



Date: March 9, 2011

TO: J. Carpenter/^{M. Gaines / M. Niemi}~~M. Sheikhrizadch / J. Beaver~~
HQ Construction Office - Bridge
Mail Stop 47354

THRU: D. Wagner/D. Ficco/D. Medack ^{DAM}

FROM: ^{Fb} Frank Green, Structures Manager
Columbia River Crossing Project
(360) 816-8855

SUBJECT: Contract 8078, I-5 Columbia River Bridge Temporary Pile Test Program
CO #002 – UHMW Rollers Credit

Attached for your review and further processing is Change Order No. 2. This change order allows the use of Ultra High Molecular Weight Polyethylene (UHMW) in lieu of the contract specified AASHTO Grade 60 Neoprene for fabrication of rollers for the Bubble Curtain System as shown on sheet 4 of 4 of this change order.

This contract had a limited in-water work window with all items of work being on the critical path. Contract time began February 7, 2011, with 15 working days assigned to the contract and the in-water work window ending February 28, 2011. On February 18, 2011, a Request for Information was received from the fabricator through the prime contractor informing us that the AASHTO Grade 60 Neoprene Rollers specified in the contract were not available in time allotted in the contract and they requested the use of UHMW Polyethylene to fabricate the rollers.

The designer of the Bubble Curtain System, James Schufreider was consulted to discuss the proposed material substitution. On January 19, 2011, Mr. Schufreider recommended approval to use UHMW Polyethylene in lieu of the AASHTO Grade 60 Neoprene. Mr. Schufreider informed us that UHMW Polyethylene had been used on all previous Bubble Curtain designs and the "softer" neoprene is the preferred material due to superior sound mitigation but the UHMW Polyethylene is the next best material and due to time constraints on this project he is recommending the UHMW Polyethylene. Mr. Schufreider also advised that the UHMW Polyethylene is a cheaper material and a credit to the State should be considered if allowed to use it.

CO #002 – UHMW Rollers Credit
March 9, 2011
Page 2

Independent price quotes were obtained through internet searches for the AASHTO Grade 60 material and price quotes for the UHMW Polyethylene material was provided by the designer, James Schufreider. Through negotiations with the contractor a lump sum credit of \$800.00 to use the UHMW Polyethylene was agreed upon. Cost justification and backup data is maintained in the field office files.

This change order adds one new item to the contract “CO2 UHMW Roller Credit” at the agreed lump sum credit of \$800.00 to compensate the State for the difference in material cost between the AASHTO Grade 60 Neoprene and the UHMW Polyethelyne,

This change order does not affect contract time.

On January 24, 2011, Jesse Beaver in the HQ Construction Office provided approval of the proposed material substitution based on the response from the designer.

Frank Green, Project Engineer provided approval of this material substitution on January 24, 2011, with a credit to the State to compensate for the difference in material cost of the UHMW Polyethylene and AASHTO Grade 60 Neoprene.

This change order can be executed by the Project Engineer with approval from the HQ Construction Office.

FTG/KAD:np
Attachment

cc: M. Degenhart
N. Peppers
CRC Document Control

**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**


DATE: 02/14/11
Page 1 of 4

CONTRACT NO: 008078 FEDERAL AID NO:
CONTRACT TITLE: I-5, COLUMBIA RIVER BRIDGE TEMPORARY PILE TEST PRO
CHANGE ORDER NO: 2 UHMW ROLLERS - CREDIT

PRIME CONTRACTOR: 910562492 AMERICAN CONSTRUCTION CO., INC.
1501 TAYLOR WAY
TACOMA WA 98421-4100

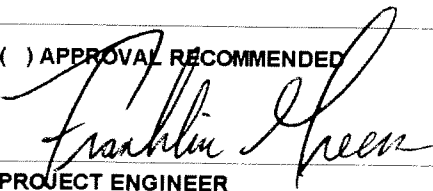
() Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications

(X) Change proposed by Contractor

<p>ENDORSED BY:</p> <p style="text-align: center;"></p> <p>CONTRACTOR Kevin Culbert, Vice-President</p> <p>February 22, 2011</p> <p>DATE</p>	<p>SURETY CONSENT:</p> <hr/> <p>ATTORNEY IN FACT</p> <hr/> <p>DATE</p>
---	--

ORIGINAL CONTRACT AMOUNT: 811,204.00
CURRENT CONTRACT AMOUNT: 811,204.00
ESTIMATED NET CHANGE THIS ORDER: -800.00
ESTIMATED CONTRACT TOTAL AFTER CHANGE: 810,404.00

