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SM No. CMP5035400171

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF (EXEMPT)

14

Overlaying approximately 5 miles of SR 35 at Carthage, known as State Project No. MP-5035-40(017) / 303628301, in the County of Leake, State of Mississippi.

Project Completion: 72 Time Units

NOTICE

FROM MOOT CONTRACT ADMINISTRATION DIVISION TO BID ON 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)

 102.06 of the Mississippi Standard Specifications for Road and Bridge Construction.
 If the bid sheets were prepared using MDOT's Electronic Bid System, proposal 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 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. Bid bond has been signed by the bidder and has also been signed or countersigned by a Mississippi Resident Agent for the Surety with Power of Attorney attached.
 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.

Return the proposal and contract documents in its entirety in a sealed envelope. <u>DO NOT</u> remove any part of the contract documents; exception - an addendum requires substitution of second sheet of Section 905. A stripped proposal is considered 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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SECTION 905 - PROPOSAL,
PROPOSAL SHEET NOS. 2-1 THRU 2-6,
COMBINATION BID PROPOSAL,
STATE BOARD OF CONTRACTORS REQUIREMENTS,
NON-COLLUSION CERTIFICATE,
SECTION 902 - CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORMS,
PROGRESS SCHEDULE

(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 9:30 o'clock A.M., Tuesday, May 26, 2009; thereafter, bids will be received in the First Floor Auditorium of the Mississippi Department of Transportation Administration Building, Jackson, Mississippi, until 10:00 o'clock A.M., Tuesday, May 26, 2009, and shortly thereafter publicly opened for:

Overlaying approximately 5 miles of SR 35 at Carthage, known as State Project No. MP-5035-40(017) / 303628301, in the County of Leake, State of Mississippi.

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 acquired from the MDOT Contract Administration Division. These proposal are available at a cost of Ten Dollars (\$10.00) per proposal. Specimen proposals are also available at the MDOT Contract Administration Division at a cost of Ten Dollars (\$10.00) per proposal, or can be viewed or downloaded at no cost at www.gomdot.com.

Bid bond, signed or countersigned by a Mississippi Resident Agent, with Power of Attorney attached or on file with the Contract Administration Engineer of the Department, 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.

LARRY L. "BUTCH" BROWN 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.

SECTION 904 - NOTICE TO BIDDERS NO. 640 CODE: (IS)

DATE: 09/26/2005

SUBJECT: Fiber Reinforced Concrete

Bidders are hereby advised that synthetic structural fibers meeting the requirements of Subsection 907-711.04 may be used in lieu of wire mesh in some items of construction. Substitution of fibers for wire mesh will be allowed in the construction of paved ditches, paved flumes, paved inlet apron, driveways, guard rail anchors and pile encasements. Substitution in any other items of work must be approved by the State Construction Engineer prior to use.

SECTION 904 - NOTICE TO BIDDERS NO. 777

CODE: (IS)

DATE: 04/13/2006

SUBJECT: On-The-Job Training Program

Payment for training hours will be handled as outlined in Special Provision 906-6. A pay item for trainees will not be included in individual construction projects. Payment for training individuals will be processed in accordance with the conditions in MDOT's ON-THE-JOB TRAINING PROGRAM (Special Provision 906-6).

On Federal-Aid projects, failure on the part of the Contractor to carryout the terms of the Alternate Training Special Provision (Special Provision 906-6) will be considered grounds to preclude the Contractor from participating in the Alternate On-The-Job Training Program. In the event the Department is required to preclude the Contractor from participating in the program, the Contractor will be required to adhere to the requirements of the Training Special Provision (Special Provision 906-3), for which purpose the special provision is also made a part of this proposal.

CODE: (IS)

SECTION 904 - NOTICE TO BIDDERS NO. 883

DATE: 04/28/2006

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 V, page 6 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 and 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. 1312

CODE: (SP)

DATE: 01/22/2007

SUBJECT: Rumble Stripe

Bidders are hereby advised that when edge lines are placed over rumble strips, the pavement marking stripe must be applied using the atomization method instead of extrusion / ribbon method. The thickness of the stripe will be 60-mils, unless otherwise noted in the plans/proposal or pay item description. To ensure the proper alignment of the rumble stripes, the Contractor will be required to place a layout line to be followed during installation of the edge lines over the rumble strips.

CODE: (IS)

SECTION 904 - NOTICE TO BIDDERS NO. 1405

DATE: 03/15/2007

SUBJECT: ERRATA AND MODIFICATIONS TO THE 2004 STANDARD SPECIFICATIONS

Page S	Subsection	<u>Change</u>	
101	201.01	In the second sentence of the first paragraph, change "salvable" "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. 1546 CODE: (SP)

DATE: 05/23/2007

SUBJECT: Advancement of Materials

Bidders are advised that **NO ADVANCEMENT OF MATERIALS**, as addressed in Subsection 109.06.2 of the Standard Specifications, will be allowed on this project.

CODE: (IS)

SECTION 904 - NOTICE TO BIDDERS NO. 1808

DATE: 09/09/2008

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".

You can access this final rule at the following link: http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-19910.pdf

CODE: (SP)

SECTION 904 - NOTICE TO BIDDERS NO. 1922

DATE: 03/31/2008

SUBJECT: Non-Quality Control / Quality Assurance Concrete

Bidders are advised that the following pay items will not be accepted based on the Quality Control / Quality Assurance (QC/QA) requirements of Section 804 of the specifications. The acceptance of these pay items will be based on sampling and testing at the project site by MDOT forces. The Contractor is required to submit mix designs to accomplish this work in accordance with Section 804 and perform normal Quality Control functions at the concrete plant. Acceptance will be in accordance with the requirements of 907-601, Structural Concrete, and TMD-20-04-00-000. At the discretion of the Engineer, the Contractor may request that the concrete be accepted based on QC/QA requirements.

Pay Item	<u>Description</u>
221	Paved Ditches
601	Structural Concrete, Minor Structures - manholes, inlets, catch basins,
	junction boxes, pipe headwalls, and pipe collars.
606	Guardrail Anchors
607	Fence Post Footings
608	Sidewalks
609	Curb and Gutter
614	Driveways
616	Median and Island Pavement
630	Sign Footings, except Overhead Sign Supports

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 7th 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. 2105

CODE: (SP)

DATE:

09/02/2008

SUBJECT: Standard Drawings

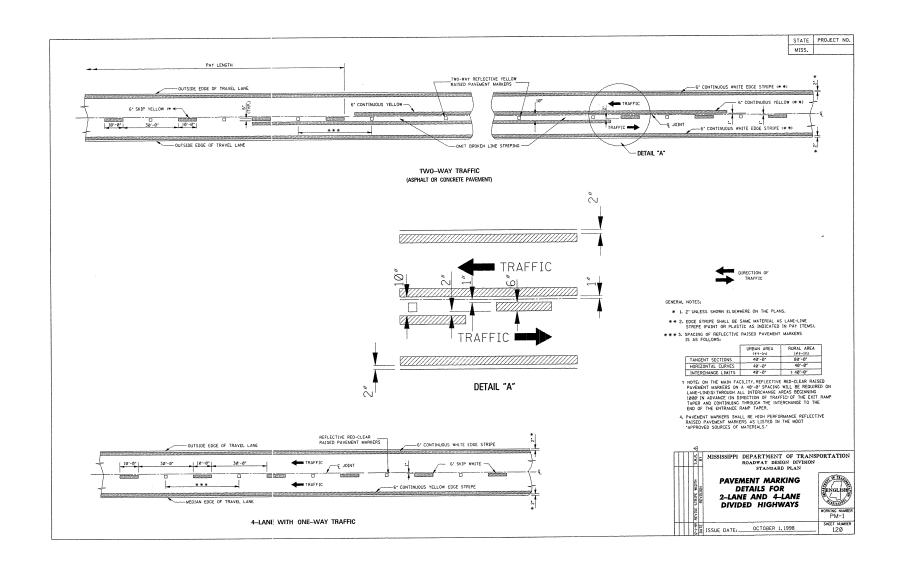
Standard Drawings attached hereto shall govern appropriate items of required work.

Larger copies of Standard Drawings may be purchased from:

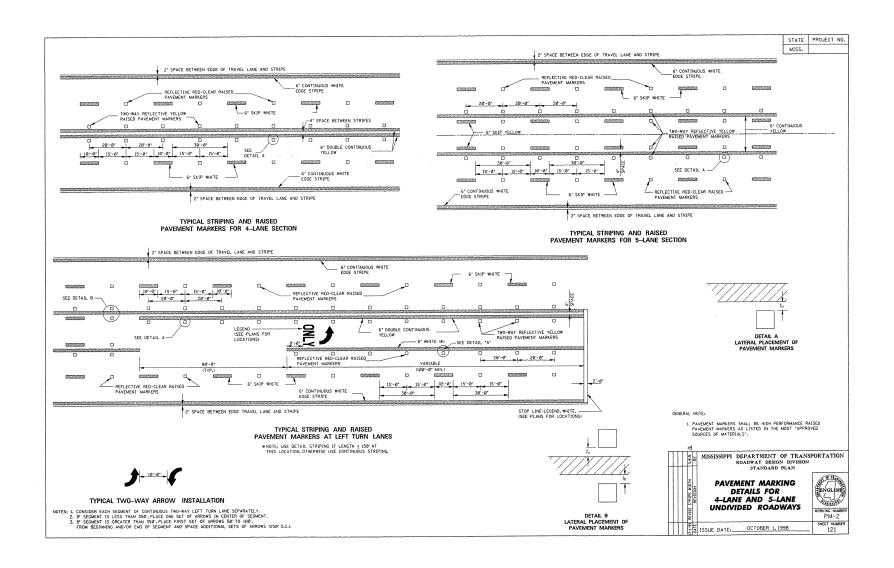
MDOT Plans Print Shop MDOT Shop Complex, Building C, Room 114 2567 North West Street P.O. Box 1850 Jackson, MS 39215-1850

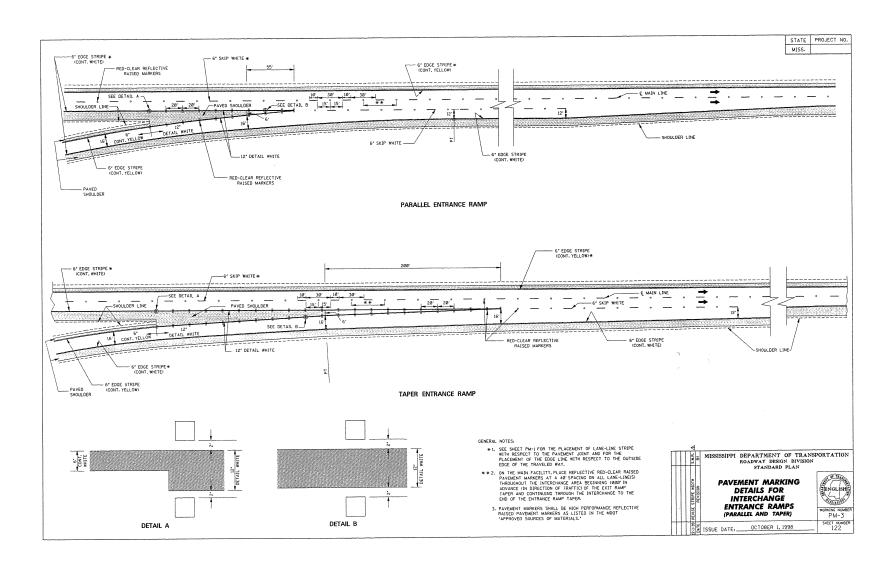
Telephone: (601) 359-7460 or FAX: (601) 359-7461

or e-mail: plans@mdot.state.ms.us

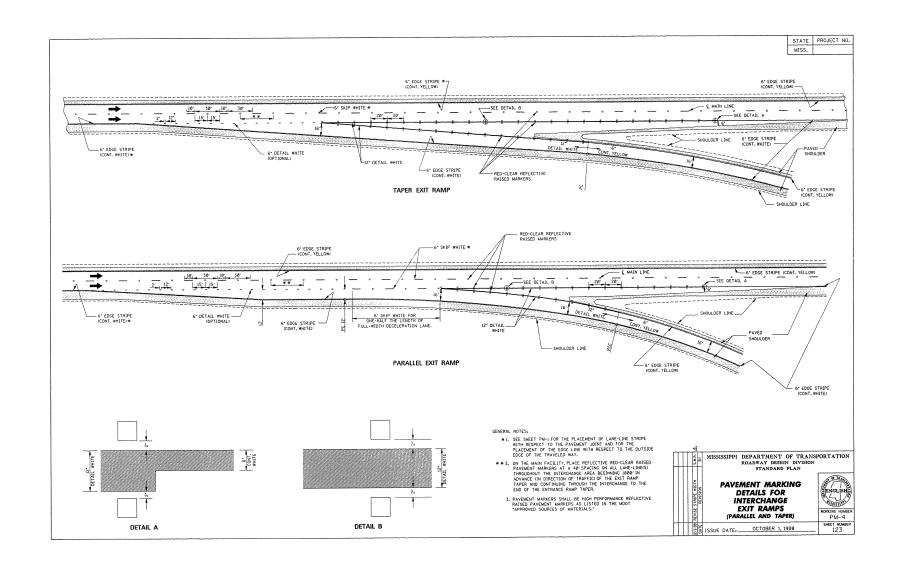


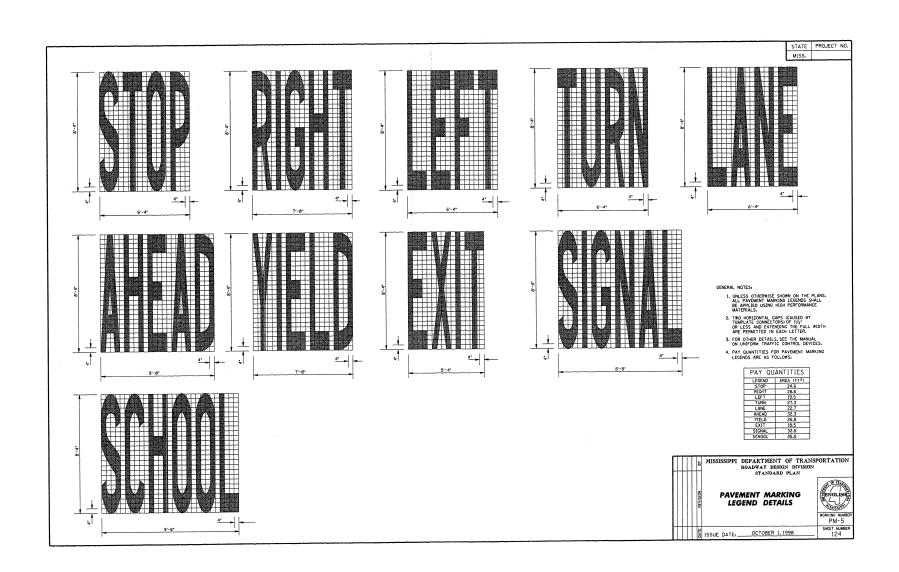
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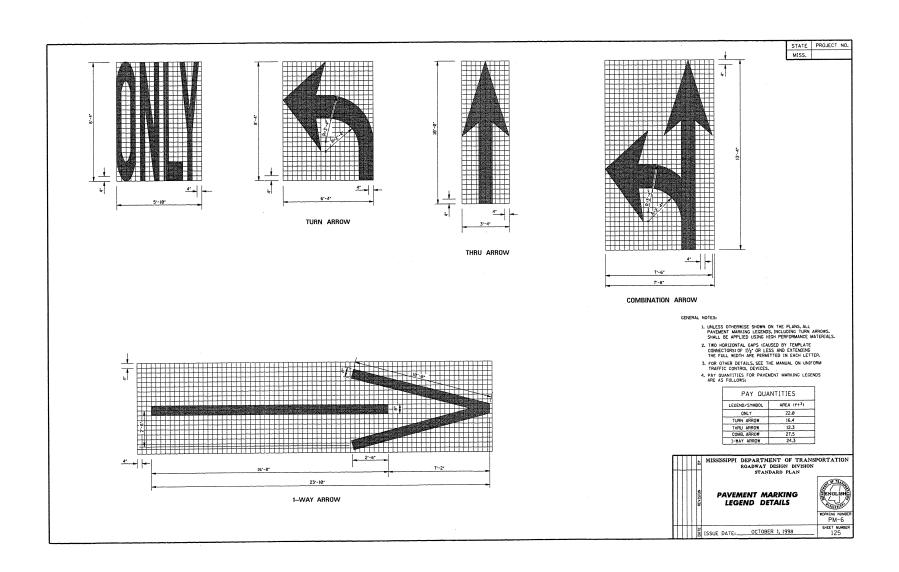




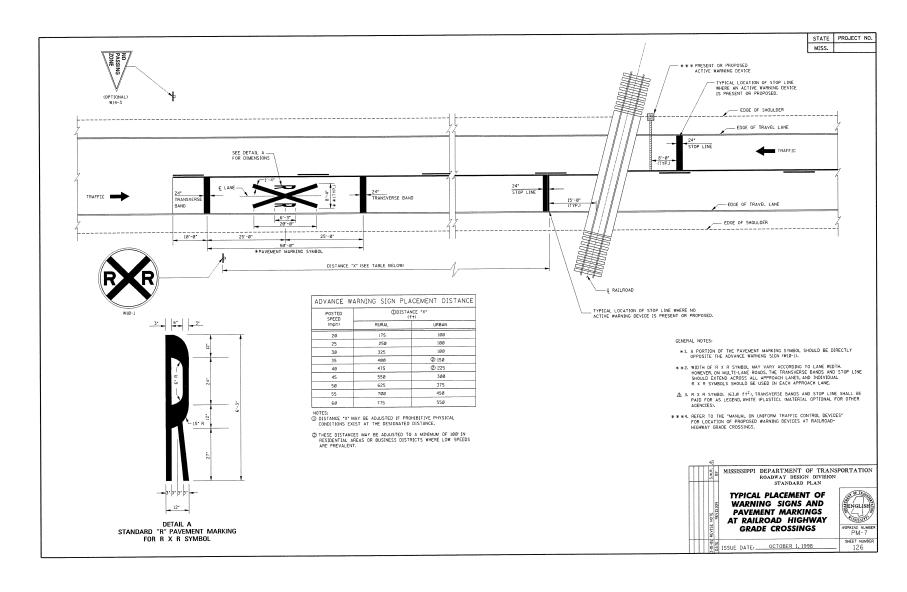
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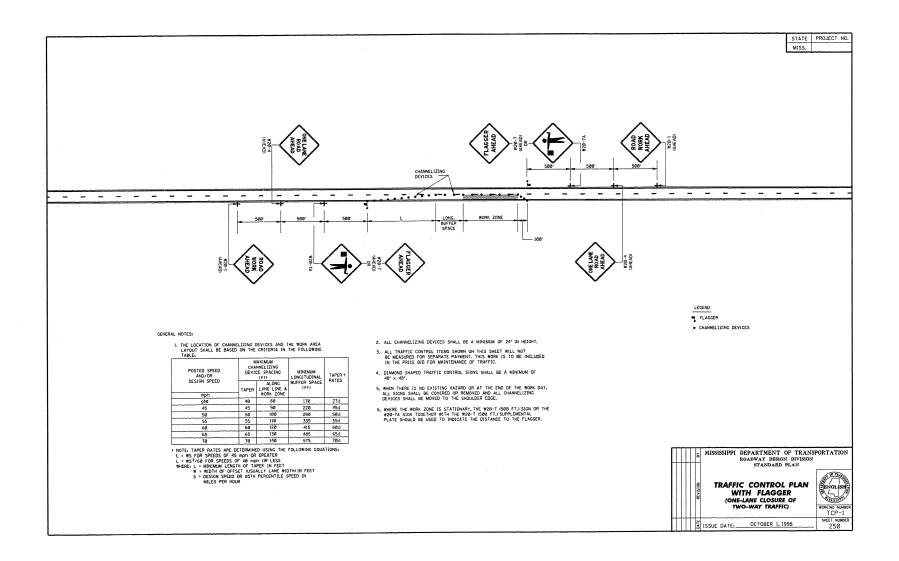


