five (5) tests shall equal or exceed the following values.

Lot Average	<b>Individual Test</b>
96.0	92.0

907-304.05-Basis of Payment. Add the "907" prefix to the pay items listed on page 187.

## SUPPLEMENT TO SPECIAL PROVISION NO. 907-401-2

DATE: 12/17/2013

**SUBJECT:** Hot Mix Asphalt (HMA)

Before the first sentence on page 1, add the following.

<u>907-401.02.3.1–General.</u> Delete the second paragraph of Subsection 401.02.3.1 on page 239, and substitute the following.

The total amount of crushed limestone aggregate for mixtures, excluding shoulders, when used in the top lift, shall not exceed 50 percent of the total combined aggregate by weight.

Delete the table in Subsection 401.02.3.1 on page 240 and substitute the following.

Asphalt Mixture	Maximum Percentage of RAP by total weight of mix
4.75 mm	0
9.5 mm	20*
12.5 mm Surface Lift	20*
12.5 mm Underlying Lift	30
19 mm	30
25 mm	30

<sup>\*</sup> At a minimum, RAP shall be processed and/or screened such that the RAP material size does not exceed the nominal maximum sieve size for the mixture specified.

<u>907-401.02.4--Substitution of Mixture.</u> Delete the table in Subsection 401.02.4 on page 242, and substitute the following.

	Single Lift Laying Thickness Inches	
Mixture	Minimum	Maximum
25 mm	3	4
19 mm	21/4	3½
12.5 mm	1½	$2\frac{1}{2}$
9.5 mm	1	1½
4.75 mm	1/2	3/4

After Subsection 907-401-02.6.2 on page 2, add the following.

<u>907-401.02.6.4.1--Roadway Density.</u> Delete subparagraphs 1., 2., & 3. on page 251 and substitute the following.

- 1. For all leveling lifts, when full lane width and with a thickness as specified in the table in Subsection 401.02.4, the required lot density shall be 92.0 percent of maximum density.
- 2. For all single lift overlays, with or without leveling and/or milling, the required lot density shall be 92.0 percent of maximum density.
- 3. For all multiple lift overlays of two (2) or more lifts excluding leveling lifts, the required lot density of the bottom lift shall be 92.0 percent of maximum density. The required lot density for all subsequent lifts shall be 93.0 percent of maximum density.
- 4. For all pavements on new construction, the required lot density for all lifts shall be 93.0 percent of maximum density.

Delete Subsections 401.02.6.5 and 401.02.6.6 on pages 253 thru 257 and substitute the following.

## 907-401.02.6.5--Blank.

## 907-401.02.6.6--Blank.

**<u>907-401.02.6.7--Surface Correction.</u>** Delete the paragraph in Subsection 401.02.6.7 on page 257, and substitute the following.

Corrective work to sections exceeding short continuous interval thresholds reported by ProVal, as described in Subsection 907-403.03.2.1, shall consist of diamond grinding in accordance with these specifications or methods approved by the Engineer. All surface areas corrected by grinding shall be sealed with a sealant approved by the Engineer.

<u>907-401.02.6.8--Acceptance Procedure for Pavement Smoothness Using Mean Roughness Index (MRI).</u> When compaction is completed, the lift shall have a uniform surface and be in reasonably close conformity with the line, grade and cross section shown on the plans.

The smoothness of the surface lift will be determined by using an Inertial Profiling System (IPS) to measure and record roughness data in each designated location. Roughness data for each longitudinal profile will be reported as a Mean Roughness Index (MRI). MRI is calculated by averaging the International Roughness Index (IRI) values from the two individual wheelpath profiles. The surface shall be tested and corrected to a smoothness index as described herein with the exception of those locations or specific projects that are excluded from smoothness testing with an IPS.

The smoothness of the surface lift will be determined for traffic lanes, auxiliary lanes, climbing lane and two-way turn lanes. Areas excluded from a smoothness test with the IPS are acceleration and deceleration lanes, tapered sections, transition sections for width, shoulders, crossovers, ramps, side street returns, etc. The roadway pavement on bridge replacement projects having 1,000 feet or less of pavement on each side of the structure will be excluded from a smoothness test. Pavement on horizontal curves having a radius of less than 1,000 feet at the centerline and pavement within the super elevation transition of such curves are excluded from smoothness testing. Smoothness testing shall terminate 264 feet from each transverse joint that

separates the pavement from a bridge deck, bridge approach slab or existing pavement not constructed under the contract. This shall apply to any other exceptions including, but not limited to, railroad crossings and manholes. Segments containing a considerable amount of encroachments such as intersections, manholes, curb and gutter sections, etc. may be excluded at the Project Engineer's discretion.

Initial smoothness measurements shall take place no more than 72 hours following placement of surface and must be performed at the posted speed limit or 50 miles per hour (±5 mile per hour), whichever is lower. This speed requirement will be waived for all lightweight profilers. Measurements will be made in both wheel paths of exterior and interior lanes. The wheel paths shall be designated as being located three feet (3') and nine feet (9') from centerline or longitudinal joint, respectively. Beginning and ending latitude and longitude coordinates shall be required on each smoothness surface test. Testing will also be required on sections that have been surface corrected. No smoothness testing shall be performed when there is moisture of any kind on the pavement surface. Any additional testing shall meet the requirements of Subsection 907-403.03.2.

The surface lift will be accepted on a continuous interval basis for pavement smoothness. Continuous reporting is based upon all MRI values for a specified running interval. These values are averaged and presented at the midpoint of the specified running interval. The last 15 feet of a day's lift may not be obtainable until the lift is continued and for this reason may be included in the subsequent section.

Areas of localized roughness exceeding the continuous 25-foot interval threshold described in Subsection 907-403.03.2.1 shall be corrected regardless of the 528-foot interval MRI value of the section. Surface correction by grinding shall be performed in accordance with Subsection 401.02.6.7. The Contractor shall also make other necessary surface corrections to ensure that the final mean roughness index of the section meets the requirements of Subsection 907-403.03.2.

Continuous sections exceeding the accepted long interval MRI value shall be corrected as specified in Subsection 403.03.4. All such corrections shall be performed at no additional costs to the State. Scheduling and traffic control will be the responsibility of the Contractor with approval of the Engineer. All tests and corrections shall be in accordance with AASHTO R 54-10, Accepting Pavement Ride Quality When Measured Using Inertial Profiling Systems.

# 907-401.02.6.9--High Speed Inertial Profiling System.

**907-401.02.6.9.1--General.** The IPS, furnished and operated by the Contractor under the supervision of the Engineer or the Engineer's representative, shall be a dual laser high speed or lightweight vehicle meeting the requirements of AASHTO M 328-10, Standard Specification for Inertial Profiler.

<u>907-401.02.6.9.2--Mechanical Requirements</u>. The IPS should function independent of vehicle suspension and speed with an operational range of 15-70 mph (for high speed profilers only) and must collect data at a sample interval of no more than three inches (3"). All IPSs, operators, and combinations thereof shall be verified in accordance with AASHTO R 56-10, Standard Practice for Certification of Inertial Profiler Systems and AASHTO R 57-10, Operating Inertial Profiler Systems.

**907-401.02.6.9.3--Computer Requirements.** The computer measurement program must be menu driven, Windows compatible, and able to produce unfiltered profiler runs in any one of the following file formats: University of Michigan's Transportation Research Institute's (UMTRI) Engineering Research Division (\*.erd) file, ProVAL's Pavement Profile (\*.ppf) file, or Ames Engineering's (\*.adf) file format. The computer shall have the ability to display and print data on site for verification and shall have the ability to save and transfer data via Universal Serial Bus (USB) flash drive, which shall be provided by the Contractor.

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

• County Route Direction Lane BeginStation EndStation

In addition to manufacturers software; the latest version of FHWA's ProVAL software shall be installed on the IPS computer. ProVAL software is available for free download at <a href="http://www.roadprofile.com">http://www.roadprofile.com</a>.

<u>907-401.03.1.2--Tack Coat.</u> Delete the three sentences of Subsection 401.03.1.2 on page 259, and substitute the following.

