

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

1727 30th Street MS-43

P.O. BOX 168041

SACRAMENTO, CA 95816-8041

FAX (916) 227-6214

www.dot.ca.gov/hq/esc/oe



*Serious Drought.
Help save water!*

October 21, 2015

04-SM-92-14.4/16.3

04-3G4864

Project ID 0412000086

Addendum No. 5

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN MATEO COUNTY AT THE SAN MATEO-HAYWARD BRIDGE to revise the project plans, the *Notice to Bidders and Special Provisions*, the *Bid book*, and *Information Handout*.

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, November 4, 2015.

Project plan sheets 1, 1A, 1B, 7, 8, 9, 9A, 9B, 9C, 9D, 9E, 9F and 9G are replaced and attached for substitution for the like-numbered sheets.

Project plan sheets 9H, 9I and 9J are added and attached for addition to the project plans.

In the Special Provisions, Section 1 is replaced as attached.

In the Special Provisions, Section 2-1.06B is replaced as attached.

In the Special Provisions, Section 7 is replaced as attached.

In the Special Provisions, Section 9 is replaced as attached.

In the Special Provisions, Section 10-1.02 is added as attached.

In the Special Provisions, Section 10-1.03 is replaced as attached.

In the Special Provisions, Section 15 is replaced as attached.

In the Special Provisions, Section 55 is replaced as attached.

In the Special Provisions, Section 59 is replaced as attached.

In the Special Provisions, Section 75 is replaced as attached.

Addendum No. 5
Page 2
October 21, 2015

04-SM-92-14.4/16.3
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The *Information Handout* is replaced as attached.

In the *Bid* book, in the "Bid Item List," Items 14, 16 and 24 are replaced.

In the *Bid* book, in the "Bid Item List," Items 26, 27 and 28 are added.

In the *Bid* book, in the "Bid Item List," Item 25 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*.

Submit the *Bid* book as described in the *Electronic Bidding Guide* at the Bidders' Exchange website.

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

Inform subcontractors and suppliers as necessary.

This addendum, EBS addendum file, and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-3G4864

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 BIJAN SARTIPI
District Director

Attachments

1 GENERAL

Add to section 1-1.01:

Bid Items and Applicable Sections

Item code	Item description	Applicable section
030238	RECONSTRUCT FINGER JOINT	15
030239	CAULK CONTACT SURFACES	59
029574	BIRD SPIKE	75

Add to section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the <i>Information Handout</i>	<ol style="list-style-type: none">1. BCDC Permit M87-42, Amendment 3, dated July 7, 20042. BCDC Permit M87-42, Amendment 5, dated June 26, 20143. BCDC Permit M97-6, Amendment 5, dated November 3, 19994. County of San Mateo Assessor Record, dated April 10, 20065. Bridge as-built drawings

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Replace section 7-1.02K(6)(e) with:

7-1.02K(6)(e) Scaffolding

7-1.02K(6)(e)(i) General

Section 7-1.02K(6)(e) applies to scaffolding constructed on or suspended from a bridge.

Scaffolding loads must include loads imposed by:

1. Containment system under section 59-2.03B(3)
2. Debris containment and collection plan under section 14-11.08B(2)

The scaffolding and the ventilated containment systems must be designed, constructed and maintained to divert rain water run-off, through the existing open-curb drains and through the open expansion joints in the deck, and away from the ventilated containment systems. The existing deck drainage features and conditions must not be altered.

The scaffolding must not extend more than 10 feet below the bottom of the bridge girders.

Submit 6 copies of shop drawings and 1 copy of calculations.

The shop drawings and calculations must be sealed and signed by:

1. Engineer who is registered as a civil engineer in the State.
2. Independent reviewer who is:
 - 2.1. Registered as a civil engineer in the State
 - 2.2. Not employed by the same entity that prepared the drawings

Include in the submittal:

1. Descriptions, calculations, and values for loads anticipated during erection, use, and removal of the scaffolding.
2. Methods and equipment for erecting, moving, and removing scaffolding.
3. Design details, including bolt layouts, welding details, and connections to existing structures.
4. Stress sheets, including a summary of computed stresses in the scaffolding and in the connections between the scaffolding and existing structures. The computed stresses must include the effects of erection, movement, and removal of the scaffolding.
5. A maintenance and inspection plan, including an action plan for forecasted wind events of sustained wind speed of 35 mph and greater. The action plan must (1) ensure safety and stability of the scaffolding, and containment systems, and the material and equipment that are stored on the system, (2) ensure compliance with other applicable environmental regulations, and (3) establish method(s) of relieving the wind pressure on the ventilated containment system when the forecast wind speed reaches 50 mph. Historical wind data can be obtained at the NOAA web site.