Approval Required: () Region (X) Olympia Service Center () Local Agency

<p>() APPROVAL RECOMMENDED</p> <p style="text-align: center;"></p> <p>PROJECT ENGINEER</p> <p>3/9/11</p> <p>DATE</p>	<p>(X) EXECUTED</p> <p>EXECUTED:</p> <hr/> <p>STATE CONSTRUCTION ENGINEER</p> <hr/> <p>DATE</p>	
<p>() APPROVAL RECOMMENDED</p> <p>REGIONAL ADMIN: D. Wagner</p> <hr/> <p>BY:</p> <hr/> <p>DATE</p>	<p>() EXECUTED</p> <p>OTHER APPROVAL WHEN REQUIRED</p> <hr/> <p>SIGNATURE</p> <hr/> <p>REPRESENTING</p>	<p>DATE</p>

**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 02/14/11

Page 2 of 4

CONTRACT NO: 008078

CHANGE ORDER NO: 2

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:

You are ordered to perform the following described work upon receipt of an approved copy of this change order:

DESCRIPTION

This change order allows the Contractor to substitute Ultra High Molecular Weight (UHMW) Polyethylene in lieu of the contract specified AASHTO Grade 60 Neoprene for rollers as shown on sheet 4 of 4 of this change order.

MEASUREMENT AND PAYMENT

The new lump sum item "CO2 UHMW Roller Credit" in the amount of -\$800.00, shall be considered full and final credit to the State for the change in the contract specifications.

CONTRACT TIME

Working days are not affected by this change order.

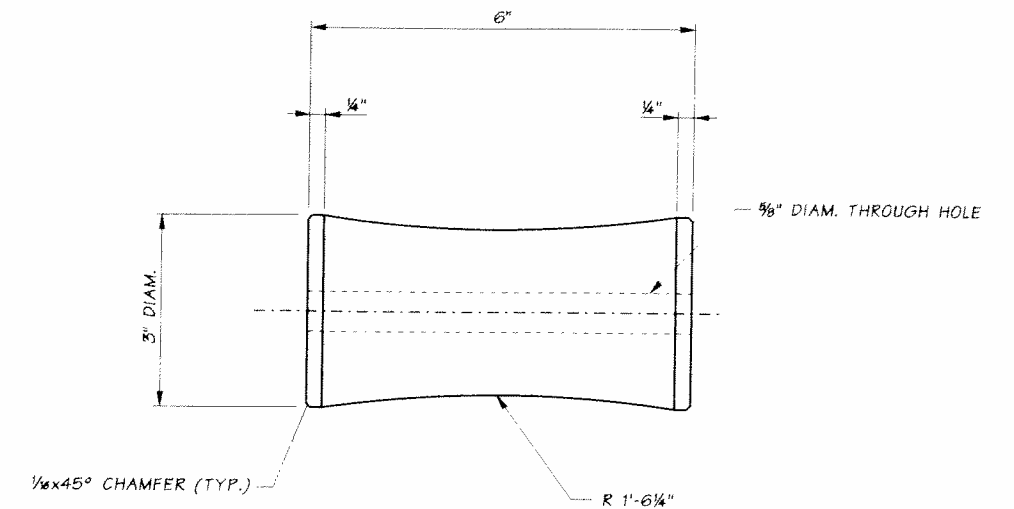
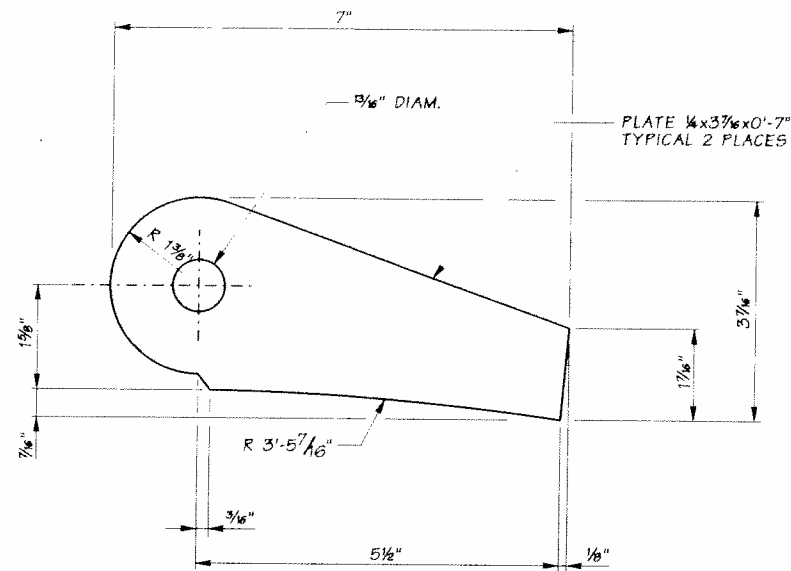
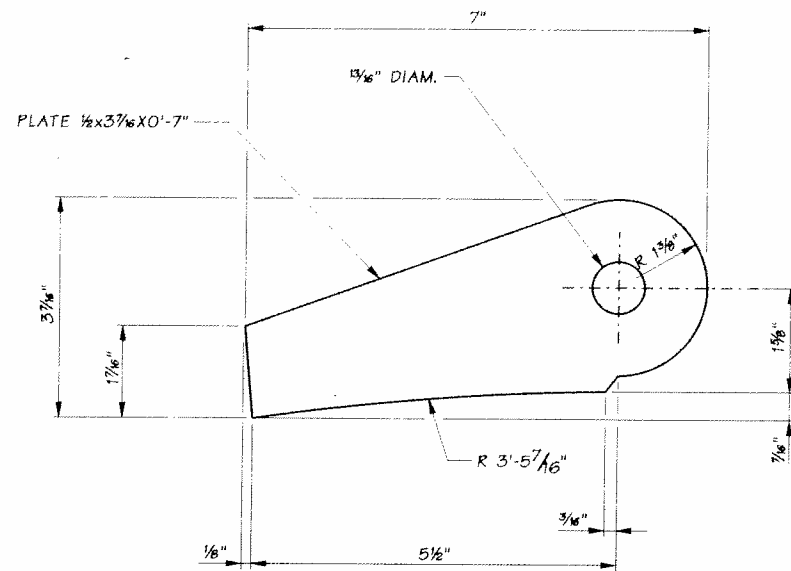
**WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER**

