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DIVISION OF ENGINEERING SERVICES
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*Flex your power!
Be energy efficient!*

December 15, 2011

06-Ker-119-4.7/8.5
06-0J5204
Project ID 0600000187
ACHSSTP-P119(015)E

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN KERN COUNTY NEAR TAFT FROM 0.2 MILE WEST OF AIRPORT ROAD TO 0.3 MILE WEST OF LAKEVIEW WASH BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Wednesday, January 4, 2012

This addendum is being issued to revise the Notice to Bidders and Special Provisions.

In the Special Provisions, Section 5-1.13, "NONHIGHWAY FACILITIES (INCLUDING UTILITIES)," is revised as attached

In the Special Provisions, Section 10-1.28, "HOT MIX ASPHALT," is revised as attached.

To Bid book holders:

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This addendum and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/06/06-0J5204

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,



REBECCA D. HARNAGEL
Chief, Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

5-1.13 NONHIGHWAY FACILITIES (INCLUDING UTILITIES)

The utility owner will relocate a utility shown in the following table before the corresponding date shown:

Utility Relocation and Date of the Relocation

Utility	Location	Date
Verizon	PM 4.7/8.5	June 1, 2012

During the progress of the work under this Contract, the utility owner will relocate a utility shown in the following table within the corresponding number of days shown. Notify the Engineer before you work within the approximate location of a utility shown. The days start on the notification date.

Utility Relocation and Department-Arranged Time for the Relocation

Utility	Location	Days
Gas Valve Cover	Sta 146+20, 20' Rt	5
Water Valve Covers	At Various Locations	5

10-1.28 HOT MIX ASPHALT

GENERAL

Summary

This work includes producing and placing hot mix asphalt (HMA) Type A using the Quality Control/Quality Assurance process.

Comply with Section 39, "Hot Mix Asphalt," of the Standard Specifications.

Submittals

Quality Control / Quality Assurance Projects

With the job mix formula (JMF) submittal, submit:

1. California Test 204 plasticity index results
2. California Test 371 tensile strength ratio results for plant produced untreated HMA
3. California Test 371 tensile strength ratio results for treated plant produced HMA if untreated HMA tensile strength ratio is below 70
4. AASHTO T 324 (Modified) using plant produced HMA

At project start-up, submit samples split from your HMA production sample for California Test 371 and AASHTO T324 (Modified) test to the Engineer and the Transportation Laboratory, Attention: Moisture Test.

You will submit test results for each 5,000 tons of HMA produced. Submit the California Test 371 test results and AASHTO T324 (Modified) test results for mix design and production to the Engineer and electronically to:

Moisture_Tests@dot.ca.gov

Data Cores

Three business days before starting coring, submit proposed methods and materials for backfilling data core holes. Submit to the Engineer and electronically to Coring@dot.ca.gov:

1. A summary of data cores taken
2. A photograph of each data core

For each data core, the summary must include:

1. Project identification number
2. Date cored
3. Core identification number
4. Type of materials recovered
5. Type and approximate thickness of unstabilized material not recovered
6. Total core thickness
7. Thickness of each individual material to within:
 - 7.1. For recovered material, 1/2 inch
 - 7.2. For unstabilized material, 1.0 inch
8. Location including:
 - 8.1. County
 - 8.2. Route
 - 8.3. Post mile
 - 8.4. Lane number
 - 8.5. Lane direction
 - 8.6. Station

Each data core digital photograph must include a ruler laid next to the data core. Each photograph must include:

1. The core
2. Project identification number
3. Core identification number
4. Date cored
5. County
6. Route
7. Post mile
8. Lane number
9. Lane direction

After data core summary and photograph submittal, dispose of cores under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

MATERIALS

Asphalt Binder

The grade of asphalt binder mixed with aggregate for HMA Type A must be PG 70-10.

Aggregate

Before the addition of asphalt binder and lime treatment, aggregate must comply with the following additional quality characteristics:

Quality Characteristic	Test Method	Requirement
Coarse Durability Index, D_c (min.)	CT 229	65
Fine Durability Index, D_f (min.)	CT 229	50

The aggregate for HMA Type A must comply with the 3/4-inch grading.

**Hot Mix Asphalt Mix Design
Quality Control/Quality Assurance Projects**

For the mix design, determine the plasticity index of the aggregate blend under California Test 204. Choose an antistrip treatment and use the corresponding laboratory procedure for the mix design in compliance with:

Antistrip Treatment for HMA	
Antistrip Treatment	
Plasticity index from 4 to 10 ^a	Dry hydrated lime with marination
	Lime slurry with marination
Plasticity index less than 4	Liquid
	Dry hydrated lime without marination
	Dry hydrated lime with marination
	Lime slurry with marination

Notes:

^a If the plasticity index is greater than 10, do not use that aggregate blend

For the mix design, determine tensile strength ratio under California Test 371 on plant produced untreated HMA. If the tensile strength ratio is less than 70:

1. Choose from the antistrip treatments specified based on plasticity index.
2. Test treated plant produced HMA.
3. Treat to a minimum tensile strength ratio of 70.

For the mix design, determine AASHTO T 324 (Modified) on plant produced untreated HMA.

