

DEPARTMENT OF TRANSPORTATION

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February 11, 2004

07-LA-14-56.9
07-4E2404

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in NEAR SANTA CLARITA AT TICK CANYON 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 February 19, 2004.

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

Project Plan Sheet 17 is revised. A half-sized copy of the revised sheet is attached for substitution for the like-numbered sheet.

In the Special Provisions, Section 10-1.095 "COOPERATION" is added as follows:

"10-1.095 COOPERATION

Attention is directed to Section 7-1.14, "Cooperation," and Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications and these special provisions.

It is anticipated that work by Curtis Sand & Gravel (to remove concrete debris and grading of the slope within Caltrans' drainage easement and right of way between north of the mining access road and south of the Tick Canyon Bridge) may be in progress adjacent to or within the limits of this project during progress of the work on this contract."

In the Special Provisions, Section 10-1.22, "EARTHWORK," subsection "SOLDIER PILE WALL EARTHWORK," subsection "General," the last sentence of the second paragraph is revised as follows:

" The Contractor shall allow four weeks after complete drawings and all support data are submitted for the review and approval of the proposed method of soldier pile wall construction."

In the Special Provisions, Section 10-1.22, "EARTHWORK," subsection "SOLDIER PILE WALL EARTHWORK," subsection "Structure Excavation," is revised as attached.

In the Special Provisions, Section 10-1.25, "PILING," subsection "NONDESTRUCTIVE TESTING FOR STEEL PIPE PILING," is added after subsection "STEEL PIPE PILING" as attached.

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In the Special Provisions, Section 10-1.25, "PILING," subsection "MEASUREMENT AND PAYMENT (PILING)," the third paragraph is revised as follows:

"Full compensation for conforming to the provisions in "Steel Pipe Piling" and "Nondestructive Testing" of these special provisions shall be considered as included in the contract prices paid for the various items of work involved, and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.30 "MISCELLANEOUS METAL (TIE ROD)," is revised 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 UPS overnight mail to Proposal and Contract book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

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

Structure Excavation

Difficult structure excavation is anticipated due to the presence of rip-rap, subsurface concrete debris and underground utilities

At the area where structure excavation (Type D) is shown on the plan, but structure backfill (compacted to 95%) is not required, structure backfill shall be placed and need not be compacted. Structure backfill in this area shall consist of soil which is free of organic matter, trash or other unsatisfactory material, and shall be placed to the level of the original ground or finished grade.

Excavated rip-rap and concrete debris that are unsuitable for structure backfill materials shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Where compaction is not required, full compensation for furnishing and placing structure backfill shall be considered as included in the contract price paid per cubic meter for structure excavation (Type D) and no additional compensation will be allowed therefor.

Full compensation for removing and disposal of unsuitable materials shall be considered as included in the contract price paid per cubic meter for structure excavation (Type D) and no additional compensation will be allowed therefor.

NONDESTRUCTIVE TESTING FOR STEEL PIPE PILING

Steel pipe piling at Tick Canyon Wash (Scour Mitigation) Bridge No. 53-1547 shall receive nondestructive testing (NDT) in conformance with these special provisions.

Nondestructive Testing of Welds made at a Permanent Facility

Nondestructive testing of welding performed in conformance with the requirements of API 5L shall conform to the following criteria:

- A. The manufacturer shall provide to the Engineer a VHS videocassette recording of the actual product testing, when radiological testing is utilized, or the actual radiographic film when film radiography is utilized. This videocassette or film submittal shall be provided to the Engineer for review prior to shipment of the product from the manufacturing facility.
- B. Ultrasonic testing of seam welds produced by the electric resistance welding process (ERW) shall comply with API 5L, SR17 utilizing a type V10 notch, N10 notch, or a 3.2 mm drilled hole.
- C. The ultrasonic equipment shall utilize transducers oscillating at frequencies between 2 and 5 megahertz.
- D. When the pipe ends of seam welds produced by the submerged arc welding process (SAW) are inspected by ultrasonic methods in accordance with API 5L Paragraph 9.7.4, the acceptance criteria shall be based on a type N5 notch or a 1.6 mm drilled hole.
- E. When film radiography is utilized to inspect pipe ends or repairs, the transmitted film density shall be 2.0 to 4.0 in the area of interest (weld, base metal, and IQI).
- F. Repaired defects shall be re-inspected utilizing the NDT method that originally detected the defect, except that film radiography may be utilized for inspection of repairs when the defect was originally detected utilizing real time imaging or radiological testing.

