

CONTRACT CHANGE ORDER MEMORANDUM

TO: Tony Anziano, Program Manager /			FILE: E.A. 04 - 0120F4	
FROM: Darryl Schram, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
			FED. NO. No	
CCO#: 98	SUPPLEMENT#: 0	Category Code: CHPT	CONTINGENCY BALANCE (incl. this change) \$51,697,500.62	
COST: \$3,148,741.00			INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Tower Skirt			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: DEF 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) 6

THIS CHANGE ORDER PROVIDES FOR:

Modifying the Tower Skirt. Increasing shift durations and weekend work (Monday through Friday 10 hrs/day and Saturday 8 hrs/day) for the entire duration of Tower Skirt erection.

In order to maintain the contiguous geometry and alignment of the Tower skirt faces, as shown on plan sheet 601, adjustment of the Tower Skirt in relation to the T1 Tower must be achieved at the connections between the Tower Skirt to the T1 Tower. Without adjustability in the connections, the planes of the skirt faces will be misaligned and will not allow the skirt face splice joint to be welded. The dimensional tolerances for fabrication, assembly and erection of the Tower that are required by Special Provisions Section 10-1.59 "Steel Structures," subsection "Shop Welding", and the connection details shown on plan sheet 603 for the Tower Skirt to the T1 Tower, do not provide sufficient adjustability. To accommodate fabrication tolerance and prevent misalignment of the skirt face, shim plates and slotted holes will be installed to increase adjustability between the skirt and Tower connections. Additionally, shim plates will be fit tight without gaps and exposed joints will be sealed, since the Tower Skirt is in a dehumidification zone.

The following are other changes that will be made to address constructability issues:

- The skirt beam will be revised to avoid fit up issues with the anchor bolts.
- Tower skirt plate weld size will be decreased to accommodate plate thickness.
- The tensioning method of Tower Skirt anchor bolts will be revised since there is not enough horizontal clearance to fit a hydraulic tensioner.
- Stiffener plates will be adjusted due to conflicts with the skirt anchor bolts.
- Splice details will be provided for skirt ring beams.
- The connection of the ring beam will be revised to resolve conflicts with the skirt beam.
- At the Tower Skirt corners, field splices, rat holes, and cover plates will be added for constructability.

Increasing shift durations and weekend work will mitigate time impacts from Tower Skirt erection to the June 2013 Schedule.

This change order resolves the costs associated with Contractor Request for Information (RFI) numbers 142, 973R0, 974, 975, 977, 1008, 1069R0, 1174, 1182R0, 1182R2, 1182R3, 1291, 1328, 1356R0, 1356R1, 1356R2, 1356R3, 1356R4, 1356R5, 1356R6, 1363R0, 1363R1, and 2838 with respect to changes listed above.

A separate change order will provide compensation for priming of shim plates and repairing paint at field welding locations, coped flanges, and field cut bolt and washers on the Tower Skirt.

The total cost of this change order is \$3,148,741.00 lump sum, which can be financed from the contingency fund. A detailed cost analysis is on file.

The SAS Risk Register carries Risk ID No. 122 "Tower Skirt and Fender System" to account for revisions and changes to the tower skirt and fender system. Risk was assessed beyond the values covered in the SAS Change Order Log Dated July 1, 2013 - (CCO 98 = \$3.5M and CCO 289 = \$500K for as sum total of \$4M) The new estimates for the cost of these changes is \$7.2M. The difference between the estimates is within the range contemplated in the risk register (\$3.5M to \$5.5M).

The June 2013 Schedule update shows Tower Skirt erection being on the critical path and has the potential to extend the

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project completion date by 21 calendar days. 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), Wenyi Long (Bridge Design), Jing Chen (District Design), and Lina Ellis (Maintenance).

Toll Bridge Program Oversight Committee (TBPOC) approved this change order on October 3, 2013, in the amount of \$3,148,741.00.

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	William Casey, Sup TE	Date 3/28/12		THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	CT Oversight, Wenyi Long, P.E.	Date 8/25/10	ITEMS	\$0.00	\$0.00
Project Engineer:	District Design, Jing Chen	Date 3/28/12	FORCE ACCOUNT	\$0.00	\$0.00
Project Manager:		Date	AGREED PRICE	\$0.00	\$0.00
FHWA Rep.:	HQ, Rich Foley	Date 3/28/12	ADJUSTMENT	\$3,148,741.00	\$3,148,741.00
Environmental:		Date	TOTAL	\$3,148,741.00	\$3,148,741.00
Other (specify):	Struct. Maint, Lina Ellis	Date 8/26/10	FEDERAL PARTICIPATION		
Other (specify):	TB Program Manager, Tony Anzian	Date 11/28/12	<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:	HQ, Larry Salhaney	Date 8/11/11	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	
					
10-6-13					