AASHTO T 324 (Modified) is AASHTO T 324 "Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)" with the following parameters:

1. Target air voids = 7+/- 1%
2. Number of test specimens = 4
3. Test specimen= 6" gyratory compacted specimen
4. Test temperature = 122 °F +/- 2°F
5. Measurements: Impression at every 100 passes
6. Inflection point¹
7. Testing shut off = 20,000 passes

¹ The inflection point is defined as: The number of wheel passes at the intersection of the creep slope and the stripping slope.

If the Hamburg Wheel Track results do not meet the requirements of Table 1:

Table 1
Hot Mix Asphalt Requirements

PG Binder Grade	Minimum # Passes @ 0.5" Average Rut Depth, tested at 122 °F +/- 2 °F	Inflection Point Minimum # Passes
PG 64 or lower	10,000	5,000
PG 70	15,000	7,500
PG 76 or higher	20,000	10,000

1. Choose from the antistrip treatments specified based on plasticity index.
2. Test treated plant produced HMA.
3. Treat to the minimum values in Table 1.

The Department does not use California Test 371 test results for JMF verification and production to determine specification compliance.

The Department does use AASHTO T 324 (Modified) test results for JMF verification and production to determine specification compliance.

CONTRACTOR QUALITY CONTROL

Quality Control/Quality Assurance Projects

Perform sampling and testing at the specified frequency and location for the following additional quality characteristics:

Minimum Quality Control – QC/QA

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Requirement	Location of Sampling	Maximum Reporting Time Allowance
Coarse durability index (D _c) (min)	CT 229	1 per 3,000 tons during production but not less than 1 per paving day	65	Stockpile - See CT 125 ^a	48 hours
Fine durability index (D _f) (min)	CT 229		50		
Tensile Strength Ratio	CT 371	First production day and at least every 5,000 tons	Report only for treated HMA	Loose Mix Behind the Paver - See CT125	10 working days
Hamburg Wheel Test ^b	AASHTO T 324 (Modified)		Table 1		48 hours ^c

Note:

^a Before lime treatment.

^b AASHTO T 324 (Modified) is AASHTO T 324 “Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)” with the following parameters:

1. Target air voids = 7+/- 1%
2. Number of test specimens = 4
3. Test specimen= 6” gyratory compacted specimen
4. Test temperature = 122 °F +/- 2°F
5. Measurements: Impression at every 100 passes
6. Inflection point¹
7. Testing shut off = 20,000 passes

¹ The inflection point is defined as: The number of wheel passes at the intersection of the creep slope and the stripping slope.

^c Submit to the Engineer within 48 hours of sampling, 2 test specimens and data for AASHTO T 324 (Modified).

ENGINEERS ACCEPTANCE

Quality Control/Quality Assurance Projects

The Engineer samples aggregate for acceptance testing and tests for the following additional quality characteristics:

HMA Acceptance – QC/QA

Quality Characteristic	Test Method	Requirement	Sampling Location
Coarse durability index (D_c) (min)	CT 229	65	Stockpile See CT 125 ^a
Fine durability index (D_f) (min)	CT 229	50	
Hamburg Wheel Test ^b	AASHTO T 324 (Modified)	Table 1	Loose Mix Behind the Paver See CT125

Note:

^a Before lime treatment.

^b AASHTO T 324 (Modified) is AASHTO T 324 "Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)" with the following parameters:

1. Target air voids = 7+/- 1%
2. Number of test specimens = 4
3. Test specimen= 6" gyratory compacted specimen
4. Test temperature = 122 °F +/- 2°F
5. Measurements: Impression at every 100 passes
6. Inflection point¹
7. Testing shut off = 20,000 passes

¹ The inflection point is defined as: The number of wheel passes at the intersection of the creep slope and the stripping slope.

CONSTRUCTION

Rumble Strips

Construct rumble strips in the top layer of new HMA surfacing.

Vertical Joints

Before opening the lane to public traffic, pave shoulders and median borders adjacent to a lane being paved. Do not leave a vertical joint more than 0.15 foot high between adjacent lanes open to public traffic.

Widening

If widening existing pavement, construct new structural section on both sides of the existing pavement to match the elevation of the existing pavement's edge for the project's entire length before placing HMA over the existing pavement.

Conform Tapers

Place shoulder conform tapers concurrently with the adjacent lane's paving.

Place additional HMA along the pavement's edge to conform to road connections and private drives. Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

Data Cores

Take data cores that include the completed HMA pavement, underlying base, and subbase material. Protect data cores and surrounding pavement from damage.

Take 4-inch or 6-inch diameter data cores:

1. At the beginning, end, and every 1/2 mile within the paving limits of each route on the project
2. After all paving is complete
3. From the center of the specified lane

On a 2-lane roadway, take data cores from either lane. On a 4-lane roadway, take data cores from each direction in the outermost lane. On a roadway with more than 4 lanes, take data cores from the median lane and the outermost lane in each direction.

Each core must include the stabilized materials encountered. You may choose not to recover unstabilized material but you must identify the material. Unstabilized material includes:

1. Granular material
2. Crumbled or cracked stabilized material
3. Sandy or clayey soil

PAYMENT

The contract lump sum price paid for data core includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in data coring, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.