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 **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDU	JM NO.	1	DATED	1/14/2	011	ADDEND	UM NO.	DATED			
ADDENDU	JM NO		DATED			ADDEND	UM NO.	DATED)		
1315M; Revi replaces sam		Description ontents, replace same; Ad ised Supplement SP 907-40 ne; Revised supplement SP 9 is same; Amendment EBS Do		01-10M, 07-804-	TOTAL ADDENDA: <u>1</u> (Must agree with total addenda issued prior to opening of bids) Respectfully Submitted, DATE						
							Con	tractor			
					BV			liactor			
					D1_		Sig	nature			
					TITL	LE					
					PHO	NE					
(To be filled in	n if a corpo	oration)									
Our c titles and busin	orporation ness addres	is charte sses of the	red under the I e executives ar	Laws of the as follo	he State ws:	e of			and	the	names,
	Presi	dent					Add	ress			
	Secr	etary					Add	ress			
	Treas	surer					Add	ress			
The following	is my (ou) itemize	d proposal.								
Revised 09/21/2	005					BR-	2175-00(007) /	101839301	Pike	Cou	nty(ies)

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SECTION 905 - PROPOSAL,

PROPOSAL BID SHEETS,

COMBINATION BID PROPOSAL,

STATE BOARD OF CONTRACTORS REQUIREMENTS NON-COLLUSION CERTIFICATE, SECTION 902 - CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORMS, PILE DRIVING FORM,

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

SECTION 904 - NOTICE TO BIDDERS NO. 1315

CODE: (SP)

DATE: 01/14/2011

SUBJECT: Shoulder Wedge

PROJECT: BR-2175-00(007) / 101839301 -- Pike

Bidders are hereby advised that the Shoulder Wedge specified in the Supplement to Special Provision 907-401-10M shall only apply to the top two (2) lifts of asphalt.

SUPPLEMENT TO SPECIAL PROVISION NO. 907-401-10M

DATE: 03/2/2010

SUBJECT: Hot Mix Asphalt (HMA) and Warm Mix Asphalt (WMA)

<u>907-401.01--Description.</u> Delete the first sentence of Subsection 907-401.01 on page 1, and substitute the following:

These specifications include general requirements that are applicable to all types of Hot Mix Asphalt (HMA) or Warm Mix Asphalt (WMA) along with the specific requirements for each particular mixture when deviations from the general requirements are necessary.

907-401.02--Materials. Delete Subsection 907-401.02.2 on page 4, and substitute the follows:

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

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

<u>907-401.02.4--Substitution of Mixture</u>. Delete the table in Subsection 907-401.02.4 on page 7, and substitute the following:

	Single Lift Laying Thickness millimeters					
Mixture	Minimum	Maximum				
25 mm	75	100				
19 mm	55	90				
12.5 mm	40	65				
9.5 mm	25	40				
4.75 mm	12.5	20				

In Subsection 907-401.02.6.4.1 on pages 15 & 16, delete subparagraphs 1., 2., & 3. 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.

907-401.03--Construction Requirements.

<u>**907-401.03.1.1--Weather Limitations.**</u> After the last paragraph of Subsection 907-401.03.1.1 on page 23, add the follows:

NOTE: When WMA products and processes are utilized, the air and pavement temperature at the time of placement shall equal or exceed 4°C, regardless of compacted lift thickness.

<u>907-401.03.1.2--Tack Coat</u>. Delete the three sentences of Subsection 907-401.03.1.2 on page 23, 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 410-8. 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 907-401.03.1.4 on page 23 and substitute the following:</u>

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 907-401.02.4, the required lot density shall be 92.0 percent of maximum density.

<u>907-401.03.8--Preparation of Mixture.</u> Delete the sentence in Subsection 907-401.03.8 on page 28, and substitute the following:

The temperature of the HMA mixture, when discharged from the mixer, shall not exceed 171°C. The temperature of the WMA mixture, when discharged from the mixer, shall not exceed 138°C.

<u>**907-401.03.9--Material Transfer Equipment.</u>** Delete the paragraph in Subsection 907-401.03.9 on page 28 and substitute the following:</u>

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 300 meters of pavement on each side of the structure, acceleration and deceleration lanes less than 300 meters in length, tapered sections, transition sections for width, shoulders less than three meters in width, crossovers, ramps, side street returns and other areas designated by the Engineer.