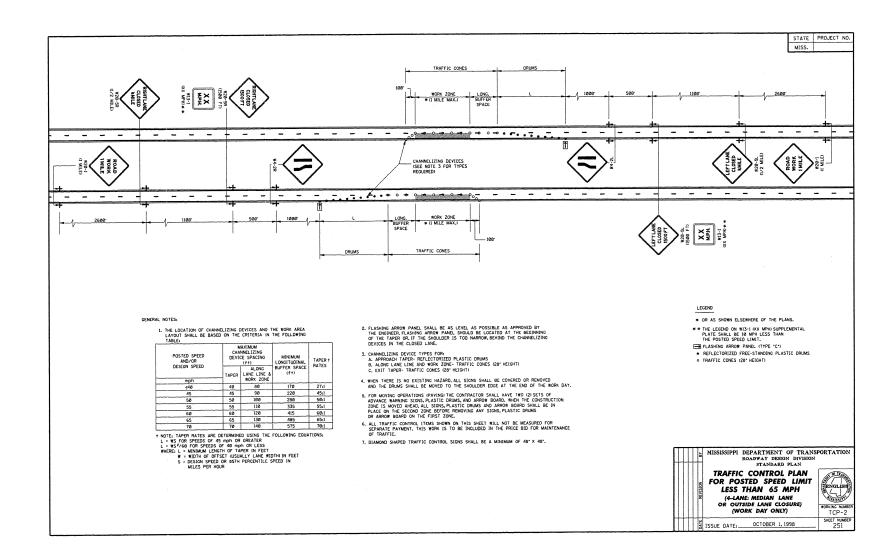


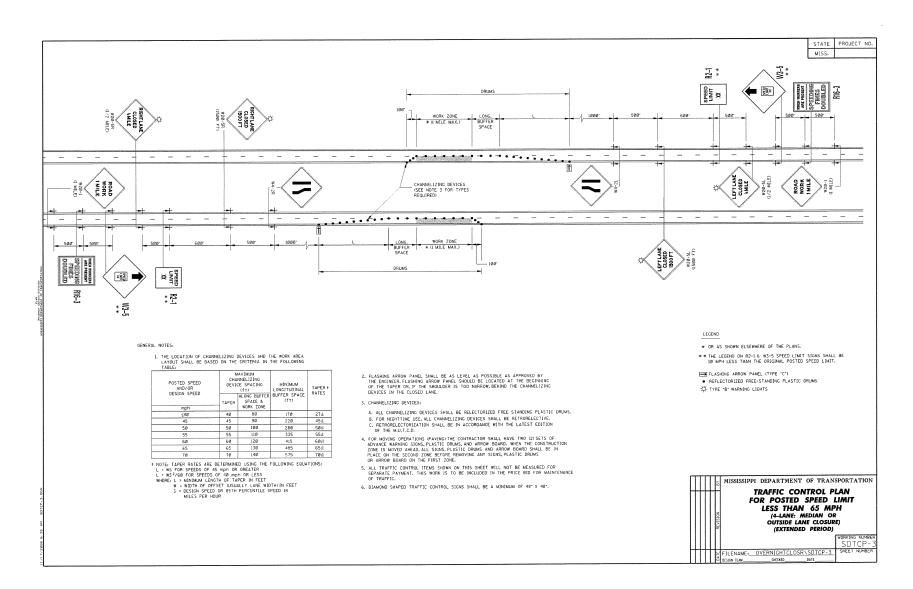


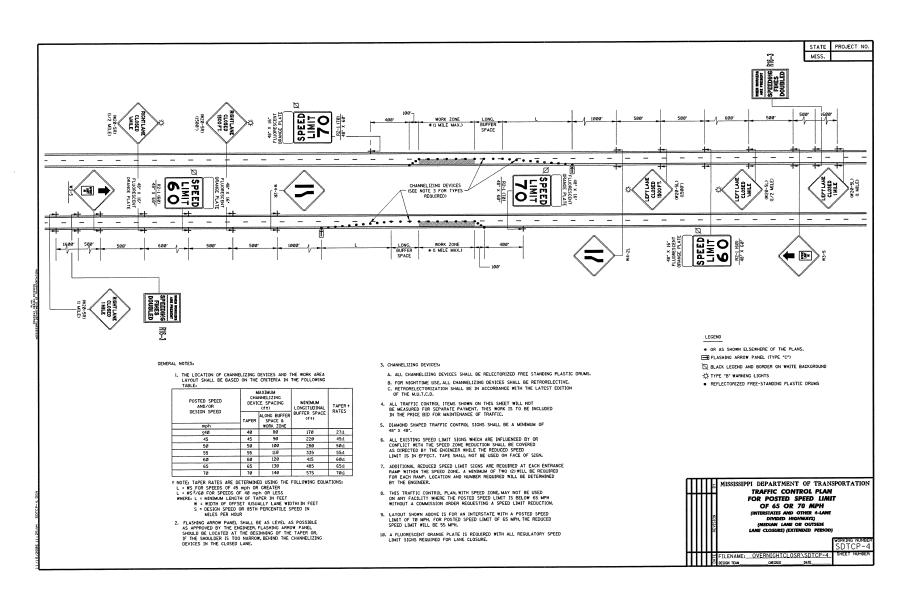
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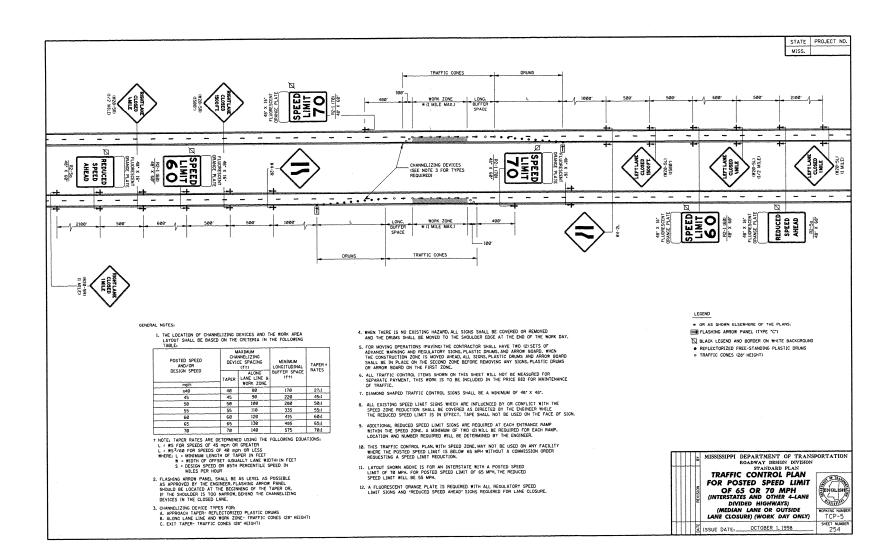












BARRICADE CLOSING A ROAD







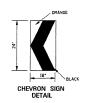




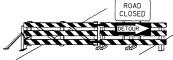
- A TYPE I BARRICADE CONSISTS OF ONE IN HORIZONTAL RAIL SUPPORTED BY A DEMOUNTABLE FRAME OR A LIGHT "A" FRAME. A TYPE I BARRICADE NORMALLY BOULD BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND AFTERIAS.
- 2. A TYPE II BARRICADE CONSISTS OF TWO (2) HORIZONTAL RAILS ON A LIGHT "A" FRAME TYPE II BARRICADES ARE INTENDED FOR USE ON EXPRESSWAYS AND FREEWAYS AND OTHER HIGH-SPEED ROADWAYS.

TYPE III

- 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.
- 4. A TYPE III BARRICADE CONSISTS OF THREE (3) HORIZONTAL RAILS SUPPORTED BY FIXED POSTS, A RIGID SKID, A HEAVY DEMOUNTABLE FRAME OR A HEAVY, HINGED "A" FRAME.
- TYPE III BARRICADES ARE INTENDED FOR USE ON CONSTRUCTION AND MAINTENANCE PROJECTS AS MING BARRICADES AND AT ROAD CLOSURES, WHERE THEY MUST REMAIN IN PLACE FOR EXTENDED PROJECTS.
- THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS).
- 7. 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.



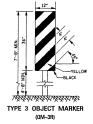
- A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
- 2. THE CHEVRON SIGN SHALL BE MOUNTED ON FIXED POST OR RIGID SKID.
- CHEVRON STONS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHALL BE PLACED APPROXIMATELY 2"-0" BEHIND THE LANE TRANSITION STRIPE.



BARRICADE CHARACTERISTICS

	I	I	ш	
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,	
HEICHT	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, FREEWAYS AND OTHER HIGH SPEED ROADMAYS, SHALL HAVE A MINIMUM OF 270 Int OF REFLECTIVE AREA FACING TRAFFIC.



- TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
- THE OM-3R IS SHOWN. THE OM-3L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LETT 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.

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VERTICAL PANEL

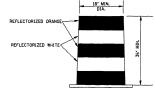
- YERTICAL PANELS CONSIST OF AT LEAST ONE PANEL 8" TO 12" IN WIDTH AND A MINIMUM OF 24" IN HEIGHT.
- 2. THE DIAGONAL STRIPES SHALL SLOPE DOWNWARD IN THE DIRECTION THAT TRAFFIC IS TO PASS THE PANEL. THE PANELS SHALL BE MOUNTED WITH THE TOP A MINIMUM OF 36' ABOVE THE ROADWAY ON A SINGLE LICHTMASS POST.
- 3. VERTICAL PANELS USED ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH-SPEED ROADWAYS SHALL HAVE A MINIMUM OF 270 In 20F RETROREFLECTIVE AREA FACING TRAFFIC.
- 4. FOR TWO-WAY TRAFFIC OPERATIONS, BACK-TO-BACK PANELS SHALL BE USED.

GENERAL NOTES:

- 1. 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 ROADWAY, WING 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 ROADMAY IS ACTUALLY CLOSED.
 B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.



PLASTIC DRUM STRIPING DETAIL

1. PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STANDARDS FOR ABRICADE, THE PERDOMINANT COLOR ON DRUMS SHALL BE ORANGE WITH FOUR 4N REFLECTIONIZED, MORIZONTAL, CIRCLMFERENTIAL STRIPES 12 ORANGE & 2 WHILE OF WIDE.

STATE PROJECT NO. MISS.

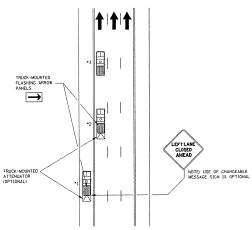
- 2, DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
- 3. WHERE PRACTICAL PLASTIC DRUMS SHALL BE PLACED NO CLOSER THAN 3'-0' FROM THE EDGE OF TRAVELED LANE.



SHEET NUMBER 259 ISSUE DATE: OCTOBER 1, 1998

S

MOBILE OPERATIONS ON MULTILANE ROAD A

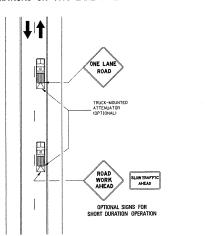


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES:

- VEHICLES USED FOR THESE OPERATIONS SHOULD BE MADE HIGHLY VISIBLE WITH APPROPRIATE EQUIPMENT, SUCH AS FLASHING LIGHTS, ROTATING BEACONS, FLAGS, SIGNS, OR ARROW PANELS.
- PROTECTION VEHICLE *I SHOULD BE EQUIPPED WITH AN ARROW PANEL.
 AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON PROTECTION
 VEHICLE *I SO AS NOT TO OBSCURE THE ARROW PANEL.
- PROTECTION VEHICLE "2 SHOULD BE EQUIPPED WITH AN ARROW PANEL AND TRUCK-MOUNTED ATTENUATOR (TMA).
- 4. 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.
- WHEN ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, PROTECTION VEHICLE "I SHOULD BE ELIMINATED.
- ON HIGH-SPEED ROADWAYS, A THIRD PROTECTION VEHICLE SHOULD BE USED (I.e., VEHICLE *1 ON THE SHOULDER (IF PRACTICAL), VEHICLE *2 IN THE CLOSED LANE, AND VEHICLE *3 IN THE CLOSED LANE).
- ARROW PANELS SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCO.
- 8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
- 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.

MOBILE OPERATIONS ON TWO-LANE ROAD



MOBILE OPERATIONS ON TWO-LANE ROAD

- NOTES:

 1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND PROTECTION VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS, IF THIS CAN NOT BE DONE FREQUENTLY, AS AN ALTERNATIVE, A "OD NOT PASS" SION MAY BE PLACED ON THE REAW OF THE VEHICLE BLOCKHOM THE LANE.
- 2. THE DISTANCE BETWEEN THE WORK AND PROTECTION VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRIVING THAL AND OTHER FACTORS, PROTECTION VEHICLES ARE USED TO MARKH TRAFFIC OF THE OPERATION AREAD, WREEVER ADDIOLATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE PROTECTION VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND ADDIOLATED WHITE OF THE OWN VEHICLE OF THE OPERATION OF THE OWN VEHICLE OW
- 3. ADDITIONAL PROTECTION VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
- 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 MOMENTED ON THE PERA JULICENT TO THE SIGN. PROTECTION AND WORK VEHICLES SHOULD DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
- 6. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48° ABDVE THE PAVEMENT SIGN LECENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN
- 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.



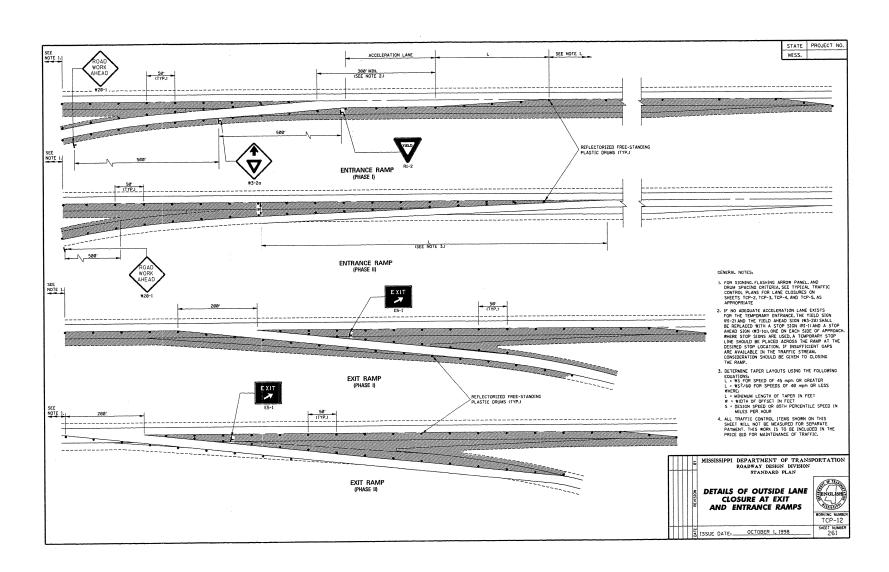


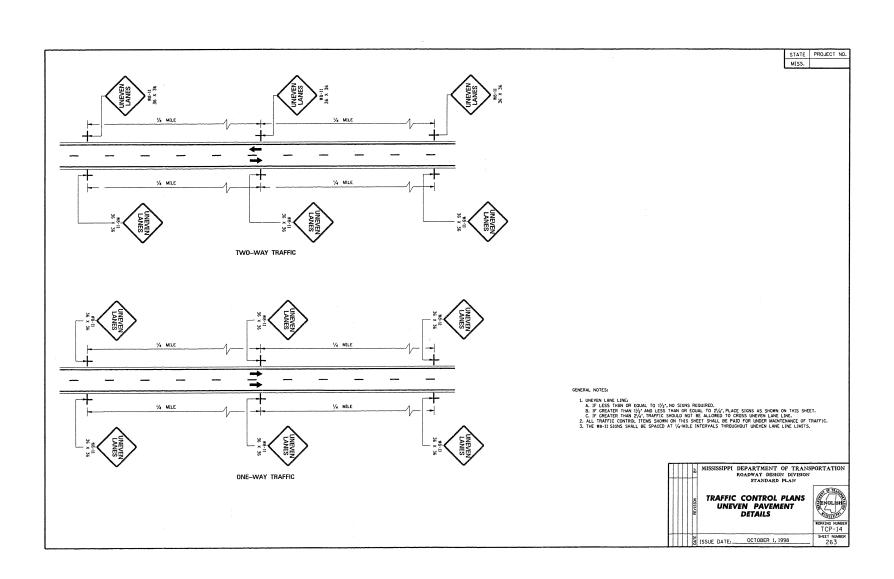
ENG. WORKING NUMBER 260

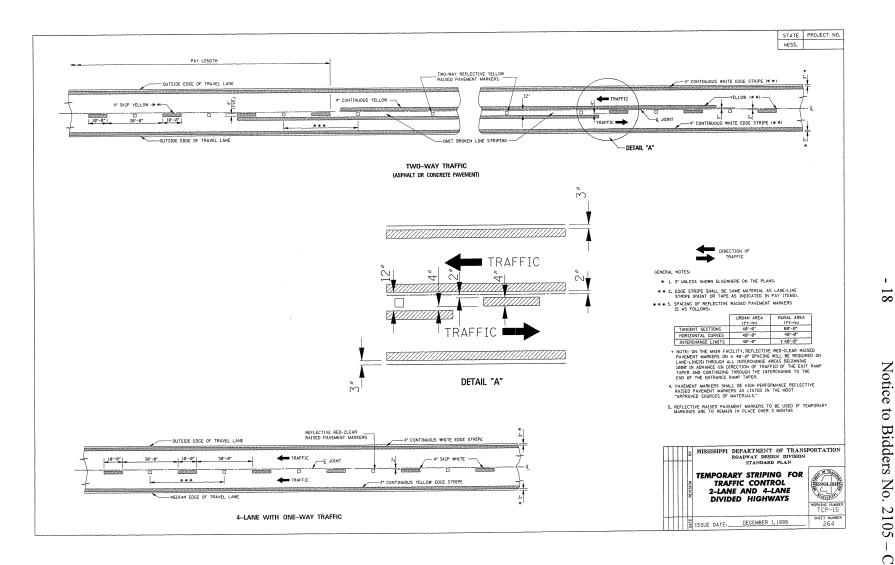
STATE PROJECT NO. MISS.

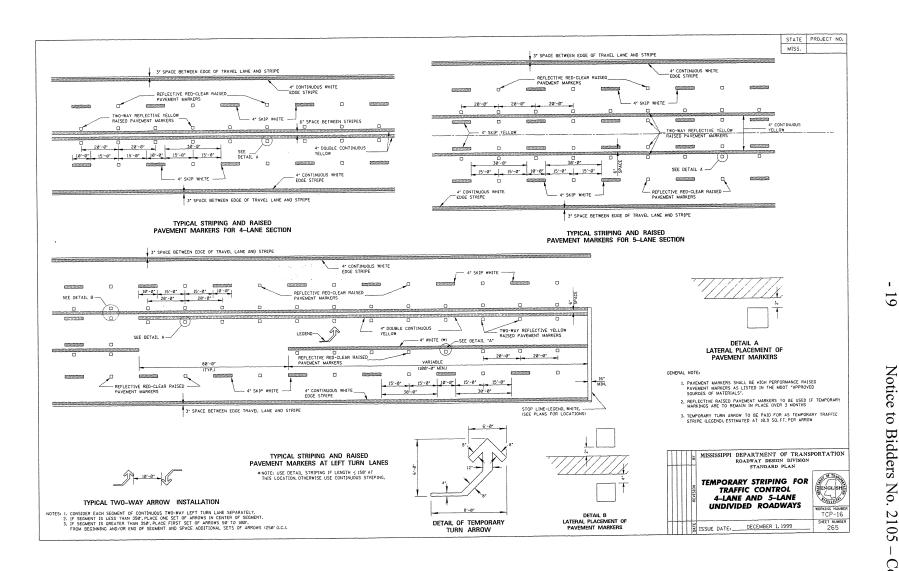
ISSUE DATE: OCTOBER 1, 1998

AND TWO-LANE ROADS









SECTION 904 - NOTICE TO BIDDERS NO. 2361

CODE: (SP)

DATE: 01/26/2009

SUBJECT: Mississippi Resident Agent Requirement

Bidders are advised of new changes in the proposal bond forms and required signatures. Commencing with the February 2009 letting, non-resident agents <u>WILL NOT</u> be allowed to sign contract documents, including bonds and insurance. Qualified non-resident agents that were allowed to sign contract documents in the January 2009 letting <u>will not be allowed</u> in future contracts until further notice. Only Mississippi Resident Agents will be allowed to sign contract documents.

Another change for the February 2009 letting is that the new performance bond and new payment bond that was utilized in the January 2009 proposals has been replaced with the one contract bond used by MDOT prior to the January 2009 letting.

CODE: (SP)

SECTION 904 - NOTICE TO BIDDERS NO. 2400

DATE: 02/19/2009

SUBJECT: Removal of Haul Permit

Bidders are advised that the Haul Permit that had been previously included in the back of the proposal is no longer included in MDOT contracts. The Contractor, Subcontractors, Suppliers, and others transporting loads exceeding the posted limit on bridges when making deliveries to and from the project will no longer be allowed. Bidders are advised that when a road is open to the traveling public, the posted weight limit <u>will</u> be enforced for everyone, including the successful bidder of the project. Bidders are advised to consider this when preparing their bid.

SECTION 904 – NOTICE TO BIDDERS NO. 2496

CODE: (SP)

DATE: 4/8/2009

SUBJECT: Petroleum Products Base Prices For Contracts Let in May, 2009

REFERENCE: Subsection 109.07

The following base prices are to be used for adjustment in compensation due to changes in costs of petroleum products:

	Per Gallon	Per Liter
Gasoline	\$1.7851	\$0.4716
Diesel	\$1.9052	\$0.5033

MATERIALS OF CONSTRUCTION

ASPHALT CEMENT	Per Gallon	Per Ton	Per Liter	Per Metric Ton
Viscosity Grade AC-5	\$1.7197	\$408.00	\$0.4543	\$449.74
Viscosity Grade AC-10	\$1.7282	\$410.00	\$0.4565	\$451.94
Viscosity Grade AC-20	\$1.6965	\$402.50	\$0.4482	\$443.67
Viscosity Grade AC-30	\$1.6755	\$397.50	\$0.4426	\$438.16
Grade PG 64-22	\$1.6679	\$395.71	\$0.4406	\$436.19
Grade PG 67-22	\$1.6739	\$397.14	\$0.4422	\$437.76
Grade PG 76-22	\$2.3183	\$550.00	\$0.6124	\$606.26
Grade PG 82-22	\$2.5360	\$601.67	\$0.6700	\$663.22

EMULSIFIED ASPHALTS, PRIMES, & TACK COATS

Grade EA-4 (SS-1)	\$2.1857	\$0.5774
Grade RS-2C (CRS-2)	\$1.8775	\$0.4960
Grade CRS-2P	\$2.2376	\$0.5911
Grade EA-1, MC-70 & AE-P	\$2.4113	\$0.6370
Grade SS-1 & 1H	\$2.1750	\$0.5746
Grade CSS-1 & 1H (Undiluted)	\$2.1850	\$0.5772
Grade CSS-1 & 1H	\$1.3500	\$0.3566
(Diluted 1 to 1 Fog Seal)		

SECTION 904 - NOTICE TO BIDDERS NO. 2551

CODE: (SP)

DATE: 04/24/2009

SUBJECT: Contract Time

PROJECT: MP-5035-40(017) / 303628301 -- Leake County

The completion of work to be performed by the Contractor for this project will not be a specified date but shall be when all allowable time units are assessed, or any extension thereto as provided in Subsection 108.06. It is anticipated that the Notice of Award will be issued by not later than **June 9, 2009** and the date for issuing the Notice to Proceed / Beginning of Contract Time will be no later than **July 9, 2009**.

