

DEPARTMENT OF TRANSPORTATION

DES-OE MS #43
1727 30TH Street, 2ND Floor
Sacramento, CA 95816



**** WARNING ** WARNING ** WARNING ** WARNING ****
This document is intended for informational purposes only.

Users are cautioned that California Department of Transportation (Department) does not assume any liability or responsibility based on these electronic files or for any defective or incomplete copying, excerpting, scanning, faxing or downloading of the contract documents. As always, for the official paper versions of the bidders packages and non-bidder packages, including addenda write to the California Department of Transportation, Plans and Bid Documents, Room 0200, P.O. Box 942874, Sacramento, CA 94272-0001, telephone (916) 654-4490 or fax (916) 654-7028. Office hours are 7:30 a.m. to 4:15 p.m. When ordering bidder or non-bidder packages it is important that you include a telephone number and fax number, P.O. Box and street address so that you can receive addenda.

March 20, 2002

08-Riv-74-37.8/41.7
08-1A0104

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in RIVERSIDE COUNTY NEAR LAKE ELSINORE FROM MAPES ROAD TO NAVAJO ROAD.

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 April 4, 2002. The original bid opening date was previously postponed indefinitely under Addendum No. 1 dated March 6, 2002.

This addendum is being issued to set a new bid opening date as shown herein and revise the Notice to Contractors and Special Provisions.

In the Special Provisions, Section 10-1.13, "ASPHALT CONCRETE," the following paragraphs are added after the eighth paragraph:

"The grade of asphalt binder to be mixed with aggregate for Type A asphalt concrete shall be AR-4000 and shall conform to the provisions in Section 92, "Asphalts," of the Standard Specifications.

The aggregate for Type A asphalt concrete shall conform to the 12.5 mm maximum, medium grading specified in Section 39-2.02, "Aggregate," of the Standard Specifications."

In the Special Provisions, Section 10-1.135, "LIQUID ANTI-STRIP TREATMENT OF ASPHALT CONCRETE," is added as attached.

To Proposal and Contract book holders:

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

Submit bids in the Proposal and Contract 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.

This office is sending this addendum by confirmed facsimile to all book holders to ensure that each receives it.

If you are not a Proposal and Contract 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,

ORIGINAL SIGNED BY

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

Attachment

10-1.135 LIQUID ANTI-STRIP TREATMENT OF ASPHALT CONCRETE

This work shall consist of furnishing liquid anti-strip and treating Type A asphalt concrete with liquid anti-strip in conformance with these special provisions.

Liquid anti-strip shall be added at a rate of 0.5-percent by mass of the asphalt binder.

Liquid anti-strip shall consist of materials conforming to the following requirements:

- A. Total amine value of liquid anti-strip shall be 325 minimum in conformance with the requirements in ASTM Designation: D 2074. Formulation with no solvents will be used as cutback.
- B. Liquid anti-strip shall not change the aged residue viscosity of the proposed asphalt binder by more than $600 \text{ Pa}\cdot\text{s} (\times 10^{-1})$ as measured by ASTM Designation: D 217.

At least two weeks prior to their intended use the Contractor shall furnish the Engineer the following:

- A. Material Safety Data Sheet for liquid anti-strip;
- B. Two 1-liter samples of the proposed liquid anti-strip; and
- C. Infrared analysis including copy of absorption spectra.

The Contractor shall provide a certified copy of tests representing each lot.

A Certificate of Compliance, conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications, shall accompany each shipment of liquid anti-strip to each job. The Certificate shall include the shipment number, type of material, specific gravity of the material, refinery, consignee, destination, quantity, contract or purchase order number, and date of shipment. The Certificate shall state that the material complies with the specifications and shall be signed by the Contractor.

Liquid anti-strip furnished without a Certificate of Compliance shall not be used.

Liquid anti-strip shall be of only one type or brand at any one time during production. Liquid anti-strip of more than one type or more than one brand shall not be mixed.

Liquid anti-strip shall be stored and introduced into the asphalt concrete at the asphalt concrete plant in conformance with the manufacturer's recommendations.

The asphalt concrete plant shall have a suitable sampling device provided in the feed lines connecting plant storage tanks to the liquid anti-strip metering system. The sampling device shall consist of a valve with a nominal diameter between 9 and 13 mm, constructed in a manner such that a sample may be withdrawn slowly at any time during plant operations. The valve shall be maintained in good condition. The sampling device shall be readily accessible and in an area free of obstructions. A drainage receptacle shall be provided for flushing the device prior to sampling. Asphalt binder shall be sampled at a point prior to the addition of liquid anti-strip.

