DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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Flex your power!
Be energy efficient!

September 11, 2012

06-Kin-198-R8.9/R10.1
06-325504
Project ID 0600000367

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN KINGS COUNTY IN AND NEAR LEMOORE FROM 0.5 MILE WEST TO 0.7 MILE EAST OF 19TH AVENUE.

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, October 3, 2012.

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

Project Plan Sheets 2, 3, 7, 8, 9, 11, 12, 13, 14, 16, 17, 81, 82, 83, 85, 86, 92, 98, 109, 110, 116, 126, 127, 128, 129, 130, 131, 132, 133, 134, 146, 147, 148, 149, 150, 151, 152, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 167, 168, 169, 170, 173, 202, 203, 205, 292, 328, 329, 330, 331, 332, 339 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Notice to Bidders and Special Provisions, in the "SPECIAL NOTICES," the following Special Notice is added:

"See Section 2, "BIDDING," of these special provisions regarding SSPC QP certification."

In the Special Provisions, Section 2-1.06, "SSPC QP CERTIFICATION PREAWARD QUALIFICATION," is added as attached.

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 following paragraph is added after the last paragraph:

"Construction adjacent to property located between "A" Line Station 506+00 and 506+50 north of Route 198 shall be protected. The Contractor shall submit a protection plan for the Engineer's review at least 30 days prior to the start of construction adjacent to property improvements and facilities and shall notify the Engineer at least 48 hours prior to the start of adjacent construction. If any property improvements or facilities to be protected in place are damaged, the Contractor shall notify the Engineer within 24 hours of when the damage occurred. The Engineer may order the suspension of construction operations until the Contractor takes all necessary measures to prevent further damage, and until an acceptable repair or replacement is completed. The Contractor shall submit a plan to the Engineer for review and authorization prior to the start of repair or replacement work. The Engineer will review the plan within 30 days."

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In the Special Provisions, Section 10-1.18, "MAINTAIN TRAFFIC," Lane Closure Chart Nos. 1, 2, 3, and 4 are revised as attached.

In the Special Provisions, Section 10-1.30, "EXISTING HIGHWAY FACILITIES," subsection "COLD PLANE ASPHALT CONCRETE PAVEMENT," is added after subsection, "REMOVE CONCRETE," as attached.

In the Special Provisions, Section 10-1.34, "HALF GABION RETURN WALL," subsection "MATERIALS," sub-subsection "Geosynthetic Reinforcement," is revised as follows:

"Geosynthetic Reinforcement

Geosynthetic reinforcement shall conform to the requirements for geogrid soil reinforcement as specified in Section 88-1.04A, "Geotechnical Subsurface Reinforcement" and "Long Term Design Strength," and in Section 88-1.01C, "Quality Control and Assurance," of the Standard Specifications.

Geogrid soil reinforcement roll identification, storage, and handling shall be in accordance with ASTM Designation: D 4873, and as specified in the preapproved proprietary details. The geogrid shall be shipped and stored such that the material is not placed directly on the ground. The geogrid shall be covered and protected at all times during shipment and storage such that it is fully protected from UV radiation including sunlight, site construction damage, precipitation, chemicals, flames including welding sparks, temperatures less than 20 °F or greater than 140 °F, or other conditions that may damage the physical property values of the geogrid. The Contractor shall prevent foreign materials from coming into contact with or affixing to the geogrid."

In the Special Provisions, Section 10-1.35, "EARTH RETAINING STRUCTURES," the table in the fourth paragraph is revised as follows:

Proprietary Earth Retaining System	Address and Phone Number	Web Site
Welded Wire Wall Approved for use on the Half-Gabion Return Wall	Hilfiker Retaining Walls 1902 Hilfiker Lane Eureka, CA 95503-5711 (707) 443-5093 or (800) 762-8962	www.hilfiker.com
Reinforced Earth – 5 ft square Approved for use on the MSE	The Reinforced Earth Company 1660 Hotel Circle North, Suite 304 San Diego, CA 92108 (619) 688-2400	www.reinforcedearth.com
Retained Earth - 5 ft square Approved for use on the MSE	The Reinforced Earth Company 1660 Hotel Circle North, Suite 304 San Diego, CA 92108 (619) 688-2400	www.reinforcedearth.com

In the Special Provisions, Section 10-1.35, "EARTH RETAINING STRUCTURES," subsection "MATERIALS," sub-subsection "Soil Reinforcement," is revised as attached.

In the Special Provisions, Section 10-1.39, "EROSION CONTROL (HYDROSEED)," subsection "MATERIALS," Sub-subsection "Seed," the table in the fourth paragragh is revised as attached.

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In the Special Provisions, Section 10-1.455, "MINOR HOT MIX ASPHALT," is added as attached.

In the Special Provisions, Section 10-1.62, "CLEAN AND PAINT SIGN STRUCTURES," is revised as attached.

In the Special Provisions, Section 10-1.85, "CONCRETE BARRIER," is revised as attatched.