Should the Contractor request a Notice to Proceed earlier than <u>July 9, 2009</u>, the date the Notice to Proceed is issued will also be the Beginning of Contract Time date.

Allowable Time Units will be 72.

The contract time has been based on Column <u>"D"</u> of the Table of Time Units, in Subsection 108.06.

CODE: (SP)

SECTION 904 – NOTICE TO BIDDERS NO. 2552

DATE: 4/24/2009

SUBJECT: Scope Of Work

PROJECT: MP-5035-40(017) / 303628301 -- Leake County

The contract documents do not include an official set of construction plans but may, by reference, include some Standard Drawings when so specified in a Notice to Bidders entitled, "Standard Drawings". 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 consist of the following:

Overlay approximately 5.71 miles of existing asphalt pavement on Mississippi Highway No. 35 from 0.57 miles south of Hwy 488 at Station 487+80, northward to approximately 0.2 miles north of Mississippi Highway No. 25 at Station 789+10. Stations 678+52 to 693+76 are to be omitted.

Prior to beginning milling and overlay operations, repair of failed areas in the existing pavement shall be completed by removing the failed areas to the depth directed by the Engineer and backfilled with HMA, 19mm Mix, MT. All work shall be completed in accordance with Section 403-A of the Mississippi Standard Specification for Road & Bridge Construction. Severely alligator cracked areas may also require treatment as failed areas. Payment for asphalt removal and disposal will be made using Pay Item 202-B Removal of Asphalt Pavement (All Depths).

The width of the Hot Mix Asphalt overlay for the two lane section, between Station 487+80 and Station 583+73, is 28 feet and variable. The overlay shall consist of HMA, 12.5mm Mix, MT placed two inches (2") at centerline and 1½ inches at the edge of pavement to provide a 2% minimum cross-slope with the exception of the Hwy 488 intersection, where the overlay will be placed at the original slope to maintain drainage.

The width of the HMA overlay in the undivided four lane section between Stations 583+73 and Station 620+28 will be 52 feet and variable. The overlay shall consist of HMA, 12.5mm Mix, MT placed two inches (2") at the centerline and 1½ inches at edge of pavement to provide a 2% minimum cross-slope.

The width of the HMA overlay between Station 620+28 and Station 652+35 varies from 60 to 70 feet. This section will be milled from curb to curb 1½ inches deep on the existing slope. The overlay shall consist of HMA, 12.5mm Mix, MT placed two inches (2") at the centerline and 1½ inches at the pavement edge to provide a 2% minimum cross-slope.

The width of the Hot Mix Asphalt overlay between Station 652+50 and Station 744+00 will be 52 feet and variable. This section will be milled two inches (2") from pavement edge to pavement edge on the existing slope. The overlay shall consist of HMA, 12.5mm Mix, MT placed two inches (2") at the centerline and 1½ inches at the pavement edge to provide a 2% minimum cross-slope.

The Hot Mix Asphalt overlay also includes a divided four lane open ditch section between Station 744+00 and Station 789+10. The overlay width of this section is 28 feet and variable. The overlay shall consist of HMA, 12.5mm Mix, MT placed two (2) inches with a minimum cross slope of 2%.

All publicly maintained roads or streets shall be paved to the existing Right-of-Way; privately owned entrances shall be paved per the typical drawings.

Rumble Stripe will be required at Station 487+80 to 563+98 per the attached detail.

Milling will also be required at the BOP, EOP, and all bridge ends for approximately 150 feet to tie the overlay grade. Milling will also be required adjacent to any curb and gutter as needed to tie the overlay to the curb grade. The milling width will be 12 feet and the depth will be two inches (2") at the curb and 0" at 12 feet or as directed by the Engineer. Spot milling will be required in portions of the top lift and will be replaced with HMA, 12.5mm Mix, MT mix prior to overlay as directed by the Engineer. Payment for required milling will be made using Pay Item No. 406-A.

The Contractor shall coordinate his activities to insure that milled surfaces are overlaid within five (5) calendar days from the time they are milled. Any damage to the roadway that occurs as a result of the Contractor's failure to overlay milled areas within the specified time shall be repaired at the Contractor's expense. The Contractor is responsible for providing shoulder drainage outlets as applicable in milled areas. Payment for these outlets shall be included in the bid price for the milling of bituminous pavement.

Shoulders are to be paved two (2) feet wide on each outside lane as shown on they typical sections and as directed by the Engineer. Asphalt for shoulder paving is to be placed full depth, four (4) inches, during placement of mainline overlay; (lane width plus two (2) feet shoulder). Prior to placement of the asphalt, the shoulders are to be bladed two (2) or $2\frac{1}{2}$ inches below existing edge of pavement grade. Cost of blading is to be included in pay items bid. Any material excavated from the existing shoulder shall be used to raise the existing shoulder to match the new pavement elevation and shall be spread along the edge of the shoulders, fore slopes, or other adjacent areas as directed by the Engineer and will be an absorbed item.

The existing GR Terminal End Sections are to be removed and replaced as directed.

At all existing guardrail locations, asphalt is to be extended under the guardrail and two (2) feet behind guardrail posts. To maintain guardrail height requirements, two (2) inches and variable depth existing shoulder material will be removed prior to placement of asphalt. This material must be removed without removal of the guardrail or posts. Any material excavated from the

existing shoulder shall be used to raise the existing shoulder to match the new pavement elevation and any surplus material shall be spread along the edge of the shoulders, foreslopes, or other adjacent areas as directed by the Engineer and will be an absorbed item.

The existing shoulders shall be raised to match the new pavement elevation by placing two (2) inch and variable depth of Class 5, Group C granular material on the remainder of the existing shoulders. Placement of the granular material on the finished asphalt course shall not be permitted and the material shall be bladed, rolled and compacted to a finish slope of four percent (4%). Shoulders with adequate shoulder material in place shall be bladed to a slope of four percent (4%), the cost of which shall be included in the prices of items bid.

Ramp aprons will be paved to the shoulder line. Unpaved turnouts, county roads, ramps, and widened areas are to be bladed, shaped and compacted prior to paving as directed by the Engineer. Following placement of asphalt, material bladed aside for widened areas shall be pulled back to the asphalt pavement edge as directed by the Engineer, all costs to be included in items bid.

Bituminous Curb will be required at various locations throughout the project as directed by the Engineer and per the attached drawings. Curb designated for removal by the Engineer will be paid for under 202-B, Removal-of-Bituminous Curb. The face of all new or existing undisturbed curb located in the island and radii of local road intersections shall be painted with two coats of white traffic paint; glass beads are required in the top coat. This will be absorbed in the bid price of other items bid.

All vehicle loop detectors which are non-function, disturbed or removed during the construction activities will be replaced. Payment for loop detectors will be made under Pay Item 635-A, Vehicle Loop Assembly. The loops shall be replaced within the time period allowed in the Notice to Bidders.

The approach lanes of the Highway 16 and 35 intersections will be milled and inlaid with 6" of fiber reinforced concrete. The limits of the milling and inlay are shown on the attached drawings. The Contractor shall submit a traffic control plan detailing the method of maintaining the flow of traffic while constructing the inlay. No work will be allowed until the plan has been reviewed and approved by the Engineer. Payment for the milling of bituminous pavement will be made under the appropriate pay items. Existing asphalt paving within the area of the PCC inlay that is designated to be removed shall be outlined by a 6 inch saw cut prior to asphalt removal. This work shall be paid under Pay Item 503-C.

Areas of the Hwy16/35 Intersection that are not to be inlaid with PCC shall be milled and paved with HMA as follows:

• Mill two inches (2") through out Hwy 35 lanes including the intersection and replace with two inches (2") HMA, MT 12.5mm Mix

Striping on the PCC inlay areas shall be High Performance Cold Plastic Stripe. This shall be paid under Pay Item 907-628.

The paved ditch at Station 518+25 on north side of Hwy 488 is to be removed and replaced. The payment for removing the ditch will be paid for under Pay Item No. 202-B Removal of Paved Ditch. Payment for replacing the paved ditch will be paid under the Pay Item No. 221-A Portland Cement Paved Ditch. The length of the ditch is 35 linear feet, four (4) feet wide, with a depth of four (4) inches.

Temporary stripe, either paint or tape will be required immediately after overlaying and prior to opening area to traffic. Separate payment will be made for temporary traffic stripe, Pay Item Nos. 907-619-A1 through 907-619-A6. Temporary stripe is to be placed in the same location and layout as permanent stripe.

Existing raised pavement markers are to be removed prior to beginning the overlay operation. No measurement will be made for separate payment; the cost is to be included in the price for other items bid.

All permanent striping will be plastic. Edge lines will be placed so as to maintain the original lane width. In addition to these markings, raised pavement markers will be placed at 80-foot intervals in tangents and 40-foot intervals in curves.

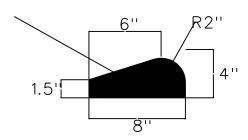
The Contractor shall erect and maintain construction signing and will be paid under Pay Item Nos. 619-D1001, 619-D2001, and 619-G4001. The Contractor will also provide all signs and traffic handling devices necessary to safely maintain traffic around and through the work areas in accordance with the <u>Traffic Control Plan</u> and the MUTCD. The cost is to be included in the price bid for Pay Item No. 618-A, Maintenance of Traffic.

Litter shall be removed from the project right-of-way and properly disposed of by the Contractor at least monthly during the life of the project. Litter shall include, but not be limited to, solid waste such as glass, paper products, tires, wood products, metal, synthetic materials, and other miscellaneous debris. In addition to the monthly litter removal, the Contractor shall, on a daily basis, remove all debris from within the roadway and a 30-foot clear zone which, in the opinion of the Engineer, is a hazard to the traveling public. No direct payment will be made for the litter and/or debris removal: the cost is to be included in the prices of items bid. Failure of the Contractor to remove litter and/or debris as prescribed herein shall be cause for withholding the monthly progress estimate payment until the litter and/or debris is satisfactorily removed by the Contractor.

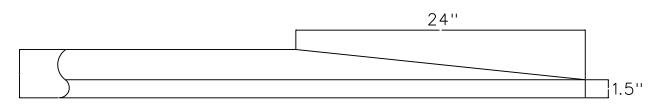
Incidental work such as removing vegetation, removing and resetting signs, shaping and compacting shoulders, removing excess asphalt material, project clean-up, and other incidental work necessary to complete the project will not be measured for separate payment and will be considered included in the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

DETAIL OF BITUMINOUS CURB

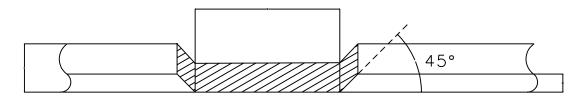
Two Coats of White Traffic Paint Paint w/Beads in Top Coat Req'd (Absorbed)

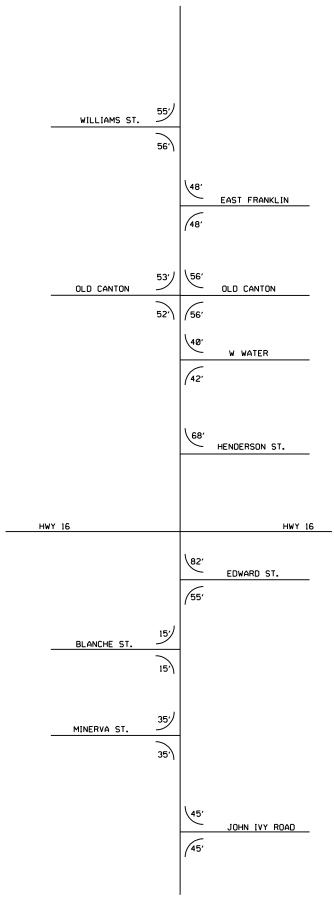


Detail of Curb Terminus

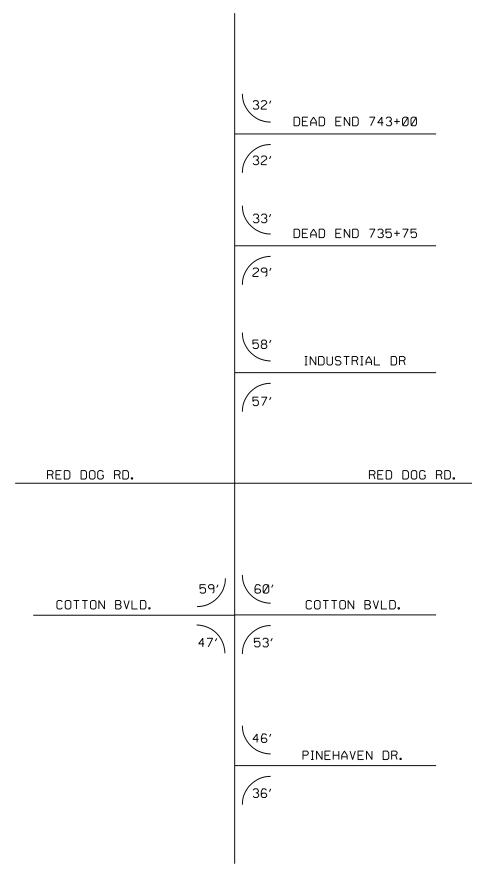


Detail of Spill Thru

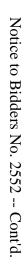




ASPHALT CURBS



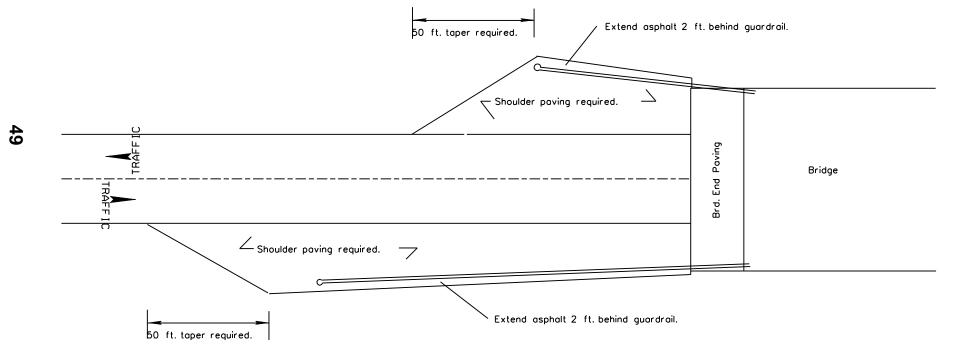
MILL 150 LF & VAR AS REQ'D



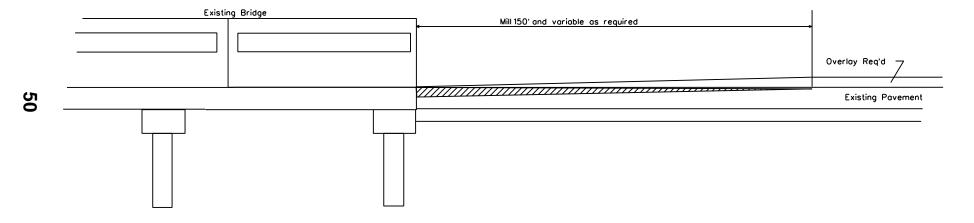
OVERLAY REQ'D

EXISTING PAVEMENT

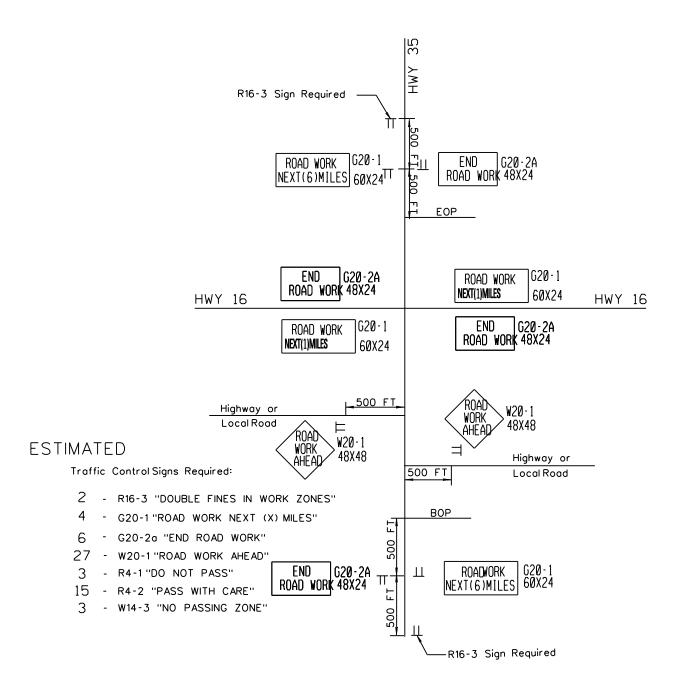
Typical Section of Additional Shoulder Paving Required at Guardrail Locations



Bridge End Paving Detail



CONSTRUCTION SIGNING DETAIL



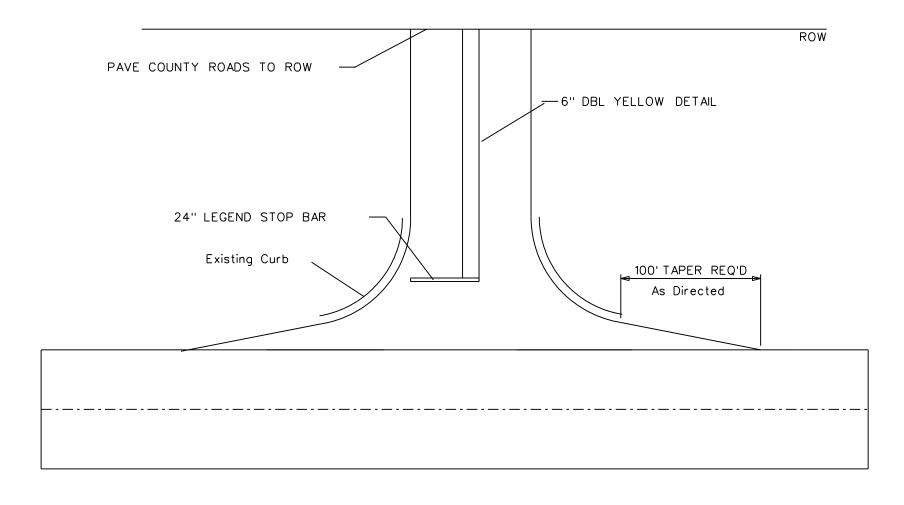
NOTES: One (1) W20-1 "ROAD WORK AHEAD" Sign is Required at each LocalRoad, Street or Highway Entering the Project.

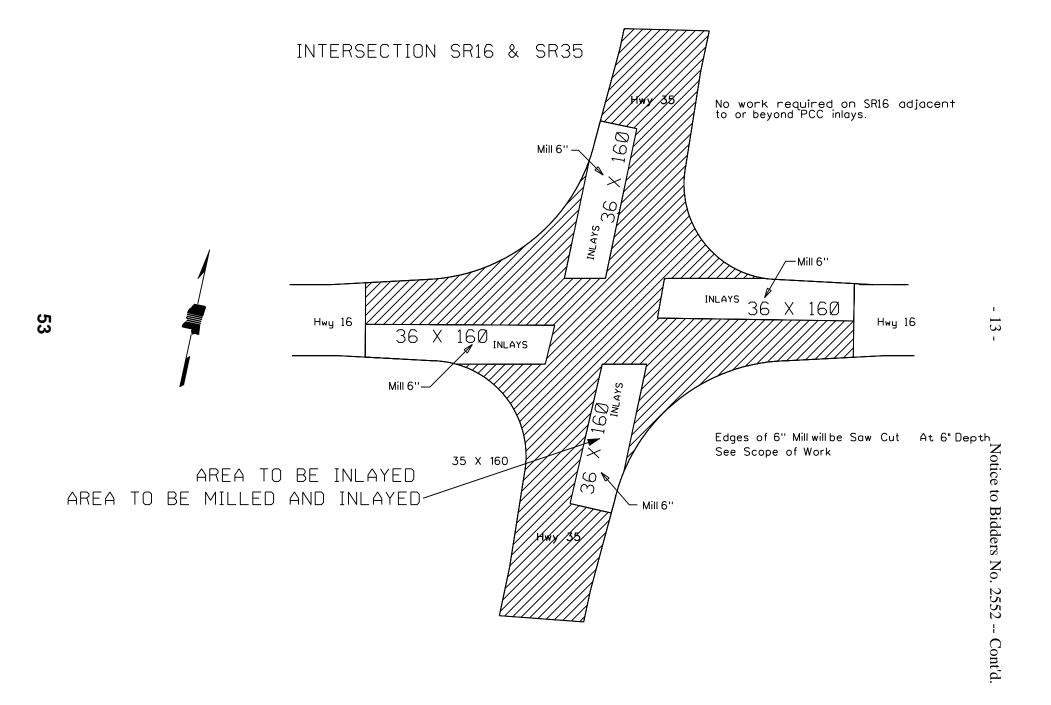
G20-1 and G20-2a signs mounted on Type III Double Faced Barricade.

