

Memorandum

January 16, 2015

TO:

Derek Case

MS 47354

THRU:

Julie Meredith/Tom Horkan

NB 82-99

DB

FROM:

Dave Becher

(425) 576-7045

SUBJECT:

Contract 008066

SR 520, Floating Bridge and Landings Project

Federal Aid No. BR-0520(047)

Change Order No. 190 – South Side Design Settlement

Attached for Headquarters Construction execution and further processing is Project Office recommended Change Order No. 190 – South Side Design Settlement.

Description of the Change:

This change incorporates both Owner Initiated Changes (OICs) as well as Design-Builder Initiated Changes (DBICs). This change makes an equitable adjustment to the contract with the Design-Builder, Kiewit/General/Manson (KGM), to settle and resolve seven outstanding issues.

The seven outstanding issues are listed below:

- 1. PCO 172.1 OIC Additional Wall 326 and Noise Walls Design
- 2. PCO 324.1 = ECC Foundations in KGM HMA
- 3. PCO 330 OIC Additional Sentinel Light Modeling
- 4. PCO 346 OIC Additional Overlook Path Renderings
- 5. PCO 361 DBIC Conduit Fill Percent
- 6. PCO 379 DBIC Sentinel Stairs
- 7. PCO 381 Pier 36 WCB Shear Key Modification

WSDOT does not find full entitlement to all of these issues; however, WSDOT and the Design-Builder agreed that the settlement negotiated for this change order resolves and closes all of these issues regardless of the level of entitlement.

Additional details for these issues are provided as part of the back-up documentation for this change order.

This change order makes a number of revisions to the Contract Documents. These changes are described below and itemized by the individual issue:

CONTRACT REQUIREMENTS:

The following changes are made to the RFP Technical Sections:

1. PCO 172.1 – OIC Additional Wall 326 and Noise Walls - Design

Add in the following Contract Requirements:

"The Design-Builder shall provide the design for the following walls:

- 1. Retaining Wall 1A located between Wall 1 and the northwest corner of the Evergreen Point Road lid, and Retaining Wall 4A located between Wall 3-26 and the southwest corner of the Evergreen Point Road lid, as shown on page 10 of 008066 Change Order No. 190.
- 2. Retaining Wall 3-26 located between Wall 4 and Wall 4A as shown on page 11 of 008066 Change Order No. 190.
- 3. Retaining Wall 4 as shown on page 11 of 008066 Change Order No. 190 to support the Noise Barrier Wall shown in Appendix M1 Conceptual Plans, Bridge Sheet No. WN01 Noise Barrier Wall Layout.
- 4. Noise Barrier Wall 1A on top of Wall 1A, Noise Barrier Wall 4A on top of Wall 4A, and Noise Barrier Wall 3-26 on top of Wall 3-26. WSDOT will accept a smooth top of wall configuration or a level "step down" configuration in accordance with Appendix L1 and Appendix D17. The feasibility of compliance with the "step down" criteria shall be presented to WSDOT for review and approval before proceeding with final design. The Design-Builder shall prepare an exhibit showing the Noise Barrier Wall profiles and heights with reference to the edge of the travel way.

The Design-Builder shall perform a slope stability analysis of the temporary cut slopes for Wall 1.

The Design-Builder shall modify the design of all new and existing work as required to accommodate the design and construction of the walls described in 008066 Change Order No. 190. The work shall include, but not be limited to, the following:

- Earthwork and Grading
- Roadways
- Drainage
- Stormwater Systems
- *Utilities, including Utility Relocation*
- Fire Protection Systems, including Fire Hydrants and Water Supplies
- Walls, including Ecology Block Walls
- Ties to the East Approach Bridge

- Landscape
- Pedestrian Path Railing
- Lighting 2.16

The Design-Builder shall field verify all existing work related to 008066 Change Order No. 190.

The Design-Builder shall perform all commissioning activities associated with 008066 Change Order No. 190.

