

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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June 7, 2010

08-SBd-10-12.0/19.8
08-497504
Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN BERNARDINO COUNTY IN FONTANA AND RIALTO FROM 0.4 MILE EAST OF ETIWANDA AVENUE OVERCROSSING TO 0.2 MILE WEST OF RIVERSIDE AVENUE OVERCROSSING.

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 Thursday, June 17, 2010.

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

Project Plan Sheets 2, 3, 5, 6, 12, 13, 14, 15, 18, 19, 20, 22, 23, 26, 32, 195, 196, 197, 198, 199, 200, 201, 202, and 203 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 203A and 203B are added. Copies of the added sheets are attached for addition to the project plans.

Project Plan Sheet 246 was omitted. A copy of the omitted sheet is attached for addition to the project plans.

In the Special Provisions, Section 10-1.44, "ARCHITECTURAL SURFACE (TEXTURED CONCRETE)," is revised as attached.

In the Special Provisions, Section 10-1.45, "PREPARE AND STAIN CONCRETE," is revised as attached.

In the Special Provisions, Section 10-2.05, "IRRIGATION SYSTEMS," the first subsection "ELECTRIC AUTOMATIC IRRIGATION COMPONENTS," is deleted.

In the Special Provisions, Section 10-2. (BLANK) is deleted.

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/08/08-497504

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,

ORIGINAL SIGNED BY

IGNACIO SANCHEZ DEL REAL
Acting Office Chief
Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

10-1.44 ARCHITECTURAL SURFACE (TEXTURED CONCRETE)

Architectural texture for concrete surfaces shall conform to the details shown on the plans, the provisions in Section 51, "Concrete Structures," of the Standard Specifications, and these special provisions.

Architectural textures listed below are required at concrete surfaces shown on the plans:

- A. Fractured rib texture
- B. Split slate texture
- C. Negative exposed aggregate texture
- D. Smooth finish

The fractured rib texture shall be an architectural texture simulating the appearance of straight ribs of concrete with a fractured concrete texture imparted to the raised surface between the ribs. Grooves between ribs shall be continuous with no apparent curves or discontinuities. Variation of the groove from straightness shall not exceed 1/4 inch for each 10 feet of groove. The architectural texture shall have random shadow patterns. Broken concrete at adjoining ribs and groups of ribs shall have a random pattern. The architectural texture shall not have secondary patterns imparted by shadows or repetitive fractured surfaces.

The split slate treatment texture for Grape Patterns at retaining walls shall be an architectural texture simulating the appearance of split slate with a maximum texture relief as indicated on the plans. Formliner joints shall be constructed to maintain continuity in the slate texture pattern across the joint.

The negative exposed aggregate texture for Orange Pattern at retaining walls shall be architectural texture simulating the appearance of an exposed aggregate surface with a maximum texture relief as indicated on the plans. Formliner joints shall be constructed to maintain continuity in the exposed aggregate texture pattern across the joint.

The smooth texture shall be a Class 1 surface finish.

REFEREE SAMPLES

The architectural textures shall match the textures and patterns of the referee samples available for inspection at the Office of Engineering Services, Landscape Architecture, Tenth Floor, 464 West 4th Street, San Bernardino, CA 92401.

WORKING DRAWINGS

The Contractor shall submit working drawings with architectural treatment elevations for all walls as shown in plans, to the Engineer and District Landscape Architect for final approval and use during construction. Working drawings will show placement of all joint lines, including but not limited to: expansion joints, weakened plane joints and joints between formliner units.

Working drawings shall conform to the Earth Retaining Structures section of these special provisions. In addition, an electronic copy of the working drawing will be submitted to the District Landscape Architect which shall be ".dgn" or format readable with the current software used by the state (Microstation, CaiCE and IPLOT).

TEST PANELS

Test panels shall be successfully completed at a site approved by the Engineer before beginning work on architectural textures. Two test panels as shown on plans, at least 8' x 12' in size, shall be successfully completed and approved by the Engineer and Landscape Architect before beginning work on architectural textures. The test panels shall be constructed and finished with the materials, tools, equipment, and methods to be used in constructing the architectural texture. Stain shall be applied to test panels in conformance to Section 10-1.45, "Prepare and Stain Concrete," of these special provisions. If ordered by the Engineer, up to four additional test panels shall be constructed and finished at the Contractor's expense until the specified finish, textures, and color are obtained, as determined by the Engineer. Approved test panel shall be retained until construction completion.

The test panel approved by the Engineer shall be used as the standard of comparison in determining acceptability of architectural texture for concrete-surfaces.

In the event that more than four test panels are required by the Engineer, each additional test panel will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications.

FORM LINERS

Form liners shall be used for textured concrete surfaces and shall be installed in conformance with the manufacturer's recommendations, unless other methods of forming textured concrete surfaces are approved by the Engineer. Form liners shall be manufactured from an elastomeric material or a semi-elastomeric polyurethane material by a manufacturer of commercially available concrete form liners. No substitution of other types of formliner material will be allowed. Form liners shall leave crisp, sharp definition of the architectural surface. Recurring textural configurations exhibited by repeating, recognizable shadow patterns shall be prevented by proper casting of form liner patterns. Textured concrete surfaces with such recurring textural configurations shall be reworked to remove such patterns as approved by the Engineer or the concrete shall be replaced.