Nondestructive testing of welding performed in conformance with AWS D1.1 shall be in conformance with the following criteria:

- A. Twenty-five percent of each longitudinal, circumferential, or spiral weld made at a permanent fabrication facility shall receive NDT. If repairs are required in a portion of the tested weld, the repaired portion shall receive NDT, and additional NDT shall be performed on untested portions of the weld. The additional NDT shall be made on both sides of the repair area for a length equal to 10 percent of the length of the pipe's outside circumference. After this additional 20 percent of NDT is performed, and if more repairs are required, the total cumulative repair lengths from all NDT shall be determined and documented. If the cumulative weld repair length is determined to be equal to or more than 10 percent of the length of the pipe outside circumference, then the entire weld shall receive NDT.
- B. Circumferential or longitudinal welds shall receive NDT by either radiographic, real time imaging systems, or ultrasonic methods that are in conformance with the requirements in AWS D1.1.
- C. The acceptance and repair criteria for ultrasonic testing (UT) shall conform to the requirements in AWS D1.1, Section 6, Table 6.3 for cyclically loaded nontubular connections. The acceptance and repair criteria for radiographic or real time image testing shall conform to the requirements of AWS D1.1 for tensile stress welds.

Nondestructive Testing of Field Welds

Nondestructive testing of field welds shall be in conformance with these special provisions.

Personnel performing ultrasonic testing (UT) for field welds will be required to verify their qualifications prior to performing nondestructive testing by both written and practical exams. Information regarding these exams is available at the Transportation Laboratory.

At the option of the Contractor, either ultrasonic testing (UT) or radiographic testing (RT) shall be used as the method of NDT for splices made by field welding steel pipe piling. This NDT shall be used for each field weld, including welds that are made onto a portion of the steel pipe piling that has been installed and any repair made to a splice weld. Testing shall be done at locations selected by the Engineer. The length of a splice weld, not including repairs, where NDT is to be performed, shall have a cumulative weld length that is equal to 25 percent of the pipe outside circumference. The Engineer may select several locations on a given splice for NDT. The cover pass shall be ground smooth at the locations to be tested. The acceptance and repair criteria for UT shall conform to the requirements in AWS D1.1, Section 6, Table 6.3 for cyclically loaded nontubular connections. The acceptance and repair criteria for radiographic or real time image testing shall conform to the requirements of AWS D1.1 for tensile stress welds. If repairs are required in a portion of the tested weld, the repaired portion shall receive NDT, and additional NDT shall be performed on untested portions of the weld. The additional NDT shall be made on both sides of the repair area for a length equal to 10 percent of the length of the pipe's outside circumference. After this additional 20 percent of NDT is performed, and if more repairs are required, the total cumulative repair lengths from all NDT shall be determined and documented. If the cumulative weld repair length is determined to be equal to or more than 10 percent of the length of the pipe outside circumference, then the entire weld shall receive NDT.

When backing rings are used, the backing ring complete joint penetration splice welds shall be inspected by RT or UT for material of thickness equal to or greater than 8 mm, or by RT for material of thickness less than 8 mm. The acceptance criteria for splice welds in backing rings shall be AWS D1.1, Section 6 and Figure 6.5 for RT, or Table 6.3 for UT.

10-1.30 MISCELLANEOUS METAL (TIE ROD)

Tie rod assemblies consisting of high strength rods, bearing plates, couplers, and incidentals shall conform to the details shown on the plans and these special provisions.

Structural steel shall conform to the provisions in Section 55, "Steel Structures," of the Standard Specifications and these special provisions. Structural steel shall consist of the bearing plate assembly.

Tie rod assemblies shall conform to the materials and sampling provisions for prestressing steel in Section 50, "Prestressing Concrete," of the Standard Specifications and the following:

- A. The high strength rods shall conform to the requirements of ASTM Designation: A 722, including all supplementary requirements.
- B. All new metal surfaces of high strength tie rod units shall be cleaned and painted in conformance with these special provisions.
Certification in conformance with the requirements in SSPC-QP 1, SSPC-QP 2, and SSPC-QP 3 of the "SSPC: The Society for Protective Coatings" will not be required for high strength tie rod units.
- C. Anchorage devices and couplers, conforming to the requirements specified herein, shall be of a type selected by the Contractor and shall include locking devices to prevent turning or loosening.
- D. The Contractor shall be responsible for determining the required lengths of the rod assemblies.
- E. The rod assemblies shall be shipped as a complete unit.

Bearing plates shall conform to the requirements of ASTM Designation: A709/A709M, Grade 50W.

Tie rod assemblies shall be installed level along their entire lengths, as shown on the plans.

The high strength tie rods shall be wrapped at the concrete panels with two layers of 7 kilogram building paper as shown on the plans.

CLEAN AND PAINT HIGH STRENGTH RODS

All new metal surfaces of high strength rod units shall be cleaned and painted in conformance with the provisions in Section 59-2, "Painting Structural Steel," and Section 91, "Paint," of the Standard Specifications and these special provisions.

