



December 26, 2013

TO: Derek Case
MS 47354

THRU: Julie Meredith/Tom Horkan *Jm* *TH*
NB 82-99

FROM: *DB*
Dave Becher
(425) 576-7045

SUBJECT: Contract 008066
SR 520, Floating Bridge and Landings Project
Federal Aid No. BR-0520(047)
Change Order No. 121 – Anchor Cable Issues

Attached for further processing and execution by Headquarters Construction is Change Order No. 121 – Anchor Cable Issues.

Description of the Change:

This is an Owner Initiated Change (OIC). This OIC settles and closes four outstanding issues with the Design-Builder (KGM) as described below:

1. PCO 28 – OIC Anchor Testing Cable
2. PCO 50 – OIC Top of Shaft Anchor Protruding into the no build zone
3. PCO 70A - OIC Submarine Cable under 520 Drawspan
4. PCO 269 – Repair of Broken Anchor Cable on Existing Bridge

PCO 28 – KGM bid the job assuming that they would be able to use production cables for the various testing required for the anchors (verification, performance and proof). As KGM began actual planning for the anchor testing (in late 2011), they discovered that the production cables could not be used without damaging them. KGM procured a larger diameter cable for the testing operations.

This change order modifies Section 2.12.5.16.1 Anchor Cable Material Requirements to allow for use of a large anchor cable for the testing operations.

PCO 50 – Section 2.12.4.2.8.9 of the RFP requires that the top of all permanent anchors be at least 32 feet below the Project Lake level. Three of the drilled shaft anchors ASW, ASE, and WNE have clearances less than the 32 feet required. Section 2.12.3.5 of the RFP requires the Design-Builder to design and install Coast Guard, PATON buoys at ASW and WNE; however, the RFP didn't address ASE.

This change order adds the design and installation of this PATON buoy at ASE to the contract.

PCO 70A – There is an existing submarine cable under the drawspan of the existing SR-520 bridge which provides power and communications to the existing bridge. KGM wanted to complete anchor testing on cable LS in early 2013 which would have resulted in the testing cable being very close to the existing submarine power cable. WSDOT advised KGM that their testing procedure posed too great a risk to the existing structure and that they would have to wait until the existing bridge drawspan was out of service to perform this testing.

This change order delays anchor cable LS testing until the drawspan is blocked by the installation of the new bridge's pontoons and no longer operational for ship access.

PCO 269 – An existing anchor cable on the North side of the 520 Bridge was damaged during the summer of 2013. WSDOT requested that KGM assist with the emergency replacement of this anchor cable. KGM utilized an anchor cable that they had on-site for testing operations.

This change order adds this work to the contract.

Evolution of the Change:

These four issues developed at different times during the Project. Each issue will be briefly described below.

PCO 28 – KGM sent Serial Letter 0042 to WSDOT in December 2011 indicating that production anchor cables could not be used for the anchor testing operations without damaging the anchor cables. KGM indicated that their contract bid assumed that the production cables could be used for the anchor testing operations. KGM advised WSDOT that discussions with the anchor cable manufacturer in later 2011 revealed that the anchor cables would likely yield during the testing operations rendering them unusable for the production cables.

KGM's stated position was that the RFP should have specifically required the use of a test cable for these anchor tests. WSDOT representatives reviewed the RFP and other contract documents. We did not find specific information requiring the use of a test cable. However, during 1 on 1 pre-bid meetings with all three Design-Builders, WSDOT did indicate to the Design-Builder teams that the production cables could be used for the anchor testing. WSDOT representatives clearly felt that the Design-Builder would be able to use the production cables for the anchor tests.

After completing the majority of the anchor testing, KGM provided additional information and cost data to WSDOT as part of Serial Letter 0247.

This change order settles and resolves all cost issues associated with this work.

PCO 50 – KGM submitted RFI 50 in December 2011 requesting clarification for anchor ASE which did not have the required depth clearance as specified in the RFP. Other anchors which have similar depth clearance issues are required, per the RFP, to have a Coast Guard PATON buoy. However the RFP did not identify anchor ASE as requiring a PATON buoy. WSDOT responded to this RFI by advising KGM to coordinate with the Coast Guard on whether a PATON buoy would be required at this location.