If manufactured scaffolding is used, the manufacturer's name, address, and telephone number must be shown on the shop drawings.

Allow 30 days for the Department's review.

Welding must comply with AWS D1.1 for steel and AWS D1.2 for aluminum.

The licensed engineer signing the scaffolding drawings must certify that the scaffolding is constructed as shown in the authorized shop drawings before work involving the scaffolding is performed. The certification must include any necessary testing to verify the ability of the scaffolding members to sustain the stresses required by the scaffolding design. The licensed engineer may designate a representative to perform this certification as follows:

1. The designated representative must have at least 3 years of combined experience in falsework design, scaffolding design, or supervising falsework construction
2. The Engineer may request you certify the experience of the designated representative and provide supporting documentation demonstrating the required experience

7-1.02K(6)(e)(iv) Bridge Scaffolding

Section 7-1.02K(6)(e)(iv) applies to scaffolding constructed on or suspended from a bridge.

The available bridge load capacity in excess of the dead and live load demand is shown in the following table. The available capacity is a uniform load across the entire bridge width and is based on the design live load shown.

Bridge number	Available load capacity (lb/sq ft)	Bridge width (ft)	Design live load
35-0054	40	85	HS-19.2

Calculations must include:

1. Moment and shear force demands versus capacity during erection, movement, and removal of the scaffolding on the longitudinal girders of girder bridges and the flooring system of stringers and floor beams of truss bridges.
2. Tension and compression force demands versus capacity of truss members of truss bridges during erection, movement, and removal of the scaffolding.

Scaffolding loads must not exceed the load-carrying capacity of the existing members. Determine the capacity of existing members under the Department’s *Bridge Design Specifications, Load Factor Design Version, April 2000*. Use the group load factors shown in the following table:

Group	Gamma factor	Beta factors		
		D	(L+I)H	(L+I)P
I _H ^a	1.3	1	1	0

^aH denotes HS-19.2 loads

For truss-type bridges, all connections must be made through stringers, floor beams, or truss panel points, and no connections are allowed that may cause bending stresses in a truss member.

9 PAYMENT

Add to section 9-1.16C:

The following items are eligible for progress payment even if they are not incorporated into the work:

1. Miscellaneous bridge metal
2. Structural steel
3. Bird spikes
4. Elastomeric bearing pad

Add to section 10-1.02:

Perform the work from Pier 19 to Pier 20 in three consecutive stages. Each stage must be similar in length of about 250 feet. Complete the work in one stage before beginning work in another.

Replace "Reserved" in section 10-1.03 of the RSS for section 10-1 with:

Do not work between Pier 1 to Pier 2 until after the 600th working day.

15 EXISTING FACILITIES

Add to section 15-4.01C(1):

Remove the following portions of bridges:

Bridge no.	Description of work
35-0054	Remove pier ladders, handrails, platform ladders, platform railings, access door hinges, structural steel bolts where shown.

Add to section 15-4.01C(3)(a):

Where structural steel bolts are shown to be removed, not more than a total of 100 structural steel bolts can be removed at one time.

At a splice location, no more than half the bolts or 100 bolts, whichever number is lower, can be removed at any one time.

Clean and paint the bolt holes under section 59 and install new structural steel bolts under section 55 before removing any more structural steel bolts.

Replace the paragraph in section 15-5.01A with:

Section 15-5 includes specifications for rehabilitating bridges.

Replace section 15-5.10 with:

15-5.10 RECONSTRUCT FINGER JOINT

15-5.10A General

15-5.10A(1) Summary

Section 15-5.10 includes specifications for disassembling the finger joint, cleaning and painting the finger joint to the limits shown, resetting the finger joint to the grade shown and reinstalling it with new hardware at the original location.

