

DEPARTMENT OF TRANSPORTATION
ES-OE MS #43
1727 30TH Street, 2ND Floor
Sacramento, CA 95816



August 30, 2001

05-SCr-152-5.5/13.4
05-0E9804

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in SANTA CRUZ COUNTY NEAR WATSONVILLE FROM DELANEY AVENUE TO THE SANTA CLARA COUNTY LINE.

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 September 11, 2001.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions and the Proposal and Contract.

Project Plan Sheet 2 is revised as follows:

In the ROADWAY QUANTITY SUMMARY table, the item ASPHALTIC EMULSION (Polymer Modified) is changed to ASPHALT BINDER (Polymer Modified) and the quantity is changed from 124 tonne to 90 tonne.

In the ROADWAY QUANTITY SUMMARY table, the item SCREENINGS (Medium) is changed to SCREENINGS (Hot Applied).

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES," is revised as attached.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the fourth paragraph which read as follows is deleted:

"Prior to stockpiling screenings, the Contractor shall submit to the Engineer written authorization from the local environmental agency permitting stockpiling."

In the Special Provisions, Section 10-1.155 "HOT APPLIED SEAL COAT (POLYMER MODIFIED ASPHALT)," is added as attached.

Addendum No. 1
Page 2
August 30, 2001

05-SCr-152-5.5/13.4
05-0E9804

In the Proposal and Contract, the Engineer's Estimate Items 12 and 13 are added and Items 6 and 7 are deleted as attached.

To Proposal and Contract book holders:

Replace the entire Engineer's Estimate in the Proposal with the attached revised Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

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

Attachments

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to the provisions in Section 8-1.03, "Beginning of Work," in Section 8-1.06, "Time of Completion," and in Section 8-1.07, "Liquidated Damages," of the Standard Specifications and these special provisions.

The Contractor shall begin work within 15 calendar days after the contract has been approved by the Attorney General or the attorney appointed and authorized to represent the Department of Transportation.

The work shall be diligently prosecuted to completion before the expiration of **25 WORKING DAYS** beginning on the fifteenth calendar day after approval of the contract.

The Contractor shall pay to the State of California the sum of \$ 250.00 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

10-1.155 HOT-APPLIED SEAL COAT (POLYMER MODIFIED ASPHALT)

Hot-applied seal coat (polymer modified asphalt) shall consist of an application of hot polymer modified asphalt binder and hot screenings precoated with paving asphalt. Hot-applied seal coat (polymer modified asphalt) shall conform to the provisions specified for Medium Type seal coat in Section 37-1, "Seal Coats," of the Standard Specifications and these special provisions.

Attention is directed to "Order of Work" and "Damage Claims" of these special provisions.

POLYMER MODIFIED ASPHALT BINDER

Polymer modified asphalt binder shall conform to the following requirements:

Specification Designation	AASHTO Designation	Test Requirement
Tests On Residue from RTFO (AASHTO Designation T 240)		
Penetration at 4°C, dmm, 200g, 60 sec.	T 49	30 min.
Absolute viscosity at 60°C, Pa•s x 10 ⁻¹ , straight-wall tube	T 202	5000 min.
Ductility at 25°C, 50 mm per min., mm	T 51	600 min.
Tests on Original Binder		
Kinematic viscosity at 135°C, m ² /s x 10 ⁻⁶	T 201	2000 max.
Flash point, CL.O.C. °C	T 48	232 min.
Solubility, percent	T 44	99 min.

A Certificate of Compliance shall be furnished to the Engineer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. The certificate shall certify that the material which the certificate represents conforms to the provisions specified in these special provisions.

SCREENINGS

Screenings shall conform to the grading and quality requirements for Medium, 9.5-mm x 3.35-mm grading, in Section 37-1.02, "Materials," of the Standard Specifications prior to precoating with paving asphalt, except the percentage passing by mass for sieve size 4.75-mm shall be 5 - 20 and for sieve size 2.36-mm the percentage passing by mass shall be 0 - 8.

Representative samples for the Cleanness Value test will be taken immediately prior to preheating the material. Representative samples for grading requirements will be taken prior to precoating with paving asphalt.

Screenings shall be preheated to a temperature between 140°C and 175°C and then precoated with 0.5 to 1.0 percent paving asphalt by mass of dry aggregate. The precoating of screenings shall be performed in an asphalt concrete batch plant. Stockpiling of screenings after preheating and precoating with paving asphalt will not be permitted.

Canvas or similar covers that completely cover each load of precoated screenings shall be used during hauling to minimize temperature drop of the precoated screenings. Screenings shall be spread when the temperature of the precoated screenings is not less than 105°C.

EQUIPMENT

The equipment used by the Contractor for hot-applied seal coat (polymer modified asphalt) operations shall conform to the following:

- A. Self-propelled power brooms shall clean the existing pavement and remove loose screenings without dislodging screenings set in the polymer modified asphalt binder. Gutter brooms or steel-tined brooms shall not be used.
- B. A minimum of 3 pneumatic-tired rollers conforming to the provisions specified in Section 39-5.02, "Compacting Equipment," of the Standard Specifications, except that the rollers shall carry a minimum loading of 1360 kg on each wheel and an air pressure of 690 ± 35 kPa in each tire, shall compact the seal coat.
- C. A self-propelled screenings spreader, equipped with a screenings hopper in the rear, belt conveyors to carry the screenings to the front, and a spreading hopper equipped with full-width distribution auger and spread roll, shall spread the screenings.
- D. A self-propelled distributor truck shall be used for applying polymer modified asphalt binder. The distributor truck shall be equipped with a heating unit, a pump or pumps that spray the polymer modified asphalt binder within ± 0.15 -L/m² of the specified rate and a fully circulating spray bar that applies the binder without a streaked or otherwise irregular pattern. The distributor truck shall be equipped with a tachometer, pressure gages, volume measuring devices, and thermometer.
- E. Trucks for hauling screenings shall be equipped so that screenings can be discharged from the tailgate. Trucks shall be equipped with a device to lock onto the hitch at the rear of the screenings spreader. Haul trucks shall be compatible with the screenings spreader so that the dump bed will not push down on the spreader when fully raised. Haul truck dump beds shall be designed so that, while dumping into the receiving hopper, screenings shall be prevented from spilling on the roadway.

