TO: Toll Bridge Program Oversight Committee  DATE: August 27, 2014 (TBPOC)
FR: William S. Casey, Toll Bridge Program Construction Manager, Caltrans
RE: Agenda No. - 1a – 1, 2, 3
   Item- Executive Session, Contract Change Orders (CCOs)
   Self-Anchored Suspension Span – CCO 160, Post Readiness for
   Seismic Safety Opening (SSO) Change in Character (CIC) of the Work
   - CCO 349 S1 CIC – Traffic Control/Construction Access
   - CCO 352 S1, CIC - Painting Impacts (Certified Coatings)
   - CCO 379, CIC - Traveler Rail Gap Tolerance

Recommendation:
APPROVAL

Cost:

| CCO 349:       | $1,400,000 (Informational - Approved January 27, 2014) |
| CCO 349 S1:    | $620,000 (For Approval) |
| Total CCO 349: | $2,020,000 (For Approval) |

| CCO 352:       | $2,470,000 (Informational - Approved January 27, 2014) |
| CCO 352 S1:    | $530,000 (For Approval) |
| Total CCO 352: | $2,900,000 (For Approval) |

| CCO 379:       | $1,947,199 (For Approval) |

Schedule Impacts:
CCO 386 approved by the TBPOC at the July 24, 2014 TBPOC meeting provided for a
revised Contract completion date of December 31, 2014. CCO 386 provides for the
Contract time needed to complete the work of CCO’s 349, 352, and 379 as well as the
added work of CCO 376 “PWS Anchor Rod Clearance”.

Discussion:
CCO 160, Item 4, Post “Readiness for Seismic Safety Opening” Work, contemplated the
need for a separate CCO to address the additional costs and inefficiencies of having to
complete the SAS work under live traffic conditions as well as work that was re-
sequenced in order to achieve the SSO milestone (August 28, 2013). This section specified that compensation would be provided in accordance with Section 4-1.03C, “Changes in Character of Work,” of the Standard Specifications.

At the January 27, 2014 TBPOC meeting multiple post-SSO CIC CCOs were presented and approved by the TBPOC including CCOs 349 and 352. The TBPOC was provided with a $12.62 million direct cost projection for all CIC work. This projection has now been revised to $17.2 million. The details of this projection are shown on the attached “Post SSO Change in Character of the Work Tracking Sheet”.

Supplemental CCOs 349 & 352 (Additional Funds):
CCO 349 provided for the temporary traffic control measures required for both public and worker safety as well as creating access to the SAS Structure through Crossbeam No. 1. CCO 352 provided compensation to the painting subcontractor, Certified Coatings, for the additional costs and inefficiencies associated with the access restrictions in having to complete the painting work under live traffic conditions. Both CCOs (349 S1 & 352 S1) provide the additional funds required to complete the work.

CCO 352 S1 also clarifies the scope of work provided for in CCO 352. Compensation is clarified to provide for the inefficiencies in performing the final painting work under live traffic conditions for the Orthotropic Box Girder (OBG), Tower interior, and the bike path. CCOs 382, 384, and 388 have been established to provide compensation for the additional costs and inefficiencies for the final painting work to the Tower exterior, the areas behind the barrier rails used to access the SAS Structure, and the Service Platforms, respectively.

CCO 379 “Traveler Rail Gap Tolerance”:
CCO 379 provides the Contractor with compensation to field fit up the traveler rails to the Orthotropic Box Girders (OBG) and to field adjust the rail to rail gap dimensions on site in Oakland. CCO 160 allowed non-SSO critical activities to be re-sequenced to a post-SSO activity in order to focus all resources on achieving the SSO milestone. Under these terms, the completion of the traveler rails was not required for SSO. Because of this, the traveler rail fabrication was not completed in a time frame that would have allowed for the fit up and adjustment activity with the OBG to be performed at the fabrication facility. As provided for in CCO 160, the re-sequencing of this activity from the fabrication facility to the field is eligible for additional compensation. At a May 15, 2014 special meeting with the Contractor, the TBPOC provided preliminary authorization for a cost of $1.7 million to negotiate adjustments to 42 traveler rail locations however, subsequent to that meeting the scope of this work was adjusted to include a total of 71 locations to be modified. In addition the Department directed the
Memorandum

Contractor to perform a load test (CCO 387) to verify that a fully loaded traveler can successfully cross the maximum allowed gap of 30 mm. This load test has delayed the start of the work. In order to mitigate an extended schedule the Contractor will work additional hours to complete this work with additional compensation provided for the premium time and inefficiencies of working a compressed schedule.

It is also noted that at the May 15th special meeting the TBPOC provided preliminary authorization for $2.0 million to negotiate adjustments to PWS anchor rods at the cable anchorages. The combined preliminary authorization for both change orders was $3.7 million. However, because of the subsequent scope changes CCO 376 was issued as a force account change for $990,000 while CCO 379 is a lump sum change for $1,947,199. The combined total of both these CCOs is $2,937,199, well within the $3.7 million that was preliminarily authorized for negotiation.

Risk Management:
After Bridge opening, the SAS Risk Register carried risks to address the potential change in character of work. Two risks in particular were used to address this - “Compensation for POST SSO” and “Schedule: Potential delay during construction - Post Seismic Safety Opening (SSO).” These risks attempt to quantify the possible range of impacts related to the direct cost of the work along with the schedule impacts related to them. The Q3 2013 risk register carries a 50% probable aggregate value of these two risks as $41M.

In Q1 2014 the change order log carried $10.2M in direct costs. To date it is anticipated that there will need to be $17.2M to address direct costs and approximately $13M to address schedule impacts related to this work. When combined, the known impacts related to the change are on the order of $30.2M; however a total on the order of $7M (50% Probable) is expected to be carried in the risk register to address unknowns at the project moves forward.

Attachment(s):
1. CCO 349 S1 CCO and Memo
2. CCO 352 S1 CCO and Memo
3. CCO 379 CCO and Memo
4. Executed CCO 349 CCO and Memo
5. Executed CCO 352 CCO and Memo
6. Executed CCO 160 CCO and Memo
7. CCO 376 and Memo
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CCO: 349  Suppl. No. 1  Contract No. 04 -- 0120F4  Road SF-80-13.2/13.9  FED. AID LOC.: 

To:  AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. The last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer’s Estimate.

Extra Work at Force Account:

Provide additional funds.

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, “Extra Work” of the Standard Specifications and Section 5-1.24, “Force Account Payment” of the Special Provisions.