The Design-Builder shall neither remove nor cause damage to the cedar tree, including its root system, located at or near 2851 Evergreen Point Road, Medina, Washington."

<u>Technical Requirements Section 2.15.5.1.2 Retaining Wall Aesthetics</u>, as modified in 008066 Change Order No. 96 and 133, shall be revised as follows:

After the sentence:

"The following wall types will not be allowed:"

Delete the bulleted item:

"Ecology block embankment."

And replace with:

"Ecology block embankment, except that ecology block may be used for the embankment at the heritage tree located south of the pedestrian path if the ecology block is not visible to pedestrians on the path."

<u>Technical Requirements Section 2.15.5.3.3 Bridge Maintenance Facility Landscape and Aesthetics</u> shall be revised as follows:

Delete the bulleted item:

"The pedestrian path overlook located at the lower terminus of the pedestrian path shall be a minimum of 110 square feet and not more than 120 square feet. The pedestrian path overlook shall be furnished with a 6-foot length bench that is consistent with requirements in Appendix L1. Coordination will be required with the Eastside Contractor so that there is consistency."

And replace with:

"The size and configuration of the pedestrian path overlook located at the lower terminus of the pedestrian path shall be as previously coordinated with WSDOT and the City of Medina, and as depicted on pages 12 and 13 of 008066 Change Order No. 190. The pedestrian path overlook shall be furnished with appropriate seating that is coordinated

with WSDOT and the City of Medina, and is consistent with requirements in Appendix L1. Coordination will be required with the Eastside Contractor so that there is consistency."

After the bulleted item:

"Pedestrian paths and pedestrian path overlooks shall meet all applicable Mandatory Standards including the ADA Accessibility Guidelines (ADAAG);"

Insert the bulleted item:

"Provide the design of a Screening Wall at the location shown on page 11 of 008066 Change Order No. 190. The Screening Wall shall be a minimum of 8' high with respect to the finish grade. The Screening Wall shall be constructed using CMU blocks, the surface finish and color of which shall match the CMU blocks used for the exterior of the Bridge Maintenance Facility building; split face finish shall be provided on both sides of the CMU blocks. A stepped profile, in accordance with Section 2.15 and Appendix L1, shall be used in the design and construction of the Screening Wall. The vertical step allowance shall be no greater than 2-foot vertical increments over 48 feet horizontally. Depending upon grade changes, stepping of the wall profile shall maintain the required wall height with modification of distances between steps and/or height of individual steps. Step height shall be consistent with the dimensions of the CMU block used in the Screening Wall. The landscape design of the Screening Wall shall follow the "green over gray" principles specified in Section 2.15, wherever feasible. Provide the necessary earthwork and drainage provisions for the Screening Wall."

Delete the bulleted item:

"Native conifer and broadleaf evergreen plantings shall be provided along the southern Right-of-Way line, in the proximity of the pedestrian path. Such plantings shall provide a 100% opaque screen with a minimum height of six feet from the finished grade within three years after plantings are accepted."

Appendix E18 Conceptual Noise Barrier Wall Locations shall be revised as follows:

Delete the following:

Tables titled "Conceptual Noise Barrier Wall Locations – Noise Wall North of SR 520" and "Conceptual Noise Barrier Wall Locations – Noise Wall South of SR 520".

And replace with:

<u>Tables titled</u> "North Wall: Wall Stations and Corresponding Top of Wall (ToW) Elevations" and "South Wall: Wall Stations and Corresponding Top of Wall (ToW) Elevations", as shown on page 14 of 008066 Change Order No. 190.

Appendix M1 Conceptual Plans, Bridge Sheet No. WN01 Noise Barrier Wall Layout, shall be revised as follows:

Delete the following:

Noise Barrier Wall elevations.