In the Special Provisions, Section 10-1-86, "CONCRETE BARRIER," is deleted.

In the Bid book, in the "Bid Item List," Items 46, 50, 52, 58, 64, 66, 75, 77, 91, 110, 111, 112, 113, 119, 120, 121, 126, and 128 are revised, Items 164, 165, 166, 167 are added and Items 86, 163 are deleted as attached.

In the Bid Book, on Page 20, "SSPC QP CERTIFICATION," is added as follows:

"SSPC QP CERTIFICATION PREAWARD QUALIFICATION
Submit proof of each required SSPC QP certification as specified. Failure to do so results in a nonresponsive bid."

To Bid book holders:

Replace pages 5, 6, 7, 8, 9, 11 of the "Bid Item List" in the Bid book with the attached revised pages 5, 6, 7, 8, 9, 11 of the Bid Item List. The revised Bid Item List is to be used in the bid.

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.

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/06/06-325504

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,

for

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

Attachments

2-1.06 SSPC QP CERTIFICATION PREAWARD QUALIFICATION

Submit proof of each required SSPC QP certification with your bid or fax it to (916) 227-6282 no later than 4:00 p.m. on the 2nd business day after bid opening. Failure to do so results in a nonresponsive bid.

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

The 1st working day is the earlier of (1) the 55th day after contract approval or (2) the day you start work other than the measurement of controlling field dimensions or the location of utilities.

Do not start work at the job site until the Engineer approves your submittal for:

1. Baseline Progress Schedule (Critical Path Method)
2. Storm Water Pollution Prevention Plan (SWPPP)
3. Notification of Dispute Resolution Advisor (DRA) or Dispute Review Board (DRB) nominee and disclosure statement as specified in Section 5-1.15, "Dispute Resolution," of the Standard Specifications
4. Working drawings for MSE.

You may enter the job site only to measure controlling field dimensions and locating utilities. Do not start other work activities until all the submittals from the above list are approved and the following information is submitted:

1. Notice of Materials To Be Used.
2. Contingency plan for reopening closures to public traffic.

You may start work at the job site before the 55th day after contract approval if:

1. You obtain required approval for each submittal before the 55th day
2. The Engineer authorizes it in writing

The Department grants a time extension if a delay is beyond your control and prevents you from starting work at the job site on the 1st working day.

Complete the work within 400 working days.

Chart No. 1
Connector Lane Requirements

County: Kin	Route/Direction: 198 Eastbound	PM: R9.076

Closure Limits: EB On-ramp from State Route 41

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Fridays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Saturdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Sundays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Legend:

C	Connector may be closed completely

REMARKS:

1. Complete interchange closure shall not be permitted.
2. Continuous complete closure of the connector shall not exceed 45 calendar days. Detour plan will be provided.
3. This lane requirement chart applies only to stage 3B construction.

Chart No. 2
Connector Lane Requirements

County: Kin	Route/Direction: 198 Westbound	PM: R9.124

Closure Limits: WB Off-ramp from State Route 41

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Fridays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Saturdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Sundays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Legend:

C	Connector may be closed completely

REMARKS:

1. Complete interchange closure shall not be permitted.
2. Continuous complete closure of the connector shall not exceed 45 calendar days. Detour plan will be provided.
3. This lane requirement chart applies only to stage 3B construction.

Chart No. 3
Conventional Highway Lane Requirements

County: Kin	Route/Direction: 198 EB/WB	PM: R8.9/R10.1

Closure Limits: From 0.5 Miles West of 19 th Avenue to 0.7 Miles East of 19 th Avenue

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fridays	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
Saturdays																									
Sundays																			1	1	1	1	1	1	1

Legend:

1	Provide at least one through traffic lane open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:
1. Complete interchange closure shall not be permitted.
2. The full width of the traveled way shall be open for use by public traffic when construction operations are not actively in progress.

Chart No. 4
Complete Conventional Highway Closure Hours

County: Kin	Route/Direction: 198 EB/WB	PM: R9.5

Closure Limits: 19th Avenue

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays							C	C	C	C	C	C	C	C	C	C	C	C							
Fridays							C	C	C	C	C	C	C	C	C	C	C	C							
Saturdays																									
Sundays																									

Legend:

C	Conventional highway may be closed completely
	No complete conventional highway closure is permitted

REMARKS:

COLD PLANE ASPHALT CONCRETE PAVEMENT

GENERAL

Summary

This work includes cold planing existing asphalt concrete pavement.

Sequencing and Scheduling

Schedule cold planing activities to ensure hot mix asphalt (HMA) is placed over cold planed area during the same work shift before opening to traffic. If you cannot place HMA over the entire cold planed area before opening it to traffic:

1. Construct a temporary HMA taper to the level of the existing pavement.
2. Place HMA during the next lane or shoulder closure for that area.
3. Submit a corrective action plan that shows that you are able to cold plane and place HMA in the same work shift. Do not perform cold planing work until the Engineer approves the corrective action plan.