Estimated Cost of Extra Work at Force Account: ................................................................. $620,000.00

Estimated Cost: Increase □ Decrease □ $620,000.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by
Signature
Resident Engineer
William Casey, Supervising T.E. Date 8-12-14

Approval Recommended by
Signature
Program Manager
Tony Anziano, Program Manager Date 9/13/14

Engineer Approval by
Signature
Program Manager
Tony Anziano, Program Manager Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by
Signature (Print name and title) BRIAN A. PETERSEN - PROJECT DIRECTOR Date 8/AUG/14
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

TO: Tony Anziano, Program Manager

FROM: Daryl Schram, Senior TE

FILE: E.A. 04 - 0120F4

CO-RTE-PM SF-60-13.2/13.9

FED. NO. No

COST: $620,000.00 INCREASE ✓ DECREASE 

SUPPLEMENTAL FUNDS PROVIDED: $0.00

CONTINGENCY BALANCE (incl. this change): $29,766,128.86

IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? ✓ YES □ NO

THIS CHANGE ORDER PROVIDES FOR:

Provide additional funds to implement traffic control and construction access measures as necessary, due to changes in the character of work resulting after achieving Seismic Safety Opening (SSO) of the bridge.

Contract Change Order (CCO) 160 “East End Delay Impacts”, Section 3 “Readiness for Seismic Safety Opening” established a Readiness for Seismic Safety Opening (SSO) date for opening the bridge to traffic of August 26, 2013. This section (Section 3) provides for and compensates the Contractor for the minimum amount of work required to be completed in order to achieve SSO while Section 4 “Post Readiness for Seismic Safety Opening Work” provides for the remaining work to be completed after SSO. The Contractor met the SSO requirement and traffic was placed on the SAS Structure on September 3, 2013 as planned.

In completing the remainder of the Contract work, Section 4 recognized that the Order of Work specified for in Section 3 would have an effect on the post SSO work as well as recognized the potential changes in the character of the work associated with amongst other things the changed condition of having to complete the work under live traffic conditions. While Section 4 identified this concern, the inefficiencies and additional costs associated with the completion of the work under the changed conditions were deferred to a separate change order.

To address the post SSO changes in character of the work, additional costs, and inefficiencies for the remaining work multiple CCO’s will be established to provide compensation to the Prime Contractor and each of the affected Subcontractor’s. The following CCO’s have been identified:

• CCO 342 “Traffic Lane Closures” includes the revised traffic lane and shoulder closure specifications
• CCO 349 “Traffic Control/Construction Access” will address the additional costs associated with implementing traffic control and construction measures,
• CCO 352 “Certified Coatings” will address the additional costs in completing painting the Tower interior, the inside and underside of the Orthotropic Box Girder (OBG), and the bikeway.
• CCO 353 “Bleyco” will address the additional costs in completing the electrical work,
• CCO 354 “FW Spencer” will address the additional costs in completing the piping work,
• CCO 355 “USA Hoist” will address the additional costs in completing the tower elevator installation,
• CCO 356 “ABF” will address the additional costs incurred by the Prime Contractor to support all the remaining work.
• CCO 365 “Dehumidification Systems” will address the additional costs to complete the dehumidification system.
• CCO 375 “Extended Overhead” provides for the additional overhead up to August 24, 2014 due to inefficiencies associated with the performance of post-SSO work.
• CCO 379 “Traveler Rail Gap Modifications” will address the additional costs to complete the traveler rails.
• CCO 382 “Tower Painting Completion” will address the additional costs to cleaning and paint repair on the Tower.
• CCO 384 “Paint Repair Behind Barrier” will repair paint damaged behind and on the barrier rails.
• CCO 388 “Service Platform Paint Repair” will repair damaged paint on the service platforms.

This change order (CCO 349 S1) will provide the remainder of the expected funds necessary to furnish, install, and remove traffic control devices to close off shoulders and traffic lanes from vehicles and to close off areas of the bikeway from pedestrians so that work can safely progress. Traffic control is necessary to protect workers from traffic and to mobilize and stage materials and equipment. Temporary elevators are also necessary to gain access to the OBG and underneath areas of the bridge.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call: (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.
After Bridge opening the SAS Risk Register carried risks to address the potential change in character of work. Two risks in particular were used to address this - "Compensation for POST SSO" and "Schedule: Potential delay during construction - Post Seismic Safety Opening (SSO). These risks attempt to quantify the possible range of impacts related to the direct cost of the work along with the schedule impacts related to them. The Q3 2013 risk register carries a 50% probable aggregate value of these two risks as $41M.

In Q1 2014 the change order log carried $10.2M in direct costs. To date it is anticipated that there will need to be $17.2M to address direct costs and approximately $13M to address schedule impacts related to this work. When combined, the known impacts related to the change are on the order of $30.2M; however a total on the order of $7M (50% Probable) is expected to be carried in the risk register to address unknowns at the project moves forward.

The total cost of this change order is $620,000.00 force account, which can be financed from the contingency fund. A detailed cost analysis is on file. The cumulative total of CCO 349 S0 and S1 is $2,020,000.00.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), and Rich Foley (HQ Oversight).

Toll Bridge Program Oversight Committee (TBPOC) approved CCO 349 on January 27, 2014, in the not to exceed amount of $1,400,000.00. TBPOC approval of the additional $620,000.00 for CCO 349 S1 is pending.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CCO: 352 Suppl. No. 1 Contract No. 04-0120F4 Road SF-80-13.2/13.9 FED. AID LOC.: 

To: AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

Revised the scope of work for Contract Change Order (CCO) 352 S0 force account funds as follows:

As directed by the Engineer, revise access and working hours for Certified Coatings' painting operations on item work completion and lump sum change order work associated with the Tower interior, Orthotropic Box Girder (OBG) deck, OBG interior, and work off the traveler due to changes in the character of work after achieving Seismic Safety Opening (SSO). When working on painting operations in the areas listed below, the following Certified Coatings rates will be applied:

- Tower, a rate of $187.11 per Painter Day will be paid.
- Westbound OBG deck and painting work using the traveler, a rate of $233.89 per Painter Day will be paid.
- Eastbound OBG deck and OBG interior, a rate of $280.67 per Painter Day will be paid.

A Painter Day is defined as one painter per day.

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated Cost of Extra Work at Force Account ................................................................. $530,000.00

Change in character impacts to painting on the Tower exterior after SSO will be included in CCO 382.
Change in character impacts to paint repair on and behind the barrier rails after SSO will be included in CCO 384.
Change in character impacts to paint repair on service platforms after SSO will be included in CCO 388.

Estimated Cost: Increase ☑ Decrease □ $530,000.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by

[Signature]

Resident Engineer

William Casey, Supervising T.E.