It was determined that a PATON buoy will be required at this location. KGM has indicated that they believe this additional PATON buoy is an added cost which should be compensated by WSDOT.

This change order resolves any Design-Builder costs associated with this work.

PCO 70A – KGM Serial Letter 0312 provided notice to WSDOT of potential cost impacts associated with delays to testing of Anchor LS due to interference with existing submarine power and communications cables on the existing SR 520 Bridge at the drawspan. WSDOT responded to KGM with Serial Letter 0263 indicating that the RFP required KGM to protect the existing power and communications cables.

WSDOT and KGM representatives, including Bridge Maintenance, met to discuss options for installing and testing Anchor LS. At the meeting, it was determined that there was a significant risk to damaging these cables during installation of the new anchor cable as well as testing of this anchor. WSDOT and KGM representatives agreed that it was prudent to delay this work until the drawspan was blocked by the new bridge. Once the drawspan is blocked by the new bridge, it will no longer be opened for marine traffic, reducing the risk for the testing operations.

Additional information was provided by KGM in Serial Letter 0383 which noted that the anchor testing would be delayed until spring 2015. KGM indicated that they felt this delay was compensable as the submarine cables were not clearly identified in the contract documents. WSDOT responded with Serial Letter 0400 which disagreed with KGM's position.

This change order settles any Design-Builder costs associated with this work.

PCO 269 – In June 2013, an existing anchor cable on the North side of the existing 520 Bridge was hit by a marine vessel and broke. WSDOT Serial Letter 0428 put KGM on notice that they may be responsible for costs associated with the replacement of the broken cable if it was determined that KGM marine equipment damaged this anchor cable. This letter also requested KGM's assistance in replacing this cable. At this time, the identity of the vessel causing the damage has not been determined. KGM mobilized equipment and other resources to the project to quickly remove and replace this damaged

cable. KGM conducted their own internal investigation and could find no evidence that their equipment was responsible for the damage.

Also attached is a copy of the WSDOT Bridge Maintenance inspection report showing the damage to the cable.

This change order settles any Design-Builder costs associated with repair of this cable.

WSDOT met with KGM numerous times to discuss these issues (both individually as well as a group). WSDOT did not find complete entitlement to all four of these issues; however, KGM was adamant that they were entitled to compensation for all of these issues. After being unable to resolve these issues independently, they were bundled for resolution. WSDOT and KGM reached a lump settlement on August 9, 2013 to resolve and close all four of these issues.

Approvals Provided:

- Project Level – Dave Becher on August 9, 2013
- Region/Program Level – Tom Horkan on November 14, 2013
- Region/Program Funding Concurrence – Alan Chan on December 2, 2013
- Headquarters Construction – Derek Case on October 29, 2013
- FHWA – Anthony Sarhan on November 19, 2013

Entitlement:

This is an OIC which results in additional work for the Design-Builder. As a result, the Design-Builder is entitled to additional compensation to perform this new work.

Price:

The value of KGM's request for these four issues is shown below:

1. PCO 28- OIC Anchor Testing Cable - \$4,800,000
2. PCO 50 – OIC Top of Shaft Anchor Protruding into the no build zone - \$50,000
3. PCO 70A – OIC Submarine Cable under 520 Drawspan - \$450,000
4. PCO 269 – Repair of Broken Anchor Cable on Existing Bridge - \$138,000

Total: \$5,438,000

WSDOT and KGM negotiated a lump sum in the amount of \$2,600,000 to settle these four anchor and anchor cable related issues. A copy of the Engineer's estimate for this work is attached to this change order package.

Contract Time:

This change order does not impact contract time, and no additional time is added to the contract.