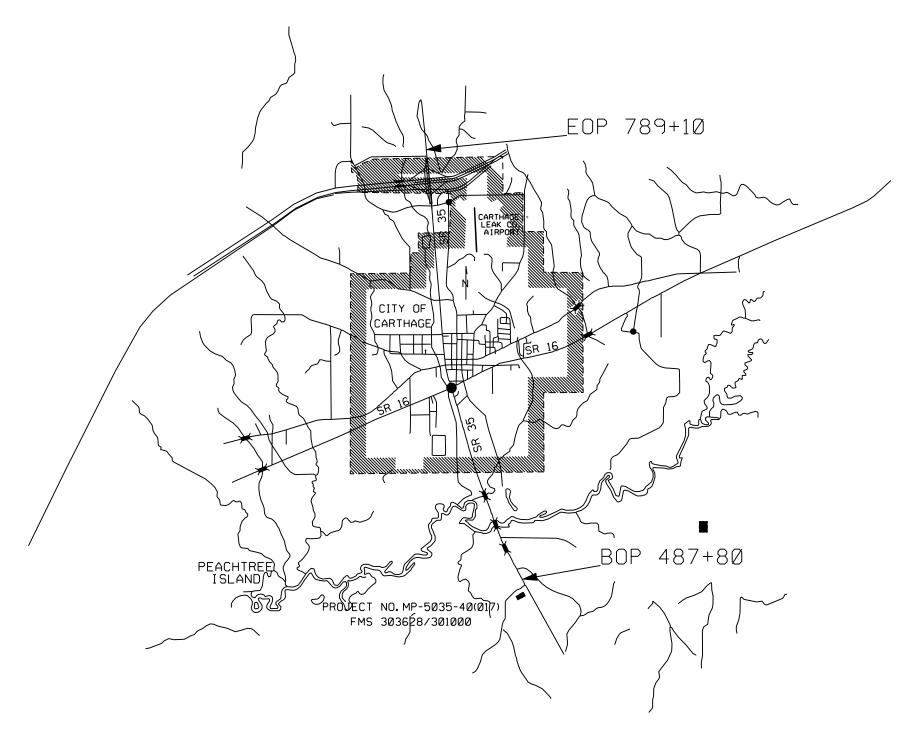
R4-1 "DO NOT PASS", R4-2 "PASS WITH CARE" AND W14-3 "NO PASSING ZONE" signs are required in accordance with Subsection 618.03.3 and as specified in the MUTCD. If No Passing zones are 1000 ft or more, install additional "DO NOT PASS" signs on maximum spacing of 750 ft.

Payment for these signs will be under the appropriate pay item numbers in the summary of quantities

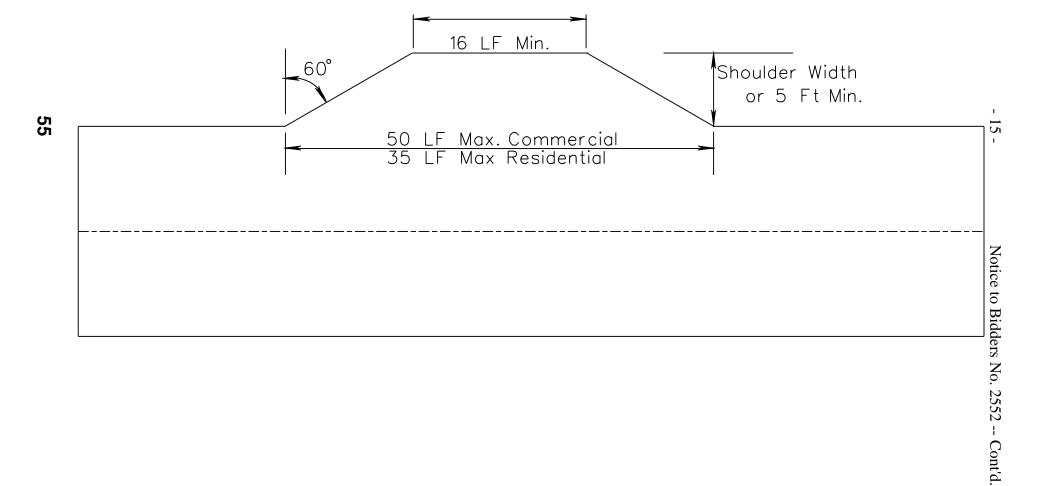
Typical Section - County Roads

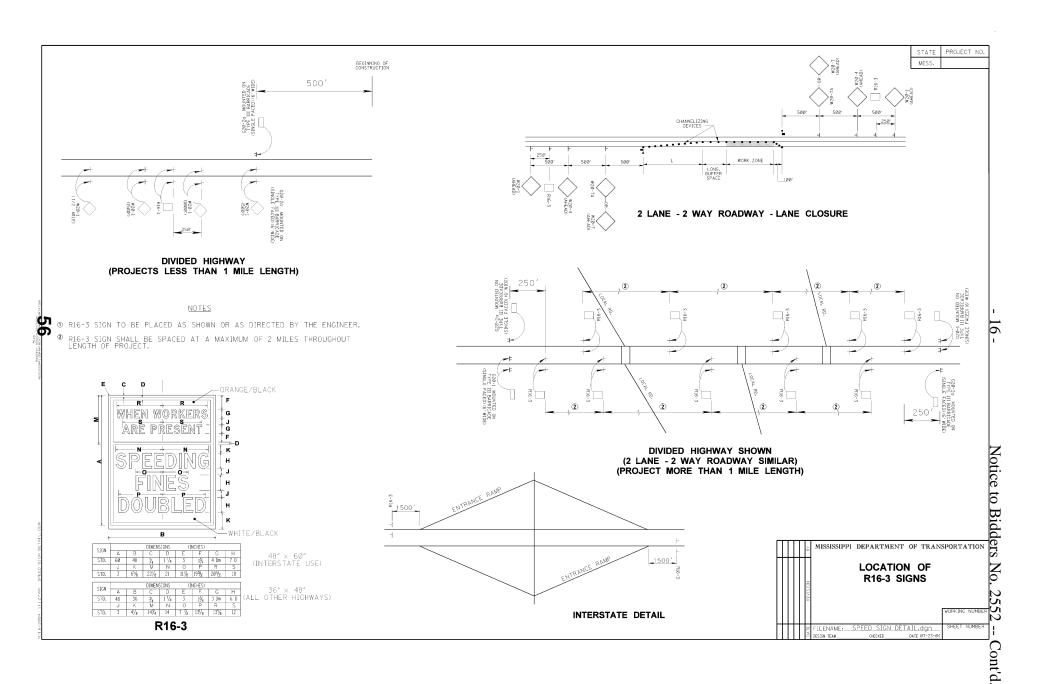






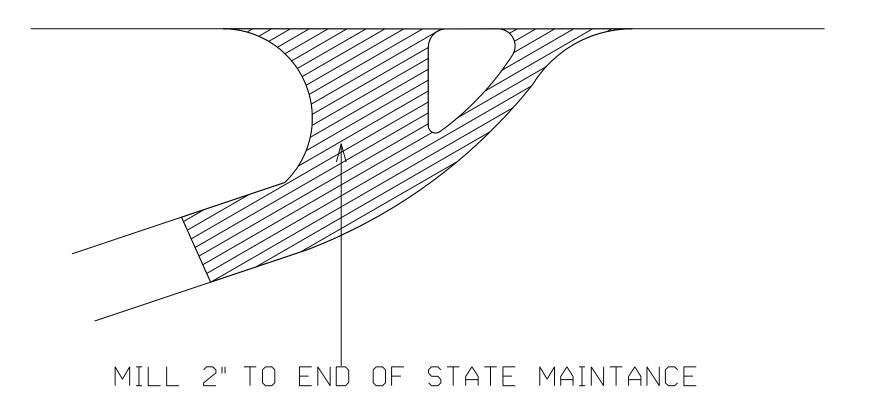
TYPICAL RAMP/PAD DETAIL





RAMPS ON HWY 25

Area to be Milled



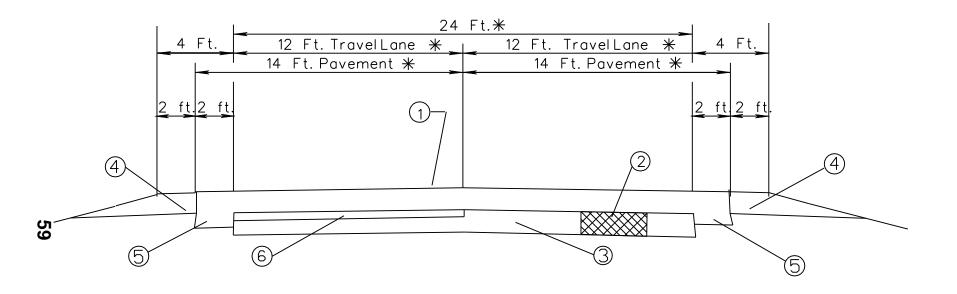
Notice to Bidders No. 2552 -- Con

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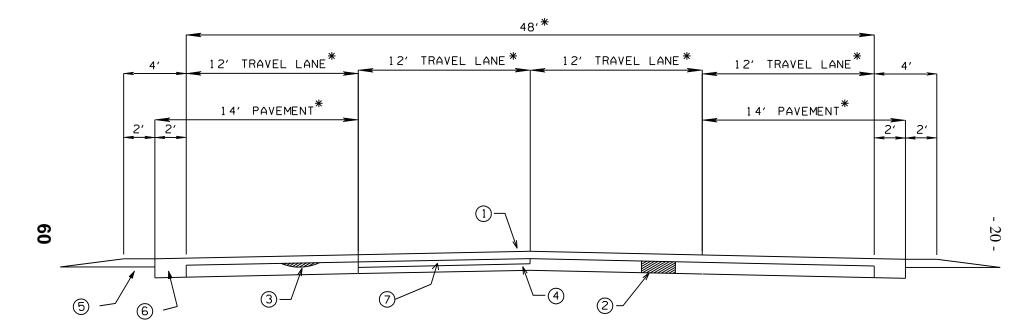
STA. 487+80 - STA 583+73 Typical Section



- ① Overlay with 2"and Variable HMA, 12.5mm Mix, MT Placed 2" at Centerline and 1 1/2" at Pavement Edge
- Pailed Areas to be Removed and Backfilled with HMA, 19mm Mix, MT as Directed
- (3) Existing Pavement Structure
- (4) Class 5, Grp. C Required Whenever Edge Drop-Offs Exceed 2"
- (5) 2' Shoulder Paving 4" Deep Placed with Mainline Overlay
- (6) Prior to Overlay, Spot Mill/Fill with 2" HMA, 12.5mm Mix, MT as Directed.

* VARIABLE WIDTH

STA.583+73 - STA.62Ø+28 TYPICAL SECTION

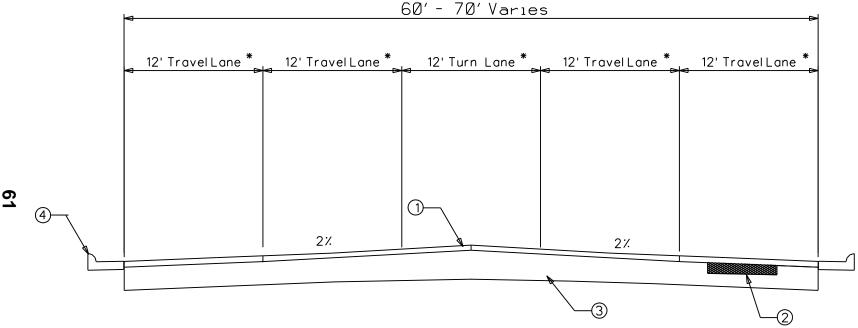


- (1)(12.5mm), MT. (2"@ centerline & 1 1/2" at edge of pavement to provide a minimum 2% slope
- (2) Failed areas to be removed and back filled with HMA as directed
- (3) HMA, Leveling Required as directed
- 4 Existing Pavement Structure
- (5) Cl. 5, GRP. C Required
- (6) 2" Shoulder Paving 4" thick placed during placement of Mainline overlay
- 7 Prior to overlay, spot mill/fill 2" with 12.5mm HMA,MT as directed by the engineer

* VARIBLE WIDTH

STA 620+28 - STA 652+35

TYPICAL SECTION



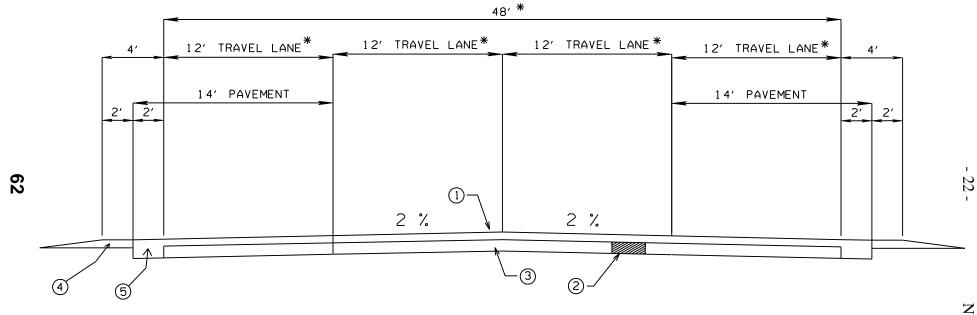
- ① Mill 1 1/2" @ curb on existing slope to center of turn lane.

 Overlay with 2" and Variable HMA, 12.5mm, MT. (2" @ Centerline, 1 1/2" @ Curb)

 ② Failed areas to be removed and back filled with HMA 19mm as directed by the engineer

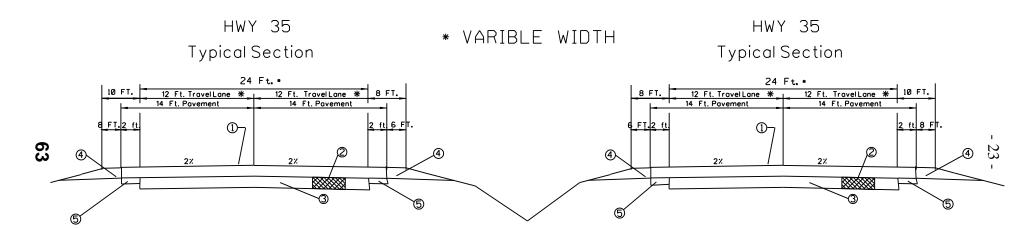
 ③ Existing Pavement Structure
 ④ Curb and Gutter

 * VARIBLE WIDTH



- Mill 2' at edge of pavement on existing slope to center of thru lanes. Then overlay with 2' 12.5mm HMA, MT $\rm M_{1X}$
- 2) Failed areas to be removed and back filled with HMA as directed
- 3 Existing Pavement Structure
- (4) Cl. 5, GRP. C Required
- (5) 2' Shoulder Paving 4" thick placed during placement of Mainline overlay

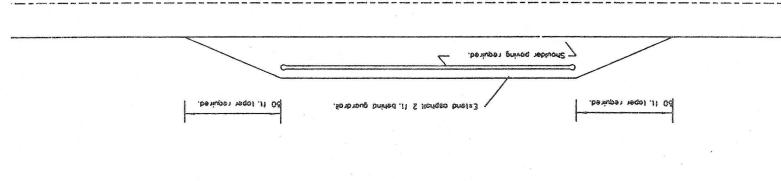
* VARIBLE WIDTH



- () Overlay with 2° HMA 12.5mm MTmix (2% minimum slope)
- 2 Failed Areas to be removed and backfilled with HMA, 19mm Mix, HT as directed.
- 3 Existing pavement structure
- 4 Cl. 5, Grp. C required
- (5) 2' Shoulder paving 4" thick placed during placement of mainline overlay

Do il. leper required.

L'shoulder poving required.



Typical Section of Additional Shoulder Paving Required at Guardrail Locations

Extend capital 2 11, behind quarasis.

- 12 - 12 - 13

SECTION 904 - NOTICE TO BIDDERS NO. 2553

CODE: (SP)

DATE: 04/24/2009

SUBJECT: Vehicle Loop Assemblies

PROJECT: MP-5035-40(017) / 105446301 – Leake County

Bidders are hereby advised that the quantity shown for the Vehicle Loop Assembly Pay Item is an estimated quantity. It is to be understood that if the wiring in place is at a depth such that it is not disturbed during the milling operations, then do not replace.

Vehicle Loop Assemblies that are non-functioning or damaged will be replaced to the nearest pull box as directed by the Engineer. Cost associated with wiring outside the pavement edge will not be measured for separate payment and shall be absorbed in the price bid for the other items or work.

No sooner than 24 hours prior to beginning milling operations on intersections with Vehicle Loop Assemblies, the Contractor shall set the traffic signals on a timer frequency as specified by the MDOT Traffic Engineering Division. If the Vehicle Loop Assembly is damaged, the Contractor shall be required to replace the Vehicle Loop Assembly and return the traffic signals to normal operation within 72 hours after the top lift of HMA is placed at each intersection. If the Vehicle Loop Assembly is undamaged by the milling operation, the traffic signals shall be restored to normal operation within 24 hours of the completing the milling operation for each intersection

SUPPLEMENT TO SPECIAL PROVISION NO. 907-105-3

DATE: 03/31/2008

SUBJECT: Cooperation By Contractor

Delete the first sentence of the first paragraph under 907-105-05 on page 1, 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.

CODE: (IS)

SPECIAL PROVISION NO. 907-105-3

DATE: 02/14/2006

SUBJECT: Cooperation By Contractor

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.

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. 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.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-1

DATE: 03/21/2006

SUBJECT: Liability Insurance

In the first sentence of the first paragraph of Subsection 907-107.14.2.1 on page 1, change "\$300,000 each occurrence" to "\$500,000 each occurrence".

CODE: (IS)

SPECIAL PROVISION NO. 907-107-1

DATE: 05/03/2004

SUBJECT: Liability Insurance

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>907-107.14.2--Liability Insurance</u>. Delete in toto Subsection 107.14.2 beginning on page 60 and substitute:

907-107.14.2.1--General. The Contractor shall carry Contractor's liability, including subcontractors and contractual, with limits not less than: \$300,000 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 Resident 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) **Regular Contractor's Liability**, 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.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-6

DATE: 11/16/2007

SUBJECT: Legal Relations and Responsibility to Public

After Subsection 907-107.15 on page 1, add the following:

<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.

CODE: (IS)

SPECIAL PROVISION NO. 907-107-6

DATE: 07/03/2007

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.

<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".

CODE: (IS)

SPECIAL PROVISION NO. 907-108-17

DATE: 06/11/2008

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.

907-108.01.1--General. 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 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.

907-108.06--Determination and Extension of Contract Time.

907-108.06.1--Based on Time Units.

907-108.06.1.2--Contract Time Assessment. At the end of the eighth paragraph of Subsection 108.06.1.2 on page 81, add the following:

When the approved progress schedule indicates that a controlling phase(s) is to be completed prior to December 1 and the physical features of the phase(s) have not been satisfactorily completed, beginning on December 1 the miscellaneous phase will be shown as the only active phase during the months of December, January, and February. Under this condition, time units, monthly time units divided by monthly calendar days, will be assessed in accordance with the applicable column in the TABLE OF TIME UNITS. If the physical features of the phase(s) have not been completed by March 1, the phase will resume as a controlling phase and time assessment will be made accordingly.

Delete the fourth and fifth sentence of the thirteenth paragraph of Subsection 108.06.1.2 on page 82, 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 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.

907-108.06.2--Based on Calendar Date Completion. After Subsection 108.06.2.1 on page 85, add the following:

907-108.06.2.2--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.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-109-3

DATE: 11/21/2006

SUBJECT: Changes in Material Costs

After the last paragraph of Subsection 907-109.06.1 on page 1, add the following:

<u>907-109.07--Changes in Material Costs.</u> Delete the second sentence of the first paragraph of Subsection 109.07 on page 95, and substitute the following:

When a pay item on the bid sheets indicate that an adjustment is allowed and when a notice to bidders is included in the contract showing current monthly base prices, an adjustment will be provided as follows:

CODE: (IS)

SPECIAL PROVISION NO. 907-109-3

DATE: 04/21/2006

SUBJECT: Partial 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>907-109.04--Extra and Force Account Work.</u> Delete the first sentence of the second paragraph of Subsection 109.04 under (d) 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.

CODE: (SP)

SPECIAL PROVISION NO. 907-304-11

DATE: 02/18/2009

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:

<u>907-304.02--Materials.</u> After the first paragraph of Subsection 304.02.1 on page 183, add the following:

When the contract includes pay item 907-304-E, Granular Material, LVM, RAP, it shall be milled recycled asphalt pavement and shall be visually inspected by the Engineer to insure it is free from chunks and deleterious materials.

907-304.03--Construction Requirements.

<u>907-304.03.5--Shaping, Compacting and Finishing.</u> 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
<u>Class</u>	<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

^{*} 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	Individual Test
96.0	92.0

Before the last paragraph of Subsection 304.03.5 on page 186, add the following:

Unless otherwise specified, density for granular material, RAP, shall be achieved by two passes of an approved roller and density tests will not be required.

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: 05/09/2008

SUBJECT: Hot Mix Asphalt (HMA)

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.

<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.

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 _{Design}	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.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-403-4

DATE: 03/30/2007

SUBJECT: Hot Mix Asphalt (HMA)

Before Subsection 907-403-05.2 on page 1, add the following:

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.

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. 907-407-1

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: (SP)

SPECIAL PROVISION NO. 907-504-2

DATE: 04/08/2008

SUBJECT: Ultra-Thin and Thin Portland Cement Concrete Pavement

Section 907-504, Thin Portland Cement Concrete Pavement, is hereby added to and made a part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-504 - THIN PORTLAND CEMENT CONCRETE PAVEMENT

<u>907-504.01—Description</u> This work consists of ultra-thin and thin pavement composed of Portland cement concrete, without steel reinforcement, constructed in accordance with these specifications and in reasonably close conformity with the lines, grades, thicknesses, and cross sections shown on the plans or established by the Engineer.

Ultra-thin pavements are defined as pavements less than 4 inches in thickness.

Thin pavements are defined as pavements greater than or equal to 4 inches in thickness.

<u>907-504.02--Materials</u>. Materials shall meet the applicable requirements of Division 700 and the following Subsections:

Portland Cement	701.01 and 701.02
Blended Cement	701.01 and 701.04
Fine Aggregate	703.01 and 703.02
Coarse Aggregate	703.01 and 703.03
Curing Materials	713.01
Admixtures	713.02
Water	714.01
Calcium Chloride	714.02
Fly Ash	
Ground Granulated Blast Furnace Slag (GGBFS)	

<u>907-504.02.1—Composition of Concrete</u>. Chemical admixtures of either Types D or G, or Types A and B, MR and B, or F and B in accordance with Subsection 713.02 shall be used in the concrete mix.

If fly ash or GGBFS are used as a replacement for Portland cement in accordance with the maximum values allowed in Subsection 701.02, then chemical admixtures of Types C or E in accordance with Subsection 713.02 or calcium chloride in accordance with Subsection 714.02 may be used. The maximum amount of calcium chloride which may be used is 1.0% by weight of the total cementitious materials.