Date 8-7-14

Approval Recommended by

[Signature]

Program Manager

Tony Anziano, Program Manager

Date 8/13/14

Engineer Approval by

[Signature]

Program Manager

Tony Anziano, Program Manager

Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

[Signature]

BRIAN A. PETERSEN - PROJECT DIRECTOR

Date 8/13/14
**STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION**

**CONTRACT CHANGE ORDER MEMORANDUM**

TO:  Tony Anziano, Program Manager  
FROM:  Daryl Schram, Senior TE  

COC#:  352  SUPPLEMENT#:  1  Category Code:  CHPT

COST:  $530,000.00  
SUPPLEMENTAL FUNDS PROVIDED:  $0.00  
CONTINGENCY BALANCE (incl. this change)  $31,653,743.86

HEADQUARTERS APPROVAL REQUIRED?  YES  NO
IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS?  YES  NO

**CCO DESCRIPTION:**  
CIC Painting impacts Additional Funds

**PROJECT DESCRIPTION:**  
CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE

<table>
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<th>Original Contract Time</th>
<th>Time Adj. This Change</th>
<th>Previously Approved CCO Time Adjustments</th>
<th>Percentage Time Adjusted: (including this change)</th>
<th>Total # of Unreconciled Deferred Time CCO(s): (including this change)</th>
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<td>630 Day(s)</td>
<td>25 %</td>
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</table>

**THIS CHANGE ORDER PROVIDES FOR:**

Revises the scope of work for Contract Change Order (CCO) 352 S0 force account funds and provide additional funds to revise access and working hours for Certified Coatings’ painting operations on item work completion and change order work associated with the Tower interior, Orthotropic Box Girder (OBG) deck, OBG interior, and work off the traveler due to changes in the character of work after achieving Seismic Safety Opening (SSO).

Contract Change Order (CCO) 160 “East End Delay Impacts”, Section 3 “Readiness for Seismic Safety Opening” established a Readiness for Seismic Safety Opening (SSO) date for opening the bridge to traffic of August 28, 2013. This section (Section 3) provides for and compensates the Contractor for the minimum amount of work required to be completed in order to achieve SSO while Section 4 “Post Readiness for Seismic Safety Opening Work” provides for the remaining work to be completed after SSO. The Contractor met the SSO requirement and traffic was placed on the SAS Structure on September 3, 2013 as planned.

In completing the remainder of the Contract work, Section 4 recognized that the Order of Work specified in Section 3 would have an effect on the post SSO work as well as recognized the potential changes in the character of the work associated with amongst other things the changed condition of having to complete the work under live traffic conditions. While Section 4 identified this concern, the inefficiencies and additional costs associated with the completion of the work under the changed conditions were deferred to a separate change order.

To address the post SSO changes in character of the work, additional costs, and inefficiencies for the remaining work multiple CCO’s will be established to provided compensation to the Prime Contractor and each of the affected Subcontractor’s. The following CCO’s have been identified:

- CCO 342 “Traffic Lane Closures” includes the revised traffic lane and shoulder closure specifications
- CCO 349 “Traffic Control/Construction Access” will address the additional costs associated with implementing traffic control and construction measures,
- CCO 352 “Certified Coatings” will address the additional costs in completing painting the Tower interior, the inside and underside of the Orthotropic Box Girder (OBG), and the bikepath.
- CCO 353 “Bleyco” will address the additional costs in completing the electrical work,
- CCO 354 “FW Spence” will address the additional costs in completing the piping work,
- CCO 355 “USA Holst” will address the additional costs in completing the tower elevator installation,
- CCO 356 “ABF” will address the additional costs incurred by the Prime Contractor to support all the remaining work.
- CCO 365 “Dehumidification Systems” will address the additional costs to complete the dehumidification system.
- CCO 375 “Extended Overhead” provides for the additional overhead up to August 24, 2014 due to inefficiencies associated with the performance of post-SSO work.
- CCO 379 “Traveler Rail Gap Modifications” will address the additional costs to complete the traveler rails.
- CCO 382 “Tower Painting Completion” will address the additional costs to cleaning and paint repair on the Tower.
- CCO 384 “Paint Repair Behind Barrier” will repair paint damaged behind and on the barrier rails.
- CCO 388 “Service Platform Paint Repair” will repair damaged paint on the service platforms.

This change order (CCO 352 S1) will provide for the remainder of the expected costs for post SSO impacts to painting operations on the Tower interior and OBG due to working at night, loss of elevator access to Tower elevations, and extended travel to and from work locations. CCO 352 force account work scope is revised to reflect change in character impacts to

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painting operations on the Tower exterior being included in CCO 382, on the barrier rails being included in CCO 384, and on the service platforms being included in CCO 388.

After Bridge opening the SAS Risk Register carried risks to address the potential change in character of work. Two risks in particular were used to address this - "Compensation for POST SSO" and "Schedule: Potential delay during construction - Post Seismic Safety Opening (SSO)." These risks attempt to quantify the possible range of impacts related to the direct cost of the work along with the schedule impacts related to them. The Q3 2013 risk register carries a 50% probable aggregate value of these two risks as $41M.

In Q1 2014 the change order log carried $10.2M in direct costs. To date it is anticipated that there will need to be $17.2M to address direct costs and approximately $13M to address schedule impacts related to this work. When combined, the known impacts related to the change are on the order of $30.2M; however a total on the order of $7M (50% Probable) is expected to be carried in the risk register to address unknowns at the project moves forward.

The total cost of this change order is $530,000.00 force account, which can be financed from the contingency fund. A detailed cost analysis is on file. The cumulative total of CCO 352 S0 and S1 is $3,000,000.00.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), and Rich Foley (HQ Oversight).

Toll Bridge Program Oversight Committee (TBPOC) approved CCO 352 on January 27, 2014, in the not to exceed amount of $2,470,000.00. TBPOC approval of the additional $530,000.00 for CCO 352 S1 is pending.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

Change Requested by: Engineer

COC: 379 Suppl. No. 0 Contract No. 04-0120F4 Road SF-80-13.2/13.9 FED. AID LOC:

To: AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Lump Sum:

Revise traveler rails as follows:

- Modify SAS traveler rails to meet the revised segment gap tolerance of between 10 mm and 30 mm. Modify E2/E3 traveler rails to maintain a segment gap tolerance between 5 mm and 15 mm. Sixty locations on the SAS traveler rails and eleven locations on the E2/E3 traveler rails have been identified as not meeting gap tolerance requirements listed above and will require modification as shown in Attachment A on pages 2 through 4.

- Increase, as necessary, the slotted holes, located in the web of the traveler rail at the fixed connection, to a maximum of 18 x 55 mm. Also increase, as necessary, the slotted holes, located in the top flange of the traveler rail at the fixed connection, to a maximum of 24 x 60 mm. These modifications shall only be applied to traveler rails where needed in order to facilitate installation to the specified gap tolerance.

- Modifications on the traveler rails shall be performed Mondays through Saturdays 10 hrs/day and Sundays 8hrs/day for the duration of Contract Change Order (CCO) 379 work. Compensation is included for all labor costs including straight time, overtime, and double time. Compensation is included for extended equipment operation and other inefficiencies that are necessary to support the extended work schedule.

The following revised plan sheets detail the changes addressed in this change order: 1120R6, 1121R6, and 1133S1R5 (of 1204) as shown on sheets 5 through 7 of this change order.