MATERIALS

HMA for temporary tapers must be of the same quality as the HMA used elsewhere on the project or comply with "Minor Hot Mix Asphalt" of these special provisions.

CONSTRUCTION

General

Perform planing of asphalt concrete pavement without the use of a heating device to soften the pavement.

Cold Planing Equipment

Cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width. If the only available cutter head width is wider than the cold plane area shown, submit to the Engineer a request for using a wider cutter head. Do not cold plane until the Engineer approves your request.
2. Equipped with automatic controls to control the longitudinal grade and transverse slope of the cutter head and:

    2.1. If a ski device is used, it must be at least 30 feet long, rigid, and 1 piece unit. The entire length must be used in activating the sensor.
    2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint matching shoe may be used.

3. Equipped to effectively control dust generated by the planing operation.
4. Operated so that no fumes or smoke is produced.

Replace broken, missing, or worn machine teeth.

Grade Control and Surface Smoothness

Furnish, install, and maintain grade and transverse slope references.

The depth, length, width, and shape of the cut must be as shown or as ordered. The final cut must result in a neat and uniform surface. Do not damage remaining surface.

The completed surface of the planed asphalt concrete pavement must not vary more than 0.02 foot when measured with a 12-foot straightedge parallel with the centerline. The transverse slope of the planed surface must not vary more than 0.03 foot from the straightedge when placed at right angles to the centerline.

A drop-off of more than 0.15 foot is not allowed between adjacent lanes open to public traffic.

Temporary HMA Tapers

If a drop-off between the existing pavement and the planed area at transverse joints cannot be avoided before opening to traffic, construct a temporary HMA taper. HMA for temporary taper must be:

1. Placed to the level of the existing pavement and tapered on a slope of 30:1 (Horizontal: Vertical) or flatter to the level of the planed area
2. Compacted by any method that will produce a smooth riding surface
3. Completely removed before placing the permanent surfacing. The removed material must be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Disposal of Planed Material

Remove cold planed material concurrent with planing activities, within 50 feet of the planer or as ordered.

Dispose of planed material and under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

MEASUREMENT AND PAYMENT

Cold plane asphalt concrete pavement is measured by the square yard.

The contract price paid per square yard for cold plane asphalt concrete pavement includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in cold planing asphalt concrete surfacing and disposing of planed material, including constructing, maintaining, removing temporary HMA tapers if applicable, as specified in the Standard Specifications and these special provisions and as directed by the Engineer.

Full compensation for removal of thermoplastic traffic stripe, painted traffic stripe, and pavement marking in areas of cold plane asphalt concrete is included in the contract price paid for cold plane asphalt concrete and no separate payment will be made therefor.

Soil Reinforcement

Soil reinforcement shall conform to the details shown on the contract plans, the approved working drawings, the preapproved proprietary system details, and these special provisions.

Steel wire shall conform to the requirements in ASTM Designation: A 82/A 82M. The welded wire mat shall conform to the requirements in ASTM Designation: A 185/A 185M.

The button on button-head wires shall conform to the provisions in Section 50-1.05, "Prestressing Steel," of the Standard Specifications.

The coupler at the wire mat connection shall be a seamless steel sleeve. The coupler shall be applied over the button-head wires and swaged by means of a hydraulic press. The coupler shall develop the minimum tensile strength of the wire without exceeding a total slip of the wires of 3/16 inch.

Sample button-head wire and coupler connectors shall develop the minimum tensile requirements for steel wire in ASTM Designation: A 82/A 82M without exceeding a total slip of the wires of 3/16 inch when tested in conformance with the provisions for tension testing of round wire samples in ASTM Designation: A 370. An independent testing laboratory shall perform button-head wire and coupler connection testing. Samples shall consist of 2 button-head wires each 24 inches long connected by a swaged coupler.

Prior to the start of wall construction, the Contractor shall furnish test results to the Engineer from tension and slip tests conducted on 6 proposed button-head wire and coupler connections. Failure of any of the proposed button-head wire and coupler connector samples to meet the slip and tensile strength requirements herein shall require the connection be redesigned by the Contractor.

No installation of face panels shall be allowed until the Contractor has successfully completed tension and slip testing for proposed button-head wire and coupler connectors.

During wall construction, the Contractor shall furnish test results to the Engineer from tension and slip testing of 4 samples of production button-head wire and coupler connections for each lot of 500 individual mat wire connections incorporated into the work. Production testing shall consist of testing each of the 4 sample connections for both slip and tensile requirements herein. If 2 or more of the production samples fail to meet slip or tensile test requirements, the entire lot represented by these samples shall be rejected. If one of the production samples fails to meet slip or tensile test requirements, an additional 4 samples shall be tested. Should any of the additional samples fail to meet the slip or tensile requirements, the entire lot represented by these samples shall be rejected.

Splicing of the welded wire mat along its length shall be by mechanical coupler that shall develop the minimum tensile strength of the wire. The mechanical coupler shall be approved by the Engineer.

