



February 20, 2015

- TO: Scotty Ireland MS 47354 THRU: Gil McNabb MS NB82-250
- FROM: Mary Ann Reddell MS NB82-76 (425) 225-8725
- SUBJECT: Change Order No. 4 Scour Protection Elevation SR 530 / Skaglund Hill Vic to C-Post Road Vic Emergency Roadway Reconstruction Contract 8630

Attached for your review and approval is Change Order No. 4 for this design-build contract. This contract reconstructs a portion of SR 530 that was destroyed by a landslide on March 22, 2014.

Decription of Change

This change order compensates the Design-builder for additional costs to excavate and place additional Class B Rock for scour protection to armor the North slope down to prelandslide ground level between stations 1971+60 to 1983+00. This change order also includes costs for handling of the landslide debris material within these stationing limits in accordance with the protocol required by the Slide Action Plan for this contract.

The WSDOT R/W limit is on the North shoulder of the existing roadway through this stretch, along a compound slope. To achieve effective armorment of the roadway from a potential change in course of the Stillaguamish River, Class B rock needed to be extended down to pre-landslide ground elevation at the toe of the embankment on Snohomish County R/W along the Whitehorse Trail toe of slope.

Due to the urgency to restore access to this route of highway damaged by the massive landslide, there was not enough time for WSDOT to secure an easement or negotiate an agreement with Snohomish County to install scour protection outside WSDOT R/W before the RFP package went out or during the accelerated bid period.

Development of the Change

The scour protection is defined in the RFP as follows:

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2.6.6.4 SLOPE DESIGN (TEMPORARY AND PERMANENT)

From STA 1950+00 to the eastern Project limit, fill shall not be placed on the recently deposited landslide debris north of the roadway. Recently deposited landslide debris shall be removed down to the original pre-landslide ground surface. Scour protection shall be used to armor the north embankment slope in accordance with Section 2.27.

2.27.5.2 SCOUR PROTECTION

The Design-Builder shall design and construct scour protection to armor the north embankment of SR 530 from erosion. At a minimum, the scour protection shall be installed from STA. 1950+00 to STA 1988+00 using Class B Rock for Erosion and Scour Protection, and from STA 1988+00 to the eastern Project limit using Quarry Spalls. Class B Rock for Erosion and Scour Protection and Quarry Spalls shall be in accordance with Section 9-13 of the Standard Specifications.

If embankment or reinforced slope construction is utilized to support the roadway, the scour protection armor layer shall be a minimum of 3 feet thick where Class B Rock is used, and a minimum of 1 foot thick where Quarry Spalls are used. The top elevation of scour protection shall be the edge of shoulder, and the bottom elevation shall be the toe of the embankment slope at the pre-landslide ground surface. The Design-Builder shall design a filter layer to be placed between the scour protection rock and the embankment soil in accordance with the Bridge Scour and Stream Instability Countermeasures (Appendix H).

Based on the criteria above provided in the RFP (by addendum pre-bid), the Design-Builder included scour protection on the north side of all constructed embankments to the toe at pre-slide ground surfaces. Further discussion in task force meetings (post-bid) concluded that this adequately protected most of the project footprint except the roadway at the knoll between station 1971+60 to 1983+00. This section rests in the middle of a compound slope with the R/W limit on the north edge of the SR 530 shoulder.

The WSDOT Hydraulics engineer confirmed with the construction office that the intent was to fully protect the knoll, a compound slope, from scour. The intent reflected the uncertainty of a potential change in the Stillaguamish River course North of the highway. To meet this intent was subject to conflicting interpretation as written in the RFP. Work would be required beyond WSDOT R/W, defined as a Basic Configuration.

Without R/W or a construction easement, the Design-Builder did not anticipate scour protection on the pre-existing lower slope within the County R/W. The Design-Builder's proposal included scour protection within WSDOT R/W protecting the shoulder of the new roadway through the knoll area. Because the existing road was clear of landslide debris, the Design-Builder's interpretation met the RFP requirement of protecting the

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constructed embankment to its toe on pre-slide material (the former roadbed) within the contraints of the Basic Configuration.