Fibrillated Polypropylene fibers meeting the requirements of ASTM C1116, paragraph 4.1.3, shall be used in the concrete mix added at a rate of 3.0 lbs/yd³.

907-504.02.1.1—Portland Cement Concrete Mix Design. The concrete mix design shall be submitted by the Contractor to the Engineer for approval prior to production in accordance with the requirements in Subsection 804.02.10, with the exception that the mix shall meet the requirements of the "Master Proportion Table for Portland Cement Concrete Design" listed in Table 1 of this Subsection. Additionally, prior to production the Contractor shall field verify production of the mixture in accordance with Subsection 907-504.02.1.3 and submit this documentation with the proportioning information required in Subsection 907-504.02.1.2. If the maturity method is used to estimate the compressive strength for early opening to traffic, the Contractor shall also submit strength/maturity documentation developed in accordance with Subsection 907-504.02.2.5.2 for the mix prior to production of concrete.

Table 1
MASTER PROPORTION TABLE FOR PORTLAND CEMENT CONCRETE DESIGN

Design Property	Requirements
Coarse Aggregate Size No.	
For Ultra-thin Pavements	67
For Thin Pavements	57
Maximum Water / Cementitious	
Ratio*	0.40
Maximum Slump, inches	4**
Total Air Content, %	3 - 6
Minimum Compressive Strength, psi	
For Opening to Traffic	2500 in 18
	hours
For Acceptance	3500

^{*} The replacement limits of Portland cement by weight by other cementitious materials (such as fly ash, GGBFS, metakaolin, silica fume, or others) shall be in accordance with the values in Subsection 701.02. Other hydraulic cements may be used in accordance with the specifications listed in Section 701.

<u>907-504.02.1.2--Proportioning of Concrete Mix Design.</u> Proportioning of Portland cement concrete shall meet the requirements of Subsection 804.02.10.1.

907-504.02.1.3—Field Verification of Concrete Mix Design. The Contractor shall furnish the Engineer documentation indicating that the mix meets requirements in Table 1 within the tolerances specified in the field verification requirements of Subsection 804.02.10.3. This

^{**} The slump may be increased up to 6 inches with an approved mid-range water reducer or up to 8 inches with an approved type G high range water reducer, in accordance with Subsection 713.02. Minus slump requirements shall meet those set forth in Table 3 of AASHTO M157 specifications.

documentation must indicate that the mix achieves the requirements in Table 1 for:

- the compressive strengths required for acceptance within 28 days; and
- the compressive strengths required for early opening to traffic within the time specified.

Because the mix is being field verified by the Contractor prior to submittal of the mix for review, the requirement in Subsection 804.02.10.3 that the mix be proven to meet the field verification requirements within three attempts does not apply.

907-504.02.2-Basis of Acceptance. The Contractor shall furnish the concrete necessary for test specimens. Department personnel meeting the certification requirements of Subsection 804.02.9 shall be responsible for all concrete testing in accordance with the tests required in Subsection 804, Table 5: DEPARTMENT'S MINIMUM REQUIREMENTS FOR QUALITY ASSURANCE, Section B: Plastic Concrete. These tests shall be performed on the first load delivered and placed each day and then a minimum of once for each subsequent 50 cubic yards delivered and placed per day.

<u>907-504.02.2.1—Slump.</u> Slump of plastic concrete shall meet the requirements of Table 1: MASTER PROPORTION TABLE FOR PORTLAND CEMENT CONCRETE DESIGN. A check test shall be made on another portion of the sample before rejection of any load.

907-504.02.2.2—Air. Total air content of concrete shall be within the specified range for the class of concrete listed in Table 1: MASTER PROPORTION TABLE FOR PORTLAND CEMENT CONCRETE DESIGN. A check test shall be made on another portion of the sample before rejection of any load.

907-504.02.2.3-Yield. Perform a yield check in accordance each 400 cubic yards in accordance with AASTHO Designation: T121. If the yield of the concrete mix design is more than plus or minus 3% of the designed volume, the mix shall be adjusted by a Class III Certified Technician representing the Contractor to yield the correct volume plus or minus 3%.

907-504.02.2.4--Temperature. The maximum plastic concrete acceptance temperature shall not exceed 95°F. Plastic concrete with a temperature more than 95°F shall be rejected and not used in Department work.

Plastic concrete with an acceptance temperature less than the minimum temperature in Subsection 804.03.16.1 shall be rejected and not used in Department work.

907-504.02.2.5--Compressive Strength.

<u>907-504.02.2.5.1—Strength Testing for Acceptance.</u> Compressive strength cylinders cast for acceptance of the pavement shall meet the minimum acceptance strength requirement listed in Table 1. These cylinders shall be standard cured in accordance with the requirements in AASHTO Designation: T23, Section 10.1 and its subsequent paragraphs.

907-504.02.2.5.2-Strength Testing for Opening to Traffic.

Use of Cylinders. In addition to compressive strength testing for acceptance of the pavement, compressive strength testing shall be performed to accommodate traffic movements. Compressive strength cylinders cast for early opening of the pavement to traffic shall meet the minimum opening to traffic strength requirement listed in Table 1. These cylinders shall be field cured next to the pavement until time of test in accordance with the requirements in AASHTO Designation: T23, Section 10.2 and its subsequent paragraphs. One pair of test cylinders shall be broken approximately 18 to 24 hours after casting.

Use of Maturity Method. In lieu of using concrete strength cylinders to determine when concrete pavement can be opened to traffic, if the Contractor has previously developed the strength/maturity relationship for the mix, an approved maturity meter may be used to determine concrete strengths. A maturity meter probe shall be inserted into the last concrete placed that represents the pavement area to be tested. The maximum amount of concrete which may be represented by a maturity meter probe is 50 cubic yards. The pavement may be opened to traffic when maturity meter reading indicates that the required in place strength is obtained.

Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T325. Validation of the maturity curves shall be made at least once for every 500 cubic yards produced of each concrete mix used. Validation of the maturity curve shall be considered acceptable when the results of compressive strength tests are within 10% of the predicted value determined by the maturity curve. If the 10% requirement is not met, a new maturity curve shall be developed.

Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment. Training and maintaining a list of approved maturity technicians shall be the responsibility of the Mississippi Concrete Industries Association.

<u>907-504.03—Construction Requirements</u>. Prior to the removal of any existing pavement, the Contractor shall submit a Work Plan to the Engineer for approval. The Contractor shall submit this plan to the Engineer a minimum of 14 days prior to the removal of the existing pavement. This plan shall include, but not be limited to, the following:

- the proposed procedures for concrete placement, screeding, consolidation, finishing and surface texturing, curing method, and jointing;
- a list or description of the equipment proposed for use to accomplish the proposed procedures including the quantities of each piece of equipment;
- a list or description of the materials, such as curing materials or corrugated strips used during joint installation, proposed for use to accomplish the proposed procedures including the quantities of each material; and
- a scale drawing of the areas of work with the locations of all joints.

<u>907-504.03.1--Removal of Existing Pavement.</u> Existing HMA pavement to be removed and replaced with thin or ultra-thin concrete pavement shall be removed by milling per Section 406. Prior to the milling operation, saw cuts shall be made to the neat lines, grades and depths, and in the locations shown on the drawings.

Additionally, areas where traffic is expected to cross the transition from the HMA pavement to the thin or ultra-thin concrete pavement and vice versa shall meet the grades and depths shown in Figure 1. For areas where the flow of traffic is longitudinal with respect to the pavement, the transition areas shall meet the requirements for a Longitudinal Transition shown in Figure 1. For areas where the flow of traffic is transverse with respect to the pavement, the transition areas shall meet the requirements for a Transverse Transition shown in Figure 1. Saw cuts and milling shall meet the requirements of this Subsection to the required neat lines, grades, and depths required in Figure 1.

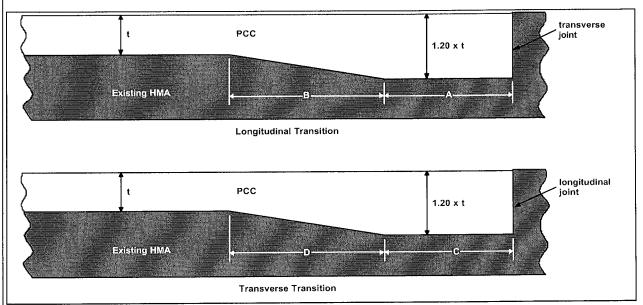


Figure 1

Dimension A in Figure 1 shall be no less than the transverse joint spacing required for the thickness, t, of the thin or ultra-thin concrete pavement per Table 2. Dimension B shall be either 0, 1, or 2 times the transverse joint spacing required for the thickness, t, of the thin or ultra-thin concrete pavement per Table 2.

Dimension C in Figure 1 shall be no less than the longitudinal joint spacing required for the thickness, t, of the thin or ultra-thin concrete pavement per Table 2. Dimension D shall be either 0, 1, or 2 times the longitudinal joint spacing required for the thickness, t, of the thin or ultra-thin concrete pavement per Table 2.

If there is sufficient thickness of the existing HMA as determined by the Engineer, with approval by the Engineer and at no additional expense to the Department the Contractor may remove more than t from the entire area to be replaced with thin or ultra-thin concrete pavement. Additionally, if the Contractor elects to remove $1.20 \times t$ or more over the entire area to be replaced with thin or ultra-thin concrete pavement, this shall be in lieu of Dimension B and Dimension D.

<u>907-504.03.2--Preparation of Grade</u>. The foundation upon which the concrete pavement is to be placed shall be prepared within the tolerances set out in Subsection 321.03.

<u>907-504.03.3-Setting Forms</u>. The requirements for setting forms shall meet the requirements of Subsection 501.03.8 and its subsequent paragraphs.

<u>907-504.03.4-Base Preparation</u> Prior to placement of concrete, the milled HMA surface shall be thoroughly swept to remove all loose HMA material or dirt particles so as to ensure development of proper bond between the concrete inlay and the existing HMA surface. Additionally, the base shall meet the requirements of Subsection 501.03.9 and it subsequent paragraphs.

<u>907-504.03.5--Placing</u>, <u>Spreading</u>, <u>and Finishing</u>. Concrete pavement shall be formed and constructed to the neat lines, grades, cross section, and thicknesses shown on the drawings. Concrete shall be placed and spread in an approved manner so as to distribute the concrete uniformly without segregation. Additional placement requirements are provided in Subsection 501.03.13 and its subsequent paragraphs.

Final finishing of the concrete pavement surface shall be in accordance with Subsection 501.03.17 and its subsequent paragraphs.

Under no circumstances shall water be used as a finishing aid or worked into the concrete surface. This includes water added by fogging, spraying, and/or pouring.

The surface of the concrete pavement shall be transverse tined in accordance with Subsection 501.03.18.4.

<u>907-504.03.6--Joints.</u> All joints shall be created by sawing using equipment meeting the requirements of Subsection 907-504.03.7.2. Sawing of the joints shall commence as soon as the concrete has hardened sufficiently to support the weight of the saw. The spacing and depth of all of joints shall meet the requirements of "Joint Spacing Requirements for Various Pavement Thicknesses" shown in Table 2. The maximum width of the joint shall be 0.125 inch.

Table 2
JOINT SPACING REQUIREMENTS FOR VARIOUS PAVEMENT THICKNESSES

Minimum Pavement Thickness	Maximum Joint Spacing Requirement	Minimum Joint Depth (installation timing)	
(in)	(Transverse x Longitudinal)	(within 2 hours of finishing)	(more than 2 hours after finishing)
3	3 ft x 3 ft	1 in	1 in
4	4 ft x 4 ft	1 in	1 in
5	5 ft x 6 ft	l in	1-1/4 in
6	5 ft x 6 ft	1 in	1-1/2 in

Because the use of "early entry" dry cut saws is required, corrugated plastic filler strips shall be used at the intersection of all saw cuts, and at locations where the wheels of the early entry saw

cross a previously cut joint, to prevent future spalling at the corners of the intersection. The joints shall not be sealed but shall be cleaned of all deleterious material after sawing by using compressed air. Air compressors used to clean the joints shall meet the requirements of Subsection 413.03.1. Pavement thickness and other details shall be as specified in the plans or contract documents.

907-504.03.6.1—Timing of Sawing. The Contractor shall inspect the concrete within 90 minutes after the completion of curing at each location to determine if the concrete is sufficiently hardened to support the weight of the saw. If the concrete has not sufficiently hardened to support the weight of the saw, the Contractor shall inspect the concrete at least every 30 minutes after each subsequent inspection to determine if the concrete is sufficiently hardened to support the weight of the saw. Sawing shall not begin or shall be discontinued if there is any raveling of the joints or marring of the surface of the concrete during installation of the joints. If sawing is discontinued due to the concrete not being able to support the weight of the saw or due to raveling of joints, the Contractor shall inspect the concrete at least every 30 minutes to determine if the concrete has sufficiently hardened. FHWA Publication No. HIF-07-004 (Integrated Materials and Construction Practices for Concrete Pavement: A State-of-the-Practice Manual) shall be used as a guide for determining the timing of joint installation. Information about this Publication may be found at the following web site:

http://www.fhwa.dot.gov/pavement/pub listing.cfm.

For successful installation of joints, the Contractor may need to inspect the concrete at more frequent time intervals than those listed above and with the understanding that concrete placed later in the day may be sufficiently hard for joint installation prior to concrete placed earlier in the day. If joints are not installed in a sufficient amount of time such that concrete cracks at locations other than the installed joints, the Contractor shall repair the pavement to the satisfaction of the Engineer.

907-504.03.7--Equipment.

907-504.03.7.1—Concrete Production and Transportation. Equipment and processes used for concrete production shall meet the requirements of Subsection 804.02.11 with automatic systems for recording batch weights and compensating for the moisture in the fine aggregate. Additionally, the requirements of AASHTO Designation: M157, Sections 8, 9, 10, and 11 shall be followed. Following AASHTO Designation: M157, Section 11.7, on arrival to the job site of a mixer truck, a maximum of 1½ gallons of water per cubic yard shall be allowed to be added to bring the slump within the required limits; water shall not be added at a later time. Batch ticket information shall meet the requirements of Subsection 804.02.12.3.

<u>907-504.03.7.1.1-Limitations of Mixing.</u> Except in emergencies, no concrete shall be mixed or placed when the natural light will be insufficient for finishing. In case of an emergency, the Engineer may permit finishing during periods of insufficient light provided adequate and approved lighting is furnished by the Contractor.

Concrete shall not be placed on a frozen foundation, nor shall frozen aggregate be used in the

concrete.

907-504.03.7.1.2--Cold or Hot Weather Concreting. During periods of cold or expected cold weather, the limitations for beginning a concrete pour and the limitations for temperature control of the mix and its components shall be in accordance with the provisions of Subsection 804.03.16.1.

During periods of hot weather or arid atmospheric conditions the provisions of Subsection 804.03.16.2 shall be applicable.

907-504.03.7.2—Concrete Saw. The concrete pavement joints shall be cut utilizing only an "early entry" dry cut saw, approved by the Engineer. Other type saws may be used for other sawing applications, provided the saw meets the requirements of Subsection 501.03.6.1. Proper, approved sawing equipment and sufficient labor shall be present on the site prior to each day's placement of concrete. Placement shall not commence until said equipment and labor are on site.

<u>907-504.03.7.3—Other Equipment.</u> Other equipment and tools necessary for handling materials and performing all parts of the work shall be approved by the Engineer as to design, capacity, and mechanical condition, and meeting the requirements of Subsections 501.03.5, 501.03.6, and 501.03.20.1, and their subsequent paragraphs.

<u>907-504.03.7.4--Prohibited Equipment.</u> The following equipment shall not be used or allowed on the project: bull floats or equipment used to dispense water, including fogging, spraying, and/or pouring. Water dispensing equipment attached to mixer trucks is not included in this list of prohibited equipment provided this equipment is only used to dispense water into a mixer truck in accordance with Subsection 907-504.03.7.1.

<u>907-504.03.8—Surface Test.</u> It is the intent of these specifications that the finished surface will have good riding qualities.

Any membrane curing damaged during the surface testing operation shall be repaired by the Contractor at no additional expense to the Department.

Any corrective work to the pavement surface necessitated to ensure that the applicable surface test limits are not exceeded shall be in accordance of Subsection 907-504.03.8.3.

907-504.03.8.1--Projects Containing More Than 10,000 SY. Profiles of the pavement surface will be established, evaluated and the pavement surface corrected, as necessary, so that the final surface variances shall not exceed a profile index of 65 inches per mile per segment. Shoulders, tapers, and areas in horizontal curves having a radius of less than 1000 feet at the centerline and within the superelevation transition of such curves are excluded from a test with the profilograph.

Determination of the profile index will be in accordance with test methods established by the Department.

A California profilograph meeting the requirements as set out in Section 401 shall be furnished and operated by the Contractor under supervision of the Engineer to provide recorded data to establish the profile index and identify locations requiring correction. Surface profile shall be obtained in the wheel path of each travel lane.

For the purpose of determining pavement smoothness and contract price adjustment for rideability, the pavement will be subdivided into sections of 528 feet. Where a segment less than 528 feet occurs at the end of a section, it will be combined with the preceding 528-foot segment for calculation of the profile index.

A profile index will be determined for each segment as inches per mile in excess of the "Zero" blanking band which is simply referred to as the "Profile Index". From the profilogram of each segment, the scallops above and below the "Zero" blanking band are totaled in tenths of an inch. The totaled count of tenths is converted to inches per mile to establish a smoothness profile index for that segment.

In addition to the above requirements for the profile index, all areas represented by high points having deviations in excess of 0.4 inch in 25 feet shall be removed by the Contractor utilizing grinding methods and equipment specified. Deviations in excess of 0.4 inch will be determined from the profilogram in accordance with Department test methods.

After correcting individual deviations in excess of 0.4 inch in 25 feet, corrective action shall be made to reduce the profile index to 65 inches per mile per segment or less.

On those segments where corrections are made, the pavement will be surface tested again to verify that corrections have produced a profile index of 65 inches per mile per segment or less.

907-504.03.8.2-Projects Containing Less Than Or Equal To 10,000 SY. Each continuous full or partial lane width of concrete pavement shall have a uniform surface and be in reasonably close conformity with the line, grade, and cross section shown on the drawings.

After a continuous full or partial lane width of concrete pavement is completed, the surface of the plastic concrete shall be tested for uniformity using a Contractor furnished and operated 10-foot straightedge. There shall be no deviations from the straightedge greater than 0.25 inch in 10 feet in either the longitudinal or the transverse directions. Pavement not in compliance with the requirement shall be corrected.

Additionally, individual bumps or depressions in the pavement surface exceeding 0.40 inch, when measured from a chord length of 25 feet shall be corrected.

907-504.03.8.3—Corrective Work for Smoothness. Corrective work shall be done at no additional cost to the Department. Corrective work shall consist of diamond grinding in accordance with Subsection 501.03.19.1 and its subsequent paragraphs. Concrete removal by grinding shall be limited such that the thickness of the pavement after grinding shall not be less than plan thickness minus 0.25 inch. Final pavement thicknesses, after any surface corrections,

which are thinner than plan thickness minus 0.25 inch shall subject the area represented by such deviation to the provisions of Subsection 907-504.05.2.

All areas which are corrected shall be retested to ensure conformance to the applicable surface test requirements.

No reestablishment of transverse tining shall be required after surface corrections are made by diamond grinding.

All corrective work to ensure compliance with the applicable surface test requirements shall be completed prior to determining pavement thickness.

The Contractor shall be responsible for all traffic control associated with the testing and/or correction of the concrete pavement.

<u>907-504.03.9--Curing and Protection</u> Curing and protection of the pavement shall be in accordance with Subsection 501.03.20 and its subsequent paragraphs with the exception listed in Subsection 907-504.03.9.1.

Additionally, the amount of time between discharge of concrete at any location and the completion of the method of curing of that same location shall not exceed 45 minutes.

907-504.03.9.1—White Pigmented Membrane. Curing compound shall be applied per Subsections 501.03.20.1 and at a rate of one gallon to not more than 125 square feet. If the time period between floating and texturing of the concrete exceeds 30 minutes, the concrete shall be kept damp by fogging with a monomolecular film type evaporative retarder to prevent rapid evaporation of the surface. As a rule of humb, the color of a pavement covered with the required amount of curing compound should be indistinguishable from a sheet of commercially available standard "letter" size white copier paper placed on top of it when viewed from a distance of about five (5) feet away horizontally if standing on the same grade as the pavement.

907-504.03.10--Removing Forms. Removal of forms shall be in accordance with Subsection 501.03.21.

<u>907-504.03.11--Opening to Traffic.</u> The Engineer will decide when the pavement may be opened to traffic. No traffic will be allowed on the completed pavement until the concrete has attained a compressive strength of 2500 psi. Prior to opening to traffic, the pavement shall be cleaned.

<u>907-504.03.12--Pavement Thickness Determination.</u> For the purpose of determining pavement thickness, the pavement will be subdivided into separate sections of 1000 linear feet in each traffic lane excluding turn-outs and ramps, extending from one end of the pavement to the other end. The last section in each traffic lane will be the length remaining unless the length of that section is less than 500 feet. If the length of the last section is less than 500 feet, include it with the previous section for determination of thickness.

One core will be taken at random by the Department from each section. The thickness of the sections will be determined as provided for in Subsection 907-504.05.1. Based on the thickness of each section, an adjusted unit price as provided in Subsection 907-504.05 and its subsequent paragraphs will be paid for each section represented.

Holes remaining in the pavement after coring shall be completely filled by the Contractor, at not additional cost to the Department, with concrete of the same quality as used to construct the pavement.

<u>907-504.04--Method of Measurement.</u> Concrete pavement will be measured by the square yard complete in place and accepted. The width for measurement will be the plan width, including widening where called for, or as otherwise authorized in writing by the Engineer. The length will be measured horizontally in accordance with Section 109.

Payment for removal of existing HMA pavement, required to be removed and replaced with concrete pavement, is addressed under Pay Items 406-A, Cold Milling of Bituminous Pavement, All Depths and 503-C, Saw Cut (Equal to depth of concrete pavement), and shall include saw cutting, milling, and all handwork necessary to ensure removal of HMA to the neat saw cut lines.