DATE: 02/14/11
Page 3 of 4

CONTRACT NO: 008078	CHANGE ORDER NO: 2
---------------------	--------------------

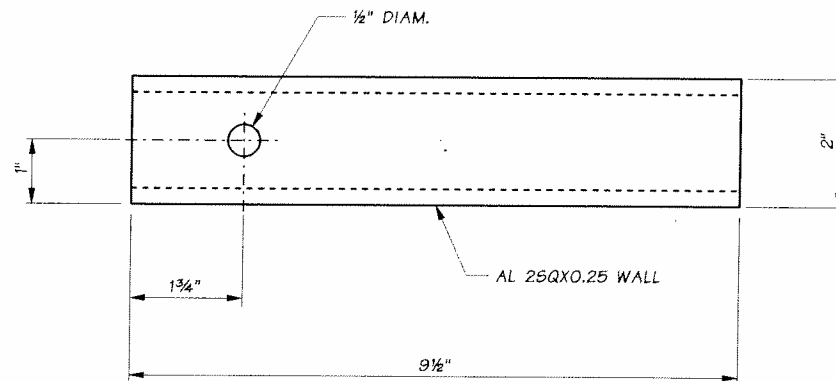
ITEM NO	GROUP NO	STD ITEM	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE
1001	01		CO2 UHMW ROLLER CREDIT	L.S.	-400.00	-400.00	-400.00
1001	02		CO2 UHMW ROLLER CREDIT	L.S.	-400.00	-400.00	-400.00

-800.00
=====



1
-
DETAIL
TYPICAL HINGE PLATES
MATERIAL: AL 6061-T6

2 2
ND2 ND3
DETAIL
TYPICAL ROLLER
MATERIAL: ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE



3 3
ND2 ND3
DETAIL
TYPICAL ARM GUIDE

Contract 8078
Change Order No. 2
Sheet 4 of 4

FILE NAME: c:\aawork\pw_work\crlburke\dms00922\CRC_Pile_Driving_Sheet10.dgn		REGION NO. STATE		FED.AID PROJ.NO.				I-5 COLUMBIA RIVER BRIDGE TEMPORARY PILE TEST PROGRAM NOISE ATTENUATION DETAIL 2	Ref. Sht. Number
TIME: 3:29:48 PM	DATE: 1/27/2011	10	WASH						ND6
PLOTTED BY: burkej	DESIGNED BY: J. SCHUFREIDER	JOB NUMBER: 10X314	CONTRACT NO.:	LOCATION NO.:					SHEET 10 OF 12 SHEETS
ENTERED BY: J. BURKE	CHECKED BY: J. SCHUFREIDER	CONTRACT NO.:	C8078	XL3604					
PROJ. ENGR. F. GREEN	REGIONAL ADM. D. WAGNER	REVISION: CHANGE ORDER #2 - MODIFIED MATERIAL	DATE: 01/24/2011	FG	BY				

CHANGE ORDER-CHECKLIST

Cont. #: <u>8078</u> Cont. Title: <u>I-5 Columbia River Bridge Temporary Pile Test Program</u> C.O. #: <u>2</u> C.O. Title: <u>UHMW Rollers - Credit</u>	If yes, State Construction Office Approval Required.	
I. Executed by the State Construction Office	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
1. Cost or credit equal to or exceeding \$500,000.*1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
2. Change in the contract documents beyond the scope, intent or termini of the original contract.*2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
3. Any proposed revision or deletion of work that affects the condition of award requirements.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
II. Executed by the Region	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Cost or credit greater than \$100,000 but less than \$500,000. *1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Change in contract time greater than 10 and less than or equal to 30 working days, must be related to changes implemented by change order.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
6. Change in contract time greater than 30 working days.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
III. Executed by the Project Engineer	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
7. Determination of impacts and/or overhead.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
8. Specification change involving Headquarters generated specification. <i>(Includes Region generated specification requiring State Construction Office Approval)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
9. Specification change involving Region generated specifications.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
10. Material or product substitution.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	X
11. Structural design change in the roadway section. <i>(Requires State Materials Lab approval)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
12. Determination of changed condition. <i>(Section 1-04.7 of the Standard Specifications)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
13. Settlement of a claim. <i>(Section 1-09.11(2) of the Standard Specifications)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
14. Repair of damage regarding "acts of God" or "acts of the public enemy or of government authorities". <i>(Section 1-07.13 of the Standard Specification)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X
15. Structural change to structures. <i>(See BTA authority as shown in the Construction Manual)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	X