As a result, a long stretch of the compound slope along the knoll would have a fairly small buttress blanket and full scour protection would not be achieved as intended. This would not include excavation to extend scour protection below an additional 20 feet of landslide debris.

The Design-Builder's final roadway alignment changed during the design phase to provide a full design standard roadway (no additional cost to WSDOT) and to move the scour protection outside the R/W through their negotiations with Snohomish County. The change to move the scour protection outside WSDOT R/W was supported by the project office as the best solution benefitting WSDOT by fully protecting the highway, and Snohomish County by its restoration of the Whitehorse trail for the community. The amount of scour protection the Design-Builder has provided above the post-slide ground elevation is greater than their pre-bid quantity and the Design-Builder is taking responsibility for this additional quantity as it resulted from the changes in design as described above. It is important to note that the scour protection in WSDOT Conceptual plan alignment (which cut further into the knoll to the south) would not have fit within the R/W either and would have resulted in 4622 CY outside R/W.

The change order request is for compensation for an additional 4585 cubic yards of Class B rock, geotextile fabric, excavation of landslide debris, protocol personnel required during the landslide debris handling, and markups for a total of \$595,169. Quantities and costs have been substantiated.

Discussions held by Engineering Manager Gil McNabb with NWR executives supported proceeding with this approach for scour protection. FHWA liaison, Jeff Horton, approved of it as well.

Approvals

Chris D. Brown (Project Engineer Design-Build Liaison) provided approval for this change order on July 9, 2014. Mary Ann Reddell, Construction Project Engineer concurred.

Scotty Ireland (Headquarters Construction) and Gil McNabb (NW Region) gave written approval in December 2014. They both gave verbal approval to proceed before the work started.

Entitlement

This is added work to the contract. The Design-Builder is entitled to compensation for added work in accordance with Section 1-04.4 of the Standard Specifications.

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Payment

WSDOT and the Design-Builder agreed to the lump sum price of \$ 595,169.

Pani Saleh (Program Management) gave funding approval on January 23, 2015.

Contract Time

This change does not affect contract time.

MAR:njb Attachment:

cc: Project File

DESIGN-BUILD CHANGE ORDER CHECKLIST

Cont. #: 8630 Cont.	Title: SR 530 / Sk	aglund Hill Vic to C-Post Road Vic - Emer	gency Road	way	Approval from
C.O. #: 4 C.O. T	Title: Scour Prote	ction Elevation			State Construction
Design-Builder initated.	Agency inital	ted.		-	Office Required
I. Executed by the State Constr	ruction Office				
1. Cost or credit equal to or ex	ceeding \$200,000.	*1	🛛 Yes	□ No	x
 Change in the contract docu original contract.*2 	uments beyond the	scope, intent or termini of the	☐ Yes	🛛 No	x
3. Change in the condition of a	award.		C Yes	🛛 No	x
4. Change in contract time greater than 30 working days.			C Yes	🛛 No	x
II. Executed by the Region 5. Cost or credit greater than \$100,000 but less than \$200,000.*1			🗆 Yes	🛛 No	
 Change in contract time gree must be related to changes 	eater than 10 and le implemented by ch	ss than or equal to 30 working days, ange order.	🗌 Yes	🛛 No	
III. Executed by the Project Engi	neer				
7. Determination of impacts an	nd/or overhead.			KI NO	×
8. Design or construction work	k that does not com	ply with the Mandatory Standards.	Yes	No No	X
9. A change to a Chapter 1 Ge	eneral Provision.		🗆 Yes	🛛 No	x
10. A change to a technical req Deviations, Geotechnical D Structures, Control of Mater WSDOT Standard Specifica	uirement in any of t esign, Pavement, F rials, MWBE Goals, ations.	he following sections: Design Project Documentation, Bridges and QMP Requirements, or	🗌 Yes	🛛 No	x
11. Determination of changed of	condition (Section 1	-04.7 of the Request For Proposal).	□ Yes	🖾 No	x
12. Settlement of a claim (Sect	ion 1-09.11(2) of the	e Request For Proposal).	☐ Yes	🛛 No	x
13. Repair of damage regarding government authorities (Se	g "acts of God" or "a ction 1-07.13 of the	acts of the public enemy or of Request For Proposal).	Yes	No No	X
14. A "no-cost" change based u	upon a determinatio	n of "equal or better".	Yes	🛛 No	x
Approvals obtained:				I	
Project Engineer: (R		Chris D. Brown		Date: 7	09/2014
Region: (R		Gil McNabb		Date: 1	2/01/2014
State Construction Office:		Scott Ireland		Date: 1	2/19/2014
To be completed by the Project	t Engineer :				
CO Reason(s) (See CCIS Source	e/Outcome) :	AO/04 PI/OP			
Change Order Prepared By:		Nina Bray		Date: 8/	18/2015
Has change been entered as less	son learned?	Yes No N/A			
Has design documentation been	updated?	X Yes No N/A			
Is change approved by program r	management?	Yes No N/A			
Is the change eligible for Federal	participation?	Yes No N/A			
Change Order Reviewed by:		18th Illy		Date:	2/23/15
This form represents the minimum in	formation required	by the State Construction Office #2		-	/ /

This form represents the minimum information required by the State Construction Office. *3

*1 Cost or Credit greater than \$200,000 on Federal Stewardship requires FHWA approval (see Construction Manual - Ch.1-2.4C(3) and Ch. 1-3.4)

*2 Per RCW 47.28.050, any change beyond \$7,500 that is beyond the original scope shall go through the competitive bidding process.

*3 Changes that do not meet any of the itemized criteria above may be executed by the PE with Region approval.

	WASHINGTO DEPARTMENT OF T CHANGE	ON STATE RANSPORTATION ORDER	DATE: 01/22/15 Page 1 of 9
CONTRACT NO:008630CONTRACT TITLE:SR 530,CHANGE ORDER NO:4	SKAGLOND HILL VIC TO (SCOUR PROTECTION ELEVA)	FEDERAL AID NO: E C-POST ROAD VIC - EME TION	R-1402(003)
PRIMECONTRACTOR	GUY F. ATKINGON 707 SOUTH GRADY	V CONSTRUCTION, LLC. 2 WAY SUITE 500	
	RENION	WA 98057-3224	
() Ordered by Engineer under the	e terms of Section 1-04.4 of the	Standard Specifications	
(χ) Change proposed by Contract	Dr		
ENDORSED BY:		SURETY CONSENT:	
CONTRACTOR	, VICE PRESIDENT	ATTORNEY IN FACT	
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	() EXECUTED	OTHER APPROVAL WHEN REQUIRED	
BY: 2/25/15		SIGNATURE	DATE

CG02v04 (revised Feb 2005)

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION CHANGE ORDER

DATE: 01/22/15 Page 2 of 9

CONTRACT NO: 008630

CHANGE ORDER NO: 4

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:

Construct scour protection in Snohomish County right of way between approximate stations 1971+61 to 1983+00 as shown on pages 4 thru 9 of this change order.

PAYMENT:

This change order adds a new lump sum bid item, "CO 4 Scour Protection." The lump sum amount of \$595,169.00 shall be full pay for all labor, equipment, materials, and markups associated with the work described above.

CONTRACT TIME:

This change order does not affect contract time.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION CHANGE ORDER

DATE: 01/22/15 Page 3 of 9

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595,169.00



C8630

DATE BY

REVISION

DATE

P.E. STANP BCX

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REGIONAL ADM. L. ENG

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