2. PCO 330 - Additional Sentinel Light Modeling

<u>Technical Requirements Section 2.8.4.6.2.2 Light Levels</u>, as added in 008066 Change Order No. 091 R1, shall be revised as follows:

In the first paragraph, delete the sentence:

"As part of WSDOT's process for acquiring the Shoreline Substantial Development Conditional Use (Bridge) permit with the City of Medina, the Design-Builder shall conduct a study of the anticipated light levels generated by the sentinel lights."

And replace with:

"As part of WSDOT's process for acquiring the Shoreline Substantial Development Conditional Use (Bridge) permit with the City of Medina, the Design-Builder shall conduct a study of the anticipated light levels and the maximum light levels generated by the sentinel lights."

Delete the bulleted item:

"Participate in two coordination meetings with WSDOT at the main Project office."

And replace with:

"Participate in coordination meetings with WSDOT."

<u>Under the third bulleted item, delete the sub-item:</u>

"- Develop a nighttime rendering that models the sentinel lights at a single lighting level determined by WSDOT; all other light levels shall be rendered based on relative levels determined from site photos and professional judgment."

And replace with:

"- Develop nighttime renderings that model the sentinel lights at a single lighting level determined by WSDOT and at their maximum lighting level; all other light levels shall be rendered based on relative levels determined from site photos and professional judgment."

3. PCO 346 – Additional Overlook Path Renderings, Contract Requirements:

Add the Contract Requirement:

"The Design-Builder shall develop and submit three renderings of the pedestrian path and pedestrian path overlook located south and west of the Evergreen Point Road lid. The renderings shall be submitted to WSDOT no later than May 5, 2014, and shall depict the following:

- 1. Plan view of the pedestrian path layout showing a straight path alignment and the adjacent screening wall.
- 2. View of the pedestrian path overlook from a distance.
- 3. View of the pedestrian path overlook from up close."
- 4. PCO 361 DBIC Conduit Fill Percent, Contract Requirements:

Technical Requirements Section 2.16.4.4.1.2 Conduit System shall be revised as follows:

Delete the paragraph:

"In new conduits, conductors shall occupy a maximum of 26 percent of the cross-section of the conduit. In existing conduits, conductor fill shall meet NEC requirements for conduit with three or more conductors, and shall occupy a maximum of 40 percent of the conduit's cross-sectional area."

And replace with:

"In new conduits, conductors shall occupy a maximum of 26 percent of the cross-section of the conduit, except where the new conduits serve as a main feeder. In new conduits that serve as a main feeder or in existing conduits, conductor fill shall meet NEC requirements for conduit with three or more conductors, and shall occupy a maximum of 40 percent of the conduit's cross-sectional area."

5. PCO 379 – Sentinel Stairs, Contract Requirements:

<u>Technical Requirements Section 2.12.4.2.9.13.1 General</u>, as modified by 008066 Change Order No. 42, shall be revised as follows:

In the second paragraph, delete the sentence:

"The stairway systems and fixed ladders shall be either galvanized steel or FRP material."

And replace with:

"The stairway systems and fixed ladders shall be either galvanized steel or FRP material, unless otherwise noted. Handrails for the maintenance access box column spiral stairway systems may be aluminum."

<u>Technical Requirements Section 2.12.5.4.1 Metal Fabrications</u>, as modified by 008066 Change Order No. 50 R1, shall be revised as follows:

Delete the paragraph:

"Steel pipe for Ballast Ports shall conform to ASTM A500. All other steel pipes shall conform to ASTM A53 Grade B Type E or S, except they will not be permitted for use as steel tubular members carrying superstructure highway traffic loading."

And replace with:

"Steel pipes for Ballast Ports shall conform to ASTM A500. All other steel pipes shall conform to ASTM A53 Grade B Type E or S, except that the steel pipes used in the maintenance access box column spiral stairway systems may conform to ASTM A513. Steel pipes will not be permitted for use as steel tubular members carrying superstructure highway traffic loading."

Delete the paragraph:

"Steel Bars, plates and shapes shall conform to the requirements of ASTM A588, except as specified in the revised Appendix M22 plan sheets under 008066 Change Order No. 050, unless otherwise indicated."