Schedule work such that only the portion of finger joint that can be securely put back in place during the same lane closure is removed. For any given finger joint or portion thereof, both cleaning and painting the finger joint components must be completed within the same lane closure. Finger joints may require multiple disassembly and reassembly operations over multiple lane closure periods to complete the work described.

Before removal, if the Engineer determines that a portion of the finger joint cannot be reused in the reconstruction, remove that portion. Furnishing the replacement finger joint for that portion of the bridge is change order work.

Protect utilities, drainage structures, curbs, and other structures within or adjacent to finger joint reconstruction.

15-5.10A(2) Quality Control Plan

Submit a QC Plan for each joint location. Allow 7 days for review.

The plan must include:

1. Schedule for reconstructing the finger joint such that the finger joint is securely put back into the original location during the same lane closure
2. Methods and equipment used for removing the finger joint
3. Methods and equipment to be used for reinstalling and resetting the finger joint to the grade shown

15-5.10B Materials**15-5.10B(1) General**

Reinforced elastomeric bearing pads must comply with the specifications for elastomeric bearing pads in section 51.

Hardware must comply with section 75-1.03.

Shims must be commercial quality, galvanized sheet steel.

Joint sealant must comply with Type A joint seal in section 51.

15-5.10C Construction**15-5.10C(1) General**

Reconstructed finger joints must conform to the design of the existing finger joints and be equal to the best portions of the existing finger joints.

After removal, reset the finger joint as shown to conform to the existing bridge deck elevations.

Before reinstalling the finger joint and after resetting the finger joint, clean the finger joints, deck plate, metal pan shield, metal joint shield and exposed bar reinforcing steel under the specifications for cleaning structural steel in section 59-2.

Painting must comply with the specifications for painting structural steel in section 59-2. Paint deck plates and exposed bar reinforcing steel with one coat of inorganic zinc rich primer within 12 hours of initial mixing of components.

Applying finish coats is not required. Do not paint stainless steel or anchorages embedded in concrete.

Apply joint sealant where shown.

15-5.10D Payment

Not Used

55 STEEL STRUCTURES

Add to section 55-1.02B(6)(a):

Zinc coat HS steel fastener assemblies and other fasteners attached to structural steel. If direct tension indicators are used, all components of these fastener assemblies must be zinc coated by mechanical deposition.

59 PAINTING

Add to section 59-2.01A:

Clean and paint the structures shown in the following table with the coating system specified:

Bridge name and number	Work description	Coating system
San Mateo - Hayward Bridge Bridge No. 35-0054	Clean and paint all steel surfaces of the existing bridge to the limits shown. Spot blast clean and paint undercoat on portions of the existing bridge, including all steel surfaces of bearing assemblies. Paint pier numbers where shown.	State Specification PB copper finish State Specification PB aluminum finish

Clean and paint the following galvanized steel surfaces under section 59-3:

1. Existing conduits where shown
2. Existing stairways including hand rails where shown
3. New HS steel fastener assemblies

Replace "Reserved" in section 59-2.01C(2) with:

Submit proof of each required SSPC-QP certification as specified in section 8-1.04C. Required certifications are as follows:

1. SSPC-QP 1
2. SSPC-QP 2, Category A

Delete the 3rd paragraph of the RSS for section 59-2.03A.

Add to section 59-2.03B(2)(a):

Clean inside surfaces of bolt holes under SSPC-SP 1 and remove visible rust.

Replace the 2nd paragraph of the RSS for section 59-2.03B(3)(a) with:

The containment system must be ventilated containment system.

The containment system must not extend more than 10 feet below the bottom of the bridge girders.

Replace the 4th and 5th paragraphs of the RSS for section 59-2.03B(3)(b)(ii) with:

The minimum total design load for the ventilated containment system must consist of the sum of the dead and live vertical loads and wind loads.