Tack coat shall be applied to previously placed HMA and between lifts, unless otherwise directed by the Engineer. Tack coat shall be applied with a distributor spray bar. A hand wand will only be allowed for applying tack coat on ramp pads, irregular shoulder areas, median crossovers, turnouts, or other irregular areas. Bituminous materials and application rates for tack coat shall be as specified in Table 410-A on page 293. Construction requirements shall be in accordance with Subsection 407.03 of the Standard Specifications.

<u>907-401.03.1.4--Density</u>. Delete the first sentence of the first paragraph of Subsection 401.03.1.4 on page 259 and substitute the following.

The lot density for all dense graded pavement lifts, except as provided below for preleveling, wedging [less than fifty percent (50%) of width greater than minimum lift thickness], ramp pads, irregular shoulder areas, median crossovers, turnouts, or other areas where the established rolling pattern cannot be performed, shall not be less than the specified percent (92.0% or 93.0%) of the maximum density based on AASHTO Designation: T 209 for the day's production. For all leveling lifts, when full lane width and with a thickness as specified in the table in Subsection 401.02.4, the required lot density shall be 92.0 percent of maximum density.

<u>907-401.03.9--Material Transfer Equipment.</u> Delete the paragraph in Subsection 401.03.9 on page 264 and substitute the following.

Excluding the areas mentioned below, the material transferred from the hauling unit when placing the top lift, or the top two (2) lifts of a multi-lift HMA pavement with density requirements, shall be remixed prior to being placed in the paver hopper or insert by using an approved Materials Transfer Device. Information on approved devices can be obtained from the State Construction Engineer. Areas excluded from this requirement include: leveling courses, temporary work of short duration, detours, bridge replacement projects having less than 1,000 feet of pavement on each side of the structure, acceleration and deceleration lanes less than 1,000 feet in length, tapered sections, transition sections for width, shoulders less than 10 feet in width, crossovers, ramps, side street returns and other areas designated by the Engineer.

After Subsection 401.03.13 on page 266, add the following.

907-401.03.14--Shoulder Wedge. The Contractor shall attach a device to the screed of the paver that confines the material at the end gate and extrudes the asphalt material in such a way that results in a compacted wedge shape pavement edge of approximately 30 degrees, but not steeper than 35 degrees. The device shall maintain contact between itself and the road shoulder surface and allow for automatic transition to cross roads, driveways, and obstructions. The device shall be used to constrain the asphalt head reducing the area by 10% to 15% increasing the density of the extruded profile. Conventional single plate strike off shall not be used.

The device shall be TransTech Shoulder Wedge Maker, the Advant-Edge, or a similar approved equal device that produces the same wedge consolidation results. Contact information for these wedge shape compaction devices is the following:

- 1. TransTech Systems, Inc. 1594 State Street Schenectady, NY 12304 800-724-6306 www.transtechsys.com
- 2. Advant-Edge Paving Equipment, LLC P.O. Box 9163 Niskayuna, NY 12309-0163 518-280-6090 Contact; Gary D. Antonelli

Cell: 518-368-5699

email: garya@nycap.rr.com

Website: www.advantedgepaving.com

Before using a similar device, the Contractor shall provide proof that the device has been used on previous projects with acceptable results, or construct a test section prior to the beginning of work and demonstrate wedge compaction to the satisfaction of the Engineer. Short sections of handwork will be allowed when necessary for transitions and turnouts, or otherwise authorized by the Engineer.

CODE: (IS)

#### SPECIAL PROVISION NO. 907-401-2

DATE: 11/04/2005

**SUBJECT:** Hot Mix Asphalt (HMA)

Section 401, Hot Mix Asphalt (HMA) - General, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete in toto Subsection 401.02.6.2 on pages 248 and 249, and substitute:

<u>907-401.02.6.2--Assurance Program for Mixture Quality.</u> The Engineer will conduct a quality assurance program. The quality assurance program will be accomplished as follows:

- 1) Conducting verification tests.
- 2) Validate Contractor test results.
- 3) Periodically observing Contractor quality control sampling and testing.
- 4) Monitoring required quality control charts and test results.
- 5) Sampling and testing materials at any time and at any point in the production or laydown process.

The rounding of all test results will be in accordance with Subsection 700.04.

The Engineer will conduct verification tests on samples taken by the Contractor under the direct supervision of the Engineer at a time specified by the Engineer. The frequency will be equal to or greater than ten percent (10%) of the tests required for Contractor quality control and the data will be provided to the Contractor within two asphalt mixture production days after the sample has been obtained by the Engineer. At least one sample shall be tested from the first two days of production. All testing and data analysis shall be performed by a Certified Asphalt Technician-I (CAT-I) or by an assistant under the direct supervision of the CAT-I. Certification shall be in accordance with the MDOT HMA Technician Certification Program chapter in the Materials Division Inspection, Testing, and Certification Manual. The Department shall post a chart giving the names and telephone numbers for the personnel responsible for the assurance program.

The Engineer shall be allowed to inspect Contractor testing equipment and equipment calibration records to confirm both calibration and condition. The Contractor shall calibrate and correlate all testing equipment in accordance with the latest versions of the Department's Test Methods and AASHTO Designation: R 18.

Random differences between the Engineer's verification tests and the current running average of four quality control tests at the time of obtaining the verification sample will be considered acceptable if within the following limits:

Item	Allowable Differences
Sieve - % Passing	
3/8-inch and above	6.0
No. 4	5.0
No. 8	4.0
No. 16, for 4.75 mm mixtures ONLY	3.5
No. 30	3.5
No. 200	2.0
AC Content	0.4
Specimen Bulk SG, Gmb @ N <sub>Design</sub>	0.030
Maximum SG, Gmm	0.020

If four quality control tests have not been tested prior to the time of the first verification test, the verification test results will be compared to the average of the preceding quality control tests. If the verification test is the first material tested on the project or if a significant process adjustment was made just prior to the verification test, the verification test results will be compared to the average of four subsequent quality control test results. For all other cases after a significant process adjustment, the verification test results will be compared to the average of the preceding quality control tests (taken after the adjustment) as in the case of a new project start-up when four quality control tests are not available.

In the event that; 1) the comparison of the Contractor's running average quality control data and Engineer's quality assurance verification test results are outside the allowable differences in the above table, or 2) if a bias exists between the results, such that one of the results is predominately higher or lower than the other, and the Engineer's results fail to meet the JMF control limits, the Engineer will investigate the reason immediately. As soon as the need for an investigation becomes known, the Engineer will increase the quality assurance sampling rate to the same frequency required for Contractor testing. The additional samples obtained by the Engineer may be used as part of the investigation process or for routine quality assurance verification tests. The Engineer's investigation may include testing of the remaining quality control split samples, review and observation of the Contractor's testing procedures and equipment, and a comparison of split sample test results by the Contractor quality control laboratory, Department quality assurance laboratory and the Materials Division laboratory. The procedures outlined in the latest edition of MDOT's Field Manual for HMA may be used as a guide for the investigation. In the event that the Contractor's results are determined to be incorrect, the Engineer's results will be used for the quality control data and the appropriate payment for the mixture will be based on the procedures specified in Subsection 401.02.5.8(j).

The Engineer will periodically witness the sampling and testing being performed by the Contractor. The Engineer, both verbally and in writing, will promptly notify the Contractor of any observed deficiencies. When differences exist between the Contractor and the Engineer which cannot be resolved, a decision will be made by the State Materials Engineer, acting as the referee. The Contractor will be promptly notified in writing of the decision. If the deficiencies are not corrected, the Engineer will stop production until corrective action is taken.

CODE: (SP)

# SPECIAL PROVISION NO. 907-401-6

**DATE:** 08/21/2012

**SUBJECT:** Warm Mix Asphalt (WMA)

Section 401, Hot Mix Asphalt (HMA) - General, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable to Warm Mix Asphalt Only.

# 907-401.01--Description.

These specifications include general requirements that are applicable to Warm Mix Asphalt (WMA).