And replace with:

"Steel Bars, plates and shapes shall conform to the requirements of ASTM A588, or shall be as specified in the Appendix M22 plan sheets revised under 008066 Change Order No. 50 R1, unless otherwise indicated. Steel plates and shapes used in the maintenance access box column spiral stairway systems shall conform to the requirements of ASTM A36 or ASTM A786."

Delete the paragraph:

"All bolts, nuts, washers and studs shall be galvanized after fabrication in accordance with AASHTO M232."

And replace with:

"All bolts, nuts, washers and studs shall be galvanized after fabrication in accordance with AASHTO M232. Alternate materials and finishes may be used for the bolts and screws in the maintenance access box column stairway systems if approved by WSDOT."

Evolution of the Change:

This change order resolves seven issues which have occurred during the project. Some of these issues date back to 2012 and are associated with design changes. Other issues are ones which have recently occurred. All of these issues have been extensively discussed between WSDOT and the Design-Builder. WSDOT and KGM were often in disagreement over the level of entitlement for these issues.

Each of the issues addressed in this change order are briefly described in the pages that follow. More information, including all of the WSDOT and KGM serial letters for these issues is attached as part of the back-up documentation.

PCO 172.1 - OIC Additional Wall 326 and Noise Walls - Design

WSDOT Serial Letter 0174 (dated October 24, 2012) initiated an OIC to modify the height of the noise walls on the Project to be consistent with the Final EIS documents. This OIC made marginal increases to noise wall heights (1-4 feet) throughout the project limits. In December 2012, WSDOT Serial Letter 0204 was sent to KGM adding new retaining walls to this Project. The new retaining walls included wing walls 1a and 4a along with transferring the design and construction of retaining wall 3-26 from the Eastside contract to the Floating Bridge and Landings contract. In February 2013, WSDOT Serial Letter 0254 was sent to KGM adding a new 8 foot high screening wall to the Shoreline Path and Overlook Trail to be built on the South side of the new SR 520 alignment in Medina.

All of these changes were directed by WSDOT and KGM is entitled to additional compensation for this work. WSDOT requested that KGM put together a single price proposal to cover all of these work elements.

KGM estimated the cost of these changes to be \$584,652. WSDOT agreed that there was entitlement for these changes, but WSDOT disputed the dollar value of this added work. WSDOT estimated that these additional costs were in the \$500,000 range.

This change order only addresses the cost of the additional design work associated with these changes. Construction costs associated with these changes will be addressed in a future change order.

Associated Serial Letters (Copies attached to this change order package):

KGM – 0343, 0586, and 0596 WSDOT – 0174, 0204, 0224, 0254, 0353, 0655, and 0724

Entitlement:

WSDOT acknowledged entitlement to additional compensation for this work; however, our estimate of \$500,000 for this added work was lower than the KGM proposal of \$584,652. This issue is resolved as part of this change order settlement.

PCO 324.1 – ECC Foundations in KGM HMA

In August 2014, KGM submitted a request for equitable adjustment (KGM Serial Letter 0592) for impacts associated with the Eastside Design-Builder (ECC) installing sign foundations in permanent HMA pavement placed by KGM. In the letter, KGM indicated that ECC had not coordinated this work with them, and as a result remedial repair work would be required in these areas.

After review of this issue, WSDOT agreed that this was a compensable issue. KGM estimated the cost of these impacts to be approximately \$20,000. WSDOT believed that this cost estimate was high and negotiations were unable to reach a settlement.

Associated Serial Letters (Copies attached to this change order package):

KGM – 0592 WSDOT – 0724

Entitlement:

WSDOT concurs that KGM is due additional compensation for this impact. WSDOT's estimate for this impact was in the \$5,000 range. This issue is resolved by this change order.