This change order resolves the costs associated with Contractor Request for Information (RFI) numbers 3673 R0, 3673 R1, and 3679 with respect to changes listed above.

For this work, the Contractor will receive a lump sum price of $1,947,199.00. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

Extra Work at Lump Sum...

$1,947,199.00

Repair of any damaged existing paint in accordance with Special Provisions Section 10-1.64 "Traveler Support Rails" as a result of the work in this change order will be included in CCO 168 S1. Caulking of gaps between rail top flange and L102 as shown on plan sheet 1120R5 will not be performed under this change order, this work will be included in CCO 168 S2.

Estimated Cost: Increase ☒ Decrease ☐ $1,947,199.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by

Signature

Resident Engineer

William Casey, Supervising T.E.

Date 8-27-14

Approval Recommended by

Signature

Program Manager

Tony Anziano, Program Manager

Date 8/27/14

Engineer Approval

Signature

Program Manager

Tony Anziano, Program Manager

Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the Contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature

BRIAN A. PETERSEN - PROJECT DIRECTOR

Date 27 AUG 14
TO: Tony Anziano, Program Manager
FROM: Darryl Schram, Senior TE

CCO#: 379 SUPPLEMENT#: 0 Category Code: CHPK

FILE: E.A. 04 - 0120F4
CO-RTE-PM SF-80-13.2/13.9
FED. NO. No

CONTINGENCY BALANCE (incl. this change) $27,545,579.86
HEADQUARTERS APPROVAL REQUIRED? YES NO
IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? YES NO

SUPPLEMENTAL FUNDS PROVIDED: $0.00 PROJECT DESCRIPTION:
CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE

COST: $1,947,199.00
INCREASE ☑ DECREASE ☐

THIS CHANGE ORDER PROVIDES FOR:

- Modify SAS traveler rails to meet the revised segment gap tolerance of between 10 mm and 30 mm. Modify E2/E3 traveler rails to maintain a segment gap tolerance between 5 mm and 15 mm. Sixty locations on the SAS traveler rails and eleven locations on the E2/E3 traveler rails have been identified as not meeting gap tolerance requirements listed above and will require modification.

- Increase, as necessary, the slotted holes, located in the web of the traveler rail at the fixed connection, to a maximum of 18 x 55 mm. Also increase, as necessary, the slotted holes, located in the top flange of the traveler rail at the fixed connection, to a maximum of 24 x 60 mm. These modifications shall only be applied to traveler rails where needed in order to facilitate installation to the specified gap tolerance.

- Modifications on the traveler rails shall be performed Mondays through Saturdays 10 hrs/day and Sundays 8hrs/day for the duration of Contract Change Order (CCO) 379 work. Compensation is included for all labor costs including straight time, overtime, and double time. Compensation is included for extended equipment operation and other inefficiencies that are necessary to support the extended work schedule.

Contract Plan Sheets No. 1120 “Traveler Rail Details No. 2” required a sliding rail segment gap tolerance between 14 mm and 18 mm for the SAS traveler and No. 1153 “E2/E3 Bikepath Traveler Rails -01” required a sliding rail segment gap tolerance for the E2/E3 bikepath traveler between 6.5 mm and 13.5 mm. The Contractor through RFI 2008R1 requested to increase the gap tolerance to provide for a larger fabrication and installation tolerance. This change was included in CCO 168 S0 “Traveler Rail Gap Variation” which increased segment gap tolerance for the SAS and Skyway traveler to between 10 mm and 22 mm and the E2/E3 bikepath traveler to between 5 mm and 15 mm. CCO 168 S1 was issued for $350,000 for minor grinding of the traveler rail segment and support edges to achieve the gap tolerances required by CCO 168 S0. However, gap adjustment work is more extensive than anticipated and has yet to be performed due to the re-sequencing of work per CCO 160 “Seismic Safety Opening.” The work to adjust traveler rail gaps will now be performed under this change order and CCO 168 S1 work scope will be revised.

After further review, it was determined that a gap tolerance for the SAS traveler rail segments could be increased to between 10 mm and 30 mm, while still providing for proper in service operation of the travelers. Therefore, this change order will adjust SAS traveler rail segments to meet the minimum 10 mm gap and extend the rail bottom flanges to meet the maximum 30 mm gap. This change order will also adjust the E2/E3 traveler rail segment to meet the minimum 5 mm gap and maximum 15 mm gap.

This change order provides compensation for the post readiness for Seismic Safety Opening (SSO) installation of the traveler rail sections provided for in CCO 160 “Seismic Safety Opening”. Section 4 “Post ‘Readiness for Seismic Safety Opening’ Work”. CCO 160 revised the order of work in order to achieve SSO by August 28, 2014. CCO 160 provided for the minimum amount of work necessary to safely open the SAS to live traffic. Installation of the traveler rails was not required for SSO; therefore this activity was re-sequenced in order to concentrate resources on work necessary to be completed before SSO. Fabrication and installation of the traveler rails was allowed to be completed on a schedule separate from the work required for SSO. Due to this re-sequencing, the time frames associated with the fabrication of the Orthotropic Box Girder (OOG) deck sections and the traveler rail sections did not allow for fit up of the traveler rails to the OGB deck sections at the fabrication facility. Therefore traveler rail fit up was deferred until field installation. This change order provides compensation, in accordance with CCO 160 provisions, to resequence traveler rail installation activities, perform field fit up, and adjust traveler rail segments to achieve tolerance requirements. The cost to repair damaged painted surfaces as a result

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and adjust traveler rail segments to achieve tolerance requirements. The cost to repair damaged painted surfaces as a result of this change will be included in CCO 168S1. Caulking of gaps between rail top flange and L102 as shown on plan sheet 1120R8 will not be performed under this change order, this work will be included in CCO 168 S2.

CCO 387 “Traveler Rail Gap Load Test” performed a fully loaded test on the traveler to verify that it can operate properly over 30 mm traveler segment gaps. CCO 387 testing and CCO 379 modifications of the traveler rails are on the critical path to project completion. In order to complete the project by the December 31, 2014 date imposed under CCO 386 “Time Related Overhead Post 8-24-14,” work on this change order will be performed with extended and extra shifts.

The scope and cost of this work to adjust 42 traveler rail locations was negotiated and agreed to at a May 15, 2014 meeting of the Toll Bridge Project Oversight Committee (TBPOC) and the American Bridge/Fluor, a Joint Venture (ABFJV) principals. At the June 4, 2014 executive session of the TBPOC meeting the Department was directed to proceed with this change order for a negotiated lump sum of $1,700,000 as agreed to on May 15th. Subsequent to the May 15th meeting the scope of work was adjusted to include a total of 71 locations to be modified. To mitigate delays from the load test performed under CCO 387, the work scope for this change order (CCO 379) will be performed 7 days per week instead of the scheduled 6 days per week which will cost an additional $342,982.