Seed must comply with the following:

Seed

Botanical Name (Common Name)	Percent Germination (Minimum)	Pounds Pure Live Seed Per Acre (Slope Measurement)
Elymus glaucus (Blue Wild Rye)	50	3
Eriogonum fasciculatrum (California Buckwheat)	50	2
Eschscholzia californica (California Poppy)	50	5
Festuca idahoensis (Idaho Fescue)	50	6
Lasthenia glabrata (Goldfields)	50	3
Lotus purshianus (Spanish Clover)	50	5
Lotus scoparius (Deerweed)	50	5
Lupinus bicolor (Pygmy Leaved Lupine)	50	5
Nassella cernua (Nodding Needlegrass)	50	6
Nassella pulchra (Purple Needlegrass)	50	8
Poa secunda secunda (Pine Bluegrass)	50	5
	Total	53

Applicable when numbers below are shown after a Botanical Name/(Common Name) above:
[1]Seed produced in California only.

10-1.455 MINOR HOT MIX ASPHALT

GENERAL

Summary

This work includes producing hot mix asphalt (HMA) at a central mixing plant and placing it as specified.

MATERIALS

For minor HMA:

1. Do not submit a job mix formula.
2. Choose the 3/8-inch or 1/2-inch HMA Type A or Type B aggregate gradation under Section 39-1.02E, "Aggregate," of the Standard Specifications.
3. Minimum asphalt binder content must be 6.8 percent for 3/8-inch aggregate gradation and 6.0 percent for 1/2-inch aggregate gradation.
4. Choose asphalt binder Grade PG 64-10, PG 64-16, or PG 70-10 under Section 92, "Asphalts," of the Standard Specifications.

If you request and the Engineer authorizes, you may reduce the minimum asphalt binder content.
Tack coat must comply with Section 39, "Hot Mix Asphalt," of the Standard Specifications.

CONSTRUCTION

Spread and compact minor HMA by methods that produce an HMA surfacing:

1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities

10-1.62 CLEAN AND PAINT SIGN STRUCTURES

Sign structures shall be cleaned and painted in conformance with the provisions in Section 56-1.05, "Surface Finish," and Section 91, "Paint," of the Standard Specifications and these special provisions.

Proof of certification under the SSPC QP Certification Program must be submitted with your bid. Required certification is as follows:

1. SSPC-QP 3, Enclosed Shop Facility or AISC Sophisticated Paint Endorsement Quality Program, P1-Enclosed

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 ASTM and "SSPC: The Society for Protective Coatings" specifications or qualification procedures applicable to the painting or paint removal to be performed. These documents shall become the permanent property of the Department.
C. A copy of the coating manufacturer's guidelines and recommendations for surface preparation, painting, drying, curing, handling, shipping, and storage of painted structural steel, including testing methods and maximum allowable levels for soluble salts.
D. Proposed methods and equipment to be used for any paint application.
E. Proof of the required certification, SSPC-QP 3. Where SSPC-QP 3 certification is required, an enclosed shop facility shall be required. Certification of AISC Sophisticated Paint Endorsement Quality Program, P-1 Enclosed endorsement, will be considered equivalent to SSPC-QP 3.
F. Proposed methods to control environmental conditions in accordance with the manufacturer's recommendations and these special provisions.
G. Proposed methods to protect the coating during curing, shipping, handling, and storage.
H. Proposed rinse water collection plan.
I. A detailed paint repair plan for the repair of damaged areas.
J. Procedures for containing blast media and water during application of coatings and coating repair of erected steel.
K. Examples of proposed daily reports for all testing to be performed, including type of testing, location, lot size, time, weather conditions, test personnel, and results.

The Engineer shall have 3 weeks to approve 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 approved by the Engineer.

It is understood that the Engineer's approval of the Contractor's PQWP shall not relieve the Contractor of any responsibility under the contract for the successful completion of the work in conformity with the requirements of the plans and specifications.

In addition to tubular type, sign structures at the locations listed below shall be cleaned and painted:

Location	Sign Structure
Station 506+07 "C" Line	Sign Structure "D"
Station 526+42 "A" Line	Sign Structure "E"

CLEAN AND PAINT UNGALVANIZED SURFACES

Ungalvanized steel surfaces to be cleaned and painted shall be dry blast cleaned in conformance with the requirements of SSPC-SP 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 1.5 mils nor more than 3.5 mils as measured in conformance with the requirements in ASTM Designation: D 4417.

Mineral and slag abrasives used for blast cleaning steel surfaces shall conform to the requirements for Class A, Grade 2 to 3 abrasives contained in SSPC-AB 1, "Mineral and Slag Abrasives," of the "SSPC: The Society for Protective Coatings," and shall not contain hazardous material.