PCO 330 - Additional Sentinel Light Modeling

In Change Order 91 R1, WSDOT requested KGM to perform a "Sentinel Lighting Study" to address concerns raised by the City of Medina of light impacts associated with the new East Sentinel on Pontoon W. After delivery of this study to the City of Medina, questions and issues were raised by the City which required additional light modeling. WSDOT requested KGM complete additional modeling to address these City of Medina questions. WSDOT acknowledged that this additional modeling was compensable and not covered by Change Order 91 R1.

KGM estimated the cost of these impacts to be \$19,206. WSDOT believes that this cost estimate is reasonable for this added work.

Associated Serial Letters (Copies attached to this change order package):

KGM – 0517 and 0585 WSDOT - 0724

Entitlement:

WSDOT concurs that KGM is due additional compensation for this impact. WSDOT accepts KGM's price proposal of \$19,206 for this added work. This issue is resolved by this change order.

PCO 346 - Additional Overlook Path Renderings

In April 2014, WSDOT requested that KGM (WSDOT Serial Letter 0654) develop and provide three additional renderings of the modified Viewpoint Trail to facilitate discussions with the City of Medina and for a presentation to the Medina City Council. WSDOT acknowledged that development of these new renderings was added work and compensable.

KGM estimated the cost of these impacts to be \$12,918. WSDOT believes that this cost estimate is reasonable for this added work.

Associated Serial Letters (Copies attached to this change order package):

KGM – 0534 and 0560 WSDOT – 0598 and 0659

Entitlement:

WSDOT concurs that KGM is due additional compensation for this impact. WSDOT accepts KGM's price proposal of \$12,918 for this added work. This issue is resolved by this change order.

PCO 361 – DBIC Conduit Fill Percent

In September 2014, KGM submitted a Category 2 DBIC (KGM Serial Letter 0601) to adjust the allowable conduit fill percentage from 26 to 40 percent. This change would only affect the under-deck and pontoon power feed conduits. KGM indicated that this conduit fill percentage was in line with NEC (National Electric Code) requirements and would not result in future expansion or modifications to the floating bridge.

WSDOT Subject Matter Experts reviewed this proposal and agreed that it was acceptable. However, WSDOT did not find this proposal to meet the "equal to or better requirements" necessary for a Category 2 change. This DBIC is considered a Category 3 change with a credit due to WSDOT.

Associated Serial Letters (Copies attached to this change order package):

KGM – 0601 WSDOT – 0724

Entitlement:

WSDOT believes that a credit is due to the Department for this change. WSDOT estimated this credit to be approximately \$10,000. This change order settles and closes this issue.

PCO 379 - DBIC Sentinel Stairs

In September 2014, KGM submitted a Category 3 DBIC (KGM Serial Letter 0603) to adjust some of the RFP material requirements for the steel components, to allow different steel grades, utilized in the Sentinel stairs.

WSDOT Subject Matter Experts reviewed this proposal and found it to be acceptable. KGM estimated the credit associated with this change to be \$4508. WSDOT believes that this credit proposal is reasonable for this change.

Associated Serial Letters (Copies attached to this change order package):

KGM - 0603 WSDOT - 0724

Entitlement:

WSDOT and KGM agree that a credit is due to the Department for this change. WSDOT accepts KGM's credit price proposal of -\$4508 for this work. This issue is resolved by this change order.

PCO 381 - Pier 36 WCB Shear Key Modification

KGM constructed the shear keys at Pier 36 approximately four inches off line and the associated dowel rebar was approximately 4 inches too low. This KGM construction resulted in impacts to the WCB contractor (Mowat-American). Mowat-American crews had to make field adjustments to their work to match the KGM work at Pier 36. This resulted in extra costs on the WCB contract.

WSDOT advised KGM that they would be responsible for these added costs on the WCB contract which were estimated to be approximately \$4000.

Associated Serial Letters (Copies attached to this change order package):

KGM – NCR 0199 WSDOT – 0724

Entitlement:

WSDOT assigned a value to this impact to the WCB contract as a credit of \$4,000. This change order settles and closes this issue.