The total cost of this change order is $2,042,982.00 lump sum, which can be financed from the contingency fund. A detailed cost analysis is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), Rich Foley (HQ Oversight), Lina Ellis (Maintenance), and Wenyi Long (Bridge Design).

This change order is pending approval from the Toll Bridge Project Oversight Committee (TBPOC).

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

TO:  Tony Anziano, Program Manager
FROM:  Daryl Schram, Senior TE
CCO#:  349
FILE:  E.A. 04 - 0120F4
SUPPLEMENT#: 0
CO-RT-PM:  SF-80-13.2/13.9
FED. NO.:  No
Category Code:  AXZZ
CONTINGENCY BALANCE (incl. this change)  $32,926,644.42

COST:  $1,400,000.00  INCREASE □  DECREASE □
HEADQUARTERS APPROVAL REQUIRED?  □ YES  □ NO
SUPPLEMENTAL FUNDS PROVIDED:  $0.00
IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS?  □ YES  □ NO

CCO DESCRIPTION:
Cic Traffic Control/Construction Access
PROJECT DESCRIPTION:
CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE

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<th>Total # of Unreconciled Deferred Time CCO(s): (including this change)</th>
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THIS CHANGE ORDER PROVIDES FOR:

As directed by the Engineer, implement traffic control, perform construction access measures, and relocate temporary elevator to Crossbeam No. 1, as necessary, due to changes in the character of work resulting after achieving Seismic Safety Opening (SSO) of the bridge.

Contract Change Order (CCO) 160 “East End Delay Impacts”, Section 3 “Readiness for Seismic Safety Opening” established a Readiness for Seismic Safety Opening (SSO) date for opening the bridge to traffic of August 28, 2013. This section (Section 3) provides for and compensates the Contractor for the minimum amount of work required to be completed in order to achieve SSO while Section 4 “Post Readiness for Seismic Safety Opening Work” provides for the remaining work to be completed after SSO. The Contractor met the SSO requirement and traffic was placed on the SAS Structure on September 3, 2013 as planned.

In completing the remainder of the Contract work, Section 4 recognized that the Order of Work specified for in Section 3 would have an effect on the post SSO work as well as recognized the potential changes in the character of the work associated with amongst other things the changed condition of having to complete the work under live traffic conditions. While Section 4 identified this concern, the inefficiencies and additional costs associated with the completion of the work under the changed conditions were deferred to a separate change order.

To address the post SSO changes in character of the work, additional costs, and inefficiencies for the remaining work multiple CCO’s will be established to provide compensation to the Prime Contractor and each of the affected Subcontractor’s. The following CCO’s have been identified:

• CCO 342 “Traffic Lane Closures” provides only the revised traffic lane and shoulder closure specifications
• CCO 349 “Traffic Control/Construction Access” will address the additional costs associated with implementing traffic control and construction access measures,
• CCO 351 “Insurance” will address the Prime Contractor’s additional insurance costs associated with the completion of the work under the changed condition,
• CCO 352 “Certified Coatings” will address the additional costs in completing painting of SAS structures including: tower, Orthotropic Box Girder (OBG), bikeway, etc.
• CCO 353 “Bleyco” will address the additional costs in completing the electrical work,
• CCO 354 “FW Spencer” will address the additional costs in completing the piping work,
• CCO 355 “USA Hoist” will address the additional costs in completing the tower elevator installation,
• CCO 356 “ABF” will address the additional costs incurred by the Prime Contractor to support all the remaining work.
• CCO 365 “Balance Dehumidification Systems” will address the additional costs to complete the dehumidification system.

This change order (CCO 349) will furnish, install, and remove traffic control devices to close off shoulders and traffic lanes from vehicles and to close off areas of the bikepath from pedestrians so that work can proceed. Traffic control will be necessary to mobilize and stage materials and equipment. Temporary elevators will also be installed to gain access to the OBG and other areas underneath the bridge.

Since the execution of CCO 160, the SAS risk register (3rd Quarter 2013) has included a risk to address the change in character of work performed after the SSO. The risk ID No. EEEnM3 “Compensation for POST SSO” is carrying a range of $1M to $20M (50% Prob = $9M). Schedule impacts resulting from this are included in a separate risk. Risk ID No. 1

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM


"Schedule: Potential delay during construction - Post Seismic Safety Opening (SSO)" carries a range of $21M to $44M (5% Prob = $32.3M) to address all risks to the schedule including these changes in character.

The total cost of this change order is $1,400,000.00 force account, which can be financed from the contingency fund. A detailed cost analysis is on file.

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time adjustment will be made in accordance with Section 10-1.13, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)" and Section 10-1.14, "TIME-RELATED OVERHEAD" of the Special Provisions, as well as Section 8-1.07, "LIQUIDATED DAMAGES", of the Standard Specifications.

This change order has concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), Rich Foley (HQ Oversight), and Lina Ellis (Maintenance).

Toll Bridge Program Oversight Committee (TBPOC) approved this change order on January 27, 2014, in the not to exceed amount of $1,400,000.00.

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<td><strong>Signature:</strong> 2-13-14</td>
<td><strong>ADA Notice:</strong> For individuals with sensory disabilities, this document is available in alternate formats. For information call: (916) 654-6410 or TDD (816) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.</td>
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CCO: 349  Suppl. No. 0  Contract No. 04 - 0120F4  Road SF-80-13.2/13.9  FED. AID LOC.: 

To: AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

As directed by the Engineer, implement traffic control, perform construction access measures, and relocate temporary elevator to Crossbeam No. 1, as necessary, due to changes in the character of work resulting after achieving Seismic Safety Opening (SSO) of the bridge.

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated Cost of Extra Work at Force Account ................................................. $1,400,000.00

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time adjustment will be made in accordance with Section 10-1.13, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)" and Section 10-1.14, "TIME-RELATED OVERHEAD" of the Special Provisions, as well as Section 8-1.07, "LIQUIDATED DAMAGES", of the Standard Specifications.

By reason of this order the time of completion will be adjusted as follows: Deferred

Estimated Cost: Increase ☒ Decrease □ $1,400,000.00

Submitted by
Signature

Resident Engineer
William Casey, Supervising T.E.
Date 2-13-14

Approval Recommended by
Signature

Program Manager
Tony Anziano, Program Manager
Date 2/13/14

Engineer Approval by
Signature

Program Manager
Tony Anziano, Program Manager
Date 2/24/14

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by
Signature

(Print name and title)
BRIAN A. PETERSEN - PROJECT DIRECTOR
Date 2/19/14
THIS CHANGE ORDER PROVIDES FOR:

As directed by the Engineer, revise access and working hours for painting operations, due to changes in the character of work resulting after achieving Seismic Safety Opening (SSO) of the bridge.