This work consists of the construction of one or more lifts of WMA in accordance with Section 401 for Hot Mix Asphalt, with the exceptions set forth in this special provision. The WMA shall meet the specific requirements for the mixture to be produced and placed in reasonably close conformity with the lines, grades, thicknesses and typical sections shown on the plans or established by the Engineer.

# 907-401.02--Materials.

<u>907-401.02.2--WMA Products and Processes.</u> The Department will maintain a list of qualified WMA products and processes. No product or process shall be used unless it appears on this list.

The Contractor may propose other products or processes for approval by the Product Evaluation Committee. Documentation shall be provided to demonstrate laboratory performance, field performance, and construction experience.

# 907-401.03--Construction Requirements.

<u>907-401.03.1.1--Weather Limitations.</u> The air and pavement temperature at the time of placement shall equal or exceed 40°F, regardless of compacted lift thickness.

**907-401.03.8--Preparation of Mixture.** Warm mix asphalt is defined as a plant produced asphalt mixture that can be produced and constructed at lower temperatures than typical hot mix asphalt. Typical temperature ranges of non-polymer modified, WMA produced by foaming the asphalt binder at the plant are typically 270°F to 295°F at the point of discharge of the plant. Typical temperature ranges of polymer modified, WMA produced by foaming the asphalt binder at the plant are typically 280°F to 305°F at the point of discharge of the plant. WMA produced by addition of a terminal blended additive may allow the producer to reduce the temperatures below 270°F as long as all mixture quality and field density requirements are met. Production temperatures at the plant may need to be increased or decreased due to factors such as material

characteristics, environmental conditions, and haul time to achieve mixture temperatures at the time of compaction in which uniform mat density can be achieved.

#### SUPPLEMENT TO SPECIAL PROVISION NO. 907-403-4

DATE: 03/04/2014

**SUBJECT:** Hot Mix Asphalt (HMA)

Before Subsection 907-403.05.2 on page 1, add the following:

# 907-403.03--Construction Requirements.

<u>907-403.03.2--Smoothness Tolerances.</u> Delete the table, footnotes, and first six paragraphs of Subsection 403.03.2 on page 266 & 267, and substitute the following.

	Lower*			
	&	Lower*	Top	
	Leveling	Intermediate	Intermediate	Surface
	Lifts	Lift	Lift	Lift
Maximum deviation from				
grade and cross section				
at any point	1/2"	3/8"	1/4"	1/4"
Maximum deviation from				
A 10 foot straight edge	3/8"	1/4"	1/8"	1/8"

Note: Where more than four (4) lifts of HMA are required, all lifts, excluding the top three (3) lifts, shall meet the requirements of the lower lift.

\* When tested longitudinally from a stringline located equidistant above points 50 feet apart, the distance from the stringline to the surface at any two points located 12 1/2 feet apart shall not vary one from the other more than the maximum deviation allowed above from a 10-foot straight edge.

Delete the last paragraph of Subsection 403.03.2 at the bottom of page 268, the table at the top of page 269, and the first, second and third full paragraphs on page 269, and substitute the following.

Sections(s) or portions thereof representing areas excluded from a smoothness test with the High Speed Inertial Profiling System (IPS) shall also be excluded from consideration for a contract price adjustment for rideability.

Any contract price adjustment for rideability will be applied on a continuous basis to the pay tonnage, determined in accordance with Subsections 907-401.02.6.8 and 403.04, for the section(s) or portions thereof for which an adjustment is warranted.

Contract price adjustments for rideability shall only be applicable to the surface lift and furthermore to only the long continuous section(s) or portions of the long continuous section(s) of the surface lift that require smoothness be determined by using a profiling device.

<u>907-403.03.2.1--Smoothness</u> <u>Tolerances for Mean Roughness Index (MRI)</u>. Smoothness tolerances shall be applied to asphalt pavements based on the following pavement categories.

<u>Category A</u> applies to the following pavement constructions:

- New construction
- Construction with three (3) or more lifts
- Mill and two (2) or more lifts

<u>Category B</u> applies to the following pavement constructions:

- Mill and one (1) lift
- Two (2) lift overlays without milling

<u>Category C</u> applies to the following pavement constructions:

• Single lift overlay without milling

NOTE: Spot Leveling does not count as a lift. Full width / continuous leveling courses will be considered a lift. Leveling lifts that do not have a minimum thickness of <sup>3</sup>/<sub>4</sub>" across the entire lane width will not be considered a lift.

For all projects, the <u>surface</u> lift smoothness data shall be reported by two MRI methods:

- 1. A continuous 528-foot long interval MRI report
- 2. A continuous 25-foot short interval MRI report

Areas of the surface lift with localized roughness greater than 160 inches per mile as determined by the continuous short interval report will be identified for correction by the Project Engineer.

Category A projects shall have a long interval surface MRI of not more than 60 inches per mile.

Category B projects shall have a long interval surface MRI of not more than 70 inches per mile.

**Category C** projects shall have the existing surface profiled at no additional cost to the State. The finished surface lift shall meet the following requirements:

A 50% improvement in MRI from the existing surface

Ol

80 inches per mile long interval surface MRI value whichever value is higher.

- 3 -

In the case that 50% of the existing surface MRI is greater than 80 inches per mile, the short continuous threshold shall be increased from 160 inches per mile by the difference between 50% of the existing surface MRI and 80 inches per mile.

When a project has multiple lifts, the lift underlying the surface lift shall have a MRI of no more than 10 inches/mile more than the surface lift threshold for both long and short continuous intervals. Category B projects containing multiple lifts must meet the Category C percent improvement requirement for the underlying lift. Corrective action must be taken on those segments that do not meet this requirement. No unit price adjustment will be applied on any underlying lift.

For Category A and B projects, a unit price increase will be added when the MRI for the final surface lift, prior to any required localized roughness (short interval) corrective action, is less than or equal to fifty inches per mile (50.0 inches / mile) on the long interval report. These Projects will be considered for incentive pay based on the following guidelines for the long interval surface lift MRI.

Mean Roughness Index	Contract Price Adjustment	
inches / mile	percent of Asphalt unit bid price	
Less than 35.0	108	
35.1 to 40.0	106	
40.1 to 45.0	104	
45.1 to 50.0	102	
50.1 to Required Surface MRI	100	

For Category C projects, a unit price increase will be added when the MRI for the final surface lift, prior to any required localized roughness (short interval) corrective action, is less than or equal to fifty inches per mile (50.0 inches / mile) on the long interval report. These Projects will be considered for incentive pay based on the following guidelines for the long interval surface lift MRI.

Mean Roughness Index	Contract Price Adjustment
inches / mile	percent of HMA unit bid price
Less than or equal to 50.0	103
50.1 to Required Surface MRI	100

No incentive will be allowed if the MRI value from the newly paved surface is greater than the existing surface.

In addition to the above pay incentive factors, a project may be subject to a disincentive when the Long Continuous Interval MRI for the surface exceeds the allowable tolerance. This applies to all project categories and will correlate to the maximum allowed Long Continuous Interval MRI.

Mean Roughness Index	Contract Price Adjustment
inches / mile	percent of HMA unit bid price
Above 20.0 Over	Remove And Replace
15.1 to 20.0 Over	80
10.1 to 15.0 Over	85
5.1 to 10.0 Over	90
0.1 to 5.0 Over	95
Required Surface MRI	100

Segment(s) or portions thereof representing areas excluded from a smoothness test shall also be excluded from consideration for a contract price adjustment for rideability. Corrective action must be taken on those sections that exceed the 'Remove and Replace' threshold on the Long Continuous Interval as directed by the Project Engineer. Sections that fall into this requirement may also need corrective action on both the preceding and following 264-foot sections as to conform to a complete 528-foot Long Continuous Interval. The minimum remove and replace length will be 528 feet (0.1 mile). Additional smoothness testing shall be required on sections following replacement and will be required to meet *at least* the maximum surface MRI short of 'Remove and Replace'.

The above pay factors will be applied in conjunction with the Long Continuous Histogram Chart from ProVAL's Smoothness Assurance Module. The price adjustments for rideability will be tabulated in MDOT's Pay Incentive spreadsheet on the basis of a theoretical tonnage of 110 lbs/yd²\*inch thickness (pounds per square yard \* inch thickness) and 12-foot travel lanes, determined in accordance with Subsections 401.02.6.5 and 403.04, for the segment(s) or portions thereof for which an adjustment is warranted.