PROPORTIONING

The asphalt concrete proportioning operation shall be of the batch type or continuous mixing type and the use of liquid anti-strip shall be in conformance with the following:

Batch Proportioning

Dispensers for liquid anti-strip shall have sufficient capacity to measure at one time the prescribed quantity required for each batch of asphalt concrete. Each dispenser shall include a graduated measuring unit into which liquid anti-strip is measured for each batch. The indicated material delivered shall not vary from the actual mass delivered by more than 2 percent of the actual mass. Dispensers shall be located and maintained so that the graduations can be accurately read from the point at which proportioning operations are controlled to permit a visual check of batching accuracy prior to discharge. Each measuring unit shall be clearly marked for the type and quantity of admixture.

Dispensers for liquid anti-strip shall operate automatically with the batching control equipment. The dispensers shall be equipped with an automatic warning system that will provide a visible or audible signal at the point at which proportioning operations are controlled when the quantity of anti-strip measured for each batch of asphalt concrete varies from the pre-selected dosage by more than 1 percent, or when the entire contents of the measuring unit are not emptied from the dispenser into each batch of asphalt concrete.

The dispensing of liquid anti-strip into the batch shall be arranged to flow into the stream of asphalt as the asphalt binder enters the pugmill so that the liquid anti-strip is well dispersed throughout the batch.

Continuous Proportioning

Liquid anti-strip shall be proportioned by mass and added to the asphalt at a point in the production stream after the proportioning of the asphalt but before the asphalt is added to the aggregate. Liquid anti-strip shall be proportioned with a mass flow meter of the Coriolis effect type. The meter shall have been Type-approved by the California Department of Agriculture, Division of Measurement Standards, prior to its use. The meter shall be of the appropriate size for the flow intended. The transmitter for the meter shall be located and maintained at the point where the asphalt concrete proportioning operations are controlled. A device shall be provided that will display the meter set points. This device shall be located at the point where the asphalt concrete proportioning operations are controlled.

The meter used for proportioning liquid anti-strip shall be equipped with a rate-of-flow indicator to show the rate of delivery, and a resettable totalizer so that the total amount of liquid anti-strip introduced into the mixture can be determined. The liquid anti-strip totalizer shall not register when the metering system is not delivering liquid anti-strip to the mixer.

The meter used for proportioning liquid anti-strip shall perform with such accuracy that, when operating between 30 percent and 100 percent of production capacity the average difference between the indicated mass of material delivered and the actual mass delivered will not exceed 0.5-percent of the actual mass for 3 individual test runs. For any of the 3 individual test runs, the indicated mass of the material delivered shall not vary from the actual mass delivered by more than 1 percent of the actual mass. Test run duration shall be for a minimum of 35 kg of liquid anti-strip. Test run material shall be liquid anti-strip and shall be weighed on a platform scale located at the asphalt concrete plant. The platform scale shall have a maximum capacity not exceeding 2.5 tonnes and shall have a maximum graduation size of 0.5-kg. The platform scale shall have been Type-approved by the California Department of Agriculture, Division of Measurement Standards, prior to its use, and shall be error tested within 4 hours of meter calibration.

The storage for liquid anti-strip shall be equipped with a device for automatic plant cut-off when the level of the liquid is lowered sufficiently to expose the pump suction line.

The belt scale for the combined aggregate, the proportioning devices for supplemental fine aggregate, if used, the asphalt proportioning meter and the liquid anti-strip proportioning meter shall be interlocked so that the rates of feed of the aggregates, asphalt, and liquid anti-strip will be adjusted automatically at all production rates and production rate changes to maintain the bitumen ratio and liquid anti-strip ratio. The anti-strip ratio is the kilogram of asphalt and liquid anti-strip per 100 kg of dry aggregate, including supplemental fine aggregate if used. The plant shall not be operated unless this automatic system is operating.

PAYMENT

Full compensation for furnishing liquid anti-strip and treating Type A asphalt concrete with liquid anti-strip shall be considered as included in the contract price paid per tonne for asphalt concrete of the type involved and no separate payment will be made therefor.