Form liners shall have the following properties:

Description	ASTM Designation:	Range
Elastomeric material		
Shore A hardness	D 2240	20 to 65
Tensile strength (psi)	D 412	130 to 900
Semi-elastomeric polyurethane		
Shore D hardness	D 2240	55 to 65
Tensile strength (psi)	D 2370	2600 minimum

Cuts and tears in form liners shall be sealed and repaired in conformance with the manufacturer's recommendations. Form liners that are delaminated from the form shall not be used. Form liners with deformations to the manufactured surface caused by improper storage practices or any other reason shall not be used.

Form liners shall extend the full height of texturing with vertical joints at 8 foot minimum spacing. Small pieces of form liners shall not be used. Horizontal joints within the same texture shall not be allowed. Grooves shall be aligned straight and true. Grooves shall match at joints between form liners. Joints in the direction of grooves in grooved patterns shall be located only in the depressed portion of the textured concrete. Adjoining liners shall be butted together without distortion, open cracks, or offsets at the joints. Joints between liners shall be cleaned before each use to remove any mortar in the joint.

Adhesives shall be compatible with the form liner material and with concrete. Adhesives shall be approved by the liner manufacturer. Adhesives shall not cause swelling of the liner material.

RELEASING FORM LINERS

Products and application procedures for form release agents shall be approved by the form liner manufacturer. Release agents shall not cause swelling of the liner material or delamination from the forms. Release agents shall not stain the concrete or react with the liner material. For reliefs simulating fractured concrete or wood grain surfaces the application method shall include the scrubbing method using a natural bristle scrub brush in the direction of grooves or grain. The release agent shall coat the liner with a thin film. Following application of form release agent, the liner surfaces shall be cleaned of excess amounts of agent using compressed air. Buildup of form release agent caused by the reuse of a liner shall be removed at least every 5 uses.

Form liners shall release without leaving particles or pieces of liner material on the concrete and without pulling or breaking concrete from the textured surface. The concrete surfaces exposed by removing forms shall be protected from damage.

ABRASIVE BLASTING

The architectural texture shall be abrasive blasted with fine abrasive to remove the sheen without exposing coarse aggregate.

CURING

Concrete surfaces with architectural texture shall be cured only by the forms-in-place or water methods. Seals and curing compounds shall not be used.

MEASUREMENT AND PAYMENT

Architectural texture will be measured and paid for by the square foot.

The contract price paid per square foot for architectural texture shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in architectural texture, complete in place, including preparing, presenting and removing test panels and producing working drawings, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.45 PREPARE AND STAIN CONCRETE

This work shall consist of preparing and staining concrete surfaces where shown on the plans in conformance with the provisions in Section 59-6, "Painting Concrete," of the Standard Specifications and these special provisions.

Concrete stain shall be a water-based solution of metallic salts that penetrate and react with concrete to produce insoluble, abrasion-resistant color deposits. The stain shall contain dilute acid to etch concrete surfaces so that the staining ingredients can penetrate the concrete.

Concrete stain shall be formulated and applied so that the final color of the stained concrete matches the referee sample located at Office of Engineering Services, Landscape Architecture, Tenth Floor, 464 West 4th Street, San Bernardino, CA 92401.

The Contractor shall submit a copy of the stain manufacturer's recommendations and written application instructions to the Engineer not less than 7 days before applying concrete stain to test panels.

New concrete surfaces to be stained shall be cured in conformance with the provisions in Section 90-7.03, "Curing Structures," of the Standard Specifications and these special provisions.

The Contractor shall seal joints between concrete surfaces to be stained with a polysulfide or polyurethane sealing compound conforming to the requirements in ASTM Designation: C 920, Type S, Grade NS, Class 25, Use M. The color of the sealant shall be clear.

Immediately before commencing work, the Contractor shall test concrete surfaces to be stained for acceptance of stain in conformance with the manufacturer's recommendations. Areas that resist accepting stain shall be cleaned as approved by the Engineer.

The Contractor shall apply the concrete stain in conformance with the manufacturer's recommendations and these special provisions. The stain shall be applied uniformly, working to avoid excessive rundown. The stain shall be worked into the concrete surface in circular motions with a nylon-bristled brush. Drips, puddles, or other irregularities shall be worked into the concrete.

After the last coat of stain has dried, the Contractor shall rinse stained surfaces with water and wet scrub surfaces with a stiff bristled nylon brush until the rinse water runs clear.

The Contractor shall protect adjacent surfaces during concrete staining operations.

Prepare and stain concrete will be measured by the square foot.

The contract price paid per square foot for prepare and stain concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing of and applying stain to concrete surfaces, complete in place, including construction of test panels, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.