Delete Subsection 403.03.5.5 on page 273 and substitute the following.

<u>907-403.03.5.5--Preliminary Leveling.</u> All irregularities of the existing pavement, such as ruts, cross-slope deficiencies, etc., shall be corrected by spot leveling, skin patching, feather edging or a wedge lift in advance of placing the first overall lift.

**907-403.04--Method of Measurement.** After the first paragraph of Subsection 403.04 on page 274, add the following.

The pay quantities for each individual job mix formula (JMF) will be calculated using the approved JMF maximum specific gravity (Gmm) and the following formulas.

When the composite mixture has a maximum specific gravity of 2.540 or less,

$$Tp = Tw$$

When the composite mixture has a maximum specific gravity greater than 2.540,

$$Tp = Tw((100-(((Gmm*A*B)-C)/(Gmm*A*B))*100))/100$$

# Where:

Tp = Total tonnage for payment Tw = Total tonnage weighed, used and accepted

Gmm = Maximum Specific Gravity of the approved composite asphalt mixture

 $A = 46.725 \text{ lbs/yd}^2/\text{in}$  B = 0.93 = 93% density

 $C = 110.374 \text{ lbs/yd}^2/\text{in} = \text{Theoretical density at } 2.540 \text{ Gmm}$ 

# SPECIAL PROVISION NO. 907-403-4

CODE: (IS)

**DATE:** 11/04/2005

**SUBJECT:** Hot Mix Asphalt (HMA)

Section 403, Hot Bituminous Pavement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-403.05.2--Pay Items.** Add the "907" prefix to the pay items listed on page 275 & 276.

SPECIAL PROVISION NO. 907-403-12

CODE: (SP)

**DATE:** 08/21/2012

**SUBJECT:** Warm Mix Asphalt (WMA)

Section 403, Hot Bituminous Pavement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable to Warm Mix Asphalt Only.

<u>907-403.01--Description.</u> This work consists of constructing one or more lifts of Warm Mix Asphalt (WMA) pavement in accordance with the requirements of Section 403 for Hot Mix Asphalt, with the exceptions set forth in this special provision. The WMA shall meet the requirements of this section and placed in reasonably close conformity with the lines, grade, thicknesses, and typical cross sections shown on the plans or established by the Engineer.

<u>907-403.04--Method of Measurement.</u> Warm mix asphalt will be measured by the ton. The weight of the composite mixture shall be determined in accordance with the provisions of Subsection 401.03.2.1.11.

<u>907-403.05--Basis of Payment.</u> Subject to the adjustments set out in Subsections 401.02.6.3, 401.02.6.4, 401.02.6.5, 401.02.6.6 & 403.03.2, warm mix asphalt, measured as prescribed above, will be paid for at the contract unit price per ton for each lift of pavement specified in the bid schedule and shall be full compensation for completing the work.

**907-403.05.2--Pay Items.** After the last pay item listed on page 276, add the following:

#### SPECIAL PROVISION NO. 907-407-1

**DATE:** 02/26/2008

**SUBJECT:** Tack Coat

Section 407, Tack Coat, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

<u>907-407.02.1--Bituminous Material</u>. Delete the second sentence of the first paragraph of Subsection 407.02.1 on page 281, and substitute the following:

When not specified, the materials shall be as specified in Table 410-A on page 293.

**907-407.03.3--Application of Bituminous Material**. Delete the first paragraph of Subsection 407.03.3 on page 281, and substitute the following.

Tack coat shall be applied with a distributor spray bar. A hand wand will only be allowed for applying tack coat on ramp pads, irregular shoulder areas, median crossovers, turnouts, or other irregular areas. Bituminous materials and application rates for tack coat shall be as specified in Table 410-A on page 293. Tack coat shall not be applied during wet or cold weather, after sunset, or to a wet surface. Emulsions shall be allowed to "break" prior to superimposed construction.

<u>907-407.05--Basis of Payment</u>. Delete the pay item at the end of Subsection 407.05 on page 282, and substitute the following:

907-407-A: Asphalt for Tack Coat \*

- per gallon

CODE: (SP)

\* Grade may be specified

CODE: (IS)

#### SPECIAL PROVISION NO. 907-618-9

DATE: 11/08/2012

**SUBJECT:** Placement of Temporary Traffic Stripe

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

<u>907-618.03.3--Safe Movement of Traffic.</u> Delete subparagraphs (2) and (3) of Subsection 618.03.3 on page 416, and substitute the following.

(2) Temporary edge lines on projects requiring shoulders constructed of granular material may be delayed for a period not to exceed three (3) days.

Temporary edge lines placed on the final pavement course of projects requiring paved shoulders with surface treatment may be placed on the adjacent shoulder in as near the permanent location as possible until the surface treatment is placed. When the edge lines are obliterated by the placement of the surface treatment, the edge lines shall be placed in the permanent stripe location. The replacement of edge lines may be delayed for a period not to exceed three (3) days for a two or three-lane roads.

Delete the first sentence of next to last paragraph of Subsection 618.03.3 on page 416 and substitute the following.

Permanent pavement markings are to be applied no sooner than 10 days nor later than 45 days after placement of the final lift of pavement.

CODE: (SP)

#### SPECIAL PROVISION NO. 907-618-13

DATE: 06/03/2014

**SUBJECT:** Temporary Construction Signs

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

# 907-618.03--Construction Requirements.

<u>907-618.03.2--Barricades, Signs, and Flaggers.</u> Delete the second paragraph of Subsection 618.03.2 on page 414, and substitute the following.

Flaggers shall be stationed at such points as may be deemed necessary.

Temporary construction signs shall be removed as their use becomes inapplicable. However, placing temporary signs and their supports flat on the ground outside the shoulder break line will be allowed.

<u>907-618.05--Basis of Payment</u>. Delete the first two pay items listed on page 418, and substitute the following.

907-618-A: Maintenance of Traffic - lump sum

907-618-B: Additional Construction Signs - per square foot

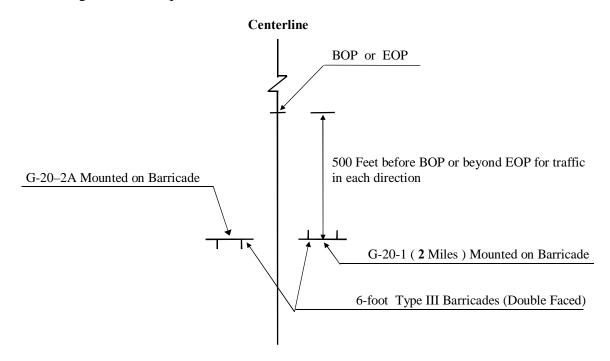
#### **SUPPLEMENT TO SPECIAL PROVISION NO. 907-618-14**

**DATE:** 06/17/2014

**PROJECT:** MP-1009-78(004) / 305279301 – Webster County

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

Additional signs will be required as follows.

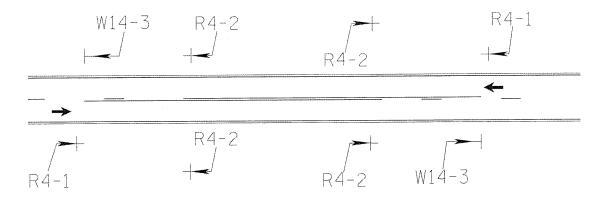


#### ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

- <u>14</u> W20-1 "AHEAD" signs required. One (1) W20-1 "AHEAD" sign is required at each local road or street entering the project.
- 2 R4-1 "DO NOT PASS" signs required.
- <u>1</u> R4-2 "PASS WITH CARE" signs required.
- 2 W14-3 "NO PASSING ZONE" signs required.

R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE", and W14-3 "NO PASSING ZONE" signs are required in accordance with Subsection 618.03.3, this drawing, and as specified in the Manual on Uniform Traffic Control Devices. If no passing zones are 1,000 feet or more, additional "DO NOT PASS" signs shall be installed.