Approvals obtained: Project Engineer (Required): Frank Green Date: 1/24/2011
 Region (Required if yes marked): _____ Date: _____
 State Construction Office: Jesse Beaver Date: 1/24/2011
 State Materials Lab: N/A Date: _____
 Other (Local Agency, FHWA, Surety, etc.): N/A Date: _____

To be completed by the Project Engineer :

CO Reason(s) (See CCIS "Browse Reasons" or "HQ Construction SharePoint"): MS Material Substitution

Change Order Prepared By: Keith Daly Date: 1/24/2011

Has change been entered as lesson learned? Yes No Has design documentation been updated? Yes No

Is this project under full FHWA stewardship oversight? *1 Yes No

To be completed by the Region :

Is the change eligible for Federal participation where applicable? Yes No

Change Order Reviewed by: _____ Date: _____

*1 Change (Cost or Credit) greater than \$200,000 or greater than 30 days on Full Federal Stewardship Oversight projects requires FHWA approval. (see Construction Manual - Chapter 1-2.4C(3), Chapter 1-3.4, and <http://www.wsdot.wa.gov/biz/construction/Stewardship/Stewardship.xls>)

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

This form represents the **minimum** information required by the State Construction Office. If you wish to supplement this information, you may do so on a separate sheet of paper.

Change Order Submittal

Contract No.: 8078

Change Order No.: 2

OK

N/A

Change Order Body

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the change order address construction requirements, materials requirements, measurement, and paymer |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the scope of the change stay within the verbal commitment or approval? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Do the proposed changes by the Contractor have acceptable credit or substitutions? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the change order address contract time? Stating contract time will be addressed later is not acceptable! |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are change order items entered with appropriate standard item numbers and groups? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Can the change order be approved/executed by the Area Engineer? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are the correct approval boxes checked? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the change order revise the Condition of Award? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | All required data entered into CCIS, including all applicable change order reason codes? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is consent of surety required? |

Cover Memo

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the memo describe: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | the changes made? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | why the change was necessary? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | why there is entitlement/why this is not paid under the Contract? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | if there is a DBE subcontractor involved? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | how the change evolved? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the memo address impacts to the critical path and contract time? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the memo address verbal approvals? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was Design approval obtained? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the memo address concurrences from Maintenance, Materials Lab, Geologists, BTA, Traffic, etc? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the memo address the net cost of the change order? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the memo address changes to Condition of Award? |

Change Order Checklist

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the Change Order Checklist attached? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the line marked "Change Order is Avoidable" filled in? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the "Value Added" noted on the checklist? |

Attachments

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is a cost justification attached? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is contract time justification attached? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are documented verbal approvals attached? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are additional supporting documents attached? |

Other

- | | | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does this change involve a "Lesson Learned"? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was the "Lesson Learned" entered into the database? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is there appropriate funding for this change? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Has Program Management been advised of this change? |

From: Beaver, Jesse [BeaverJ@wsdot.wa.gov]
Sent: Monday, January 24, 2011 10:56 AM
To: Daly, Keith; Beaver, Jesse
Cc: Green, Frank
Subject: C8078 I5 Columbia River Bridges - Temporary Pile Test Program
Attachments: RFI 001.pdf; RE: Bubble ring roller RFI# 001

Keith,

Based on response from the designer (James Schufreider, WSF), the 'softer' neoprene is a preferred material based on potential of marginally superior sound mitigation. Nonetheless, if the neoprene rollers cannot be manufactured in the available timeline (and we have no indication that they can be), the bubble ring is contractually unconstructible. With that in mind, we can either (1) allow more time, or (2) allow the proposed change. Given the urgency of the project schedule, I recommend approval of the Contractor's proposed material substitution at no cost or credit to the state. This does not in any way appear to be a windfall item for the Contractor.

Please call if questions.