Contract Change Order (CCO) 160 "East End Delay Impacts", Section 3 "Readiness for Seismic Safety Opening" established a Readiness for Seismic Safety Opening (SSO) date for opening the bridge to traffic of August 28, 2013. Section 3 of CCO 160 provides for and compensates the Contractor for the minimum amount of work required to be completed in order to achieve SSO while Section 4 of CCO 160 "Post Readiness for Seismic Safety Opening Work" provides for the remaining work to be completed after SSO. The Contractor met the SSO requirement set forth in CCO 160 and traffic was placed on the SAS Structure on September 3, 2013 as planned.

In completing the remainder of the Contract work, Section 4 recognized that the Order of Work specified for in Section 3 would have an effect on the post SSO work as well as recognized the potential changes in the character of the work associated with, amongst other things, the changed condition of having to complete the work under live traffic conditions. While Section 4 identified this concern, the inefficiencies and additional costs associated with the completion of the work under the changed conditions were deferred to a separate change order.

To address the post SSO changes in character of the work, additional costs, and inefficiencies for the remaining work multiple CCO's will be established to provided compensation to the Prime Contractor and each of the affected Subcontractor's. The following CCO's have been identified:

- CCO 342 "Traffic Lane Closures" provides only the revised traffic lane and shoulder closure specifications
- CCO 349 "Traffic Control/Construction Access" will address the additional costs associated with implementing traffic control and construction access measures,
- CCO 351 "Insurance" will address the Prime Contractor's additional insurance costs associated with the completion of the work under the changed condition,
- CCO 352 "Certified Coatings" will address the additional costs in completing painting of SAS structures including: tower, Orthotropic Box Girder (OBB), bikeway, etc.
- CCO 353 "Bleuco" will address the additional costs in completing the electrical work,
- CCO 354 "FW Spencer" will address the additional costs in completing the piping work,
- CCO 355 "USA Hoist" will address the additional costs in completing the tower elevator installation,
- CCO 356 "ABF" will address the additional costs incurred by the Prime Contractor to support all the remaining work.
- CCO 365 "Balance Demudification Systems" will address the additional costs to complete the dehumidification system.

This change order (CCO 352) will provide for post SSO impacts to painting operations due to working at night, loss of elevator access to Tower elevations, additional work to build and dismantle heated containment, and extended travel to and from interior OBB locations. Working at night will require premium labor time, lighting, heated containment to control temperature and weather conditions, daily mobilizations, and will result in inefficiencies. Since the temporary tower elevator has been dismantled, the painters will need to climb the tower ladders to reach their work locations. Before the bridge was opened to traffic, workers could drive to access points for the interior of the bridge, however most of these access points have been closed and workers will now need to walk through the interior of the bridge to reach their work locations.

Since the execution of CCO 160 the SAS risk register (3rd Quarter 2013) has included a risk to address the change in

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character of work performed after the SSO. The risk ID No. EEndM3 "Compensation for POST SSO" is carrying a range of $1M to $20M (50% Prob = $9M). Schedule impacts resulting from this are included in a separate risk. Risk ID No. 1 "Schedule: Potential delay during construction - Post Seismic Safety Opening (SSO)" carries a range of $21M to $44M (50% Prob = $32.3M) to address all risks to the schedule including these changes in character.

The total cost of this change order is $1,044,313.00 lump sum and $1,425,687.00 force account for a total of $2,470,000.00, which can be financed from the contingency fund. A detailed cost analysis is on file.

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time adjustment will be made in accordance with Section 10-1.13, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)" and Section 10-1.14, "TIME-RELATED OVERHEAD" of the Special Provisions, as well as Section 8-1.07, "LIQUIDATED DAMAGES", of the Standard Specifications.

This change order has concurrence from William Casey (Supervising TE), Tony Anziano (Program Manager), Rich Foley (HQ Oversight), and Lina Ellis (Maintenance).

Toll Bridge Program Oversight Committee (TBPOC) approved this change order on January 27, 2014, in the not to exceed amount of $2,470,000.00.

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CCO: 352  Suppl. No. 0  Contract No. 04-0120F4  Road SF-80-13.2/13.9  FED. AID LOC.:  

To: AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.  NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Lump Sum:

As directed by the Engineer, revise access and working hours for Certified Coatings' painting operations on the bikepath, due to changes in the character of work after achieving Seismic Safety Opening (SSO).

For this work, the Contractor will receive a lump sum price of $1,044,313.00. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

Extra Work at Lump Sum .......................................................... $1,044,313.00

Extra Work at Force Account:

As directed by the Engineer, revise access and working hours for Certified Coatings' painting operations on the tower, Orthotropic Box Girder (OBG) deck, OBG interior, and work off the traveler due to changes in the character of work after achieving Seismic Safety Opening (SSO). When working on painting operations in the areas listed below, the following Certified Coatings rates will be applied:

- Tower, a rate of $187.11 per Painter Day will be paid.
- Westbound OBG deck and painting work using the traveler, a rate of $233.89 per Painter Day will be paid.
- Eastbound OBG deck and OBG interior, a rate of $280.67 per Painter Day will be paid.

A Painter Day is defined as one painter per day

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated Cost of Extra Work at Force Account ........................................ $1,425,687.00

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time adjustment will be made in accordance with Section 10-1.13, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)" and Section 10-1.14, "TIME-RELATED OVERHEAD" of the Special Provisions, as well as Section 8-1.07, "LIQUIDATED DAMAGES", of the Standard Specifications.

Estimated Cost:  Increase  ❌  Decrease  ☐  $2,470,000.00

By reason of this order the time of completion will be adjusted as follows:  Deferred

Submitted by

Signature
Supervising Transportation Engineer
William Casey, Supervising T.E.

Date: 2-13-14

Approval Recommended by

Signature
Program Manager
Tony Anziano, Program Manager

Date: 2/13/14

Engineer Approval by

Signature
Program Manager
Tony Anziano, Program Manager

Date: 2/24/14

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature  BRIAN A. PETERSEN - PROJECT DIRECTOR
Date: 19 FEB 14
The resolution of costs and time incurred by the Contractor for issues related to the development of shop drawings and the impacts to fabrication of the East End Orthotropic Bridge Elements including acceleration of construction operations to mitigate this delay. In addition, this change redefines bridge opening and attaches incentives and disincentives for attaining particular milestones. This change resolves the time, indirect and in some cases the direct costs of change orders, Requests for Change Orders (RFCO's) and Notices of Potential Claim (NOPCs) as indicated in Appendix 2.

This change order is written in accordance with the Claim Settlement Report (CSR) No. 2, dated September 2, 2010. The CSR has been read by the appropriate parties and they have agreed to sign the document. It is anticipated that the CSR will be fully executed by September 8, 2010. The CSR approves the payment of $185,000,000.00 of which there is $40,000,000.00 in possible incentives included in this amount.

This change order includes five (5) separate Sections. They are included in this change for the following reasons:

Section 1) East End Delay Impacts

The delay in approving the shop drawings not only resulted in extra work for the developers of the shop drawings but impacted the start of fabrication and the overall fabrication duration and start of construction activities on the project site as well. This change order provides compensation for the direct and indirect costs related to this change.