All Construction signing is included in the bid for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R4-1 and R4-2 signs which shall be black legend and border on white background.



- 1 THE R4-1, DO NOT PASS SIGNS, SHALL BE PLACED ON THE RIGHT SIDE OF THE ROAD AT THE BEGINNING OF THE NO PASSING ZONE. ADDITONAL R4-1 SIGNS SHALL BE PLACED RIGHT AND LEFT IN INCREMENTS OF 750' TO 1000'. THROUGHOUT THE LENGTH OF THE NO PASSING ZONE.
- 2) THE R4-2, PASS WITH CARE SIGN, SHALL BE PLACED ON THE RIGHT AND LEFT SIDE OF THE ROAD AT THE END OF THE NO PASSING ZONE & IN INCREMENTS OF 750' TO 1000' UNTIL THE NEXT NO PASSING ZONE.
- 3 THE W14-3, NO PASSING ZONES SIGNS, SHALL BE PLACED ON THE LEFT SIDE OF THE ROAD AT THE BEGINNING OF EACH NO PASSING ZONE.
- 4 THE R4-1, R4-2 AND W14-3 SIGNS ARE TO BE USED WHEN STANDARD PAVEMENT MARKINGS ARE NOT IN PLACE. SIGNS MAY ALSO BE USED TO EMPHASIZE PAVEMENT MARKINGS.

CODE: (SP)

# SPECIAL PROVISION NO. 907-618-14

**DATE:** 06/17/2014

**SUBJECT: Additional Signing Requirements** 

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

<u>907-618.01.2--Traffic Control Plan</u>. At the end of Subsection 618.01.2 on page 413, add the following:

For compliance with the traffic control plan, the Contractor will be required to install and maintain construction signs at various locations throughout the project. Payment for these signs will be included in the price bid for pay item no. 907-618-A, Maintenance of Traffic per lump sum.

CODE: (SP)

# SPECIAL PROVISION NO. 907-626-5

**DATE:** 09/15/2004

SUBJECT: Inverted Profile Thermoplastic Traffic Stripe

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable for inverted profile thermoplastic traffic stripe only:

<u>907-626.01--Description.</u> 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.

# 907-626.02--Materials.

<u>907-626.02.1--General</u>. The inverted profile thermoplastic marking material shall consist of an alkyd/maleic or hydrocarbon based formulation. The material shall be so manufactured as to be applied to the pavement in a molten form, with internal and surface application of glass spheres, and upon cooling to normal pavement temperature, shall produce an adherent, reflectorized pavement marking of specified thickness and width, capable of resisting deformation.

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

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

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

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

<u>907-626.02.2--Inverted Profile Thermoplastic Material.</u> 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 Designation: M 249 with the following modifications:

<u>907-626.02.2.1--Intermixed Glass Beads</u>. 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 Designation: D 1155, and shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO Designation: 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:

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

<u>907-626.02.2.2--Binder Content.</u> The binder content of the thermoplastic material shall be 19 percent minimum.

<u>907-626.02.2.3--Titanium Dioxide.</u> The titanium dioxide shall meet ASTM Designation: D 476, Type II, Rutile grade - 10 percent minimum titanium content.

<u>907-626.02.2.4--Yellow Pigment.</u> The yellow pigment for the yellow thermoplastic material shall be five (5) percent minimum.

<u>907-626.02.2.5--Specific Gravity.</u> The specific gravity of the thermoplastic pavement marking material shall not exceed 2.35.

#### **907-626.02.2.6--Flow Characteristics.**

<u>907-626.02.2.6.1--Flowability.</u> After heating the thermoplastic material for four (4) hours  $\pm 5$  minutes at 425  $\pm 3$ °F and testing flowability, the white thermoplastic shall have a maximum

percent residue of 22 percent and the yellow thermoplastic shall have a maximum residue of 24 percent.

<u>907-626.02.2.6.2--Flow Resistance.</u> The material shall exhibit a maximum flow of 10%. The material's ability to form ribs on the markings shall be evaluated by casting a disc of material approximately 3.5 inches wide by 1.0 inch long by and 0.60 inch deep. After the material is cooled to ambient temperature, measure the exact height. The material shall then be stored at 190°F for four (4) hours. After the material is cooled to ambient temperature, re-measure the exact height and express the flow resistance as a flow percentage.

<u>907-626.02.2.7--Reflectivity.</u> 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 30 retroreflectometer, or approved equal.

<u>907-626.02.2.8--Wet Reflectivity.</u> 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.

<u>907-626.02.2.9--Inverted Profile.</u> 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.

# 907-626.02.3--Black Pavement Marking Material for High Contrast Inverted Profile Pavement Markings.

<u>907-626.02.3.1--General.</u> 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  $68 \pm 5$ °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.

<u>907-626.02.3.2--Binder.</u> 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.

<u>907-626.02.3.3--Pigment</u>. The pigment used for black pavement marking compound shall be as required and shall be uniformly distributed throughout the marking compound.

<u>907-626.02.3.4--Filler</u>. The filler to be incorporated with the resins shall be a white calcium carbonate, silica or any approved substitute.

<u>907-626.02.3.5--Specific Gravity.</u> The specific gravity of the marking compound shall not exceed 2.0.

<u>907-626.02.3.6--Softening Point.</u> After heating the marking compound for 4 hours  $\pm 5$  minutes at 375  $\pm 3$ °F and testing in accordance with ASTM Designation: E 28, the material shall have a minimum softening point of 180°F as measured by the ring and ball method.

<u>907-626.02.3.7--Tensile Bond Strength.</u> After heating the marking compound for 4 hours  $\pm 5$  minutes at 375  $\pm 3$ °F, the tensile bond strength shall exceed 180 psi when tested in accordance with ASTM Designation: D 4806. The material shall be applied to unprimed, sandblasted Portland cement concrete block at a thickness of 0.0625-inch and at a temperature of 375  $\pm 3$ °F. The test shall be conducted at room temperature.

<u>907-626.02.3.8--Impact Resistance.</u> After heating the marking compound for 4 hours  $\pm 5$  minutes at 375  $\pm 3^{\circ}$ F, the impact resistance shall be a minimum of 50 inch-pounds minimum when tested in accordance with ASTM Designation: D 2794. No cracks or bond loss shall occur when a 0.0625-inch thick film drawdown is made at 375  $\pm 3^{\circ}$ 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.

<u>907-626.02.3.9--Identification.</u> 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.

<u>907-626.02.3.10--Packaging.</u> 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.

<u>907-626.02.3.11--Storage Life.</u> 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.

<u>907-626.02.3.12--Certifications.</u> The material manufacturer shall furnish a certified copy of material test reports to the Engineer.

<u>907-626.02.4--Drop-On Glass Beads.</u> Drop-on glass beads shall be separated into two (2) classes, as follows:

<u>907-626.02.4.1--Class G Glass Beads.</u> Class G glass beads shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO Designation: M 247, Section 4.4.2 and shall exhibit the following characteristics:

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

<u>U. S. Standard Sieve</u>	% 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.

<u>907-626.02.4.2--Class H Glass Beads.</u> Class H glass beads shall meet the requirements of ASTM Designation: D 1155, and shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO Designation: 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:

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

## 907-626.03--Construction Requirements.

907-626.03.1--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 1/4 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.

<u>907-626.03.2--Cleaning of Pavement Surface.</u> 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.

<u>907-626.03.3--Application Over Existing Striping.</u> 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.

<u>907-626.03.4--Surface Conditions.</u> When placing inverted profile thermoplastic pavement markings, no striping shall be permitted when the pavement surface temperature is less than 60°F. A non-contact infrared pyrometer shall be furnished by the Contractor for use by the Engineer for verification of the temperature. Striping shall not be performed when there is moisture on the pavement surface or when winds exceed 12 mph. When unseen moisture is suspected to be present, a moisture test shall be performed. The test shall be as follows:

- 1) Place a piece of roofing felt on the pavement surface.
- 2) Pour 0.5 gallon of thermoplastic material at application temperature onto the paper.
- 3) After two (2) minutes, lift the paper and inspect to see if moisture has been drawn from the pavement.
- 4) If moisture is present, striping is not to begin until the surface is moist free.

