

**CONTRACT CHANGE ORDER MEMORANDUM**

TO: Pete Siegenthaler, Prin TE /			FILE: E.A. 04 - 0120F4	
FROM: Kannu Balan, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
FED. NO.				
CCO#: 167	SUPPLEMENT#: 0	Category Code: CBSA	CONTINGENCY BALANCE (incl. this change) <b>\$175,283,263.81</b>	
COST: <b>\$1,556,614.00</b> INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: <b>\$0.00</b>			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
<b>CCO DESCRIPTION:</b> Replace Metal Halide Lights with LEDs			<b>PROJECT DESCRIPTION:</b> CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: <b>2490</b> Day(s)	Time Adj. This Change: <b>0</b> Day(s)	Previously Approved CCO Time Adjustments: <b>501</b> Day(s)	Percentage Time Adjusted: (including this change) <b>20</b> %	Total # of Unreconciled Deferred Time CCO(s): (including this change) <b>3</b>

**THIS CHANGE ORDER PROVIDES FOR:**

Furnishing LED light fixtures in lieu of the metal halide lighting system required by the Contract.

Revising Special Provisions Sections 10-3.14 "LIGHTING."

As per Execute Order S-12-04 by the Governor and per the Director's Policy DP-23, State agencies shall pursue energy conservation measures where it can be achieved in a cost effective manner. The Department explored alternative lighting fixtures other than the metal halide fixtures as originally designed for this project. The Design Team on August 31, 2010, decided to use LED fixtures instead of metal halide fixtures in this project to save energy, maintenance cost and to be consistent with other bay area bridges such as Richmond-San Rafael, Carquinez, and San Mateo, which have LED fixtures. In addition, the lowering devices were eliminated in the new design of the light poles due to the complexity of the mechanism and potential jamming. Since the revised design of the light poles doesn't have the lowering devices, it is more difficult for re-lamping access by Maintenance. LED fixtures are expected to last 50,000 to 63,000 hours versus 15,000 hours for metal halide, therefore resulting in significant cost savings. Using LED's will result in an estimated 30% energy reduction based on 2 years of LED fixture testing on State-owned bridges and intersections. Maintenance is in favor of LED fixtures in lieu of metal halide to reduce the frequency they will need to service the lights. Additionally this CCO will have a 10-year maintenance warranty from the LED fixture supplier.

This change order will be presented to the Toll Bridge Program Oversight Committee (TBPOC) in February 2011 for their approval

The total cost of this change order is \$1,556,614.00, 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.

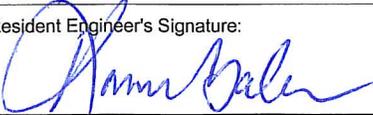
This change order has concurrence from Peter Siegenthaler (Principal TE), Ken Terpstra (Proj. Manager), Rick Morrow (Structure Rep.), Rich Foley (HQ Oversight), Wenyi Long (Design Oversight), and Lina Ellis (Maintenance).

The Resident Engineer requests Headquarters CCO Desk "Issue and Approve".

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**CONTRACT CHANGE ORDER MEMORANDUM**

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CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	PCE, Pete Siegenthaler, Prin TE	Date 11/29/10		THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	Struct Rep, Rick Morrow, Sup TE	Date 11/29/10	ITEMS	\$0.00	\$0.00
Project Engineer:	CT Oversight, Wenyi Long, P.E.	Date 12/2/10	FORCE ACCOUNT	\$100,000.00	\$100,000.00
Project Manager:	Proj Manager, Ken Terpstra	Date 11/30/10	AGREED PRICE	\$1,456,614.00	\$1,456,614.00
FHWA Rep.:		Date	ADJUSTMENT	\$0.00	\$0.00
Environmental:		Date	<b>TOTAL</b>	<b>\$1,556,614.00</b>	<b>\$1,556,614.00</b>
Other (specify):	HQ, Rich Foley	Date 11/29/10	<b>FEDERAL PARTICIPATION</b>		
Other (specify):	Struct. Maint, Lina Ellis	Date 12/1/10	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:		Date	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By:		Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE	PERCENT	
		1/31/11	_____	_____	
			_____	_____	