Steel abrasives used for blast cleaning steel surfaces shall comply with the requirements of SSPC-AB 3, "Ferrous Metallic Abrasive," of the "SSPC: The Society for Protective Coatings." If steel abrasive is recycled through shop or field abrasive blast cleaning units, the recycled abrasive shall conform to the requirements of SSPC-AB 2, "Specification for Cleanliness of Recycled Ferrous Metallic Abrasive," of the "SSPC: The Society for Protective Coatings."

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.

Abrasive blast cleaned surfaces shall be tested by the Contractor for soluble salts using a Class A or B retrieval method as described in Technology Guide 15, "Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates," of the "SSPC: The Society for Protective Coatings," and cleaned so the maximum level of soluble salts does not exceed the lesser of the coating manufacturer's written recommendations or 10 micrograms per square centimeter. Areas of abrasive blast cleaned steel shall be tested at the rate of 3 tests for the first 1,000 square feet prepared per day, and one test for each additional 1,000 square feet or portion thereof, at locations selected by the Engineer. When less than 1,000 square feet of surface area is prepared in a shift, at least 2 tests shall be performed. If levels of soluble salts exceed the maximum allowed by these special provisions, the entire area represented by the testing will be rejected. The Contractor shall perform additional cleaning and testing of rejected areas until soluble salt levels conform to these requirements.

Blast cleaned surfaces shall receive a single undercoat consisting of an inorganic zinc coating conforming to the requirements in AASHTO Designation: M 300, Type I or Type II, except that: (1) the first 2 sentences of Section 5.6, "Primer Field Performance Requirements," shall not apply for Type II coatings, and (2) the entire Section 5.6.1 shall not apply for either type of inorganic zinc coating.

The coating shall be selected from the qualified products list, which may be obtained from the Transportation Laboratory. If the Contractor proposes to use a coating that is not listed on the Pre-qualified Products List, submit the required documentation specified in section 5.6 of AASHTO Designation: M 300. Allow 30 days for the Engineer's review.

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.

The single undercoat of inorganic zinc coating shall be applied to the required dry film thickness in 2 or more applications within 8 hours of the start of blast cleaning. Abrasive blast cleaned steel shall not be exposed to relative humidity exceeding 85 percent prior to application of inorganic zinc coating.

The total dry film thickness of all applications of the inorganic zinc undercoat, including the surfaces of outside existing members within the grip under bolt heads, nuts, and washers, shall be not less than 4 mils nor more than 8 mils, except that the total dry film thickness on each faying (contact) surface of high strength bolted connections shall be between one mil and the maximum allowable dry film thickness for Class B coatings as determined by certified testing in conformance with Appendix A of the "Specification for Structural Joints Using ASTM A325 or A490 Bolts" of the Research Council on Structural Connections (RCSC Specification). Unless otherwise stated, all inorganic zinc coatings used on faying surfaces shall meet the slip coefficient requirements for a Class B coating on blast-cleaned steel, as specified in the RCSC Specification. The Contractor shall provide results of certified testing showing the maximum allowable dry film thickness for the Class B coating from the qualifying tests for the coating chosen, and shall maintain the coating thickness on actual faying surfaces of the structure at or below this maximum allowable coating thickness.

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

Steel surfaces coated with Type II inorganic zinc coating shall be protected from conditions that may cause the coating film to dissolve. The Contractor, at the Contractor's expense, shall repair areas where the coating has dissolved by blast cleaning and repainting 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 Contractor shall test the inorganic zinc coating prior to application of finish coats. The locations of the tests will be determined by the Engineer. The Contractor shall determine the sequence of the testing operations. The testing for adhesion and hardness will be performed no sooner than 72 hours after application of the single undercoat of inorganic zinc coating. At the Contractor's expense, satisfactory access shall be provided to allow the Engineer to determine the location of the tests.

The inorganic zinc coating shall pass the following tests:

A. The inorganic zinc coating shall have a minimum adhesion to steel of 600 psi when measured using a self-aligning adhesion tester in conformance with the requirements in ASTM Designation: D 4541. The Engineer will select 3 locations per girder or 1,000 square feet of painted surface, whichever is less, for adhesion testing. If less than 1,000 square feet of steel is painted in a work shift, the Engineer will select 3 areas painted during the work shift for testing. If 2 or more of the locations tested fail to meet adhesion requirements, the entire area represented by the tests will be rejected. If one of the locations tested fails to meet adhesion requirements, an additional 3 locations shall be tested. Should any of the additional locations fail to meet adhesion requirements, the entire area represented by the tests will be rejected. The Contractor, at the Contractor's expense, shall repair the rejected area by blast cleaning and repainting with inorganic zinc to the specified thickness. Test locations for areas of inorganic zinc meeting adhesion testing requirements shall be repaired by application of organic zinc primer as specified in Section 91-1.04, "Materials," of the Standard Specifications to the specified minimum dry film thickness.