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

<u>907-626.03.5--Application.</u> Prior to the placement of pavement markings, the Contractor shall furnish the Engineer three copies of the manufacturer's warranty stating that the manufacturer will guarantee the pavement marking to meet the requirements of this specification.

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

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

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

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

The thickness of the striping materials shall be verified periodically (at least every 1320 feet) and any thickness more than five (5) percent under the designated thickness shall be reworked. A

consistent, uncorrected under-run will not be allowed and the Contractor will be required to install the specified minimum thickness of 0.140 inch. A wet thickness gauge and cold thickness gauge shall be furnished by the Contractor for use by the Engineer for the verification of film thickness.

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

<u>907-626.03.6--Inverted Profile Thermoplastic Traffic Stripe, High Contrast.</u> 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.

<u>907-626.03.7--Warranty.</u> 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	
	<b>Dry</b>	<u>Wet</u>	<u>Dry</u>	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 907-626.02.2.8 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.

<u>907-626.04--Method of Measurement.</u> 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.

<u>907-626.05--Basis of Payment.</u> 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:

907-626-I:	6" Inverted Profile Thermoplastic Traffic Stripe, Skip White	- per linear foot or mile
907-626-J:	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White	- per linear foot or mile
907-626-K:	6" Inverted Profile Thermoplastic Traffic Stripe, Skip Yellow	- per linear foot or mile
907-626-L:	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow	- per linear foot or mile
907-626-M:	Inverted Profile Thermoplastic Detail Traffic Stripe, <u>Color</u>	- per linear foot
907-626-II:	6" Inverted Profile Thermoplastic Traffic Stripe, High Contrast, Skip White	- per linear foot or mile
907-626-JJ:	6" Inverted Profile Thermoplastic Traffic Stripe, High Contrast, Continuous White	- per linear foot or mile
907-626-KK:	6" Inverted Profile Thermoplastic Traffic Stripe, High Contrast Skip Yellow	- per linear foot or mile
907-626-LL:	6" Inverted Profile Thermoplastic Traffic Stripe, High Contrast, Continuous Yellow	- per linear foot or mile
907-626-MM:	Inverted Profile Thermoplastic Detail Traffic Stripe, High Contrast, <u>Color</u>	- per linear foot

CODE: (IS)

#### SPECIAL PROVISION NO. 907-626-25

**DATE:** 11/13/2012

**SUBJECT:** Thermoplastic Traffic Markings

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

<u>907-626.01--Description</u>. After the last sentence of the first paragraph of Subsection 626.01 on page 443, add the following.

All pavement marking material, excluding edge lines over rumble strips, shall be applied using the extrusion/ribbon method. Edge lines placed over rumble strips shall be applied using the atomization/spray method.

<u>907-626.03.1.1--Equipment.</u> After the second paragraph of Subsection 626.03.1.1 on page 444, add the following.

When edge lines are placed over rumble strips, the equipment must be able to apply the marking material using the atomization/spray method instead of extrusion/ribbon method.

<u>907-626.03.1.2--Construction Details.</u> Delete the second sentence of the first full paragraph of Subsection 626.03.1.2 on page 445, and substitute the following.

Unless otherwise specified in the plans or contract documents, the thickness shall be 90 mils for edge lines, center lines, lane lines, barrier lines and detail stripe including gore markings, and 120 mils for crosswalks, stop lines, and railroad, word and symbol markings.

After the last sentence of the third full paragraph of Subsection 626.03.1.2 on page 445, add the following.

When double drop thermoplastic stripe is called for in the contract, additional beads by the dropon method shall be applied as follows.

Class A glass beads at a rate of not less than three pounds of beads per 100 feet of six-inch stripe. Class B glass beads at a rate of not less than three pounds of beads per 100 feet of six-inch stripe.

The Class B glass beads shall be applied to the newly placed stripe first, followed by the application of the Class A glass beads.

<u>907-626.05--Basis of Payment.</u> Delete the pay items listed on page 446 and substitute the following.

- per linear foot or mile 907-626-A: 6" Thermoplastic\* Traffic Stripe, Skip White 907-626-B: 6" Thermoplastic\* Traffic Stripe, Continuous White - per linear foot or mile 907-626-C: 6" Thermoplastic\* Edge Stripe, Continuous White - per linear foot or mile 907-626-D: 6" Thermoplastic\* Traffic Stripe, Skip Yellow - per linear foot or mile 907-626-E: 6" Thermoplastic\* Traffic Stripe, Continuous Yellow - per linear foot or mile 907-626-F: 6" Thermoplastic\* Edge Stripe, Continuous Yellow - per linear foot or mile 907-626-G: Thermoplastic\* Detail Stripe, Color - per linear foot 907-626-H: Thermoplastic\* Legend, White - per linear foot or square foot \* Indicate Double Drop if applicable

CODE: (SP)

#### SPECIAL PROVISION NO. 907-702-3

**DATE:** 05/08/2012

**SUBJECT:** Polyphosphoric Acid (PPA) Modification of Petroleum Asphalt Cement

Section 702.05, Petroleum Asphalt Cement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

<u>907-702.05--Petroleum Asphalt Cement.</u> Delete the third paragraph of Subsection 702.05 on page 598, and substitute the following.

The bituminous material used in all types of asphalt mixtures shall conform to AASHTO Designation: M 320, Performance Grade PG 67-22, as modified in the table below, except that Polyphosphoric Acid (PPA) may be used at low dosage rates as a modifier to enhance the physical properties of a base binder to meet the requirements for Performance Grade PG 67-22. In addition, PPA may be used as a catalyst or mixing agent at low dosage rates in the production of Polymer Modified, Performance Grade PG 76-22.

When PPA is used as a modifier, in no case shall the PPA modifier be used to adjust the physical properties of the binder a full binder grade. For example: the base binder (unmodified) is graded as a PG 64-22 and should only be modified by the addition of PPA to a modified binder grade of PG 67-22.

When petroleum asphalt cement is modified by PPA, the following dosage limits shall be applied.

<b>Grade</b>	<b>Dosage Limit</b>
PG 67-22	0.75% by weight of binder
PG 76-22	0.50% by weight of binder

CODE: (IS)

#### SPECIAL PROVISION NO. 907-703-11

DATE: 05/22/2013

**SUBJECT:** Aggregates

Section 703, Aggregates, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

<u>907-703.03.2.4--Gradation</u>. Delete the last sentence of the last paragraph of Subsection 703.03.2.4 on page 611.

#### 907-703.04--Aggregate for Crushed Stone Courses.

<u>907-703.04.1--Coarse Aggregate.</u> Delete the first paragraph of Subsection 703.04.1 on page 611, and substitute the following.

Coarse aggregate, defined as material retained on No. 8 sieve, shall be either crushed limestone, steel slag, granite, concrete, or combination thereof. Crushed concrete is defined as recycled concrete pavement, structural concrete, or other concrete sources that can be crushed to meet the gradation requirements for Size No. 825B as modified below. In no case shall waste from concrete production (wash-out) be used as a crushed stone base.

<u>907-703.04.2--Fine Aggregate.</u> Delete the first sentence of the first paragraph of Subsection 703.04.2 on page 612, and substitute the following.

Fine aggregate, defined as material passing the No. 8 sieve, shall be material resulting from the crushing of limestone, steel slag, granite, concrete, or combination thereof.

Delete the third paragraph of Subsection 703.04.2 on page 612.

<u>907-703.04.3--Gradation.</u> In the table of Subsection 703.04.3 on page 613, change the requirement for the 1-inch sieve under Size No. 825 B from "75 - 98" to "75 - 100".

After the table in Subsection 703.04.3 on page 613, add the following.

If crushed concrete is used, the crushed material shall meet the gradation requirements of Size No. 825 B with the exception that the percent passing by weight of the No. 200 sieve shall be 2 – 18.

#### 907-703.06--Aggregates for Hot Mix Asphalt.

<u>907-703.06.1--Coarse Aggregates</u>. Delete the third paragraph of Subsection 703.06.1 on page 613, and substitute the following.