907-504.05-Basis of Payment.

<u>907-504.05.1--General.</u> Concrete pavement will be paid for at the contract unit price per square yard, adjusted when applicable for sections of pavement found deficient in thickness by more than 0.25 inch and not more than 0.50 inch, which shall be full compensation for concrete pavement placement, fiber reinforcement, finishing and curing, concrete volume, saw cutting of joints, and for all labor, equipment, tools, materials, all traffic control, and incidentals necessary for the construction of the concrete pavement.

In calculating the thickness of the pavement, measurements which are in excess of the plan thickness by more than 0.25 inch will be considered as the plan thickness plus 0.25 inch. Additionally, measurements which are less than the plan thickness by more than 0.50 inch, excluding exploratory cores, will be considered as the plan thickness minus 0.50 inch. When the measured thickness of a core is less than the plan thickness by more than 0.50 inch, the actual thickness of the pavement in this area will be determined by taking exploratory cores at not less than 10 foot intervals parallel to the centerline in each direction from the affected location until in each direction a core is found which is not deficient by more than 0.50 inch.

Areas found deficient in thickness by more than 0.50 inch will be evaluated by the Engineer; and if in the judgment of the Engineer, the deficient areas warrant removal, they shall be removed and replaced with pavement of the thickness shown on the plans without cost to the Department. If the Engineer determines that the deficient areas do not warrant removal, the pavement may be left in place with no payment to the Contractor, or may be removed and replaced at the Contractor's option. Exploratory cores for deficient thickness will not be used in averages for areas for adjusted unit price.

Each area or section of pavement removed shall be at least 10 feet in length and at least the full width of the lane involved. When it is necessary to remove and replace a section of pavement, any remaining portion of the slab adjacent to the joints that is less than 6 feet in length shall also be removed and replaced. The new surface shall be textured as specified in the contract.

Concrete that fails to develop a 28-day compressive strength of 3500 psi shall be removed and replaced, or accepted at a reduced price, if an Engineering study indicates that the concrete is satisfactory to remain in place.

Payment will	be made under:	
907-504-A:	" Fiber Reinforced Concrete Pavement	- per square yard

907-504.05.2-Price Adjustments for Thickness. When the average pavement thickness, determined in accordance with Subsection 907-504.03.12, is deficient by more than 0.25 inch but not more than 0.50 inch, payment will be made at an adjusted price as specified in the following table:

CONCRETE PAVEMENT DEFICIENCY

Thickness Deficiency Inches	Proportional Part of Contract Price Allowed	
0.00 to 0.25	100 percent	
0.26 to 0.50	75 percent	
>0.50	Remove and Replace At No Additional Cost to the Department or Receive No Payment	

Any applicable price adjustment due to thickness deficiency applies to the full width of the deficient lane or shoulder.

CODE: (IS)

SPECIAL PROVISION NO. 907-601-1

DATE: 08/29/2007

SUBJECT: Structural Concrete

Division 600, Incidental Construction, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After the heading **DIVISION 600 - INCIDENTAL CONSTRUCTION**, add the following:

Unless otherwise specified, all testing of Portland cement concrete in Division 600 shall be in accordance with the requirements of Subsection 907-601.02.1.

907-601.02--Materials.

<u>907-601.02.1--General.</u> Delete the second and third sentence of the first paragraph of Subsection 601.02.1 on page 348, and substitute the following:

Sampling and testing will be in accordance with TMD-20-04-00-000 or TMD-20-05-00-000, as applicable.

907-601.03.6.3--Removal of Falsework, Forms, and Housing. Delete the first paragraph, the table and second paragraph of Subsection 601.03.6.3 on pages 349 and 350, and substitute the following:

The removal of falsework, forms, and the discontinuance of heating, shall be in accordance with the provisions and requirements of Subsection 907-804.03.15, except that the concrete shall conform to the following compressive strength requirements:

Wingwall and Wall Forms not Under Stress	1000 psi
Wall Forms under Stress	2200 psi
Backfill and Cover clear	2400 psi

In lieu of using concrete strength cylinders to determine when falsework, forms, and housings can be removed, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Subsection 907-804.03.15. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of Subsection 907-804.03.15. Technicians using the maturity meter or calculating strength/maturity graphs shall meet the requirements of Subsection 907-804.03.15.

907-601.05--Basis of Payment. Add the "907" prefix to the pay items listed on page 352.

CODE: (SP)

SPECIAL PROVISION NO. 907-618-4

DATE: 12/12/2006

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:

907-618.03.3--Safe Movement of Traffic. Delete subparagraphs (2) and (3) of Subsection 618.03.3 on pages 415 & 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.

SPECIAL PROVISION NO. 907-626-15

CODE: (IS)

DATE: 03/17/2008

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:

907-626.05-Basis of Payment. Add the "907" prefix to the pay items listed on page 446.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-701-3

DATE: 10/01/2008

SUBJECT: Hydraulic Cement

In Subsection 907-701.02.2.1 on page 3, delete the line in Table 1 addressing Severe Soluble Sulfate Conditions, and substitute the following:

Severe	0.20 - 2.00	1,500 - 10,000	Type I cement with a
			replacement by weight of
			50% GGBFS, or
			Type II ** cement with
			one of the following
			replacements of cement
			by weight:
			25% Class F fly ash,
			50% GGBFS,
			10% metakaolin, or
			8% silica fume

SPECIAL PROVISION NO. 907-701-3

CODE: (IS)

DATE: 11/30/2007

SUBJECT: Hydraulic Cement

Section 701, Hydraulic Cement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete Subsection 701.01 on pages 595 & 596, and substitute the following:

907-701.01--General. The following requirements shall be applicable to hydraulic cement:

Only hydraulic cements conforming to Section 701 shall be used. Hydraulic cements shall not be listed or designated as meeting more than one AASHTO or Department type.

Different brands of hydraulic cement, or the same brand of hydraulic cement from different mills, shall not be mixed or used alternately in any one class of construction or structure, without written permission from the Engineer; except that this requirement will not be applicable to hydraulic cement treatment of design soils, or bases.

The Contractor shall provide suitable means for storing and protecting the hydraulic cement against dampness. Hydraulic cement, which for any reason, has become partially set or which contains lumps of caked hydraulic cement will be rejected. Hydraulic cement salvaged from discarded or used bags shall not be used.

The temperature of bulk hydraulic cement shall not be greater than 165°F at the time of incorporation in the mix.

Acceptance of hydraulic cement will be based on the certification program as described in the Department's Materials Division Inspection, Testing, and Certification Manual and job control sampling and testing as established by Department SOP.

Retests of hydraulic cement may be made for soundness and expansion within 28 days of test failure and, if the hydraulic cement passes, it may be accepted. Hydraulic cement shall not be rejected due to failure to meet the fineness requirements if upon retests after drying at 212°F for one hour, it meets such requirements.

Delete Subsection 701.02 on page 596, and substitute the following:

907-701.02--Portland Cement.

907-701.02.1--General.

907-701.02.1.1--Types of Portland Cement. Portland cement (cement) shall be either Type I or Type II conforming to AASHTO Designation: M85 or Type I(MS), as defined by the description below Table 1. Type III cement conforming to AASHTO Designation: M85 or Type III(MS), as defined by the description below Table 1, may be used for the production of precast or precast-prestressed concrete members.

<u>907-701.02.1.2--Alkali Content</u>. All cement types in this Subsection shall meet the Equivalent alkali content requirement for low-alkali cements listed in AASHTO Designation: M85, Table 2.

<u>907-701.02.2--Replacement by Other Cementitious Materials</u>. The maximum replacement of cement by weight is 25% for fly ash or 50% for ground granulated blast furnace slag (GGBFS). The minimum tolerance for replacement shall be 5% below the maximum replacement content. Replacement contents below this minimum tolerance by fly ash or GGBFS may be used, but shall not be given any special considerations, like the maximum acceptance temperature for Portland cement concrete containing pozzolans. Special considerations shall only apply for replacement of cement by fly ash or GGBFS.

<u>907-701.02.2.1--Portland Cement Concrete Exposed to Soluble Sulfate Conditions or Seawater.</u> When Portland cement concrete is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash, GGBFS, metakaolin, or silica fume shall be as follows in Table 1.

Sulfate Exposure	Water-soluble sulfate (SO ₄) in soil, % by mass	Sulfate (SO ₄)in water, ppm	Cementitious material required*
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type II **, ***, **** cement, or Type I cement with one of the following replacements of cement by weight: 25% Class F fly ash, 50% GGBFS, 10% metakaolin, or 8% silica fume
Severe	0.20 - 2.00	1,500 - 10,000	Type II ** cement with one of the following replacements of cement by weight: 25% Class F fly ash, 50% GGBFS, 10% metakaolin, or 8% silica fume

Table 1- Cementitious Materials for Soluble Sulfate Conditions

- * The values listed in this table for replacement of Portland cement by the cementitious materials listed are maximums and shall not be exceeded. The minimum tolerance for replacement shall be 0.5% below the maximum replacement content. Replacement contents below this minimum tolerance by the cementitious materials listed in this table do not meet the requirements for the exposure conditions listed and shall not be allowed.
- ** Type I cement conforming to AASHTO Designation: M85 with a maximum 8% tricalcium aluminate (C₃A) may be used in lieu of Type II cement; this cement is given the designation "Type I(MS)". Type III cement conforming to AASHTO Designation: M85 with a maximum 8% tricalcium aluminate (C₃A) may be used in lieu of Type II cement as allowed in Subsection 907-701.02.1; this cement is given the designation "Type III(MS)".
- *** Blended cement meeting the sulfate resistance requirements of Subsection 907-701.04 may be used in lieu of Type II as allowed in Subsection 907-701.04. No additional cementitious materials shall be added to or as a replacement for blended cement.
- **** Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.02.2.

Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed above.

<u>Seawater.</u> When Portland cement for use in soil stabilization is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall meet the requirements of Subsection 907-701.02.2.1. Neither metakaolin nor silica fume shall be used to bring the cementitious materials into compliance with the requirements of Table 1.

Delete Subsection 701.03 on page 596, and substitute the following:

<u>907-701.03--Masonry Cement</u>. Masonry cement shall conform to ASTM Designation: C 91 and shall only be used in masonry applications.

Delete Subsection 701.04 on page 596, and substitute the following:

907-701.04--Blended Hydraulic Cement.

907-701.04.1--General.

907-701.04.1.1--Types of Blended Cement. Blended hydraulic cements (blended cements) shall be of the following types and conform to AASHTO Designation: M 240:

Type I(SM) - Slag-modified Portland cement
 Type IS - Portland blast-furnace slag cement
 Type I(PM) - Pozzolan-modified Portland cement
 Type IP - Portland-pozzolan cement

Blended cement for use in Portland cement concrete or soil stabilization exposed to the moderate soluble sulfate condition or exposure to seawater as defined in Table 1 shall meet the Sulfate resistance requirement listed in AASHTO Designation: M 240, Table 2 and the "(MS)" suffix shall be added to the type designation.

<u>907-701.04.1.2--Alkali Content.</u> All blended cement types in this Subsection shall meet the Mortar expansion requirements listed in AASHTO Designation: M 240, Table 2.

<u>907-701.04.2--Replacement by Other Cementitious Materials</u>. No additional cementitious materials, such as Portland cement, performance hydraulic cement, fly ash, GGBFS, metakaolin, or others, shall be added to or as a replacement for blended cement.

<u>907-701.04.3--Exposure to Soluble Sulfate Conditions or Seawater.</u> When Portland cement concrete or blended cement for soil stabilization is exposed to moderate soluble sulfate conditions or to seawater, where the moderate soluble sulfate condition is defined in Table 1, the

blended cement shall meet the sulfate resistance requirement listed in AASHTO Designation: M 240, Table 2.

When Portland cement concrete or blended cement for soil stabilization is exposed to severe soluble sulfate conditions, where the severe soluble sulfate condition is defined in Table 1, blended cements shall not be used.

CODE: (SP)

SPECIAL PROVISION NO. 907-703-7

DATE: 03/06/2009

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 sentence of 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 stone, slag, granite, shell, gravel, crushed concrete, or combination thereof.

907-703.04.2--Fine Aggregate. Delete the first sentence of the first paragraph of Subsection 703..04.2 on page 611, and substitute the following:

Fine aggregate, defined as material passing no. 8 sieve, shall be material resulting from the crushing of stone, slag, gravel, concrete, or combination thereof.

907-703.04.3--Gradation. Add the following to the "TABLE OF SIZES AND GRADATION OF CRUSHED STONE AGGREGATE" in Subsection 703.04.3 on page 613.

Percent Passing By Weight						
Sieve Size	Size No. 825	Crushed Stone				
2 inch	100					
1 1/2 inch	90 - 100	100				
1 inch	75 - 98	90 - 100				
3/4 inch						
1/2 inch	60 - 85	62 - 90				
3/8 inch						
No. 4	40 - 65	30 - 65				
No. 8	28 - 54					
No. 10		15 - 40				
No. 16	19 - 42					
No. 40						
No. 50	9 - 27					
No. 200	4 - 18	3 - 16				

After the "TABLE OF SIZES AND GRADATION OF CRUSHED STONE AGGREGATE" in Subsection 703.04.3 on page 613, add the following:

<u>907-703.04.4--Crushed Concrete.</u> Crushed reclaimed concrete shall also be allowed as a crushed aggregate course provided it meets the requirements of Subsection 703.04 and the following.

Crushed Concrete

Sieve Size	Percent Passing By Weight
2 inch	
1 1/2 inch	100
1 inch	90 - 100
3/4 inch	
1/2 inch	60 - 85
3/8 inch	
No. 4	40 - 65
No. 8	28 - 54
No. 10	
No. 16	19 - 42
No. 40	
No. 50	9 - 27
No. 200	2 - 18

CODE: (IS)

SPECIAL PROVISION NO. 907-708-5

DATE: 05/12/2008

SUBJECT: Non-Metal Drainage Structures

Section 708, Non-Metal Structures and Cattlepasses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-708.02.1.2--Fly Ash. In the first sentence of Subsection 708.02.1.2 on page 639, change "20 percent" to "25%".

<u>907-708.02.3.2--Marking</u>. Delete the second sentence of Subsection 708.02.3.2 on page 640, and substitute the following:

Machine made pipe shall be marked in accordance with one of the following methods: 1) the pipe shall be inscribed on the outside of the pipe and stenciled on the inside of the pipe, or 2) the pipe shall be inscribed on the inside of the pipe, only. All other may renciled.

907-708.17--Corrugated Plastic Pipe Culverts.

907-708.17.1--Corrugated Polyethyl Pipe C rts. elete first atence of the first paragraph of Subsection 708.1 on 1 645 and s itut e fol

Corrugated polyeth, a pipe all common to the duirements of AASHTO Designation: M 294, Type S and/or SP, appl ble, and ble dil tight joints, unless otherwise specified.

Delete the last sentence of the and paragraph of Subsection 708.17.1 on page 645.

After Subsection 708.17.1 on page 645, add the following:

<u>907-708.17.1.1--Inspection and Final Acceptance of Corrugated Polyethylene Pipe Culverts.</u> Approximately 50% of the installed length of corrugated polyethylene pipe shall be inspected for excess deflection no sooner than 30 days after the embankment material over the pipe is placed to the required subgrade elevation or the maximum required fill height. The inspection shall be performed using either electronic deflectometers, calibrated television or video cameras, or a "go, no-go" mandrel that has an effective diameter of 95% of the nominal inside diameter of the pipe.

Pipe found to have deflection values greater than 5% shall be removed and replaced at no cost to the State.

<u>907-708.17.2--Corrugated Poly (Vinyl Chloride) (PVC) Pipe Culverts.</u> Delete the first sentence of the first paragraph of Subsection 708.17.2 on page 645 and substitute the following.

Corrugated poly (vinyl chloride) (PVC) pipe shall conform to the requirements of AASHTO Designation: M 304 and shall have soil tight joints, unless otherwise specified. Non-perforated PVC pipe used in underdrains shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

After Subsection 708.17.2 on page 645, add the following:

907-708.17.2.1--Inspection and Final Acceptance of Poly (Vinyl Chloride) (PVC) Pipe Culverts. Approximately 50% of the installed length of PVC pipe shall be inspected for excess deflection no sooner than 30 days after the embankment material over the pipe is placed to the required subgrade elevation or the maximum required fill height. The inspection shall be performed using either electronic deflectometers, calibrated television or video cameras, or a "go, no-go" mandrel that has an effective diameter of 95% of the nominal inside diameter of the pipe.

Pipe found to have deflection values greater than 5% shall be removed and replaced at no cost to the State.

907-708.18--Sewer Pipe Used for Underdrains.

907-708.18.1--General. After the second paragraph of 5 bsec 708.18.1 page 645 add the following:

In lieu of the pipe listed in this subsection, pipe ing requirements subsection 708.19 may also be used for plastic up rdrain pe.

907-708.18.3--Typ. W Pol Viny loride) (F) Sewer Pipe. After the first sentence of Subsection 708.18.3 c. ge 6 add the sawing sentence of section 708.18.3 c. ge 6

Non-perforated PVC pipe there be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

<u>907-708.18.4--Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe</u>. Delete the paragraph in Subsection 708.18.4 on page 645 and substitute the following.

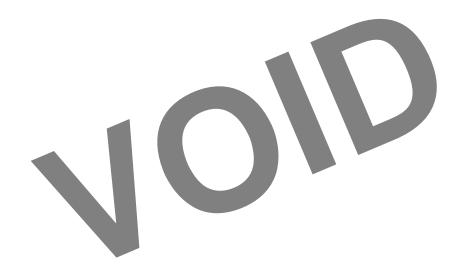
This pipe shall conform to the following requirements. For pipe sizes less than or equal to six inches (\leq 6"), the pipe shall be Class PS46 meeting the requirements of AASHTO Designation: M 278. For pipe sizes greater than six inches (> 6"), the pipe shall meet the requirements of AASHTO Designation: M 304. Non-perforated PVC pipe shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

Delete Subsection 708.19 on page 645 and substitute the following:

<u>907-708.19--Corrugated Polyethylene Pipe</u>. This pipe shall be high density polyethylene pipe or drainage tubing meet the requirements of AASHTO Designation: M 294, Type S or SP, or

AASHTO Designation: M 252, Type S or Type SP, as applicable.

<u>**907-708.22.2--Exceptions to AASHTO.**</u> Delete the sixth paragraph of Subsection 708.22.2 on page 647.



SPECIAL PROVISION NO. 907-711-3

CODE: (IS)

DATE: 09/26/2005

SUBJECT: Synthetic Structural Fiber Reinforcement

Section 711, Reinforcement and Wire Rope, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After Subsection 711.03.4.3 on page 665, add the following:

907-711.04--Synthetic Structural Fiber. Synthetic structural fibers shall meet the requirements of ASTM Designation: C 1116, Section 4.1.3, Note 3. The fibers shall be monofilament made of polypropylene or polypropylene/polyethylene blend meeting the following conditions:

<u>Property</u>	Results
Length, minimum	1.5 inches
Aspect Ratio (length / equivalent diameter)	90
Breaking tenacity, minimum *	530 mN/tex
(Tensile Strength, minimum	70 ksi)
Chord modulus, minimum *	980 cN/tex
(Modulus of Elasticity, minimum	1,300 ksi)

^{*} When tested in accordance with ASTM Designation: D 3822

The dosage rate for the fibers shall be a minimum of three pounds per cubic yard (3 lb / yd 3). The dosage rate for the fibers when used in pile encasements shall be a minimum of four pounds per cubic yard (4 lb / yd 3).

The manufacturer shall furnish the Engineer three copies of the certified test report(s) showing results of all required tests, and certification that the material meets the specifications.

CODE: (IS)

SPECIAL PROVISION NO. 907-713-1

DATE: 12/11/2007

SUBJECT: Admixtures for Concrete

Section 713, Concrete Curing Materials and Admixtures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After the second paragraph of Subsection 713.01.2 on page 676, add the following.

Type 1-D compound may be used on bridge rails, median barriers, and other structures requiring a spray finish. When Type 1-D compound is used, it will be the Contractor's responsibility to assure that the compound has dissipated from the structure prior to applying the spray finish and that the spray finish adheres soundly to the structure.

Delete Subsection 713.02 on pages 676 & 677, and substitute the following:

<u>907-713.02--Admixtures for Portland Cement Concrete</u>. Admixtures shall only be approved by the Department for classification as a single type following the applicable types from AASTHO Designation: M 154 or M 194, or the definition of a mid-range water reducer listed below with the following exception: when requested by the manufacturer the Department will consider classifying an admixture as both a Type A and a Type D. Admixtures shall only be used in accordance with the manufacturer's recommended dosage range for that type. Where an admixture is classified as both a Type A and Type D, the dosage range for use as a Type A shall not overlap the dosage range for use as a Type D.

Air-entraining admixtures shall comply with AASHTO Designation: M 154. Set-retarding, accelerating, and/or water-reducing admixtures shall comply with AASHTO Designation: M 194. Mid-range water-reducers are classified as water-reducing admixtures that reduce the mix water a minimum of 8% when compared to a control mix with no admixtures when tested in accordance with the requirements in AASHTO Designation: M 194. The type designation for admixtures approved by the Department and classified as meeting the requirements of a midrange water-reducer shall be "MR".

<u>907-713.02.1--Source Approval.</u> In order to obtain approval of an admixture, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the admixture meets all the requirements of the applicable AASHTO or Department Specification for the specific type and the dosage range for the specific type of admixture.

907-713.02.2--Specific Requirements. Admixtures containing chlorides will not be permitted.

<u>907-713.02.3--Acceptance.</u> The Department reserves the right to sample, for check tests, any shipment or lot of admixture delivered to a project.

The Department reserves the right to require tests of the material to be furnished, using the specific cement and aggregates proposed for use on the project, as suggested in AASHTO Designation: M 154 and outlined in AASHTO Designation: M 194.