Jesse L. Beaver, PE
Assistant State Construction Engineer
Washington State Department of Transportation
360.705.7825
360.791.2855 (cell)

From: Daly, Keith [<mailto:dalyk@columbiarivercrossing.com>]
Sent: Wednesday, January 19, 2011 5:00 PM
To: Beaver, Jesse
Cc: Green, Frank
Subject: Contract 8078, I-5 Columbia River Bridges Temporary Pile Test Program

Jesse,

I assume you are our point of contact at the HQ Construction Office for change order approval on the above referenced contract. Contract 8078 hasn't been executed yet but with our tight construction schedule I'm trying to get a jump on things. This contract is being administered out of the Columbia River Crossing (CRC) Project office in the SW Region. Frank Green is the Project Engineer for the contract and I will be doing all Office Engineering duties. Our preconstruction meeting with American Construction Co., Inc. is scheduled for this Friday, January 21st at the CRC office. The contract special provisions require working day charges to begin 2/7/2011 with 15 working days assigned to contract and all work shall be completed by 2/28/2011 when our in-water work window expires. The contract requires for the fabrication of a Bubble Curtain which WSDOT will take possession of at the end of the contract. I am contacting you for change order approval of a material or product substitution submitted by American Construction in RFI #1. James Schufreider with the Department of Ferries designed the Bubble Curtain in this contract and I have attached an email from him with his comments related to the rollers being fabricated out of ultra high molecular weight polyethylene (UHMW) as proposed by American Construction versus rollers fabricated from AASHTO Grade 60 Neoprene required by the contract. I will be available from 8:00 to 4:30 tomorrow if you need additional information or if you would like to discuss further.

Thank you,

Keith Daly

Daly, Keith

Design Approval

From: Deml, Matt
Sent: Wednesday, January 19, 2011 12:05 PM
To: 'Schufreider, James'
Cc: Green, Frank; Daly, Keith; Degenhart, Mark
Subject: RE: Bubble ring roller RFI# 001

Thanks James.

From: Schufreider, James [<mailto:JSchufre@wsdot.wa.gov>]
Sent: Wednesday, January 19, 2011 11:57 AM
To: Deml, Matt
Subject: RE: Bubble ring roller RFI# 001

UHMW was used on all previous bubble rings.

Based on the "sound measurement guy", the softer the material that makes contact with the pile, the lower the transmitted sound.

Any soft rubber would work and the next best thing is UHMW. The UHMW will probably be a (major) cost saving to the Contractor.

One possible source for the soft rubber roller is Scougal Rubber – 763 2650

Maybe let them use UHMW but supply the softer rollers when they can get them.

What is the construction schedule?

Is that clear as mud?

From: Deml, Matt [<mailto:demlm@columbiarivercrossing.com>]
Sent: Wednesday, January 19, 2011 11:39 AM
To: Schufreider, James
Cc: Green, Frank; Daly, Keith; Degenhart, Mark (CRC)
Subject: FW: Bubble ring roller RFI# 001
Importance: High

James,

Can you review the attached RFI and provide your input. We noticed that the UHMW was used on 520, would it be acceptable for CRC? Will this be a no-cost change?

Thanks,

Matt

From: Daly, Keith
Sent: Tuesday, January 18, 2011 5:29 PM
To: Green, Frank
Cc: Degenhart, Mark; Deml, Matt
Subject: FW: Bubble ring roller RFI# 001

Daly, Keith

P. E. Approval

From: Green, Frank
Sent: Monday, January 24, 2011 3:54 PM
To: Daly, Keith
Cc: Degenhart, Mark; Deml, Matt; Peterson, Laura
Subject: FW: C8078 I5 Columbia River Bridges - Temporary Pile Test Program
Attachments: RFI 001.pdf; RE: Bubble ring roller RFI# 001

Keith

I approve the change of materials requested in this RFI. Please instruct American to proceed with fabrication and inform them of the credit that we discussed.

Thank you.

From: Beaver, Jesse [[@wsdot.wa.gov](mailto:Beaver)]
Sent: Monday, January 24, 2011 10:56 AM
To: Daly, Keith; Beaver, Jesse
Cc: Green, Frank
Subject: C8078 I5 Columbia River Bridges - Temporary Pile Test Program

Keith,

Based on response from the designer (James Schufreider, WSF), the 'softer' neoprene is a preferred material based on potential of marginally superior sound mitigation. Nonetheless, if the neoprene rollers cannot be manufactured in the available timeline (and we have no indication that they can be), the bubble ring is contractually unconstructible. With that in mind, we can either (1) allow more time, or (2) allow the proposed change. Given the urgency of the project schedule, I recommend approval of the Contractor's proposed material substitution at no cost or credit to the state. This does not in any way appear to be a windfall item for the Contractor.

Please call if questions.