Derek Case
December 26, 2013
Change Order No. 121 - Memorandum
Page 5

Memorandum Attachments:

- Executed Change Order 121
- Change Order Checklist
- Engineer's Estimate
- KGM Serial Letters 0042, 0247, 0312, and 0383
- KGM RFI 50
- WSDOT Serial Letters 0263, 0400, and 0428
- Bridge Maintenance Inspection Report
- Approval Documentation

DPB: DB

Attachments

PW File: 17.02.CO-121


**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 12/26/13
Page 1 of 5


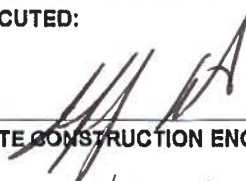
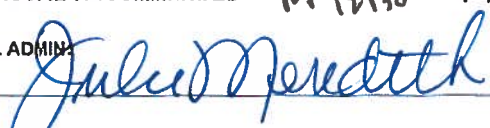
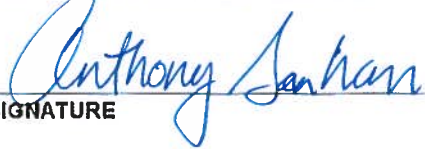
CONTRACT NO: 008066 FEDERAL AID NO: BR-0520(047)
 CONTRACT TITLE: SR 520 / I-5 TO MEDINA - EVERGREEN POINT FLOATING
 CHANGE ORDER NO: 121 R2 ANCH CABLE ISSUES RESOLUTION

PRIME CONTRACTOR: SW0106139 KIEWIT/GENERAL/MANSON, A JOINT
 33455 6TH AVE S
 FEDERAL WAY WA 98003-6335

(X) Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications
 (x) Change proposed by Contractor

ENDORSED BY: 	SURETY CONSENT:
CONTRACTOR	ATTORNEY IN FACT
DATE: 12/27/13	DATE

ORIGINAL CONTRACT AMOUNT: 586,561,000.00
 CURRENT CONTRACT AMOUNT: 668,769,511.00
 ESTIMATED NET CHANGE THIS ORDER: 2,600,000.00
 ESTIMATED CONTRACT TOTAL AFTER CHANGE: 671,369,511.00
 Approval Required: () Region (x) Olympia Service Center () Local Agency

<input checked="" type="checkbox"/> APPROVAL RECOMMENDED () EXECUTED  PROJECT ENGINEER — <i>Engineering Manager</i> DATE: 12/30/2013	EXECUTED:  STATE CONSTRUCTION ENGINEER DATE: 12-31-13
() APPROVAL RECOMMENDED <i>M 12/30</i> () EXECUTED REGIONAL ADMIN:  BY: DATE: 12/30/13	OTHER APPROVAL WHEN REQUIRED  SIGNATURE DATE: 12/31/13 FHWA REPRESENTING

**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 12/26/13
Page 2 of 5

CONTRACT NO: 008066

CHANGE ORDER NO: 121 R2

All work, materials, and measurements to be in accordance with the provisions of the Standard Specifications and Special Provisions for the type of construction involved.

This contract is revised as follows:

The first paragraph above is revised to read:

All work, materials, and measurements to be in accordance with the request for proposal (RFP) and the contract documents for this project.

DESCRIPTION:

This change incorporates both WSDOT-Initiated Changes in accordance with General Provisions Section 1-04.4(1), and Design-Builder Initiated Changes in accordance with General Provisions Section 1-04.4(2). This change order provides an equitable adjustment to the Contract Price for the settlement of anchor cable issues associated with Contract No. 008066.

The Design-Builder, Kiewit/General/Manson (KGM), by the signing of this change order agrees and certifies that:

Upon payment of this change order in the amount of \$2,600,000, any and all requests for compensation set forth in the following Potential Change Order (PCO) issues and associated serial letters from KGM, arising out of or pertaining to Contract No. 008066, have been satisfied in full and WSDOT is discharged and released from any additional requests for extra compensation for matters associated with anchor cables arising out of Contract No. 008066 as addressed in this change order:

- * PCO 7 Revised Anchor Cable Testing Criteria
KGM Serial Letter #099 dated April 10, 2012
- * PCO 28 OIC Anchor Cable Testing
RFI 84 Transverse Anchor Testing
RFI 85 Longitudinal Anchor Test Loading
KGM Serial Letter #00042 dated December 15, 2011
KGM Serial Letter #099 dated April 10, 2012
KGM Serial Letter #00247 dated January 7, 2013
- * PCO 50 OIC Top of Shaft Anchor into No-Build Zone
RFI 50 Drilled Shaft Anchor Clearance Requirements
- * PCO 70A (originally PCO 225) OIC Submarine Cable
Under 520 Draw Span
KGM Serial Letter #0312 dated February 13, 2013
KGM Serial Letter #0383 dated April 26, 2013
- * PCO 269 Repair of Broken Anchor Cable on Ex. Bridge

CONSTRUCTION REQUIREMENTS:

PCO 7 Revised Anchor Cable Testing Criteria:

The anchor cable testing criteria shall be as revised under Contract 008066 Change Order No. 033; a Design-Builder Initiated Category 2 change with no change to Contract Price or Contract Time.