Payment for delay impacts will be Adjustment of Compensation at Agreed Lump Sum of $99,856,000.00, which can be financed from the contingency fund. A detailed cost analysis is included in the Claim Settlement Report.

Section 2) Acceleration of OBG Lifts 13 and 14

Delays in the approval of the East End Shop drawings and the resulting change in character of the work, if unmitigated would result in an extension to project completion. In lieu of providing all this requested time the Department will provide compensation to the contractor to accelerate construction operations – both at the fabrication facility and at the project site. These measures will be in addition to those already contemplated under separates changes.

Payment for acceleration of OBG Lifts 13 and 14 will be Adjustment of Compensation at Agreed Lump Sum of $11,000,000.00, which can be financed from the contingency fund. A detailed cost analysis is included in the Claim Settlement Report.
Section 3) Ready for Seismic Safety Opening (RSSO)

This change order provides new dates and definitions for bridge opening. The bridge will be considered ready for traffic when the items of work identified in Appendix 1 necessary for bridge opening are completed. This allows the bridge to be opened to traffic more quickly than provided in the contract special provisions. Lane closures will be required and compensation will be deferred as outlined below. A time extension of 304 working days will be provided and contract item #5, "Time Related Overhead," will be increased accordingly.

The Contractor will submit a CPM schedule within 30 days that shows their plan for achieving the incentive milestone dates. In addition the Department and the Contractor will be discussing ways to have the schedule be utilized as a tool to plan work in the future instead of having it be a tool that documents and assesses impacts after they have already occurred. Any changes to the contract documents that would be required as a result of these discussions will be addressed in a separate change order.

An adjustment of contract time has been made in Claim Settlement Report #2. Adjustment of contract time has been determined to be 304 working days at $86,000.00 per day.

Contract time will be addressed by increasing contract item #5, "Time Related Overhead" at contract item prices for a net increase of $26,144.00.00, which can be financed from the available contingency funds.

Payment for acceleration of OBG Lifts 13 and 14 will be Adjustment of Compensation at Agreed Lump Sum of $8,000,000.00, which can be financed from the contingency fund. A detailed cost analysis is included in the Claim Settlement Report.

Section 4) Work to be Completed After Seismic Safety Opening

As a result of changing the amount of work required to be completed prior to bridge opening, there will need to be contract work performed after the bridge opening. This work is identified in Appendix 1. The amount of work that will actually be done after bridge opening is unknown at this time but the parties agree that work performed after opening may need to be done different from how it was originally planned. A change order will be written at a later date to address changes in the character of the work that are needed.

Section 5) Incentive and Disincentive Provisions

This change order provides incentives for the delivery of the East End Elements as well as incentives and disincentives for having the bridge ready for traffic. The use of incentives is consistent with the Department’s Risk Management plan to provide a proactive means to mitigate identified risk and impacts to the bridge opening schedule. In addition, this change is consistent with language in Assembly Bill 144, which provides funding for the project, created the TBPOC, and authorizes the Department "to include incentives and/or disincentives ... to encourage the timely completion of contracts."

Payment and/or Deductions for incentives and disincentives will be Adjustment of Compensation at Agreed Unit Price of up to $40,000,000.00, which can be financed from the contingency fund. A detailed cost analysis is included in the Claim Settlement Report.

Total approved amount of this change order is $185,000,000.00. The change order can be financed through the available contingency funds of $413,502,769.01, which includes $293,040,266.00 in additional funds approved by the TBPOC on 9-22-2010. Although at the present time, due to the State not having an approved budget in place, the available contingency balance is only $120,462,503.01. This is not sufficient to finance the entire approved amount of this change. Therefore, only the Adjustment of Compensation at Lump Sum items, amounting to $118,856,000.00, will input into the accounting system. This will enable the Department to make required payments to the Contractor. It is anticipated that all the items addressed in this change will be inputted into the accounting system as soon as the additional approved funds are made available.
This change order is submitted by Peter Siegenthaler (Principal Construction Engineer and Resident Engineer). Approval of this change order is recommended by Jon Tapping (Division of Construction Coordinator), Tony Anziano (Deputy Director Toll Bridge Program), Mark Leja (Chief of Division of Construction), and Daniel A. Near (Assistant Chief Counsel Legal, Legal Division—Contracts). Richard Land (Chief Bridge Engineer) approves of this change. Design and Maintenance concurrence are not required for this change.

TBPOC approved this change order on September 2, 2010.

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| PROJECT MANAGER                        |                  |
| Proj. Manager, Ken Terpstra            |                  |
| DATE 9/2/10                            |                  |

| OTHER (SPECIFY)                        |                  |
| Program Manager, Tony Anziano          |                  |
| DATE 9/2/10                            |                  |
| Project Risk Coordinator, Jonathan Tapping |              |
| DATE 9/2/10                            |                  |
| Asst. Chief, Legal, Daniel Near        |                  |
| DATE 9/2/10                            |                  |
| Chief Engineer, Richard Land           |                  |
| DATE 9/2/10                            |                  |
| HQ liaison, Rich Foley                 |                  |
| DATE 9/2/10                            |                  |
| PCE, Peter Siegenthaler, Prin TE       |                  |
| DATE                                  |                  |

| DISTRICT PRIOR APPROVAL BY             |                  |
| Chief, Div of Construction, Mark Leja |                  |
| DATE 9/2/10                            |                  |

| HQ ISSUE & APPROVE (TO PROCEED) BY     |                  |
| HQ Const, Larry Sahney                 |                  |
| DATE                                  |                  |

| RESIDENT ENGINEER SIGNATURE            |                  |
|                                      |                  |
|                                      |                  |

| DATE                                   |                  |

| FEDERAL PARTICIPATION                  |                  |
| ☐ PARTICIPATING                        |                  |
| ☐ PARTICIPATING IN PART                |                  |
| ☑ NONE                                 |                  |
| ☐ NON-PARTICIPATING (MAINTENANCE)      |                  |
| ☐ NON-PARTICIPATING                   |                  |

| ESTIMATE OF COST                       |                  |
| ITEMS                                  |                  |
| $26,144,000.00                         | $0.00            |
| FORCE ACCOUNT                          |                  |
| $0.00                                  | $0.00            |
| AGREED PRICE                           |                  |
| $0.00                                  | $0.00            |
| ADJUSTMENT                             |                  |
| $158,856,000.00                        | $0.00            |

| TOTAL                                   |                  |
| $185,000,000.00                         | $0.00            |

| FEDERAL SEGREGATION (IF MORE THAN ONE FUNDING SOURCE OR P.I.P. TYPE) |                  |
| ☐ CCO FUNDED PER CONTRACT              |                  |
| ☐ CCO FUNDED AS FOLLOWS               |                  |

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER

CDO: 376   Suppl. No. 0   Contract No. 04-0120F4   Road SF-80-13.2/13.9   FED. AID LOC.: 