B. Areas of inorganic zinc coating where finish coats are to be applied shall be tested by the Contractor for soluble salts using a Class A or B retrieval method as described in Technology Guide 15, "Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates," of the "SSPC: The Society for Protective Coatings," and cleaned so the maximum level of soluble salts does not exceed the lesser of the manufacturer's written recommendations or 10 micrograms per square centimeter. Areas of inorganic zinc coating shall be tested at the rate of 3 tests for the first 1,000 square feet to be painted per day and one test for each additional 1,000 square feet or portion thereof at locations selected by the Engineer. When less than 1,000 square feet of surface area is painted in a shift, at least 2 tests shall be performed. If levels of soluble salts exceed the maximum allowed by these special provisions, the entire area represented by the testing will be rejected. The Contractor shall perform additional cleaning and testing of rejected areas until soluble salt levels conform to these requirements.

C. Prior to application of finish coats, the inorganic zinc coating shall exhibit a solid, hard, and polished metal surface when firmly scraped with the knurled edge of a quarter. Inorganic zinc coating that is powdery, soft, or does not exhibit a polished metal surface, as determined by the Engineer, shall be repaired by the Contractor, at the Contractor's expense, by blast cleaning and repainting with inorganic zinc coating to the specified thickness.

Additional Requirements for Water Borne Inorganic Zinc Primers

A. The surface pH of the inorganic zinc primer shall be tested by wetting the surface with de-ionized water for a minimum of 15 minutes but no longer than 30 minutes and applying pH paper with a capability of measuring in increments of 0.5 pH units. At least 2 surface pH readings shall be taken for every 500 square feet or portion thereof. If less than 500 square feet of steel is coated in a single shift or day, at least 2 surface pH readings shall be taken for primer applied during that period. Application of finish coats will not be permitted until the surface pH is less than or equal to 7.

B. Dry to solvent insolubility for water borne inorganic zinc primers shall be determined in conformance with the requirements in ASTM Designation: D 4752, except that water shall be the solvent. The resistance rating shall be not less than 4. Areas of inorganic zinc coating shall be tested for solvent insolubility at the rate of one test per 500 square feet or portion thereof. Inorganic zinc coating represented by the tested area that does not meet the solvent insolubility requirements will be rejected. The Contractor, at the Contractor's expense, shall repair rejected areas by blast cleaning and repainting with inorganic zinc coating to the specified thickness.

Additional Requirements for Solvent Borne Inorganic Zinc Primers

A. Dry to solvent insolubility for solvent borne inorganic zinc primers shall be determined in conformance with the requirements in ASTM Designation: D 4752. The resistance rating shall be not less than 4. Areas of inorganic zinc coating shall be tested for solvent insolubility at the rate of one test per 60 square yards or portion thereof. Inorganic zinc coating represented by the tested area that does not meet the solvent insolubility requirements will be rejected. The Contractor, at the Contractor's expense, shall repair rejected areas by blast cleaning and repainting with inorganic zinc coating to the specified thickness.

B. Surface hardness of solvent borne inorganic zinc shall be a minimum 2H when measured in conformance with the requirements in ASTM Designation: D 3363. Areas of inorganic zinc coating shall be tested at the rate of one test per 500 square feet or portion thereof. Inorganic zinc coating that fails to meet the surface hardness requirements shall be repaired by the Contractor, at the Contractor's expense, by blast cleaning and repainting with inorganic zinc coating to the specified thickness.

The Contractor, at the Contractor's expense, shall retest all rejected areas of inorganic zinc coating after repairs have been completed.

All areas of inorganic zinc coating shall be water rinsed in conformance with the requirements in Section 59-1.03, "Application," of the Standard Specifications and these special provisions. Areas of the coating removed by water rinsing shall be reapplied in conformance with the provisions for applying zinc-rich coating in Section 59-2.13, "Application of Zinc-Rich Primer," of the Standard Specifications and these special provisions. Except as approved by the Engineer, a minimum time of 72 hours shall be allowed between application of inorganic zinc coating and water rinsing.

Exposed area of inorganic zinc coating shall receive a minimum of 2 finish coats of an exterior grade latex paint supplied by the manufacturer of the inorganic zinc coating.

The first finish coat shall be applied within 48 hours following water rinsing and passing the soluble salt testing requirements herein.

The finish coat paint shall be formulated for application to inorganic zinc coating, shall meet the requirements for SSPC-Paint 24, "Latex Semi-Gloss Exterior Topcoat," of the "SSPC: The Society for Protective Coatings," and shall conform to the following:

A. No visible color change in the finish coats shall occur when tested in conformance with the requirements of ASTM Designation: G 53 using FS 40 UV-B bulbs for a minimum of 38 cycles. The cycle shall be 4 hours of ultraviolet (UV) exposure at 140° F and 4 hours of condensate exposure at 104° F.
B. The vehicle shall be an acrylic or modified acrylic copolymer with a minimum of necessary additives.

The first finish coat shall be applied in 2 applications. The first application shall consist of a spray applied mist application. The second application shall be applied after the mist application has dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM Designation: D 1640. The total dry film thickness of both applications of the first finish coat shall be not less than 2 mils.

Except as approved by the Engineer, a minimum drying time of 12 hours shall be allowed between finish coats.