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<u>907-401.03.12--Joints</u>. Delete the third paragraph of Subsection 907-401.03.12 on page 29 and substitute the following:

The contact surface of transverse joints and longitudinal joints in the surface lift, except hot joints, shall be sealed by spraying a thin, uniform coat of PavonTM, CrafcoTM Pavement Joint Adhesive No. 34524, or approved equal, prior to placement of additional HMA against the previously placed material.

Prior to application of the sealant, the face of the joint shall be thoroughly dry and free from dust or any other material that would prevent proper sealing. All joints shall be swept or blown free of loose material, dirt, vegetation, and other debris by means of compressed air or a power sweeper.

Truck and vehicle traffic shall not drive across a sealed joint until it has dried sufficient to prevent damage from tracking.

After Subsection 907-401.03.13 on page 29, add the following:

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

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

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

Contact; Gary D. Antonelli Cell: 518-368-5699 email: <u>garya@nycap.rr.com</u> Website: <u>www.advantedgepaving.com</u>

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

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SUPPLEMENT TO SPECIAL PROVISION NO. 907-804-20M

DATE: 01/11/2011

SUBJECT: Concrete Bridges and Structures

Delete the third and fourth sentences of the first paragraph of Subsection 907-804.02.1 on page 1, and substitute the following:

For projects with 765 cubic meters and more, quality control and acceptance shall be achieved through statistical evaluation of test results. For projects of more than 150 but less than 765 cubic meters, quality control and acceptance shall be achieved by individual test results.

Delete the following material from the list of materials in 907-804.02.1 on page 2:

Delete the first sentence of the first paragraph of Subsection 907-804.02.10 on page 5, and substitute the following:

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

Delete the third note (***) under Subsection 907-804.02.10 on page 6, and substitute the following:

^{***} The slump may be increased up to 200 millimeters with :

- an approved water-reducing admixture,
- an approved water-reducing/set-retarding admixture, or
- a combination of an approved water-reducing admixture and an approved set-retarding admixture, in accordance with 907-713.02. Minus slump requirements shall meet those set forth in Table 3 of AASHTO Designation: M157.

Delete the last paragraph of Subsection 907-804.02.10 on page 2 and substitute the following:

At least one water-reducing admixture shall be used in all classes of concrete in accordance with the manufacturer's recommended dosage range. Any combinations of admixtures shall be approved by the Engineer before their use.

Delete the first sentence of the third paragraph of Subsection 907-804.02.10.3 on page 8 and substitute the following:

For all Classes of concrete, the mixture shall be verified to yield within 2.0% of the correct volume when all the mix water is added to the batch.

For all Classes of concrete other than DS, F, and FX, the mixture shall produce a slump within a minus 38-mm tolerance of the maximum permitted for mixtures with a maximum permitted slump of 150 millimeters or less or within a minus 62-mm tolerance of the maximum permitted for mixtures with a maximum permitted slump of greater than 150 millimeters, and producing a total air content within a minus $1\frac{1}{2}$ percent tolerance of the maximum allowable air content in Table 3.

For Class DS, the slump shall be within the requirements of Note ***** in below Table 3. For Class DS exposed to seawater, the total air content shall be within a minus 1½ percent tolerance of the maximum allowable air content in Note **** below Table 3. For Class DS not exposed to seawater the total air content shall be within the requirements of Note **** in below Table 3.

For Classes F and FX, the slump shall be within a minus 38-mm tolerance of the maximum permitted for mixtures with a maximum permitted slump of 150 millimeters or less or within a minus 62-mm tolerance of the maximum permitted for mixtures with a maximum permitted slump of greater than 150 millimeters. For Classes F and FX exposed to seawater, the total air content shall be within a minus 1½ percent tolerance of the maximum allowable air content in Note **** below Table 3. For Classes F and FX not exposed to seawater the total air content shall be within the requirements of Note **** in below Table 3.

Delete the second paragraph of Subsection 907-804.02.11 on page 9 and substitute the following:

For projects with 765 cubic meters 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 150 but less than 765 cubic meters the plant can be equipped for manual batching with a fine aggregate moisture meter visible to the plant operator.

In Table 4 of Subsection 804.02.12.5 on page 12, replace "One set (two cylinders) for 0-75 m³ inclusive" with "A minimum of one set (two cylinders) for each 75 m³,"

Delete subparagraph c) in Subsection 907-804.02.13 on page 13 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 765 cubic meters and more; or, strength comparisons are within 6.8 MPa for projects of more than 150 but less than 765 cubic meters.