Failure to maintain compliance with any requirement of these specifications shall be cause for rejection of any previously approved source or brand of admixture.

With each new lot of material shipped the Contractor shall submit to the State Materials Engineer, a notarized certification from the manufacturer showing that the material complies with the requirements of the applicable AASHTO or Department Specification.

When an admixture is used, it shall be the responsibility of the Contractor to produce satisfactory results.

CODE: (IS)

SPECIAL PROVISION NO. 907-714-5

DATE: 06/18/2008

SUBJECT: Miscellaneous Materials

Section 714, Miscellaneous Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

<u>907-714.05--Fly Ash</u>. Delete Subsections 714.05.1 & 714.05.2 on pages 680 & 681, and substitute the following:

<u>907-714.05.1--General.</u> The fly ash source must be approved for listing in the Department's "Approved Sources of Materials" prior to use. The acceptance of fly ash shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual and Department SOP.

Different classes of fly ash or different sources of the same class shall not be mixed or used in the construction of a structure or unit of a structure without written permission from the Engineer.

The Contractor shall provide suitable means for storing and protecting the fly ash from dampness. Separate storage silos, bins, or containers shall be provided for fly ash. Fly ash which has become partially set or contains lumps of caked fly ash shall not be used.

The temperature of the bulk fly ash shall not be greater than 165°F at the time of incorporation into the work.

All classes of fly ash shall meet the supplementary option chemical requirement for available alkalies listed in AASHTO Designation: M 295, Table 2. Class F fly ash shall have a calcium oxide (CaO) content of less than 6.0%. Class C fly ash shall have a CaO content of greater than or equal to 6.0%.

The replacement of Portland cement with fly ash shall be in accordance with the applicable replacement content specified in Subsection 907-701.02.2.

In addition to these requirements, fly ash shall meet the following specific requirements for the intended use.

<u>907-714.05.2--Fly Ash for Use in Concrete</u>. When used with Portland cement in the production of concrete or grout, the fly ash shall meet the requirements of AASHTO Designation: M 295, Class C or F, with the following exceptions:

The loss on ignition shall not exceed 6.0 percent.

The strength activity index with Portland cement shall be at least 55 percent of the control mix at seven days.

No additional cementitious materials, such as blended hydraulic cement, GGBFS, metakaolin, or others, shall be added to or as a replacement for Portland cement when used with fly ash.

<u>907-714.06--Ground Granulated Blast Furnace Slag (GGBFS)</u>. Delete Subsection 714.06.1 on page 681, and substitute the following:

<u>907-714.06.1--General.</u> The GGBFS source must be approved for listing in the Department's "Approved Sources of Materials" prior to use. The acceptance of GGBFS shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual and Department SOP.

The Contractor shall provide suitable means for storing and protecting the GGBFS against dampness and contamination. Separate storage silos, bins, or containers shall be provided for GGBFS. GGBFS which has become partially set, caked or contains lumps shall not be used.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing or other additions made to the GGBFS during production.

GGBFS from different mills shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer; except that this requirement will not be applicable to cement treatment of design soils or bases.

No additional cementitious materials, such as blended hydraulic cement, fly ash, metakaolin, or others, shall be added to or as a replacement for Portland cement when used with GGBFS in the production of concrete. The replacement of Portland cement with GGBFS shall be in accordance with the applicable replacement content specified in Subsection 907-701.02.2.

Delete Subsection 714.07 on page 682, and substitute the following:

907-714.07--Additional Cementitious Materials.

907-714.07.1--Metakaolin.

<u>907-714.07.1.1--General.</u> Metakaolin shall only be used as a supplementary cementitious material in Portland cement concrete for compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. Metakaolin from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. No additional cementitious materials, such as blended hydraulic cement, fly ash, GGBFS, or others, shall be added to or as a replacement for Portland cement when used with metakaolin in the production of concrete.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the metakaolin during production.

<u>907-714.07.1.2--Source Approval.</u> The approval of each metakaolin source shall be on a case by case basis as determined by the State Materials Engineer. In order to obtain approval of a metakaolin source, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable, independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the metakaolin meets all the requirements of AASHTO Designation: M295, including the Effectiveness in contributing to sulfate resistance, Procedure A, listed in AASHTO Designation: M295, Table 4 for Supplementary Optional Physical Requirements, and other requirements listed herein.

In order to demonstrate effectiveness in contributing to sulfate resistance, included in this test data shall be results of metakaolin from the proposed source tested in accordance with ASTM Designation: C 1012. There shall be two sets of test specimens per the following:

- a. One set of test specimens shall be prepared using a Type I Portland cement meeting the requirements of AASHTO Designation: M85 and having a tricalcium aluminate (C₃A) content of more than 8.0%,
- b. One set of test specimens shall be prepared using a Type II Portland cement meeting the requirements of AASHTO Designation: M85.
- c. The proposed metakaolin shall be incorporated at the rate of 10% cement replacement in each set of test specimens and shall meet both of the acceptance criteria listed below for source approval.

The requirement for acceptance of the test sample using Type I Portland cement is an expansion of 0.10% or less at the end of six months. The requirement for acceptance of the test sample using Type II Portland cement is an expansion of 0.05% or less at the end of six months.

<u>907-714.07.1.3--Storage</u>. The Contractor shall provide suitable means for storing and protecting the metakaolin against dampness and contamination. Metakaolin which has become partially set, caked, or contains lumps shall not be used.

<u>907-714.07.1.4--Specific Requirements</u>. Metakaolin shall meet the requirements of AASHTO Designation: M 295, Class N with the following modifications:

- 1. The sum of SiO₂ + Al₂O₃ + Fe₂O₃ shall be at least 85%. The Material Safety Data Sheet shall indicate that the amount of crystalline silica, as measured by National Institute of Occupation Safety and Health (NIOSH) 7500 method, after removal of the mica interference, is less than 1.0%.
- 2. The loss on ignition shall be less than 3.0%.
- 3. The available alkalies, as equivalent Na₂O, shall not exceed 1.0%.
- 4. The amount of material retained on a No. 325 mesh sieve shall not exceed 1.0%.
- 5. The strength activity index at seven (7) days shall be at least 85%.

<u>907-714.07.1.5--Acceptance.</u> With each new lot of material shipped the Contractor shall submit to the State Materials Engineer a certified test report from the manufacturer showing that the material meets the requirements AASHTO Designation: M295, Class N and the requirements of this Subsection.

The Department reserves the right to sample, for check tests, any shipment or lot of metakaolin delivered to a project.

907-714.07.2--Silica Fume.

<u>907-714.07.2.1--General.</u> Silica fume shall only be used as a supplementary cementitious material in Portland cement concrete for compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. Silica fume from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. No additional cementitious materials, such as blended hydraulic cement, performance hydraulic cement, fly ash, GGBFS, or others, shall be added to or as a replacement for Portland cement when used with silica fume in the production of concrete.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the silica fume during production.

<u>907-714.07.2.2--Source Approval.</u> The approval of each silica fume source shall be on a case by case basis as determined by the State Materials Engineer. In order to obtain approval of a silica fume source, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable, independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the silica fume meets all the requirements of AASHTO Designation: M307, Table 3, including the Sulfate resistance expansion, listed in the table for Optional Physical Requirements, and other requirements listed herein.

In order to demonstrate effectiveness in contributing to sulfate resistance, included in this test data shall be results of silica fume from the proposed source tested in accordance with ASTM Designation: C 1012. There shall be two sets of test specimens per the following:

- a. One set of test specimens shall be prepared using a Type I Portland cement meeting the requirements of AASHTO Designation: M85 and having a tricalcium aluminate (C₃A) content of more than 8.0%,
- b. One set of test specimens shall be prepared using a Type II Portland cement meeting the requirements of AASHTO Designation: M85.
- c. The proposed silica fume shall be incorporated at the rate of 8% cement replacement in each set of test specimens and shall meet both of the acceptance criteria listed below for source approval.

The requirement for acceptance of the test sample using Type I Portland cement is an expansion of 0.10% or less at the end of six months. The requirement for acceptance of the test sample using Type II Portland cement is an expansion of 0.05% or less at the end of six months.

<u>907-714.07.2.3--Storage.</u> The Contractor shall provide suitable means for storing and protecting the silica fume against dampness and contamination. Silica fume which has become partially set, caked, or contains lumps shall not be used.

<u>907-714.07.2.4--Acceptance.</u> With each new lot of material shipped, the Contractor shall submit to the State Materials Engineer a certified test report from the manufacturer showing that the material meets the Chemical and Physical Requirements of AASHTO Designation: M307.

The Department reserves the right to sample, for check tests, any shipment or lot of silica fume delivered to a project.

<u>907-714.11.6--Rapid Setting Commercial Grouts and Concrete Patching Compounds.</u> Delete the first sentence of the first paragraph of Subsection 714.11.6 on page 690 and substitute the following:

Rapid setting commercial grouts and concrete patching compounds must be approved for listing in the Department's "Approved Sources of Materials" prior to use. Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list. Each product shall be pre-measured and packaged dry by the manufacturer.

907-714.11.7--Commercial Grout for Anchoring Doweled Tie Bars in Concrete. Before Subsection 714.11.7.1 on page 691, add the following:

Approved Non-"Fast Set" Epoxy anchor systems as specified below may be used for the repair of concrete pavements that do not involve permanent sustained tension applications or overhead applications.

"Fast Set Epoxy" may not be used for any Adhesive Anchor Applications. Adhesive Anchor Systems (Fast Set epoxy or otherwise) shall not be used for permanent sustained tension applications or overhead applications. "Fast Set Epoxy" refers to an epoxy produced by the Sika Corporation called Sikadur AnchorFix-3 and repackaged for sale under a variety of names/companies listed at the Federal Highway Administration web site at the following link:

http://www.fhwa.dot.gov/Bridge/adhesives.cfm

<u>907-714.11.7.4--Acceptance Procedure</u>. After the last sentence of the first paragraph of Subsection 714.11.4 on page 691, add the following:

Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list.

907-714.11.8--Epoxy Joint Repair System.

907-714.11.8.1--General. After the last sentence of the first paragraph of Subsection 714.11.8.1 on page 692, add the following:

Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list.

CODE: (IS)

SPECIAL PROVISION NO. 907-720-1

DATE: 3/17/2008

SUBJECT: Pavement Markings 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:

<u>907-720.02--Thermoplastic Pavement Markings.</u> 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.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-804-8

DATE: 06/09/2008

SUBJECT: Concrete Bridges and Structures

Before the first sentence of 907-804.02.1 on page 1, add the following:

Delete the third and fourth sentences of the first paragraph of Subsection 804.02.1 on page 846, and substitute the following:

For projects with 1000 cubic yards and more, quality control and acceptance shall be achieved through statistical evaluation of test results. For projects of more than 200 but less than 1000 cubic yards, quality control and acceptance shall be achieved by individual test results.

Before the first sentence of Subsection 907-804.02.10 on page 2, add the following:

Delete the first sentence of the first paragraph of Subsection 804.02.10 on page 850 and substitute the following:

At least 30 days prior to production of concrete, the Contractor shall submit to the Engineer proposed concrete mix designs complying with the Department's *Concrete Field Manual*.

Delete the second paragraph of Subsection 907-804.02.11 on page 3 and substitute the following:

For projects with 1000 cubic yards and more, the concrete batch plant shall meet the requirements for an automatic system capable of recording batch weights. It shall also have automatic moisture compensation for the fine aggregate. For projects of more than 200 but less than 1000 cubic yards the plant can be equipped for manual batching with a fine aggregate moisture meter visible to the plant operator.

Delete Subsection 907-804.02.13 on page 4 and substitute the following:

907-804.02.13--Quality Assurance Sampling and Testing. Delete subparagraph c) in Subsection 804.02.13 on page 858 and substitute the following:

c) For concrete, the Contractor's QC and Department's QA testing of concrete compressive strengths compare when using the data comparison computer program with an alpha value of 0.01 for projects with 1000 cubic yards and more; or, strength comparisons are within 990 psi for projects of more than 200 but less than 1000 cubic yards.

In Table 5 of Subsection 804.02.13 on page 858, delete "and FM" from the requirements on line A.3.

After Subsection 907-804.02.13.1.4 on page 4, add the following:

- 2 -

<u>**907-804.02.13.1.5--Compressive Strength.**</u> Delete the heading of the second paragraph of Subsection 804.02.13.1.5 on page 860 and substitute the following:

Projects with 1000 Cubic Yards and More.

Delete the second heading in Subsection 804.02.13.1.5 on page 860 and substitute the following:

Projects of More Than 200 but Less Than 1000 Cubic Yards.

CODE: (IS)

SPECIAL PROVISION NO. 907-804-8

DATE: 02/05/2008

SUBJECT: Concrete Bridges And Structures

Section 804, Concrete Bridges And Structures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-804.02-- Materials.

907-804.02.1--General. Add the following materials to the list of materials in Subsection 804.02.1 on page 847.

Blended Cement	907-701.01 and 907-701.04
Ground Granulated Blast Furnace Slag (GGBFS)	907-714.06
Metakaolin	907-714.07
Silica Fume	907-714.07.2

907-804.02.8--Laboratory Accreditation. In Table 1 of Subsection 804.02.8 on page 849, substitute AASHTO: R 39 - Making and Curing Concrete Test Specimens in the Laboratory for AASHTO: T 126 - Making and Curing Concrete Test Specimens in the Laboratory.

<u>907-804.02.9--Testing Personnel</u>. Delete Table 2 in this subsection and replace it with the following.

Table 2

Concrete Technician's Tasks	Test Method Required	Certification Required**
Sampling or Testing of Plastic Concrete	AASHTO Designation: T 23, T 119, T 121, T 141, T 152, T 196, and ASTM Designation: C 1064	MDOT Class I certification
Compressive Strength Testing of Concrete Cylinders	AASHTO Designation: T 22 and T 231	MDOT Concrete Strength Testing Technician certification
Sampling of Aggregates	AASHTO Designation: T 2	Work under the supervision of an MDOT Class II certified technician
Testing of Aggregates	AASHTO Designation: T 19, T 27, T 84, T 85, T 248, and T 255	MDOT Class II certification
Proportioning of Concrete Mixtures*	AASHTO Designation: M 157 and R 39	MDOT Class III
Interpretation and Application of Maturity Meter Readings	AASHTO Designation: T 325 and ASTM Designation: C 1074	MDOT Class III or Two hours maturity method training

- * Technicians making concrete test specimens for meeting the requirements of Subsection 804.02.10.1.2 shall be MDOT Class I certified and under the direct supervision of an MDOT Class III certified technician.
- ** MDOT Class I certification encompasses the same test procedures and specifications as ACI Concrete Field Testing Technician Grade I. MDOT Class II certification encompasses the same test procedures and specifications as ACI Aggregate Testing Technician Level 1. MDOT Concrete Strength Testing Technician encompasses the same test procedures and specifications as ACI Concrete Strength Testing certification.

For specifics about the requirements for each level of certification, please refer to the latest edition of the Department's *Concrete Field Manual*. Technicians holding current MDOT Class I, MDOT Class II and/or MDOT Class III certifications shall be acceptable until those certifications expire. Upon a current certification expiration, recertification with the certifications listed in Table 2 shall be required. Technicians currently performing either specific gravity testing of aggregates or compressive strength tests shall be required to either:

- have the required MDOT certification listed in Table 2, or
- have a current MDOT Class III certification or work under the direct supervision of current MDOT Class III technician, and have demonstrated the specific gravity and/or compressive strength test during the inspection of laboratory equipment by the Materials Division, Concrete Section.

<u>907-804.02.10--Portland Cement Concrete Mix Design</u>. Delete the Notes under Table 3 of Subsection 804.02.10 on pages 850 & 851, and substitute the following:

- * Maximum size aggregate shall conform to the concrete mix design for the specified aggregate.
- ** The replacement limits of Portland cement by weight by other cementitious materials (such as fly ash, GGBFS, metakaolin, silica fume, or others) shall be in accordance with the values in Subsection 907-701.02. Other hydraulic cements may be used in accordance with the specifications listed in Section 701.
- *** The slump may be increased up to six (6) inches with an approved mid-range water reducer or up to eight (8) inches with an approved type F or G high range water reducer, in accordance with 907-713.02. Minus slump requirements shall meet those set forth in Table 3 of AASHTO M157 specifications.
- **** Entrained air is not required except for concrete exposed to seawater. For concrete exposed to seawater, the total air content shall be 3.0 % to 6.0%. For concrete not exposed to seawater, the total air content shall not exceed 6.0%.
- ***** Class DS Concrete for drilled shafts shall have an 8±1-inch slump.

Delete the last paragraph of Subsection 804.02.10 on page 851 and substitute the following:

Either Type A, D, F, G or mid-range chemical admixture, shall be used in all classes of concrete. Any combinations of water reducing admixtures shall be approved by the Engineer before their use.

<u>907-804.02.10.1.1--Proportioning on the Basis of Previous Field Experience of Trial Mixtures.</u> Delete the first sentence of the first paragraph of Subsection 804.02.10.1.1 on page 851, and substitute the following:

Where a concrete production facility has a record, based on at least 10 consecutive strength tests from at least 10 different batches within the past 12 months from a mixture not previously used on Department projects, the standard deviation shall be calculated.

<u>907-804.02.10.3--Field Verification of Concrete Mix Design</u>. Delete the third sentence of the third paragraph of Subsection 804.02.10.3 on page 853, and substitute the following:

If the requirements of yield, slump, or total air content are not met within three (3) production days after the first placement, subsequent field verification testing shall not be permitted on department projects, and the mix design shall not be used until the requirements listed above are met

<u>907-804.02.10.4--Adjustments of Mixture Proportions</u>. Delete the paragraph in Subsection 804.02.10.4 on page 854, and substitute the following:

The mixture may be adjusted by the Class III Certified Technician representing the Contractor in accordance with the allowable revisions listed in the Department's Concrete Field Manual, paragraph 5.7. Written notification shall be submitted to the Engineer a minimum of seven (7) days prior to any source or brand of material change, aggregate size change, allowable material type change, or decrease in any cementitious material content. Any adjustments of the concrete mixture design shall necessitate repeat of field verification procedure as described in Subsection 804.02.10.3 and approval by the Engineer.

<u>907-804.02.11--Concrete Batch Plants.</u> Delete the first three paragraphs of Subsection 804.02.11 on page 854, and substitute the following:

The concrete batch plant shall meet the requirements of the National Ready Mixed Concrete Association *Quality Control Manual, Section 3, Plant Certification Checklist* as outlined in the latest edition of the Department's *Concrete Field Manual*. The Contractor shall submit a copy of the approved checklist along with proof of calibration of batching equipment, i.e., scales, water meter, and admixture dispenser, to the Engineer 30 days prior to the production of concrete.

For large volume projects the concrete batch plant shall meet the requirements for an automatic system capable of recording batch weights. It shall also have automatic moisture compensation for the fine aggregate. For small volume projects, the concrete batch plant can be equipped for manual batching with a fine aggregate moisture meter visible to the plant operator.

The concrete batch plant shall have available adequate facilities to cool concrete during hot weather.

Mixer trucks to be used on the project are to be listed in the checklist and shall meet the requirements of the checklist.

<u>**907-804.02.12--Contractor's Quality Control.**</u> Delete the fourth paragraph of Subsection 804.02.12 on page 854 & 855, and substitute the following:

The Contractor's Quality Control program shall encompass the requirements of AASHTO Designation: M 157 into concrete production and control, equipment requirements, testing, and batch ticket information. The requirement of AASHTO Designation: M 157, Section 11.7 shall

be followed except, on arrival to the job site, a maximum of 1½ gallons per cubic yard is allowed to be added. Water shall not be added at a later time. If the maximum permitted slump is exceeded after the addition of water at the job site, the concrete shall be rejected.

907-804.02.12.3--Documentation. After the second sentence of the second paragraph of Subsection 804.02.12.3 on page 856, add the following:

Batch tickets and gradation data shall be documented in accordance with Department requirements. Batch tickets shall contain all the information in AASHTO Designation: M157, Section 16 including the additional information in Subsection 16.2 with the following exception: the information listed in paragraphs 16.2.7 and 16.2.8 is not required. Batch tickets shall also contain the concrete producer's permanent unique mix number assigned to the concrete mix design.

907-804.02.12.5--Non-Conforming Materials. In Table 4 of Subsection 804.02.12.5 on page 857, delete "/ FM" from the requirements on line B.3.a.

907-804.02.13--Quality Assurance Sampling and Testing. In Table 5 of Subsection 804.02.13 on page 858, delete "and FM" from the requirements on line A.3.

<u>907-804.02.13.1.4--Temperature.</u> Delete the first paragraph of Subsection 804.02.13.1.4 on pages 859 & 860, and substitute the following:

Cold weather concreting shall follow the requirements of Subsection 907-804.03.16.1. Hot weather concreting shall follow the requirements of Subsection 804.03.16.2 with a maximum temperature of 95°F for Class DS concrete or for concrete mixes containing cementitious materials meeting the requirements of Subsection 907-701.02.2 as a replacement of Portland cement. For other concrete mixes, the maximum concrete temperature shall be 90°F. Concrete with a temperature more than the maximum allowable temperature shall be rejected and not used in Department work.

907-804.03--Construction Requirements.

<u>907-804.03.15--Removal of Falsework, Forms, and Housing</u>. Delete the first sentence of the second paragraph of Subsection 804.03.15 on page 871, and substitute the following:

Concrete in the last pour of a continuous superstructure shall have attained a compressive strength of 2,400 psi, as determined by cylinder tests or maturity meter probe, prior to striking any falsework.

Delete the first sentence of the third paragraph of Subsection 804.03.15 on page 871, and substitute the following:

At the Contractor's option and with the approval of the Engineer, the time for removal of forms may be determined by cylinder tests, in accordance with the requirements listed in Table 6, in which case the Contractor shall furnish facilities for testing the cylinders.

Delete the fourth and fifth paragraphs of Subsection 804.03.15 on pages 871 & 872, and substitute the following:

The cylinders shall be cured under conditions which are not more favorable than those existing for the portions of the structure which they represent.

