

CONTRACT CHANGE ORDER MEMORANDUM

TO: Tony Anziano, Program Manager /			FILE: E.A. 04 - 0120F4	
FROM: Kannu Balan, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
FED. NO.				
CCO#: 89	SUPPLEMENT#: 3	Category Code: CHSA	CONTINGENCY BALANCE (incl. this change) \$144,078,823.58	
COST: \$573,955.00 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Tack Weld Repair OBG Lifts 12-14			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 501 Day(s)	Percentage Time Adjusted: (including this change) 20 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 3

THIS CHANGE ORDER PROVIDES FOR:

Repairing tack welds of closed u-ribs to the box shell plates on Orthotropic Box Girder (OBG) Lifts 12 through 14 as specified in CCO 89S1.

Non-destructive testing (NDT) indicated some tack welds that connect the U-rib to the deck panel developed cracks prior to being incorporated into the final weld. Due to the fatigue sensitive issues with these completed welds, the Department solicited several expert recommendations and a thorough investigation was performed. This investigation involved a number of welding specialists, the performance of a fatigue and fracture mechanics analysis, and the consultation of the SFOBB Seismic Safety Peer Review Panel (SSPRP). Based on the results of this investigation along with the expert recommendations including that of the SSPRP, the Department determined that cracks remaining in the root of the tack weld would not be detrimental provided an approved testing and repair procedure achieved an acceptable 80% minimum weld penetration depth and the deposited weld has no defects beyond the root of the tack weld. CCO 89S1 revised Special Provisions Section 10-1.59 "Steel Structures" to accept properly repaired tack welds. The non-destructive testing (NDT) methods for determining the condition of the tack welds were specifically developed for and utilized throughout the project. The NDT methods included the use of Phase Array Ultrasonic Testing (PAUT), Gate-to-Gate Ultrasonic testing and conventional Ultrasonic Testing (UT). CCO 91 provided compensation for the performance of the additional NDT while CCO 108 S1 provided compensation for the deck panel tack weld repairs for OBG Lifts 1-11 resulting from the additional NDT. CCO 89 S3 will provide compensation for the deck panel tack weld repairs for OBG Lifts 12-14.

Originally, the Department issued CCO 89 S1 as a no cost/no credit change order which was processed unilaterally and protested by the Contractor. However, through subsequent negotiations and preparation of a Claims Settlement Report, merit was established with compensation for OBG Lifts 1-11 provided for in CCO 108 S1 as stated above. This supplemental CCO builds on that determination in providing compensation for OBG Lifts 12-14. It is also noted that compensation for this work was not included in CCO 160.

Risk Item #109 "CCO #89 Revised Acceptance Criteria for Welding" has been carried in the Risk Register. The cost of this change is within the ranges carried in the Register.

The total cost of this change order is \$573,955.00, which can be financed from the contingency fund. A detailed cost analysis is on file. The cumulative total of CCO 89S0, 89S1, 89S2, and 89S3 is \$573,955.00.

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), Ken Terpstra (Proj. Manager), Rich Foley (HQ Oversight), Wenyi Long (Bridge Design), Lina Ellis (Maintenance), and Jing Chen (District Design).

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CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	William Casey, Sup TE	Date	1/9/12	THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	CT Oversight, Wenyi Long, P.E.	Date	11/4/11	ITEMS	\$0.00
Project Engineer:	District Design, Jing Chen	Date	11/4/11	FORCE ACCOUNT	\$0.00
Project Manager:	Proj Manager, Ken Terpstra	Date	1/9/12	AGREED PRICE	\$0.00
FHWA Rep.:		Date		ADJUSTMENT	\$573,955.00
Environmental:		Date		TOTAL	\$573,955.00
Other (specify):	HQ, Rich Foley	Date	1/9/12	FEDERAL PARTICIPATION	
Other (specify):	Struct. Maint, Lina Ellis	Date	11/4/11	<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) <input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS	
HQ (Issue/Approve) By:		Date		FEDERAL FUNDING SOURCE	PERCENT
Resident Engineer's Signature:		Date	1-9-12	_____	_____
				_____	_____