When tested in accordance with AASHTO Designation: T 19, the dry rodded unit weight of all aggregates except expanded clay and shale shall not be less than 70 pounds per cubic foot.

<u>907-703.06.1.2--Fine Aggregates</u>. Delete the last sentence of Subsection 703.06.1.2 on page 614.

#### 907-703.14--Aggregates for Bituminous Surface Treatments.

#### 907-703.14.2--Detail Requirements.

**907-703.14.2.1--Gradation.** In the table entitled "Gradation Requirements For Cover Aggregate" in Subsection 703.14.2.1 on page 622, delete the requirement for the No. 16 sieve for Size No. 7 under the column "Slag or Expanded Clay".

<u>907-703.20.3--Gradation</u>. Delete the table and notes in Subsection 703.20.3 at the top of page 626, and substitute the following.

#### PERCENT PASSING BY WEIGHT

	Shell		Coarse		Medium	Fine
Square Mesh		Size I	Size II	Size III		
Sieves			Note (1)	Note (3)		
3 inch				100		
2 1/2 inch	90-100			90-100		
2 inch		100				
1 1/2 inch		90-100	100	25-60		
1 inch		80-100	97-100			
3/4 inch		55-100	55-100	0-10		
1/2 inch		35-85	35-85	0-5	100	
3/8 inch		12-65	12-65		97-100	
No. 4, Note (2)		0-30	0-30		92-100	
No. 10		0-8	0-8		80-100	100
No. 40					10-40	80-100
No. 60					0-20	30-100
No. 100						15-80
No. 200	0-5	0-4	0-4		0-5	0-30
PI Material						
Passing No. 40					6 or less	0

Note (1): Size II is intended for use in bases in which portland cement is used.

Note (2): Ground shell shall contain at least 97% passing the No. 4 sieve.

Note (3): Size III is intended for use in stabilized construction entrances.

CODE: (SP)

#### SPECIAL PROVISION NO. 907-710-1

**DATE:** 06/24/10

**SUBJECT:** Fast Dry Solvent Traffic Paint

Section 710, Paint, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is amended as follows:

After Subsection 710.05 on Page 661, add the following:

907-710.06--Fast Dry Solvent Traffic Paint. Fast dry solvent traffic paints intended for use under this specification shall include products that are single packaged and ready mixed. Upon curing, these materials shall produce an adherent, reflective pavement marking capable of resisting deformation by traffic. The manufacturer shall have the option of formulating the material according to their own specifications. However, the requirements delineated in this specification, Section 619 and Section 710 shall apply regardless of the formulation used. The material shall be free from all skins, dirt and foreign objects.

#### 907-710.06.1--Composition.

<u>907-710.06.1.1--Percent Pigment.</u> The percent pigment by weight shall be not less than 51% nor more than 58% when tested in accordance with ASTM D 3723.

<u>907-710.06.1.2--Viscosity.</u> The consistency of the paint shall be not less than 75 nor more than 95 Krebs Units (KU) when tested in accordance with ASTM D 562.

<u>907-710.06.1.3--Weight per Gallon.</u> The paint shall weigh a minimum 11.8 pounds per gallon and the weight of the production batches shall not vary more than +/- 0.5 pounds per gallon from the weight of the qualification samples when tested in accordance with ASTM D 1475.

<u>907-710.06.1.4--Total Solids.</u> The percent of total solids shall not be less than 70% by weight when tested in accordance with ASTM D 2369.

<u>907-710.06.1.5--Dry Time (No pick-up).</u> The paint shall dry to a no tracking condition in a maximum of 10 minutes.

<u>907-710.06.1.6--Volatile Organic Content.</u> The volatile organic content (VOC) shall contain a maximum of 1.25 pounds of volatile organic matter per gallon of total non-volatile paint material when tested in accordance with ASTM D 3960.

<u>907-710.06.1.7--Bleeding.</u> The paint shall have a minimum bleeding ratio of 0.95 when tested in accordance with Federal Specification TT-P-115D.

<u>907-710.06.1.8--Color.</u> The initial daytime chromaticity for yellow materials shall fall within the box created by the following coordinates:

**Initial Daytime Chromaticity Coordinates (Corner Points)** 

	1	2	3	4
X	0.53	0.51	0.455	0.472
y	0.456	0.485	0.444	0.4

The initial daytime chromaticity of white materials shall fall within the box created by the following coordinates:

**Initial Daytime Chromaticity Coordinates (Corner Points)** 

	1	2	3	4
X	0.355	0.305	0.285	0.355
y	0.355	0.305	0.325	0.375

<u>907-710.06.2--Environmental Requirements.</u> All yellow materials using lead chromate pigments shall meet the criteria of non-hazardous waste as defined by 40 CFR 261.24 when tested in accordance with EPA Test Method 1311, Toxicity Characteristics Leaching Procedures (TCLP). The striping and marking material, upon preparation and installation, shall not exude fumes which are toxic, or detrimental to persons or property. All material using lead free pigments shall NOT contain either lead or other Resource Conservation and Recovery Act (RCCA) materials in excess of the standard defined by EPA Method 3050 and 6010.

<u>907-710.06.3--Acceptance Procedures.</u> Acceptance of all fast dry solvent based traffics paint will be based on the Manufacturer's Certification and Certified Test Results. The Contractor shall furnish the Engineer with three copies of the manufacturer's certification stating that each lot of material in a shipment complies with the requirements of this contract. In addition, the Contractor shall provide Certified Test Reports for all tests required by this specification. The test results shall be representative of the material contained with the shipment.

#### SPECIAL PROVISION NO. 907-720-2

CODE: (IS)

**DATE:** 05/01/2013

**SUBJECT:** Pavement Marking Materials

Section 720, Pavement Marking Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-720.01--Glass Beads. After the first sentence of Subsection 720.01 on page 729, add the following.

The glass beads shall contain no more than 200 ppm (mg/kg) total concentration for lead, arsenic, or antimony. The manufacture shall furnish the Engineer with a certified test report indicating that the glass beads meet the above requirement.

907-720.02--Thermoplastic Pavement Markings. Delete the first paragraph of Subsection 720.02 on page 730 and substitute the following.

The thermoplastic material shall be lead free and conform to AASHTO Designation: M 249 except the glass beads shall be moisture resistant coated.

After the first sentence of the second paragraph of Subsection 720.02 on page 730, add the following.

In addition, the certification for the thermoplastic material shall state that the material is lead free.

#### SECTION 905 - PROPOSAL

	Date	
Mississippi Transportation Commission		
Jackson, Mississippi		
Sirs: The following proposal is made on behalf of		
of		

for constructing the following designated project(s) within the time(s) hereinafter specified.

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

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

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

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

Attached hereto is a certified check, cashier's check or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law).

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

- 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.

#### SECTION 905 -- PROPOSAL (CONTINUED)

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) enclose a certified check, cashier's check or bid bond for <u>five percent (5%) of total bid</u> 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.

Respectfully Submitted

	respectionly sustained,				
	DATE				
		Contractor			
	BY				
	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 titles and business addresses of the executives are as follows:			and	the	names,
President		Address			
Secretary		Address			
Treasurer		Address			

Revised 11/24/2008

The following is my (our) itemized proposal.