Delete Subsection 907-804.02.13.1 beginning on page 14 and substitute the following:

907-804.02.13.1--Basis of Acceptance.

<u>907-804.02.13.1.1--Sampling</u>. Sampling of concrete mixture shall be performed in accordance with the latest edition of the Department's *Concrete Field Manual*.

<u>907-804.02.13.1.2--Slump</u>. Slump of plastic concrete shall meet the requirements of Table 3: MASTER PROPORTION TABLE FOR STRUCTURAL CONCRETE DESIGN. A check test shall be made on another portion of the sample before rejection of any load.

<u>907-804.02.13.1.3--Air</u>. Total air content of concrete shall be within the specified range for the class of concrete listed in Table 3: MASTER PROPORTION TABLE FOR STRUCTURAL CONCRETE DESIGN. A check test shall be made on another portion of the sample before rejection of any load.

<u>907-804.02.13.1.4--Yield</u>. 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 three percent ($\pm 3\%$). If batching of the proportions of the mix design varies outside the batching tolerance range of the originally approved proportions by more than the tolerances allowed in Subsection 907-804.02.12.1, the new proportions shall be field verified per Subsection 907-804.02.10.3.

<u>907-804.02.13.1.5--Temperature</u>. Cold weather concreting shall follow the requirements of Subsection 907-804.03.16.1. Hot weather concreting shall follow the requirements of Subsection 907-804.03.16.2 with a maximum temperature of 35°C 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 32°C. Concrete with a temperature more than the maximum allowable temperature shall be rejected and not used in Department work.

<u>907-804.02.13.1.6--Compressive Strength</u>. Laboratory cured concrete compressive strength tests shall conform to the specified strength (f'_c) listed in the specifications. Concrete represented by compressive strength test below the specified strength (f'_c) may be removed and replaced by the Contractor. If the Contractor elects not to remove the material, it will be evaluated by the Department as to the adequacy for the use intended. All concrete evaluated as unsatisfactory for the intended use shall be removed and replaced by the Contractor at no additional cost to the Department. For concrete allowed to remain in place, reduction in payment will be as follows:

Projects with 765 Cubic Meters and More. When the evaluation indicates that the work may remain in place, a statistical analysis will be made of the QC and QA concrete test results. If this statistical analysis indicates at least 93% of the material would be expected to have a compressive strength equal to or greater than the specified strength (f'_c) and 99.87% of the material would be expected to have a compressive strength at least one standard deviation above the allowable design stress (f_c) , the work will be accepted. If the statistical analysis indicates that either of the two criteria are not met, the Engineer will provide for an adjustment in pay as follows for the material represented by the test result.

Total Pay on Material in Question = Unit Price - (Unit Price x % Reduction)

% Reduction =
$$\frac{(f'_c - X)}{f'_c - (f_c + s)} \times 100$$

where:

- f'_c = Specified 28-day compressive strength, MPa
- X = Individual compressive strength below f'_c , MPa
- s =standard deviation, MPa*
- f_c = allowable design stress, MPa
- * Standard deviation used in the above reduction of pay formula shall be calculated from the applicable preceding compressive strengths test results plus the individual compressive strength below f'_c . If below f'_c strengths occur during the project's first ten compressive strength tests, the standard deviation shall be calculated from the first ten compressive strength tests results.

Projects of More Than 150 but Less Than 2000 Cubic Meters. When the evaluation indicates that the work may remain in place, a percent reduction in pay will be assessed based on a comparison of the deficient 28-day test result to the specified strength. The Engineer will provide for an adjustment in pay as follows for the material represented by the test result.

Total Pay on Material in Question = Unit Price - (Unit Price x % Reduction)

% Reduction =
$$\frac{(f'_c - X)}{f'_c} \times 100$$

where:

 f'_c = Specified 28-day compressive strength, MPa X = Individual compressive strength below f'_c , MPa

After the last sentence of Subsection 804.03.6.2 on page 19, add the following:

If the Department determines that there is an excessive number of projections, swells, ridges, depressions, waves, voids, holes, honeycombs or other defects in the completed structure, removal of the entire structure may be required as set out in Subsection 105.12.

After the last paragraph of Subsection 907-804.03.16.1 on page 27, change the table number from TABLE "8" to TABLE "6".