Jesse L. Beaver, PE
Assistant State Construction Engineer
Washington State Department of Transportation
360.705.7825
360.791.2855 (cell)

From: Daly, Keith [<mailto:dalyk@columbiarivercrossing.com>]
Sent: Wednesday, January 19, 2011 5:00 PM
To: Beaver, Jesse
Cc: Green, Frank
Subject: Contract 8078, I-5 Columbia River Bridges Temporary Pile Test Program

Jesse,

I assume you are our point of contact at the HQ Construction Office for change order approval on the above referenced contract. Contract 8078 hasn't been executed yet but with our tight construction schedule I'm trying to get a jump on things. This contract is being administered out of the Columbia River Crossing (CRC) Project office in the SW Region. Frank Green is the Project Engineer for the contract and I will be doing all Office Engineering duties. Our preconstruction meeting with American Construction Co., Inc. is scheduled for this Friday, January 21st at the CRC office. The contract special provisions require working day charges to begin

Daly, Keith

From: Deml, Matt
Sent: Tuesday, January 18, 2011 5:38 PM
To: Daly, Keith; Green, Frank
Cc: Degenhart, Mark
Subject: RE: Bubble ring roller RFI# 001

Ultra high molecular weight polyethylene (UHMW) was used for the rollers on 520. I suspect the material is an equal and there would be no problem from an engineering standpoint, but need to verify with James Schufreider.

From: Daly, Keith
Sent: Tuesday, January 18, 2011 5:29 PM
To: Green, Frank
Cc: Degenhart, Mark; Deml, Matt
Subject: FW: Bubble ring roller RFI# 001

Frank,

Let's talk first thing in the morning about this material substitution request. This would be a change order executed by the PE but we will need approval from the State Construction Office. Is this material equal or would we require a credit if we approve of change?

Keith Daly
Assistant Business Manager

Columbia River Crossing Project | <mailto:dalyk@columbiarivercrossing.org>
700 Washington St. Suite 300, Vancouver, WA 98660
office: 360.816.8870 | Office: 503.256.2726 Ext. 8870
Fax: 360.737.0294

From: Kevin Culbert [<mailto:kevinc@americanconstco.com>]
Sent: Tuesday, January 18, 2011 4:59 PM
To: Daly, Keith
Subject: FW: Bubble ring roller RFI# 001

Keith:

Rainier Welding is sourcing their materials for the bubble system and cannot find neoprene rollers as specified that can be delivered in time. They are requesting that they be allowed to fabricate the rollers out of UHMW. I can formalize the RFI, but I wanted to get it to you as soon as possible.