Mill and Overlay SR 9 From the Choctaw County Line to SR 182, known as State Project No. MP-1009-78(004) / 305279301 in Webster County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price] Roadway Items
0010	202-B005		340	Square Yard	Removal of Asphalt Pavement, All Depths
0020	203-G003	(E)	120	Cubic Yard	Excess Excavation, FM, AH
0030	406-A001		61,404	Square Yard	Cold Milling of Bituminous Pavement, All Depths
0040	619-A1002		7	Mile	Temporary Traffic Stripe, Continuous White
0050	619-A2002		7	Mile	Temporary Traffic Stripe, Continuous Yellow
0060	619-A4006		5	Mile	Temporary Traffic Stripe, Skip Yellow
0070	619-A5001		17,886	Linear Feet	Temporary Traffic Stripe, Detail
0080	619-A6001		3,408	Linear Feet	Temporary Traffic Stripe, Legend
0090	619-A6002		1,026	Square Feet	Temporary Traffic Stripe, Legend
0100	627-K001		20	Each	Red-Clear Reflective High Performance Raised Markers
0110	627-L001		1,050	Each	Two-Way Yellow Reflective High Performance Raised Markers
0120	907-304-A008	(GY	) 500	Cubic Yard	Granular Material, LVM, Class 3, Group C
0130	907-407-A001	(A2)	3,070	Gallon	Asphalt for Tack Coat
0140	907-618-A001		1	Lump Sum	Maintenance of Traffic
0150	907-618-B001		1	Square Feet	Additional Construction Signs [\$10.00]
0160	907-626-C004		4	Mile	6" Thermoplastic Edge Stripe, Continuous White
0170	907-626-D003		2	Mile	6" Thermoplastic Traffic Stripe, Skip Yellow
0180	907-626-E004		4	Mile	6" Thermoplastic Traffic Stripe, Continuous Yellow
0190	907-626-G004		5,943	Linear Feet	Thermoplastic Detail Stripe, White
0200	907-626-G005		2,649	Linear Feet	Thermoplastic Detail Stripe, Yellow
0210	907-626-H004		1,704	Linear Feet	Thermoplastic Legend, White
0220	907-626-H005		738	Square Feet	Thermoplastic Legend, White
				ALTERNAT	TE GROUP AA NUMBER 1
0230	907-403-A010	(BA1	) 5,800	Ton	Hot Mix Asphalt, MT, 9.5-mm mixture
					TE GROUP AA NUMBER 2
0240	907-403-M006	(BA1	) 5,800	Ton	Warm Mix Asphalt, MT, 9.5-mm mixture
0250	007 626 1002		720		TE GROUP BB NUMBER 1
0250	907-626-J003		720	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
0260	907-626-K003		360	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Skip Yellow
0270	628-J002		720	Linear Feet	TE GROUP BB NUMBER 2  6" High Performance Cold Plastic Traffic Stripe, Continuous White
0270					
0280	628-L002		360	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip Yellow

#### **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.

\*

#### **COMBINATION BID PROPOSAL**

I. 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.	<u>County</u>	Project No.	<u>County</u>
1			6	
2			7	
3			8	
4			9	
5			10	

- A. If option (a) has been selected, then go to II, and sign Combination Bid Proposal.
- B. If option (b) has been selected, then complete the following, go to II, and sign Combination Bid Proposal.

### SECTION 905 - COMBINATION BID PROPOSAL (Continued)

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
1.	T (GIIIO CI		recueron	reduction	Trougerion
2.					
3.					
4					
4.					
5.					
6.					
7.					
8.					

#### SECTION 905 - COMBINATION BID PROPOSAL (Continued)

II.

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
9.					
10.					
C. If option (c) has been selected	ed, then initial a	nd compl	ete one of the following	ng, go to II. and sign Co	ombination Bid Proposal.
I (We) desire to be a	warded work no	t to excee	ed a total monetary va	lue of \$	·
I (We) desire to be a	warded work no	t to excee	ednumber o	of contracts.	
It is understood that the Missis right to award contracts upon the					any and all proposals, but also the sto the State.
It is further understood and agree in every respect as a separate co	eed that the Con ontract in accorda	nbination ance with	Bid Proposal is for c its proposal and cont	omparison of bids only tract documents.	and that each contract shall operate
I (We), the undersigned, agree t	to complete each	contract	on or before its specia	fied completion date.	
			SIGNED _		

## 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 January 13, 1999.

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

NOTE: Insert name and address of subcontractors. (Subcontracts equal to or in excess of fifty thousand dollars (\$50,000.00) ONLY.) (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 January 13, 1999.

By \_\_\_\_\_

## <u>CERTIFICATION</u> (Execute in duplicate)

I,
(Name of person signing certification)
individually, and in my capacity as of
(Title)
do hereby certify under (Name of Firm, Partnership, or Corporation)
penalty of perjury under the laws of the United States and the State of Mississippi that
, Bidder
(Name of Firm, Partnership, or Corporation)
on Project No. MP-1009-78(004) / 305279301 ,
in Webster 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.  Initial here "" if exceptions are attached and made a part thereof. 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 and attachments (when indicated) is true and correct.
Executed on Signature
Signature
(5/29/2008S)

## <u>CERTIFICATION</u> (Execute in duplicate)

I,
(Name of person signing certification)
individually, and in my capacity as of
(Title)
do hereby certify under (Name of Firm, Partnership, or Corporation)
penalty of perjury under the laws of the United States and the State of Mississippi that
, Bidder
(Name of Firm, Partnership, or Corporation)
on Project No. MP-1009-78(004) / 305279301 ,
in Webster 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.  Initial here "" if exceptions are attached and made a part thereof. 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 and attachments (when indicated) is true and correct.
Executed on Signature
Signature
(5/29/2008S)

#### SECTION 902

CONTRACT FOR <u>MP-1009-78(004</u>	4) / 305279301
LOCATED IN THE COUNTY(IES) OF _	Webster
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.

		W	itness	our signatures	this the	_ day of,	
By		tracto	` /			MISSISSIPPI TRANSPORTATION COMMISSION	
,							
Signed and sealed in the presence of: (names and addresses of witnesses)						Executive Director	
						Secretary to the Commission	
Award		•			-	n Commission in session on the day of, Page No	
Revised	8/06/2003		, _	, 1,11110	<u> </u>		

## S E C T I O N 9 0 3 PERFORMANCE AND PAYMENT BOND

CONTRACT BOND FOR: MP-1009-78(004) / 305279301	
LOCATED IN THE COUNTY(IES) OF: Webster	
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, are held and firm	
unto the State of Mississippi in the sum of	-
unto the State of Wississippi 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, succ	_
	.055015, 01
assigns jointly and severally by these presents.	
Signed and sealed this the day of A.D	
The conditions of this bond are such, that whereas the said	
	1 1 6
principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing t	
day of A.D hereto annexed, for the construction of certain	
in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents the	ierefor, 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 trul do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contained on his (their) part to be observed, done, kept and performed and each of them, at the time manner and form and furnish all of the material and equipment specified in said contract in strict according the terms of said contract which said plans, specifications and special provisions are included in and form said contract and shall maintain the said work contemplated until its final completion and acceptance as subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Confrom any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overchas or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employed the said principal (s), his (their) agents, servants, or employed the said principal (s), his (their) agents, servants, or employed the said principal (s), his (their) agents, servants, or employed the said principal (s), his (their) agents, servants, or employed the said principal (s), his (their) agents, servants, or employed the said principal (s).	d contract, and in the dance with m a part of pecified in ommission arge, fraud,

#### **SECTION 903 - CONTINUED**

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.

Witness our signatures and seals this the	day of A.D
(Contractors) Principal	Surety
Ву	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		, Jackson, Mississippi		
As Obligee, hereinafter called Obligee, in the sum of <b>Five</b>	e Per Cent (5%) of Amount Bid			
	Dollars (\$	)		
for the payment of which sum will and truly to be ma executors, administrators, successors and assigns, jointly a	de, the said Principal and said Sure and severally, firmly by these presents	ety, bind ourselves, our heirs, s.		
WHEREAS, the Principal has submitted a bid for Mill a known as State Project No. MP-1009-78(004) / 3052793		taw County Line to SR 182,		
NOW THEREFORE, the condition of this obligation is su said Principal will, within the time required, enter into a performance of the terms and conditions of the contract, will pay unto the Obligee the difference in money betwee which the Obligee legally contracts with another party to prince in no event shall liability hereunder exceed the penal sum.  Signed and sealed this day of	formal contract and give a good and then this obligation to be void; other een the amount of the bid of the said perform the work if the latter amount hereof.	d sufficient bond to secure the rwise the Principal and Surety I Principal and the amount for		
	(Princ	ipal) (Seal)		
	Ву:			
(Witness)	(Name)	(Title)		
	(Sure	ety) (Seal)		
	By:			
(Witness)	(Attorney	-ın-Fact)		
	MS Agent			
	Mississippi Insurance ID Number			