PREPARATION FOR SEAL COAT

Surfaces to receive hot-applied seal coat (polymer modified asphalt) shall be prepared in conformance with the provisions specified for preparing surfaces to receive asphaltic emulsion as specified in Section 37-1.04, "Preparation for Seal Coat," of the Standard Specifications.

APPLYING POLYMER MODIFIED ASPHALT BINDER

Polymer modified asphalt binder shall be applied in conformance with the provisions specified for applying asphaltic emulsion in Section 37-1.05, "Applying Asphaltic Emulsion," of the Standard Specifications, except the second, third, fourth, and fifth paragraphs shall not apply.

Polymer modified asphalt binder shall be applied at a rate between 1.10 to 1.40 L/m². The exact rate will be determined by the Engineer. The binder shall be applied when the temperature of the binder is between 165°C and 190°C.

Polymer modified asphalt binder shall not be applied when weather conditions are unsuitable or when the pavement is damp or wet. Excessive wind is considered an unsuitable weather condition. Asphalt binder shall be applied only when the atmospheric temperature is 18°C or above and the pavement surface temperature is 26°C or above. Polymer modified asphalt binder shall not be applied until sufficient screenings are available to immediately cover the binder being applied.

Joint edges shall be swept clean of overlapping cover material prior to application of adjacent asphalt binder. Reasonable precautions shall be taken to avoid skips and overlaps at joints. Defects shall be corrected at the Contractor's expense.

SPREADING SCREENINGS

Screenings for hot-applied seal coat (polymer modified asphalt) shall be spread in conformance with the provisions specified for spreading screenings on asphaltic emulsion in Section 37-1.06, "Spreading Screenings," of the Standard Specifications, except the first, fifth, sixth, and seventh paragraphs shall not apply.

Screenings for hot-applied seal coat (polymer modified asphalt) shall be spread immediately following the application of the binder, within the range of 13 to 17 kilograms per square meter. The exact rate will be determined by the Engineer.

The screenings spreader shall not be more than 15 m behind the polymer modified asphalt binder distribution truck unless otherwise ordered by the Engineer. Trucks hauling screenings shall be kept clear of the freshly placed screenings until ready to dump screenings in the spreader equipment.

FINISHING

Hot-applied seal coat (polymer modified asphalt) shall be finished in conformance with the provisions for finishing screenings spread on asphaltic emulsion in Section 37-1.07, "Finishing," of the Standard Specifications, except the second and third paragraphs of Section 37-1.07 shall not apply. In addition, the following shall apply:

- A. Removal of excess screenings shall be completed before uncontrolled traffic is permitted on the hot-applied seal coat (polymer modified asphalt).
- B. Initial rolling of the hot-applied seal coat (polymer modified asphalt) shall consist of a minimum of one complete coverage with one or more pneumatic-tired rollers and shall begin immediately behind the screenings spreader. The distance between the rollers and the screenings spreader shall not exceed 60 m at any time during the spreading of screenings operations.
- C. A minimum of 3 complete coverages, after the initial coverage, shall be made with pneumatic-tired rollers on the hot-applied seal coat (polymer modified asphalt). Each coverage of the roller shall be as defined in Section 39-6.03, "Compacting," of the Standard Specifications.
- D. An initial brooming shall be performed after completion of the final rolling and prior to routing public traffic on the hot-applied seal coat (polymer modified asphalt).

MEASUREMENT AND PAYMENT

Screenings for hot-applied seal coat (polymer modified asphalt) will be measured by the tonne after preheating and precoating with paving asphalt in the same manner specified for asphalt concrete in Section 39-8.01, "Measurement," of the Standard Specifications. Paving asphalt used for precoating screenings will be paid for as screenings (hot-applied). Asphalt binder (polymer modified) for hot-applied seal coat (polymer modified asphalt) will be measured by the tonne in the same manner specified for asphalt in Section 92-1.05, "Measurement," of the Standard Specifications.

The contract price paid per tonne for asphalt binder (polymer modified) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in applying polymer modified asphalt binder, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The contract price paid per tonne for screenings (hot-applied) shall include full compensation for furnishing all labor, materials (including paving asphalt for precoating screenings), tools, equipment, and incidentals and for doing all the work involved in spreading the screenings, complete in place, including preheating and precoating screenings, furnishing, placing, maintaining, and removing C6 (Loose Gravel) and W6 (35 MPH) signs and temporary supports or barricades for the signs, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**ENGINEER'S ESTIMATE
05-0E9804**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1 (S)	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
2 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
3 (S)	128650	PORTABLE CHANGEABLE MESSAGE SIGN	EA	2		
4	365001	SAND COVER	TONN	140		
5	374002	ASPHALTIC EMULSION (FOG SEAL COAT)	TONN	21		
6	BLANK					
7	BLANK					
8 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	M2	46		
9 (S)	840561	100 MM THERMOPLASTIC TRAFFIC STRIPE	M	31 200		
10 (S)	840563	200 MM THERMOPLASTIC TRAFFIC STRIPE	M	160		
11 (S)	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	2200		
12	370125	ASPHALT BINDER (POLYMER MODIFIED)	TONN	90		
13	375030	SCREENINGS (HOT APPLIED)	TONN	1100		

TOTAL BID: _____