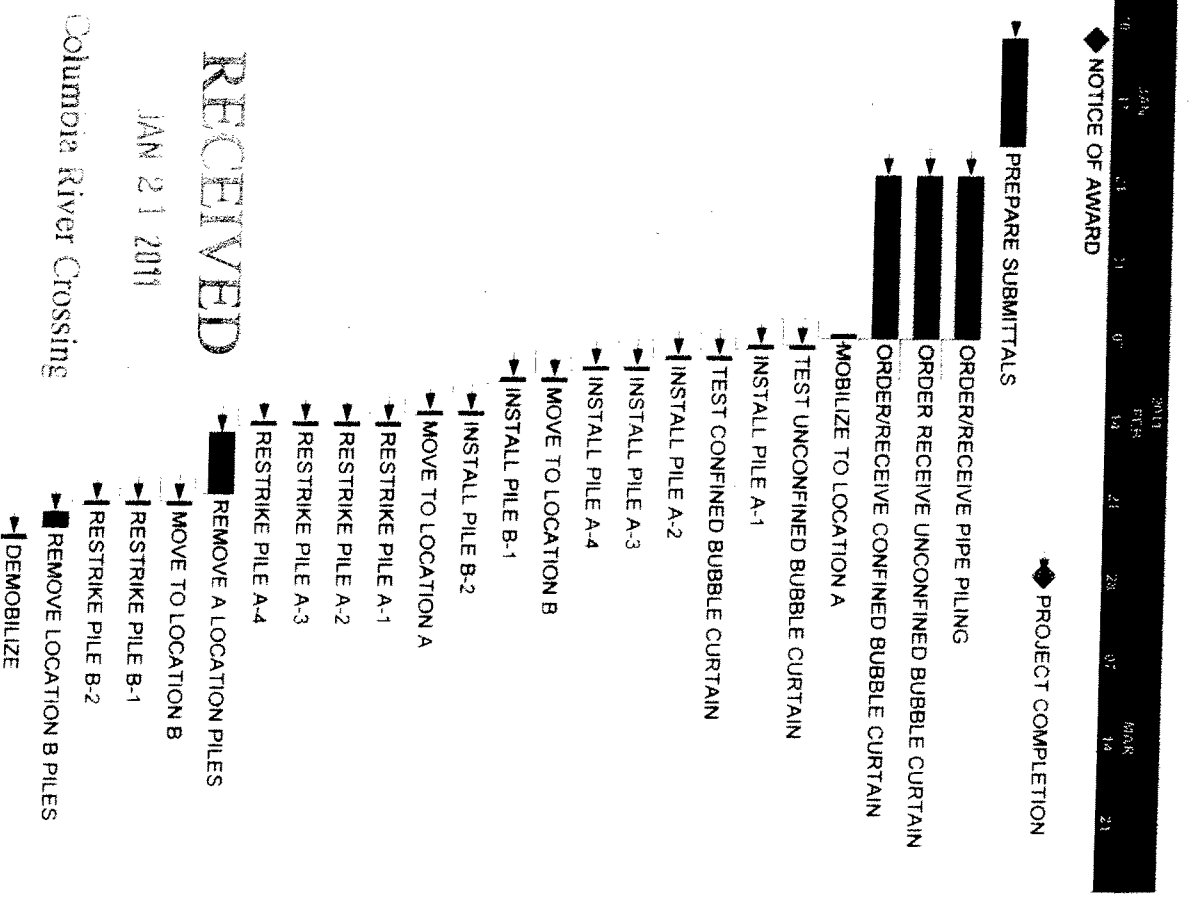
Kevin

From: Bob Webster [<mailto:b.webster@rainierwelding.com>]
Sent: Tuesday, January 18, 2011 4:30 PM
To: 'Kevin Culbert'
Subject: Bubble ring roller RFI# 001

Kevin, attached is our RFI#001 regarding substituting UHMW for the neoprene rollers.

Bob Webster
Rainier Welding, Inc.

Act ID	Description	Org Dur	Early Start	Early Finish	2011	2011	2011	2011	2011
					JAN	FEB	MAR	APR	MAY
1000	NOTICE OF AWARD	0	12JAN11						
1005	PROJECT COMPLETION	0	28FEB11						
1010	PREPARE SUBMITTALS	8d	12JAN11	21JAN11					
1020	ORDER/RECEIVE PIPE PILING	11d	24JAN11	07FEB11					
1030	ORDER/RECEIVE UNCONFINED BUBBLE	11d	24JAN11	07FEB11					
1040	ORDER/RECEIVE CONFINED BUBBLE CURTAIN	11d	24JAN11	07FEB11					
1050	MOBILIZE TO LOCATION A	1d	07FEB11	07FEB11					
1055	TEST UNCONFINED BUBBLE CURTAIN	1d	08FEB11	08FEB11					
1060	INSTALL PILE A-1	1d	08FEB11	08FEB11					
1065	TEST CONFINED BUBBLE CURTAIN	1d	09FEB11	09FEB11					
1070	INSTALL PILE A-2	1d	09FEB11	09FEB11					
1080	INSTALL PILE A-3	1d	10FEB11	10FEB11					
1090	INSTALL PILE A-4	1d	10FEB11	10FEB11					
1100	MOVE TO LOCATION B	1d	11FEB11	11FEB11					
1110	INSTALL PILE B-1	1d	11FEB11	11FEB11					
1120	INSTALL PILE B-2	1d	14FEB11	14FEB11					
1130	MOVE TO LOCATION A	1d	14FEB11	14FEB11					
1140	RESTRIKE PILE A-1	1d	15FEB11	15FEB11					
1150	RESTRIKE PILE A-2	1d	15FEB11	15FEB11					
1160	RESTRIKE PILE A-3	1d	15FEB11	15FEB11					
1170	RESTRIKE PILE A-4	1d	15FEB11	15FEB11					
1180	REMOVE A LOCATION PILES	4d	16FEB11	21FEB11					
1190	MOVE TO LOCATION B	1d	22FEB11	22FEB11					
1200	RESTRIKE PILE B-1	1d	22FEB11	22FEB11					
1210	RESTRIKE PILE B-2	1d	22FEB11	22FEB11					
1220	REMOVE LOCATION B PILES	2d	23FEB11	24FEB11					
1230	DEMOBILIZE	1d	25FEB11	25FEB11					



RECEIVED

JAN 21 2011

Columbia River Crossing

Start date 03JAN11
 Finish date 25FEB11
 Data date 03JAN11
 Run date 20JAN11
 Page number 1A
 Primavera Systems, Inc

WSDOT
 COLUMBIA RIVER BRIDGE TEMPORARY PILE TEST PROGRAM

Early bar
 Progress bar
 Critical bar
 Summary bar
 Start milestone point
 Finish milestone point

CONTRACT 8078 - CHANGE ORDER #2 COST JUSTIFICATION

See contract plan sheet ND6 for typical detail of roller for bubble curtain system

24 rollers required

Length = 6 inches

Diameter = 3 inches

Total length required = $24 \times .5 = 12$ feet

Cost data received from designer, James Schufreider for UHMW Polyethylene

\$11.00 per foot for 3.25 inch diameter round bar of UHMW Polyethylene

Plastic Supply (800) 832-6774 See attached email.

Cost data obtained through internet search for AASHTO Grade 60 Neoprene

Reid Supply Company

<http://www.reidsupply.com/>

See attached standard price sheet

The material found in internet search is not exactly the same as material required by the contract but is as close of a match that could be found and was used as a base price for negotiating with the contractor.