To: AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE
You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Separate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the total accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Force Account:

Increase the clearance between the PWS (Parallel Wire Stand) anchor rods and anchor plates at the 42 locations shown in Attachment A on pages 2 through 3 by performing the following:

- Procure, fabricate, and perform field work to relocate the PWS anchor rod within the hole in the bearing block by implementing a repositioning procedure which jacks the rods against the bearing blocks (Alternative B per Submittal 3078R0).
- Provide and remove temporary access and utilities as necessary.
- Procure, fabricate, provide hydraulic jacks, and calibrate hydraulic jacks for possible jacking of the rods against the bearing stiffer plates (Alternative A per Submittal 3066R1). No work in the field shall proceed until direction has been given by the Department.
- Procure and fabricate bearing block shims (per Submittal 3073R0).
- Provide options for preliminary machining procedures and methods that could be used to increase PWS tolerances.
- Design fixtures, machines, and tooling for the Annular Cutter option and fabricate two prototypes. Manufacture a mockup of the anchor rod and plate and test the prototype.

Perform additional work as necessary on the PWS anchor rods and anchor plates as directed by the Engineer.

Adjustments will be made to provide the anchor rod with a minimum 2 mm clearance from the anchor plate at all points around the rod perimeter.

Labor, equipment and materials authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated Cost of Extra Work at Force Account ........................................... $990,000.00

Estimated Cost: Increase X Decrease □ $990,000.00

By reason of this order the time of completion will be adjusted as follows: 0 Days

Submitted by

Signature ________________________________  Resident Engineer  Darryl Schram, Senior T.E.  Date 8/14/14

Approval-Recommended by

Signature ________________________________  Supervising Transportation Engineer  William Casey, Supervising T.E.  Date 8-7-14

Engineer Approval by

Signature ________________________________  Supervising Transportation Engineer  William Casey, Supervising T.E.  Date 8-12-14

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature ________________________________  (Print name and title)  BRIAN A. PETERSEN - PROJECT DIRECTOR  Date 11 AUG 14
## CONTRACT CHANGE ORDER MEMORANDUM

**TO:** Tony Anziano, Program Manager /  
**FROM:** Darryl Schram, Senior TE  
**FILE:** E.A. 04 - 0120F4  
**CO-RTE-PM:** SF-80-13.2/13.9  
**FED. NO.:** No  
**CCO#:** 376  
**SUPPLEMENT#:** 0  
**Category Code:** CHPT  
**CONTINGENCY BALANCE (incl. this change):** $31,653,743.86  
**COST:** $990,000.00  
**INCREASE ✔ DECREASE □**  
**SUPPLEMENTAL FUNDS PROVIDED:** $0.00  
**IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS?** ✔ YES □ NO  
**PROJECT DESCRIPTION:** CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE

### CCO DESCRIPTION:
PWS Anchor Plate

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<th>Previously Approved CCO Time Adjustments:</th>
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### THIS CHANGE ORDER PROVIDES FOR:

Increase the clearance between the PWS (Parallel Wire Stand) anchor rods and anchor plates at 42 locations by performing the following:

- Procure, fabricate, and perform field work to relocate the PWS anchor rod within the hole in the bearing block by implementing a repositioning procedure which jacks the rods against the bearing blocks (Alternative B per Submittal 3078R0).
- Provide and remove temporary access and utilities as necessary.
- Procure, fabricate, provide hydraulic jacks, and calibrate hydraulic jacks for possible jacking of the rods against the bearing stiffener plates (Alternative A per Submittal 3066R1). No work in the field shall proceed until direction has been given by the Department.
- Procure and fabricate bearing block shims (per Submittal 3073R0).
- Provide options for preliminary machining procedures and methods that could be used to increase PWS tolerances.
- Design fixtures, machines, and tooling for the Annular Cutter option and fabricate two prototypes. Manufacture a mockup of the anchor rod and plate and test the prototype.

Perform additional work as necessary on the PWS anchor rods and anchor plates as directed by the Engineer.

Adjustments will be made to provide the anchor rod with a minimum 2 mm clearance from the anchor plate at all points around the rod perimeter.

Contract Plan Sheets No. 316 "East Cable Anchorage "E" Line Layout No. 3", 319 "East Cable Anchorage "W" Line Layout No. 3", and 320 "East Cable Anchorage Details" provide details for the interface of the PWS anchor rods as they pass through the east end anchor plate to anchor at the bearing block connection. The PWS anchor rods are 90 mm in diameter while the holes in the anchor plates are 100 mm in diameter. Ideally, this provides for a maximum 5 mm clearance. While not specifically identified on the plans, the PWS anchor rods are not intended to be in contact with the anchor plate as they pass through the hole to the bearing block anchorage.

During the shop drawing phase, the Contractor through TVC RFI No. 10 R0 requested permission to increase the hole in the anchor plate from 100 mm to 110 mm. This change provided a nominal clearance of 10 mm to provide for a larger fabrication and installation tolerance. This dimensional change was included in CCO 87. However, while in fabrication the Contractor submitted RFI No. 1644 R3 requesting a further modification to change the anchor rod hole to 120 mm to create additional fabrication and installation clearance (nominally 15 mm).

During the anchor rod installation process, the rods were installed with the intent of being centered in the anchor plate holes. However after load transfer and the removal of all temporary blocking used to hold the rods into place, the final clearance was measured and recorded for all 274 anchor rods. Taking into account both the "E" line and "W" line anchorage plates, 42 rod locations were identified as having less than 2 mm all around clearance while the remaining 232 rod locations were identified as having 2 mm all around clearance.

Design has reviewed the final clearance measurements and determined that a full 2 mm clearance all around is required to ensure appropriate long term performance of the Structure and that none of the rods come into contact with the bearing plate throughout the life of the Structure. As there is no clearance tolerance specified in the Contract, this change order will compensate the Contractor for adjusting the PWS anchor rods and/or machining larger holes in the anchorage plate to...
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM

provide a full 2 mm of clearance all around.

The original scope and cost of this work was negotiated and agreed to at a May 15, 2014 meeting of the TBPOC and the ABFJV Principals. At the June 4, 2014 executive session of the TBPOC meeting the Department was directed to prepare and present for TBPOC approval CCO 376 and 379 for a negotiated lump sum of $3,700,000 as agreed to on May 15th. However, as the work has been substantially reduced from that agreed to at the May 15th meeting the Contractor has agreed to perform CCO 376 on a force account basis as opposed to lump sum. Of the $3.7 million agreement for the combined CCOs 376 and 379, this work represented $2 million and will be deducted from the agreement.

The total cost of this change order is $990,000.00 force account, which can be financed from the contingency fund. A detailed cost analysis is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Rich Foley (HQ Oversight), Wenyi Long (Bridge Design), Jing Chen (District Design), and Lina Ellis (Maintenance).

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