Dead, live, and wind loads are as follows:

1. Dead load must consist of the actual load of the ventilated containment system
2. Live loads for bridges with only spot blast cleaning work must consist of:
 - 2.1. Uniform load of at least 25 psf applied over the supported area
 - 2.2. Moving concentrated load of 1000 lb to produce maximum stress in the main supporting elements of the ventilated containment system
3. Live loads for bridges with 100 percent blast cleaning to bare metal must consist of:
 - 3.1. Uniform load of at least 45 psf, which includes 20 psf of sand load, applied over the supported area
 - 3.2. Moving concentrated load of 1000 lb to produce maximum stress in the main supporting elements of the ventilated containment system
4. Uniform wind velocity pressure of 10 psf applied across the ventilated containment systems.

Add to section 59-2.03C(2)(a):

Coat inside surfaces of bolt holes cleaned under SSPC-SP 1 with 1 coat of organic zinc primer after applying the undercoat. Protect the adjacent undercoated surfaces from the organic zinc primer.

Add to section 59-2.03C(4)(a) of the RSS for section 59-2.03C:

Where copper finish paint is shown, the State Specification PB copper finish coating system for existing structural steel must comply with the requirements shown in the following table:

State Specification PB Copper Finish Coating System

Surface	Description	State Specification Coating	Dry film thickness (mils)
Surfaces cleaned to bare metal ^a :	1st undercoat	PB 201	2-3
	2nd undercoat	PWB 145	2-3
	3rd undercoat	PWB 146	2-3
	1st finish coat	PWB 168D	1.5-3
	2nd finish coat	PWB 168D	1.5-3
	Total thickness, all coats	--	9-15
Existing painted surfaces to be topcoated:	Undercoat	PWB 146	2-3
	1st finish coat	PWB 168D	1.5-3
	2nd finish coat	PWB 168D	1.5-3
	Total thickness, new coats	--	5-9

^aIncludes locations of spot blast cleaning

Where aluminum finish paint is shown, the State Specification PB aluminum finish coating system for existing structural steel must comply with the requirements shown in the following table:

State Specification PB Aluminum Finish Coating System

Surface	Description	State Specification Coating	Dry film thickness (mils)
Surfaces cleaned to bare metal ^a :	1st undercoat	PB 201	2-3
	2nd undercoat	PWB 145	2-3
	3rd undercoat	PWB 146	2-3
	1st finish coat	PWB 161	1.5-3
	2nd finish coat	PWB 162	1.5-3
	Total thickness, all coats	--	9-15
Existing painted surfaces to be topcoated:	Undercoat	PWB 146	2-3
	1st finish coat	PWB 161	1.5-3
	2nd finish coat	PWB 162	1.5-3
	Total thickness, new coats	--	5-9

^aIncludes locations of spot blast cleaning

Replace "Reserved" in section 59-2.03C(4)(b) of the RSS for section 59-2.03C with:

Apply the 2nd finish coat after the 1st finish coat has dried 12 hours unless authorized.

Replace section 59-3 with:

59-3 PAINTING GALVANIZED SURFACES

59-3.01 GENERAL

Section 59-3 includes specifications for painting galvanized metal surfaces.

59-3.02 MATERIALS

The coating system for galvanized steel surfaces must comply with the requirements shown in the following table:

Coating System

Surface	Description	Coating	Dry film thickness (mils)
Existing galvanized surfaces cleaned under SSPC-SP2:	Undercoat ^a	Organic zinc-rich primer	1-3
	1st finish coat	State Specification PWB 161A	1.5-3
	2nd finish coat	State Specification PWB 162A	1.5-3
	Total thickness, all coats	--	4-9
New and existing galvanized surfaces to be topcoated:	1st finish coat	State Specification PWB 161A	2-4
	2nd finish coat	State Specification PWB 162A	2-4
	Total thickness, new coats	--	4-8

59-3.03 CONSTRUCTION

Clean galvanized surfaces by pressure washing or steam cleaning.

Roughen galvanized areas after cleaning by abrasive blasting. Use an abrasive no larger than 30 mesh.

Do not remove galvanizing unless the surface has rust or mill scale. Remove loose rust or mill scale under SSPC-SP2 or SSPC-SP3.

Feather edges of remaining paint. Do not use pneumatic chipping hammers unless authorized.

Unless authorized, apply the undercoat or finish coat the same day cleaning is performed. Unless authorized, do not apply the next coat unless the previous coat has dried at least 12 hours.