\$34.00 each for 4 inch diameter x 0.92 wide neoprene roller

Calculation of difference in material cost

UHMW Polyethylene

12 feet required x \$11.00 per foot = \$132.00

AASHTO Grade 60 Neoprene

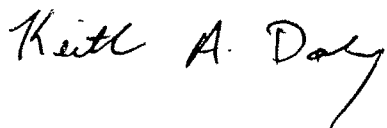
24 rollers required at \$34.00 each = \$816.00

Cost difference = $\$816.00 - \$132.00 = \$684.00$

Through negotiations with the contractor a credit of \$800.00 to the State was agreed upon.

Prepared 1/24/2011

By Keith Daly





[Home](#)
[Products](#)
[CAD](#)
[Deals](#)
[Customize](#)
[Government](#)
[Contact Us](#)

Item No: RR-351

View more information below by selecting the various information tabs. You can also download available CAD drawings (if available), by simply selecting "Download CAD"

Smarter Search

Search

Products OR
 CAD

[Material Handling](#)
[Rollers & Bumpers](#)
[Rollers](#)
[Solid Rollers](#)

Solid Rollers

Roller, Shaft Mount, Neoprene, Duro.=80, Size = 4" dia. x 0.92 Lg. w/.626-.631 I.D. x 1.42 Lg.

[Product Image](#)
[CAD Image](#)



Standard Pricing

Part No: RR-351
Your Price: \$34.00
Unit of Measure: EA
Status: In Stock
Shipping Cost: Standard UPS Ground Service is available for this product. UPS shipping costs start at \$7.57 on single quantities but may be more depending upon shipping destination. (Details)
 Note: Shipping restrictions may apply.

Quantity Discount Pricing

Quantity:	50	100	150	250	500
Price:	\$32.30	\$31.28	\$30.60	\$29.75	\$28.90

Rollers

Solid Shaft Mount

Rollers are used on conveyors, belt idlers, shock cushioners, stamping die part guides, supports, etc. Designed for use in machines and assembly operations where part movement and protection is needed. Available with a stud mount or with a bushing for shaft drive mounting. Stud mount rollers have a stud, spacer, lock-nut and ball bearings. Shaft mount rollers include two set screws. Other materials available as special orders. Please call for price and delivery.

Shopping Cart

1

QTY	ITEM	UM
-----	------	----

Total: \$0.00

[Log In To Your Account](#)

[Register New Account](#)

[Distributor Log In](#)

[My Account](#)

[Order History & Tracking](#)

[Saved Carts](#)

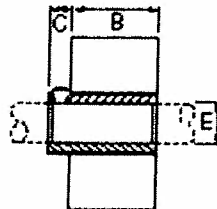
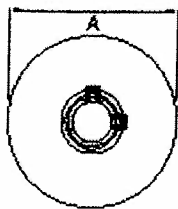
[My Bookmarks](#)

[View Cart](#)

[Gift Cards](#)



[Specifications](#)
[Resources and Catalogs](#)



Line Drawing Key:

- A [4]
- B [0.92]
- C [1/2]
- E [.626-.631]

Durometer: 80
Material: Neoprene
Mfg. Part Number: RR-9754-80-EX625
Type: Shaft Mount

Daly, Keith

Cost Data From Designer

From: Schufreider, James [JSchufre@wsdot.wa.gov]
Sent: Monday, January 24, 2011 1:49 PM
To: Daly, Keith
Subject: RE: Bubble ring roller RFI# 001

\$11 per foot for 3.25" diameter round bar, UHMW

Possible supplier - Plastic Supply 800 832 6774

From: Daly, Keith [mailto:dalyk@columbiarivercrossing.com]
Sent: Monday, January 24, 2011 11:25 AM
To: Schufreider, James
Cc: Green, Frank; Deml, Matt
Subject: FW: Bubble ring roller RFI# 001

Hi James,

Do you have any cost data on the AASHTO Grade 60 Neoprene and the UHMW material being proposed so we can provide justification in the change order to accept the UHMW with a credit to the State? I called Scougal Rubber and spoke to Greg and he provided me some prices for the AASHTO Grade 60 but nothing on the UHMW.

Thanks,

Keith Daly
Assistant Business Manager

Columbia River Crossing Project | <mailto:dalyk@columbiarivercrossing.org>
700 Washington St. Suite 300, Vancouver, WA 98660
office: 360.816.8870 | Office: 503.256.2726 Ext. 8870
Fax: 360.737.0294

From: Deml, Matt
Sent: Wednesday, January 19, 2011 12:05 PM
To: 'Schufreider, James'
Cc: Green, Frank; Daly, Keith; Degenhart, Mark
Subject: RE: Bubble ring roller RFI# 001

Thanks James.

From: Schufreider, James [mailto:JSchufre@wsdot.wa.gov]
Sent: Wednesday, January 19, 2011 11:57 AM
To: Deml, Matt
Subject: RE: Bubble ring roller RFI# 001

UHMW was used on all previous bubble rings.

Based on the "sound measurement guy", the softer the material that makes contact with the pile, the lower the transmitted sound.

Any soft rubber would work and the next best thing is UHMW. The UHMW will probably be a (major) cost saving to the Contractor.