**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 12/26/13
Page 3 of 5

CONTRACT NO: 008066

CHANGE ORDER NO: 121 R2

PCO 28 OIC Anchor Cable Testing:

Technical Requirements Section 2.12.5.16.1 Anchor Cable Material Requirements shall be modified as follows:

In the first paragraph, delete the sentence:

"The cable diameter shall be 3-1/8 inches."

and replace with:

"The cable diameter shall be 3-1/8 inches or it shall be at the option of the Design-Builder to use a larger cable diameter if desired. Any additional expense to use a larger cable diameter shall be the responsibility of the Design-Builder."

PCO 50 OIC Top of Shaft Anchor into No-Build Zone:

The Design-Builder shall design, construct and install a PATON buoy above anchor cable ASE if the U.S. Coast Guard determines that a buoy is necessary.

The buoy shall conform to the requirements of 33 CFR Part 66, Private Aids to Navigation. In accordance with Technical Requirements Section 2.12.4.2.8.1, the Design-Builder shall coordinate with the U.S. Coast Guard to ensure the anchor does not create a navigation hazard.

PCO 70A OIC Submarine Cable Under 520 Draw Span:

In accordance with Technical Requirements Section 2.16.3.6.1 Existing Floating Bridge Electrical Facilities, any disruptions to the existing floating bridge services and electrical facilities will not be permitted prior to demolition of the existing floating bridge unless they are deemed necessary and approved by WSDOT. To ensure no disruptions occur, the agreed upon method between the Design-Builder and WSDOT as a result of the proximity of the anchor cables for Pontoon L of the new bridge and the existing submarine power and communication cables "W", "C", and "E" (reference Appendix A-B as-built Plans for Contract C#014344 Evergreen Point Bridge 520/8 Rehabilitation), testing of the anchor cables for Pontoon L shall be deferred until such time as the Design-Builder permanently blocks the center channel with the new floating bridge construction as allowed in Technical Requirements Section 2.12.3.5. Any disruptions to the operation of the channel draw span and existing ITS, electrical and communication facilities shall be scheduled as allowed by Contract, and shall continue to be protected and remain functional until de-commissioned in accordance with the Contract requirements.

PCO 269 Repair of Broken Anchor Cable on Ex. Bridge:

The Design-Builder shall coordinate efforts with WSDOT Northwest Region Bridge Maintenance for the replacement of the damaged anchor cable, Anchor Cable A-north of Bridge No. 520/8, the Albert D. Rosellini Bridge. The Design-Builder shall perform an underwater inspection to visually confirm

**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 12/26/13
Page 4 of 5

CONTRACT NO: 008066

CHANGE ORDER NO: 121 R2

that the existing cable is broken. Replacement of the cable shall consist of removal of the damaged anchor cable, replacement with a new anchor cable in-kind, and tensioning of the new anchor cable.

PAYMENT:

As mutually agreed for the Work as described in this change order, WSDOT will reimburse the Design-Builder under the new lump sum item "Anchor Cable Issues" in the amount of \$2,600,000. The lump sum amount shall be full compensation for all costs related to Work addressed under this change order.

TIME:

There shall be no increase in Contract Time as a result of this change order.

DBE GOAL:

Monies paid under Change Order for administrative overhead, delay and impacts to the Work that do not include opportunities for sub-contractible work, and therefore DBE participation, should be documented and will be considered accordingly as part of the good faith effort.

**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 12/26/13
Page 5 of 5

CONTRACT NO: 008066	CHANGE ORDER NO: 121 R2
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ITEM NO	GROUP NO	STD ITEM	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE
1075	01		ANCHOR CABLE ISSUES	L.S.	0.00	0.00	1,330,900.00
1075	03		ANCHOR CABLE ISSUES	L.S.	0.00	0.00	1,246,100.00
1075	16		ANCHOR CABLE ISSUES	L.S.	0.00	0.00	23,000.00

2,600,000.00