Prior to performing any painting or paint removal, the Contractor shall submit to the Engineer, in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications, 3 copies of a separate Painting Quality Work Plan (PQWP) for each item of work for which painting or paint removal is to be performed. As a minimum, each PQWP shall include the following:

- A. The name of each Contractor or subcontractor to be used.
- B. One copy each of all current "SSPC: The Society for Protective Coatings" specifications or qualification procedures which are applicable to the painting or paint removal to be performed. These documents shall become the permanent property of the Department.
- C. Proposed methods and equipment to be used for any paint application.

The Engineer shall have 2 weeks to review the PQWP submittal after a complete plan has been received. No painting or paint removal shall be performed until the PQWP for that work is reviewed by the Engineer. Should the Engineer fail to complete the review within this time allowance and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of the delay in reviewing the PQWP, the delay will be considered a right of way delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

CLEANING

All new metal surfaces of high strength rod units shall be dry blast cleaned in conformance with the requirements in Surface Preparation Specification No. 10, "Near White Blast Cleaning," of the "SSPC: The Society for Protective Coatings." Blast cleaning shall leave surfaces with a dense, uniform, angular anchor pattern of not less than 40 μm nor more than 86 μm as measured in conformance with the requirements in ASTM Designation: D 4417.

Mineral and slag abrasives used for blast cleaning steel shall conform to the requirements in Abrasive Specification No. 1, "Mineral and Slag Abrasives," of the "SSPC: The Society for Protective Coatings" and shall not contain hazardous material. Mineral and slag abrasives shall comply with the requirements for Class A, Grade 2 to 3 as defined therein.

A Certificate of Compliance conforming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications and a Material Safety Data Sheet shall be furnished prior to use for each shipment of blast cleaning material for steel.

PAINTING

Blast cleaned surfaces shall receive a single undercoat, and a final coat where specified, consisting of a waterborne inorganic zinc coating conforming to the requirements in AASHTO Designation M 300, Type II, except that: 1) the first 3 sentences of Section 4.7, "Primer Field Performance Requirements," and the entire Section 4.7.1 shall not apply, and 2) zinc dust shall be Type II in conformance with the requirements in ASTM Designation: D 520. The inorganic zinc coating shall be listed on the qualified products list which may be obtained from the Transportation Laboratory.

The color of the final application of inorganic zinc coating shall match Federal Standard 595B No. 36373.

Inorganic zinc coating shall be used within 12 hours of initial mixing.

Application of inorganic zinc coating shall conform to the provisions for applying zinc-rich coating in Section 59-2.13, "Application of Zinc-Rich Primer," of the Standard Specifications.

Inorganic zinc coating shall not be applied when the atmospheric or surface temperature is less than 7°C or more than 29°C, nor when the relative humidity exceeds 85 percent.

The single undercoat of inorganic zinc coating shall be applied to the required dry film thickness in 2 or more applications within 4 hours after blast cleaning.

The total dry film thickness of all applications of the inorganic zinc undercoat shall be not less than 100 µm nor more than 200 µm.

Areas where mudcracking occurs in the inorganic zinc coating shall be blast cleaned and repainted with inorganic zinc coating to the specified thickness.

Dry spray, or overspray, as defined in the Steel Structures Painting Manual, Volume 1, "Good Painting Practice," of the "SSPC: The Society for Protective Coatings," shall be removed prior to application of subsequent coats or final acceptance. Removal of dry spray shall be by screening or other methods that minimize polishing of the inorganic zinc surface. The dry film thickness of the coating after removal of dry spray shall be in conformance with the provisions for applying the single undercoat, as specified herein.

The exterior surfaces of undercoated areas of the high strength rod units shall receive a final coat of a waterborne inorganic zinc coating of the same product used in the single undercoat.

The final coat of inorganic zinc coating shall be applied after completion of all operations that may damage or discolor the steel surface, including correction of runs, sags, thin and excessively thick areas in the paint film, skips and holidays, dry spray, or areas of non-uniform appearance.

The area to receive the final coat of inorganic zinc coating shall be lightly roughened by abrasive blasting using an abrasive no larger than 600 µm. Abrasive blasting shall remove no more than 15 µm of inorganic zinc. The surface to be lightly roughened shall be free from moisture, dust, grease or deleterious material.

The final coat of inorganic zinc coating shall be applied to the required dry film thickness in one uniform application within 24 hours after light roughening. The dry film thickness of the final coat shall be not less than 25 µm nor more than 75 µm.

Except at bolted connections, the total dry film thickness of all applications of the single undercoat and final coat of inorganic zinc coating shall be not less than 125 µm nor more than 275 µm.

finish coats will not be required.

MEASUREMENT AND PAYMENT

Tie rod assemblies will be measured by the meter along the tie rod and will be paid for as miscellaneous metal (tie rod).

The contract price paid per meter for miscellaneous metal (tie rod) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing tie rod assemblies including bearing plates, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for cleaning and painting of high strength tie rod units shall be considered as included in the contract price paid per meter for miscellaneous metal (tie rod) and no additional compensation will be allowed therefor.