59-3.04 PAYMENT

Not Used

75 MISCELLANEOUS METAL

Add to the list in the 2nd paragraph of section 75-1.03A:

6. Pier ladders, platform ladders
7. Handrails, platform railings
8. Access door hinges
9. Hinge box screens

Replace section 75-1.03J with:

75-1.03J BIRD SPIKES

75-1.03J(1) GENERAL

Submit the manufacturer's product information including installation recommendations.

Submit a work plan for the installation of bird spikes. Installation must comply with the manufacturer's recommendations.

Submit a certificate of compliance for each shipment of bird spikes.

75-1.03J(2) MATERIALS

Bird spikes must be commercial quality, stainless steel, all-weather install, and glue-down variety and be one of the systems shown in the following table or equal:

System	Manufacturer
Bird-X Regular stainless steel spikes	Bird-X Inc. www.bird-x.com
Dura-spike 5-inch width stainless steel spikes	Bird Barrier www.birdbarrier.com
5-inch width stainless steel pigeon spikes	Bird B Gone www.birdbgone.com

75-1.03J(3) CONSTRUCTION

Immediately before placing bird spikes, clean the surfaces to receive bird spikes thoroughly and remove all residue and foreign material.

Use only adhesive recommended or manufactured by the same manufacturer.

Install per manufacturer's instructions.

75-1.03J(4) PAYMENT

Not Used

Replace the 1st paragraph of section 75-1.06 with:

Except for final-pay-item miscellaneous metal materials and bird spikes, miscellaneous metal materials are determined from scale weighings.

BID ITEM LIST**04-3G4864**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070030	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
2	080050	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM	LUMP SUM	
3	090105	TIME-RELATED OVERHEAD (LS)	LS	LUMP SUM	LUMP SUM	
4	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
5	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	
6	128652	PORTABLE CHANGEABLE MESSAGE SIGN (LS)	LS	LUMP SUM	LUMP SUM	
7	130100	JOB SITE MANAGEMENT	LS	LUMP SUM	LUMP SUM	
8	130200	PREPARE WATER POLLUTION CONTROL PROGRAM	LS	LUMP SUM	LUMP SUM	
9	141110	WORK AREA MONITORING (BRIDGE)	LS	LUMP SUM	LUMP SUM	
10	590106	CLEAN STRUCTURAL STEEL (EXISTING BRIDGE)	LS	LUMP SUM	LUMP SUM	
11	590111	PAINT STRUCTURAL STEEL (EXISTING BRIDGE)	LS	LUMP SUM	LUMP SUM	
12	590135	SPOT BLAST CLEAN AND PAINT UNDERCOAT	SQFT	864,990		
13	BLANK					
14	130570	TEMPORARY COVER	SQYD	1,900		
15	130620	TEMPORARY DRAINAGE INLET PROTECTION	EA	3		
16	130640	TEMPORARY FIBER ROLL	LF	1,800		
17	130710	TEMPOARY CONSTRUCTION ENTRANCE	EA	2		
18	130730	STREET SWEEPING	LS	LUMP SUM	LUMP SUM	
19	129000	TEMPORARY RAILING (TYPE K)	LF	200		
20	157560	BRIDGE REMOVAL (PORTION)	LS	LUMP SUM	LUMP SUM	

BID ITEM LIST
04-3G4864

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (F)	550102	STRUCTURAL STEEL (BRIDGE)	LB	53,500		
22 (F)	750501	MISCELLANEOUS METAL (BRIDGE)	LB	26,000		
23	029574	BIRD SPIKE	LF	16,500		
24	800103	TEMPORARY FENCE (TYPE CL-6)	LF	1,100		
25	BLANK					
26 (F)	030238	RECONSTRUCT FINGER JOINT	LF	320		
27 (F)	030239	CAULK CONTACT SURFACES	LF	14,000		
28	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID

FOR BID ITEMS:

\$

TOTAL BID

FOR TIME:

$$\begin{array}{r}
 \underline{\hspace{10em}} \\
 \text{WORKING DAYS BID} \\
 \text{(Do not bid less than 850 days and} \\
 \text{not more than 1,250 Days)}
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 \text{\$10,500.00} \\
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