Delete the table in Subsection 804.03.15 on page 872, and substitute the following:

Table 6
Minimum Compressive Strength Requirements for Form Removal

Forms:		
rorms:		1000
	Columns	
	Side of Beams	1000 psi
	Walls not under pressure	1000 psi
	Floor Slabs, overhead	2000 psi
	Floor Slabs, between beams	2000 psi
	Slab Spans	2400 psi
	Other Parts	1000 psi
Centeri		
	Under Beams	2400 psi
	Under Bent Caps	2000 psi
Limitat	ion for Placing Beams on:	
	Pile Bents, pile under beam	2000 psi
	Frame Bents, two or more columns	_
	Frame Bents, single column	

In lieu of using concrete strength cylinders to determine when falsework, forms, and housings can be removed, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. Falsework, forms, and housings may be removed when maturity meter readings indicate that the required concrete strength is achieved. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T 325 and ASTM Designation: C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

Table 7
Requirements for use of Maturity Meter Probes

Structure Component	Quantity of Concrete	No. of Probes
Slabs, beams, walls, & miscellaneous items	$0 - 30 \text{ yd}^3$	2
	$> 30 \text{ to } 60 \text{ yd}^3$	3
	$> 60 \text{ to } 90 \text{ yd}^3$ $> 90 \text{ yd}^3$	4
	$> 90 \text{ yd}^3$	5
Footings, Columns & Caps	$0 - 13 \text{ yd}^3$	2
	$> 13 \text{ yd}^3$	3
Pavement, Pavement Overlays	1200 yd^2	2
Pavement Repairs	Per repair or 900 yd ²	2
-	Whichever is smaller	

907-804.03.16--Cold or Hot Weather Concreting.

907-804.03.16.1--Cold Weather Concreting. After the third paragraph of Subsection 804.03.16.1 on page 873, add the following:

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

Rename the Table in Subsection 804.03.16.1 on page 874 from "Table 6" to "Table 8".

907-804.03.19--Finishing Concrete Surfaces.

907-804.03.19.7--Finishing Bridge Floors.

907-804.03.19.7.4--Acceptance Procedure for Bridge Deck Smoothness. After the first sentence of the second paragraph of Subsection 804.03.19.7.4 on page 886, add the following:

Auxiliary lanes, tapers, shoulders and other areas that are not checked with the profilograph, shall meet a 1/8 inch in 10-foot straightedge check made transversely and longitudinally across the deck or slab.

907-804.05--Basis of Payment. Add the "907" prefix to the pay items listed on page 898.

SPECIAL PROVISION NO. 906-3

Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under this special provision will be as indicated in the bid schedule of the contract.

In the event that a Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a

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journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A

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Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

SPECIAL PROVISION NO. 906-6

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ON-THE-JOB TRAINING PROGRAM

ALTERNATE TRAINING SPECIAL PROVISION

PURPOSE

The purpose of the On-The-Job Training (OJT) Program is to provide training for minority, female and economically disadvantaged individuals in order that they may develop marketable skills and gain journey status in the skilled craft classifications in which they are being trained.

INTRODUCTION

This voluntary OJT Program has been developed through the partnering efforts of the Road Builders of Mississippi, the Federal Highway Administration (FHWA) and the Mississippi Department of Transportation (MDOT).

The OJT Program has been designed for use by participating contractors and subcontractors in meeting their training needs. The objective of the OJT Program is to develop skilled workers in the skilled craft trade areas of highway construction who are sufficiently trained to be productive employees in the highway construction industry work force.

The success of the OJT Program will require that contractors and subcontractors take part in the program and follow uniform procedures in training and in tracking trainee's progress.

FUNDING

MDOT will establish an annual OJT Fund from which, contractors and subcontractors may bill the Department directly for hours worked by trainees. The funding source of this money will be state and federal funds for MDOT's OJT Program.

DISBURSEMENT OF FUNDS

MDOT will pay \$3.00 per hour toward the trainee's salary for each hour of training performed by <u>each</u> trainee in an approved training program. Program reimbursements will be made directly to the prime or sub contractor. Requests for payment will be submitted to the Office of Civil Rights for approval.

Contractors must provide a signed invoice providing the following information to be reimbursed.

- Contractor's Name
- Mailing Address
- Trainee Name
- Social Security Number

- Race
- Sex
- Project Number
- Job Classification
- Total Number of Hours Completed

TRAINING PROGRAM APPROVAL

- A. To use the OJT Program on highway construction projects, the contractor will notify the Department Office of Civil Rights using the On-the-Job Trainee Schedule Form. The notification must include the following information:
 - Trainee Starting Date
 - Project number (s) trainee starting on
 - Training program (classification) to be used; and
 - Number of Training Hours Required
- B. If a contractor chooses to use a training program different from those listed in the OJT Program Manual, or desires to train in a different classification, the training program must be submitted in its entirety for approval by the Department and FHWA. The training proposal must include the following:
 - 1. The primary objective of the program: To provide training for minority, female and economically disadvantaged individuals for development to full journey status in the work classifications in which they are being trained.
 - 2. The minimum number of hours and type of training the trainee will receive as it relates to each specific task required to achieve journey status.
 - 3. No less than minimum wage.
 - 4. Trainee certification of completion.
 - 5. Records and reports submitted to the Office of Civil Rights on a monthly basis.

DEPARTMENT RESPONSIBILITY

- Department project staff will monitor trainees on the project. They will monitor payrolls
 for payment of correct wage rates and fringe benefits. The Office of Civil Rights will
 maintain a master list by contractor name, project number, trainee name and trainee
 social security number to aid project staff in monitoring trainees who work on multiple
 projects.
- 2. The Office of Civil Rights may elect to interview trainees periodically during the training period to assess their performance and training program.

CONTRACTOR RESPONSIBILITY

- 1. Trainees must be identified on payrolls (i.e. dragline trainee).
- 2. When any trainee completes a program, or is terminated for a reason or reasons other than successful completion, the contractor must include the date of completion or an explanation for the termination and date of termination on the OJT Termination Report.
- 3. The contractor will assign each trainee to a particular person--either a supervisor or a journeyman/woman who is proficient in the craft the trainee is being trained in, to ensure that timely instructional experience is received by the trainee. This person, cooperating with the appropriate company personnel, will see that proper records and the total intended training hours are completed during the allocated number of hours set up in the classification criteria.
- 4. The contractor has the prerogative of terminating the training period of the trainee and advancing the trainee to journey status. Approval requests must be submitted to the Office of Civil Rights with an explanation (*refer to 2 above*).
- 5. Upon notification from the contractor, the Department will issue a skill verification card and certificate of training to the trainee.
- 6. Trainees may be transferred to state-aid highway construction projects in order to complete the training program. If transfers are made the Office of Civil Rights must be notified on the Monthly Trainee Form. All of the training hours completed by trainees will count toward overall program completion.
- 7. Program reimbursements will be made directly to the prime or sub contractor.

WAGE RATE

The wage rate for all trainees is the current Minimum Federal Wage Rate, during their OJT training program. Trainees shall be paid full fringe benefit amounts, where applicable. At the completion of the training program, the trainee shall receive the wages of a skilled journey.

RECRUITMENT AND SELECTION PROCEDURES

A. Prerequisites for Trainees

To be qualified for enrollment in the OJT Program, trainees must possess basic physical fitness for the work to be performed, dependability, willingness to learn and ability to follow instructions.

B. Licenses

Truck driver trainees must possess appropriate driver permits or licenses for the operation of Class A, B and C trucks. However, when an instructional permit is used in lieu of a license, the trainee must be accompanied by an operator who:

- 1. Holds a license corresponding to the vehicle being operated;
- 2. Has had at least one year of driving experience; and
- 3. Is occupying the seat next to the driver.

C. Recruitment

- 1. Notices and posters setting forth the contractor's Equal Employment Opportunity Policy and availability of training programs will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- 2. The contractor must target minority, female or economically disadvantaged trainees.
- 3. The contractor will conduct systematic and direct recruitment through public and private employee referral sources. Contractors must submit the trainee's name and completed application form to the Office of Civil Rights for review and approval. Approval must be obtained before the trainee can begin work under the training program.
- 4. Present employees will be screened for upgrading.

D. Selection

- 1. The selection and employment of a person by participating contractor shall qualify the person for the OJT Program.
- 2. Selection will be made without regard to race, color, religion, sex, age or national origin and shall be completely nondiscriminatory.
- 3. Employment of trainees will be in accordance with the work force requirements of the contractor. Each contractor will hire and train the trainees for uses in their own organization.
- 4. Written certification of individuals under the category of economically disadvantaged can be provided to the contractor at the time of the interview. This certification must then be provided to the Office of Civil Rights with the other required information as part of the approval process for trainees.
- **NOTE:** The OJT Program is to provide training for minority, female and economically disadvantaged individuals in order that they may develop marketable skills and gain journey status in the skilled craft classifications in which they are being trained. However, this program does not exclude trainees that are not members of the above groups.

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 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.

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

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

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,			
	DATE			
		ontractor		
	BYSi	ignature		
	TITLE			
	ADDRESS			
	CITY, STATE, ZIP			
	PHONE			
	FAX			
	E-MAIL			
(To be filled in if a corporation)				
Our corporation is chartered under the Laws of th titles and business addresses of the executives are as follows:		and	the	names,
President	Ac	ddress		
Secretary	Ac	ddress		
Treasurer	Ac	ddress		

Revised 09/21/2005

The following is my (our) itemized proposal.

Overlaying approximately 5 miles of SR 35 at Carthage, known as State Project No. MP-5035-40(017) / 303628301, in the County of Leake, State of Mississippi.

I (We) agree to complete the entire project within the specified contract time.

*** SPECIAL NOTICE TO BIDDERS *** BIDS WILL NOT BE CONSIDERED UNLESS BOTH UNIT PRICES AND ITEM TOTALS ARE ENTERED. BIDS WILL NOT BE CONSIDERED UNLESS THE BID CERTIFICATION LOCATED AT THE END OF THE BID SHEETS IS SIGNED

BID SCHEDULE

Line	Item Code	Adj	Quantity	Units	Description	Unit Pric	e	Item Amo	unt
No.		Code				Dollar	Ct	Dollar	Ct
					Roadway Items	-			
0010	202-B005		1,000	Square Yard	Removal of Asphalt Pavement, All Depths				
0020	202-B025		16	Square Yard	Removal of Concrete Paved Ditch				
0030	202-B076		7,338	Linear Feet	Removal of Traffic Stripe				
0040	202-B136		16	Each	Removal of Guard Rail Terminal End Section				
0050	202-B144		1,257	Linear Feet	Removal of Bituminous Curb				
0060	221-A001	(S)	2	Cubic Yard	Portland Cement Concrete Paved Ditch				
0070	406-A001		118,296	Square Yard	Cold Milling of Bituminous Pavement, All Depths				
0080	423-A001		3	Mile	Rumble Strips, Ground In				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amour	nt
0090	503-C003		1,568	Linear Feet	Saw Cut, 6-inch				
0100	606-E001		16	Each	Guard Rail, Terminal End Section				
0110	609-E001		1,797	Linear Feet	Bituminous Curb				
0120	616-B001	(S)	400	Square Yard	Hot Bituminous Median and/or Island Pavement				
0130	618-A001		1	Lump Sum	Maintenance of Traffic	XXXXXXXX	XXX		
0140	618-B001		1	Square Feet	Additional Construction Signs	10.	00	10.	00
0150	619-A1002		19	Mile	Temporary Traffic Stripe, Continuous White				
0160	619-A2002		12	Mile	Temporary Traffic Stripe, Continuous Yellow				
0170	619-A3006		12	Mile	Temporary Traffic Stripe, Skip White				
0180	619-A4006		4	Mile	Temporary Traffic Stripe, Skip Yellow				
0190	619-A5001		52,990	Linear Feet	Temporary Traffic Stripe, Detail				
0200	619-A6001		3,775	Linear Feet	Temporary Traffic Stripe, Legend				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price	Bid Amount
0210	619-A6002		575	Square Feet	Temporary Traffic Stripe, Legend		
0220	619-D1001		88	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet		
0230	619-D2001		448	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More		
0240	619-G4001		54	Linear Feet	Barricades, Type III, Single Faced		
0250	627-K001		825	Each	Red-Clear Reflective High Performance Raised Markers		
0260	627-L001		2,600	Each	Two-Way Yellow Reflective High Performance Raised Markers		
0270	628-I002		640	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip White		
0280	628-J002		4,552	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous White		
0290	628-L002		2,276	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip Yellow		
0300	628-M002		1,790	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow		
0310	628-O001		640	Linear Feet	High Performance Cold Plastic Detail Stripe, White		
0320	628-P001		154	Square Feet	High Performance Cold Plastic Legend, White		

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price	Bid Amount
0330	628-P002		1,120	Linear Feet	High Performance Cold Plastic Legend, White		
0340	630-F001		81	Each	Delineators, Guard Rail, White		
0350	635-A001		2,454	Linear Feet	Vehicle Loop Assemblies		
0360	907-304-A001	(GY)	6,500	Cubic Yard	Granular Material, LVM, Class 5, Group C		
0370	907-403-A006	(BA1)	25,305	Ton	Hot Mix Asphalt, MT, 12.5-mm mixture		
0380	907-403-B005	(BA1)	1,500	Ton	Hot Mix Asphalt, MT, 19-mm mixture, Leveling		
0390	907-504-A001	(C)	2,560	Square Yard	6" Fiber Reinforced Concrete Pavement		
0400	907-626-A003		6	Mile	6" Thermoplastic Traffic Stripe, Skip White		
0410	907-626-C004		10	Mile	6" Thermoplastic Edge Stripe, Continuous White		
0420	907-626-D003		2	Mile	6" Thermoplastic Traffic Stripe, Skip Yellow		
0430	907-626-E004		6	Mile	6" Thermoplastic Traffic Stripe, Continuous Yellow		
0440	907-626-G004		14,518	Linear Feet	Thermoplastic Detail Stripe, White		

Section 905 Proposal (Sheet 2 - 5)

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price	Unit Price		Bid Amount	
0450	907-626-G005		19,257	Linear Feet	Thermoplastic Detail Stripe, Yellow					
0460	907-626-H004		2,757	Linear Feet	Thermoplastic Legend, White					
0470	907-626-H005		575	Square Feet	Thermoplastic Legend, White					

	*** BID CERTIFICATION ***	
TOTAL BID	\$\$	
	*** CIONATUDE CTATEMENT ***	
BIDDER ACKNOWLEDGES THAT HE/SHE HAS CH THEREIN CONSTITUTE THEIR OFFICIAL BID.	*** SIGNATURE STATEMENT *** HECKED ALL ITEMS IN THIS PROPOSAL FOR ACCURACY	AND CERTIFIED THAT THE FIGURES SHOWN
	BIDDER'S SIGNATURE	-
		-
	BIDDER'S COMPANY	

BIDDER'S FEDERAL TAX ID NUMBER

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.

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

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 th	sippi Transporta e basis of lowes	tion Con t separate	nmission not only reservice bids or combination	erves the right to reject bids most advantageous	any and all proposals, but also the sto the State.			
It is further understood and agree in every respect as a separate co					and that each contract shall operate			
I (We), the undersigned, agree t	o 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 <u>DOES</u> <u>NOT</u> 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. Contractor By _____

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

<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, Partn	ership, or Corporation)
penalty of perjury under the laws of the United	States and the State of Mississippi that
	, Bidder
(Name of Firm, Partnership, or Corporati	on)
on Project No. MP-5035-40(017) / 303628301	,
in Leake directly or indirectly entered into any agreement, particip action in restraint of free competitive bidding in connection officers or principal owners.	pated in any collusion; or otherwise taken any
Except as noted hereafter, it is further certified that said lead owners, managers, auditors and others in a position of admissispension, debarment, voluntary exclusion or determine pending; nor been suspended, debarred, voluntarily exclusion three years by the Mississippi Transportation Commission, federal agency; nor been indicted, convicted or had a civil jurisdiction in any matter involving fraud or official miscon	inistering federal funds are not currently under ation of ineligibility; nor have a debarment aded or determined ineligible within the past the State of Mississippi, any other State or a l judgment rendered by a court of competent
Initial here "" if exceptions are attached and made whom it applies, initiating agency and dates of such action.	a part thereof. Any exceptions shall address to
Note: Exceptions will not necessarily result in denial of bidder responsibility. Providing false information may resanctions.	
All of the foregoing and attachments (when indicated) is tru	e and correct.
Executed on	Signature
	Signature
(5/29/2008S)	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

<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-5035-40(017) / 303628301 ,
in <u>Leake</u> 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
(5/29/2008S)

SECTION 902
CONTRACT FOR MP-5035-40(017) / 303628301
LOCATED IN THE COUNTY(IES) OF <u>Leake</u>
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 th
It is agreed and understood that each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein, and, if through mere mistake or otherwise any such provision is not inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

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

Witness our signatures this the _			this the	day of								
	Con	tracto	r (s)									
Ву						MISSISSIPPI TRANSPORTATION COMMIS				SSION		
Title					By							
Title Signed and sealed in the presence of:			,	Executive Director								
(names	and addresses	s of w	itness	es)								
						Secretar	ry to the Comm	ission				
Award	authorized	by	the	Mississippi	Transportation	n Commission in	session or	the		day	of	
			, _	, Minu	te Book No	, Page No)					

SECTION 903

CONTRACT BOND FOR: MP-5035-40(017) / 303628301
LOCATED IN THE COUNTY(IES) OF: Leake
STATE OF MISSISSIPPI,
COUNTY OF HINDS
Know all men by these presents: that we,
Principal, a
residing at in the State of
and
residing at in the State of,
authorized to do business in the State of Mississippi, under the laws thereof, as surety, are held and firmly bound unto the State of Mississippi in the sum of
(\$) Dollars, lawful money of the United States of America, to be paid
to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators, successors, or
assigns jointly and severally by these presents.
The conditions of this bond are such, that whereas the said
principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing the date of
day of A.Dhereto annexed, for the construction of certain projects(s)
in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents therefor, on
file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.
Now therefore, if the above bounden
in all things shall stand to and abide by and well and truly observe, do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on his (their) part to be observed, done, kept and performed and each of them, at the time and in the manner and form and furnish all of the material and equipment specified in said contract in strict accordance with the terms of said contract which said plans, specifications and special provisions are included in and form a part of said contract and shall maintain the said work contemplated until its final completion and acceptance as specified in Subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Commission from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employees in the performance of said work or in any manner connected therewith, and shall be liable and responsible in a civil action instituted by the State at the instance of the Mississippi Transportation Commission or any officer of the State authorized in such cases, for double any amount in money or property, the State may lose or be overcharged or otherwise defrauded of, by reason of wrongful or criminal act, if any, of the Contractor(s), his (their) agents or

SECTION 903 - CONTINUED

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.

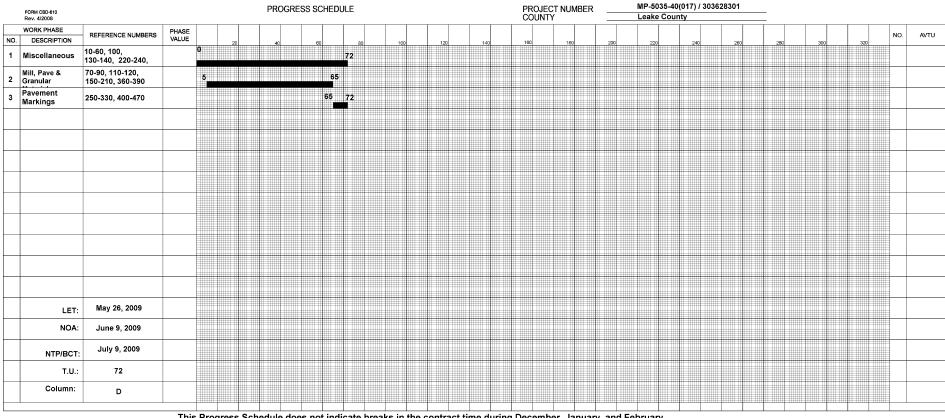
Witness our signatures and seals this the	day of A.D
(Contractors) Principal	Surety
Ву	By
	(Signature) Attorney in Fact
	Address
Title	
(Contractor's Seal)	Mississippi Resident Agent
	(Signature) Mississippi Resident Agent
	Address
	(Surety Seal)



BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we	e		
		Contractor	
		Address	
		City, State ZIP	
as Principal, hereinafter called the Principal, and			
a corporation duly organized under the laws of the st	tate of		
as Surety, hereinafter called the Surety, are held and	firmly bound unto S	tate of Mississippi, Jacks	son, Mississippi
As Obligee, hereinafter called Obligee, in the sum of	f Five Per Cent (5%)	of Amount Bid	
		Dollars (\$)
for the payment of which sum will and truly to be executors, administrators, successors and assigns, jo		-	nd ourselves, our heirs,
WHEREAS, the Principal has submitted a bid for State Project No. MP-5035-40(017) / 303628301, i			at Carthage, known as
said Principal will, within the time required, enter in performance of the terms and conditions of the con- will pay unto the Obligee the difference in money which the Obligee legally contracts with another par- in no event shall liability hereunder exceed the penal	atract, then this obligation between the amount of ty to perform the work	on to be void; otherwise f the bid of the said Princ	the Principal and Surety cipal and the amount for
Signed and sealed this day of	, 2009		
		(Principal)	(Seal)
	By:		
(Witness)		(Name)	(Title)
		(Surety)	(Seal)
	Ву:		
(Witness)	· ·	(Attorney-in-Fac	et)
		MS Resident Ag	ent
		Mississippi Insurance II	D Number

Bid bond must be signed or countersigned by a qualified Mississippi resident agent and the bidder as per Section 102.08 of the Mississippi Standard Specifications for Road and Bridge Construction, 2004 edition.



This Progress Schedule does not indicate breaks in the contract time during December, January, and February.

Per Section 108 of the Specifications, during the months of December, January, and February, time will only be assessed in the Miscellaneous Phase.