



September 6, 2013

TO: J. Carpenter / M. Foster *mf*

THRU: D. Whitehouse / B. White *aw*

FROM: W. Smith / S. Golbek *WS*

SUBJECT: Contract 8127
Snowshed to Keechelus Dam Phase 1C – Replace Snowshed and Add Lanes
State Project
Change Order No. 65 “2013-Wall 7-Horizontal Grouting”

Attached for your review is the Headquarters approved and executed Change Order No. 65 for this project.

Description of the Change:

This change order provides compensation for additional grout costs incurred over the 2013 season, during the construction installation of Wall 7 horizontal soil nails. Additional grout cost are identified as all labor, equipment and materials including mobilization, taxes and markups realized as a result of grout exceeding 250% of plan quantity.

Evolution of the Change:

During the 2013 construction season the Contractor began installing horizontal soil nails for the construction of Wall 7. As the work began it was realized that extremely high quantities of grout were being used to fill around the installed horizontal nails. The grout quantities on average exceeded 250% of neat line quantities. In a few cases the quantities exceeded 2000% of plan quantity. The contractor's first solution was to use grout socks. This solution proved to be ineffective as the socks were not compatible with the very specific drill head equipment necessary for drilling the highly voided, open graded rocky material. The socks were constantly tearing and getting wrapped up in the drill. This actually increased the time and effort necessary to grout each soil nail.

After numerous meetings and correspondence, during the spring and summer of 2013, it was determined that the high grout takes are a result of the open graded rocky soil conditions and short of a complete redesign the only solution was to simply keep placing grout in the nail hole and surrounding voids until full. In order to minimize the grout volume and cost it was also decided to try alternate grouts mixes and additives that cause the grout to gel or thicken once placed but remain fluid when being pumped.

At the same meetings, it was agreed that the conditions were made known in the original bid documents and pre-bid correspondence. However, because soil nail walls are not typically used in this soil type and the standard specification pay items do not address how a contractor could be

compensated for extreme grout takes, it was agreed that WSDOT would compensate the contractor for additional costs associated with grout takes over 250% of neat line quantities for each nail as well as the additional costs associated with the contractor recommended, engineer directed, grout mix trials.

Entitlement: Because it was determined the Contractor could not reasonably estimate grout takes beyond 250% of neat line quantities and there is no contract pay item set up to do so, the Contractor is entitled to compensation for all materials, labor and equipment (including markups) required to place grout beyond 250% of the neat line quantity. It was agreed that grout place in 2013 for horizontal nails would be compensated by a force account. It was further agreed that the additional work would tracked and agreed to daily.

Price: It was agreed by all parties that the added work would be calculated from the force account sheets in accordance with Section 1-09.6.

Contract Time: There is no change to contract time associated with this change order.

Please contact Will Smith, at (509) 577-1844, if you have any questions or comments.

WS: sg

Enclosures: Change Order #65, Checklists, Engineer's Estimate
cc: Change Order File

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CONTRACT NO: 008127 FEDERAL AID NO:
CONTRACT TITLE: I-90, SNOWSHED TO KEECHELUS DAM PHASE 1C - REPLACE
CHANGE ORDER NO: 65 2013-WALL 7-HORIZ. GROUTING

PRIME CONTRACTOR: [REDACTED] GUY F. ATKINSON CONSTRUCTION, LLC.
707 SOUTH GRADY WAY STE 500
RENTON WA 98057-3224

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

<p>ENDORSED BY:</p> <p><i>Robert Flans</i></p> <p>CONTRACTOR</p> <p>DATE <u>9/05/13</u></p>	<p>SURETY CONSENT:</p> <hr/> <p>ATTORNEY IN FACT</p> <hr/> <p>DATE</p>
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ORIGINAL CONTRACT AMOUNT: 177,144,342.66
CURRENT CONTRACT AMOUNT: 180,445,863.89
ESTIMATED NET CHANGE THIS ORDER: 1,500,000.00
ESTIMATED CONTRACT TOTAL AFTER CHANGE: 181,945,863.89

Approval Required: Region Olympia Service Center Local Agency



<p><input checked="" type="checkbox"/> APPROVAL RECOMMENDED <input type="checkbox"/> EXECUTED</p> <p><i>W. Sam</i></p> <p>PROJECT ENGINEER</p> <p>DATE <u>9/5/13</u></p>	<p>EXECUTED:</p> <p><i>[Signature]</i></p> <p>STATE CONSTRUCTION ENGINEER</p> <p>DATE <u>9/16/13</u></p>
<p><input checked="" type="checkbox"/> APPROVAL RECOMMENDED <input type="checkbox"/> EXECUTED</p> <p>REGIONAL ADMIN:</p> <p><i>Robert For Don White House</i></p> <p>BY: <u>W. Brian White</u></p> <p>DATE <u>9/9/13</u></p>	<p>OTHER APPROVAL WHEN REQUIRED</p> <hr/> <p>SIGNATURE _____ DATE _____</p> <hr/> <p>REPRESENTING _____</p>

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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:

DESCRIPTION:

This change order provides compensation for additional costs incurred during the construction of Wall 7 horizontal soil nails. The additional costs are a direct result of horizontal soil nail grout exceeding 250% of plan the quantity. Additional costs are identified as all labor, equipment and materials necessary to complete the work as specified or directed by the Engineer.

The new item, "CO #65-2013-Wall 7-Horiz. Grouting", is added.

By endorsing this change order, the Contractor waives all protests and claims to additional compensation related to direct added work costs for wall 7 horizontal nail grout takes.

MATERIALS REQUIREMENTS:

The materials as they pertain to experimental trials shall be directed by the Engineer. Acceptance of experimental materials shall be based on visual inspection or as directed by the Engineers.

Materials that do not pertain to the experimental trials shall be in accordance with the original contract plan for Wall 7 horizontal soil nails, the Addenda Incorporated Contract Plans, Special Provisions, and the 2010 Standard Specifications.

CONSTRUCTION REQUIREMENTS:

The work as it pertains to experimental trials for construction methods and equipment types shall be directed by the Engineer.

All work as it pertains to the original contact Plan for Wall 7 horizontal soil nails shall be in accordance with the Addenda Incorporated Contract Plans, Special Provisions, and the 2010 Standard Specifications.

MEASUREMENT AND PAYMENT:

Measurement and payment for: "CO #65-2013-Wall 7-Horiz. Grouting", shall be in accordance with Standard Specification 1-09.6.

CONTRACT TIME:

There is no change to contract time associated with this change order. A future change order may be prepared to address contract time and potential damages for delays.

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ITEM NO	GROUP NO	STD ITEM	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE

1077	01		CO #65-2013-WALL 7-HORIZ. GROUTING	EST.	1,500,000.00	1,500,000.00	1,500,000.00
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1,500,000.00