The second finish coat color shall match Federal Standard 595B, No. 24491. The total dry film thickness of the applications of the second finish coat shall be not less than 2 mils.

The 2 finish coats shall be applied in 3 or more applications to a total dry film thickness of not less than 4 mils nor more than 8 mils.

The total dry film thickness of all applications of inorganic zinc coating and finish coat paint shall be not less than 8 mils nor more than 14 mils.

PAYMENT

Full compensation for water rinsing shall be considered as included in the contract price paid per pound for furnish sign structure of the type involved, and no additional compensation will be allowed therefor.

Full compensation for conforming to the requirements in SSPC-QP 3 of the "SSPC: The Society for Protective Coatings" shall be considered as included in the contract price paid per pound for furnish sign structure of the type involved, and no additional compensation will be allowed therefor.

PAINT GALVANIZED SURFACES

Galvanized steel surfaces shall be prepared and painted in conformance with Section 56-1.05, "Surface Finish," and Section 59-3, "Painting Galvanized Surfaces," of the Standard Specifications and these special provisions.

Galvanized steel surfaces shall receive a minimum of 2 finish coats of paint conforming to the provisions for finish coat paint on ungalvanized surfaces in "Clean and Paint Ungalvanized Surfaces" of these special provisions.

Paint shall be applied to galvanized steel surfaces to the thicknesses and in conformance with the provisions for finish coats on ungalvanized surfaces in "Clean and Paint Ungalvanized Surfaces" of these special provisions.

The total dry film thickness of all applications on galvanized steel surfaces shall be not less than 4 mils nor more than 8 mils, except that the total dry film thickness on each contact surface of high strength bolted connections shall be between one mil and 4 mils and may be applied in one application.

10-1.85 CONCRETE BARRIER

Concrete barriers shall conform to the provisions in Section 83-2, "Barriers," of the Standard Specifications and these special provisions.

For concrete barrier (Type 60C) and concrete barrier (Type 60E), the provisions of the third paragraph in Section 83-2.02D(4), "Finishing," of the Standard Specifications shall not apply.

At those locations shown on the plans, concrete barrier markers shall be cemented to the barrier in conformance with the manufacturer's recommendations.

For concrete barrier (Type 26 modified) attention is directed to "Architectural Surface (Textured Concrete) and "Prepare and Paint Concrete Surfaces" of these special provisions for formed and painted brick texture on the concrete barrier.

BID ITEM LIST
06-325504

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	153210	REMOVE CONCRETE	CY	8		
42	155001	PLUG CULVERT	EA	1		
43	155008A	CAP STANDPIPE	EA	1		
44	156590	REMOVE CRASH CUSHION (SAND FILLED)	EA	1		
45	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
46	190101	ROADWAY EXCAVATION	CY	62,300		
47	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
48	190185	SHOULDER BACKING	TON	4,400		
49 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	1,697		
50 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	CY	3,596		
51 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	2,148		
52 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	CY	3,964		
53 (F)	193031	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	CY	60		
54	193114	SAND BACKFILL	CY	77		
55	194001	DITCH EXCAVATION	CY	2,560		
56	197031	EARTH RETAINING STRUCTURE (MECHANICALLY STABILIZED EARTH WALL)	SQFT	14,026		
57 (F)	022469	HALF GABION RETURN WALL	SQFT	660		
58	198001	IMPORTED BORROW	CY	203,000		
59	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	12		
60	203031	EROSION CONTROL (HYDROSEED) (SQFT)	SQFT	880,000		

BID ITEM LIST
06-325504

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
62	208738	8" CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	LF	400		
63	250101	CLASS 1 AGGREGATE SUBBASE	CY	650		
64	260201	CLASS 2 AGGREGATE BASE	CY	31,600		
65	280000	LEAN CONCRETE BASE	CY	380		
66	390131	HOT MIX ASPHALT	TON	40,500		
67	394060	DATA CORE	LS	LUMP SUM	LUMP SUM	
68	394076	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	3,180		
69	394090	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	SQYD	39		
70	397005	TACK COAT	TON	37		
71	401066	CONCRETE PAVEMENT (RAMP TERMINI)	CY	990		
72	490615	18" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	871		
73	043563	FURNISH PILING (CLASS 90) (ALTERNATIVE X)	LF	3,391		
74	043564	DRIVE PILE (CLASS 90) (ALTERNATIVE X)	EA	87		
75	043565	FURNISH PILING (CLASS 140) (ALTERNATIVE X)	LF	9,720		
76	043566	DRIVE PILE (CLASS 140) (ALTERNATIVE X)	EA	140		
77	043567	FURNISH PILING (CLASS 200) (ALTERNATIVE X)	LF	4,464		
78	043568	DRIVE PILE (CLASS 200) (ALTERNATIVE X)	EA	64		
79	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	
80 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	614		

BID ITEM LIST
06-325504

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	2,985		
82 (F)	510060	STRUCTURAL CONCRETE, RETAINING WALL	CY	249		
83 (F)	510072	STRUCTURAL CONCRETE, BARRIER SLAB	CY	379		
84 (F)	510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	CY	196		
85 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	74		
86	BLANK					
87	510526	MINOR CONCRETE (BACKFILL)	CY	130		
88 (F)	043569	BRICK TEXTURE	SQFT	358		
89	043570	FORMED RELIEF TEXTURE	SQFT	3,565		
90 (F)	511047	ANTI-GRAFFITI COATING	SQFT	12,343		
91 (F)	518002	SOUND WALL (MASONRY BLOCK)	SQFT	19,272		
92	519100	JOINT SEAL (MR 2")	LF	201		
93 (F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	681,202		
94 (F)	520103	BAR REINFORCING STEEL (RETAINING WALL)	LB	44,700		
95 (F)	560203	FURNISH SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	3,690		
96 (F)	560204	INSTALL SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	3,690		
97 (F)	560213	FURNISH SIGN STRUCTURE (LIGHTWEIGHT)	LB	4,190		
98 (F)	560214	INSTALL SIGN STRUCTURE (LIGHTWEIGHT)	LB	4,190		
99 (F)	560218	FURNISH SIGN STRUCTURE (TRUSS)	LB	114,890		
100 (F)	560219	INSTALL SIGN STRUCTURE (TRUSS)	LB	114,890		

BID ITEM LIST
06-325504

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	560249	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	1,250		
102	560251	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-FRAMED)	SQFT	660		
103 (F)	561004	30" CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	LF	21		
104 (F)	561016	60" CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	LF	69		
105	566011	ROADSIDE SIGN - ONE POST	EA	67		
106	566012	ROADSIDE SIGN - TWO POST	EA	5		
107 (F)	597600	PREPARE AND PAINT CONCRETE	SQFT	12,343		
108	620060	12" ALTERNATIVE PIPE CULVERT	LF	36		
109	620100	18" ALTERNATIVE PIPE CULVERT	LF	59		
110	650010	12" REINFORCED CONCRETE PIPE	LF	90		
111	650012	15" REINFORCED CONCRETE PIPE	LF	470		
112	650014	18" REINFORCED CONCRETE PIPE	LF	1,970		
113	650018	24" REINFORCED CONCRETE PIPE	LF	1,060		
114	650026	36" REINFORCED CONCRETE PIPE	LF	710		
115	043571	54" BITUMINOUS COATED CORRUGATED STEEL PIPE (0.109" THICK)	LF	160		
116	690105	8" CORRUGATED STEEL PIPE DOWNDRAIN (.064" THICK)	LF	35		
117	700617	DRAINAGE INLET MARKER	EA	8		
118	703460	24" WELDED STEEL PIPE CASING (BRIDGE)	LF	182		
119	705201	12" CONCRETE FLARED END SECTION	EA	1		
120	705204	18" CONCRETE FLARED END SECTION	EA	5		

BID ITEM LIST
06-325504

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	705206	24" CONCRETE FLARED END SECTION	EA	14		
122	705311	18" ALTERNATIVE FLARED END SECTION	EA	2		
123	705617	18" SLIDE HEADGATE	EA	1		
124	707117	36" PRECAST CONCRETE PIPE INLET	LF	18		
125	721008	ROCK SLOPE PROTECTION (LIGHT, METHOD B)	CY	32		
126	721009	ROCK SLOPE PROTECTION (FACING, METHOD B)	CY	29		
127 (F)	043572	SLOPE PAVING (CONCRETE) (BRICK AND SMOOTH SURFACE)	CY	38		
128	729010	ROCK SLOPE PROTECTION FABRIC	SQYD	220		
129	731501	MINOR CONCRETE (CURB)	CY	470		
130	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	4		
131	022470	MINOR CONCRETE (PATTERNED)	SQYD	6,140		
132	731504	MINOR CONCRETE (CURB AND GUTTER)	CY	340		
133 (F)	731517	MINOR CONCRETE (GUTTER)	LF	133		
134	731521	MINOR CONCRETE (SIDEWALK)	CY	180		
135	731623	MINOR CONCRETE (CURB RAMP)	CY	80		
136 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	17,271		
137 (F)	750501	MISCELLANEOUS METAL (BRIDGE)	LB	1,064		
138	800360	CHAIN LINK FENCE (TYPE CL-6)	LF	5,580		
139	820107	DELINEATOR (CLASS 1)	EA	150		
140	832002	METAL BEAM GUARD RAILING (STEEL POST)	LF	410		

BID ITEM LIST
06-325504

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
161	860460	LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
162	860797	ELECTRIC SERVICE (IRRIGATION)	LS	LUMP SUM	LUMP SUM	
163	BLANK					
164	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	5,940		
165	510061	STRUCTURAL CONCRETE, SOUND WALL	CY	529		
166	705202	15" CONCRETE FLARED END SECTION	EA	1		
167	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: $ _____