Negotiations with KGM for these various cost impacts occurred primarily in the summer of 2014 but some of these issues were discussed as early as 2013. All of these issues have been extensively discussed and negotiations over cost and price proposals have occurred with KGM. As noted earlier in this memorandum, WSDOT did not find full entitlement for all of these issues, and the value of the equitable adjustment was often in dispute. However, regardless of the level or value of the entitlement, this change order closes and resolves all seven of these issues.

WSDOT and KGM both agreed that the issues addressed in this change order did not impact contract time, so no adjustment to the contract completion date is made by this change order.

During the development of this change order, coordination and discussions were also held with the Eastside WSDOT Project Team, Headquarters Construction, the Bridge and Structures Office, Project Subject Matter Experts, the SR 520 Program Office and the FHWA. These discussions included technical discussions concerning the contract schedule, the changes proposed, as well as the cost of the impacts.

As the dollar value of this change order exceeds the approval authority of the Project Office, the following approvals were secured:

Approvals Provided:

- Project Level Dave Becher on November 12, 2014
- Region/Program Level Tom Horkan on December 5, 2014
- Region/Program Funding Concurrence Sherry Felke on December 23, 2014
- Headquarters Construction Level Derek Case on December 17, 2014
- FHWA Level Anthony Sarhan on December 30, 2014

Note – the FHWA has indicated that they will not participate in the funding for the costs associated with adjustments to noise wall heights included in PCO 172.1. WSDOT estimated the costs associated with the noise wall heights to be \$25,000.

Entitlement:

This change order resolves both OICs and DBICs and provides an equitable adjustment settlement to the Design-Builder to settle these seven outstanding issues.

Price:

WSDOT and KGM negotiated an equitable adjustment which increases the contract amount by \$520,000.00 to settle these issues.

Attached to this change order package is a copy of the Engineer's Estimate prepared by WSDOT.

Contract Time:

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

Memorandum Attachments:

- Change Order 190
- Change Order Checklist
- Engineer's Estimate
- Approval Documentation
- Change Order 91
- KGM Serial Letters 0343, 0517, 0534, 0560, 0585, 0586, 0592, 0596, 0601, and 0603
- WSDOT Serial Letters 0174, 0204, 0224, 0254, 0353, 0522, 0598, 0655, 0659, and 0724

DPB: DB Attachments

PW File: 17.02.CO-190

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CONTRACT NO:

008066

FEDERAL AID NO: BR-0520 (047)

CONTRACT TITLE:

SR 520 / I-5 TO MEDINA - EVERGREEN POINT FLOATING

CHANGE ORDER NO: 190

SOUTH SIDE DESIGN SETTLEMENT

PRIME CONTRACTOR: SW0106139

KIEWIT/GENERAL/MANSON, A JOINT

33455 6TH AVE S

FEDERAL WAY

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:	
THE SE		
CONTRACTOR	ATTORNEY IN FACT	
1/14/15 DATE	DATE	€
ORIGINAL CONTRACT AMOUNT:	586,561,000.00	
CURRENT CONTRACT AMOUNT:	753,376,574.00	
ESTIMATED NET CHANGE THIS ORDER:	520,000.00	
ESTIMATED CONTRACT TOTAL AFTER CHANGE:	753,896,574.00	
Approval Required: () Region	() Olympia Service Center () Local Agen	су

(APPROVAL RECOMMENDED () EXECUTED	EXECUTED:
PROJECT ENGINEER Engineering Mininger	STATE CONSTRUCTION ENGINEER
DATE (6, 2015	DATE 11/15
() EXECUTED	OTHER APPROVAL WHEN REQUIRED
REGIONALADMIN: BY: DATE	SIGNATURE CALLED DATE FHWA REPRESENTING

DATE: 01/12/15
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CONTRACT NO: 008066

CHANGE ORDER NO: 190

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 order incorporates both WSDOT-Initiated Changes and Design-Builder Initiated Changes in accordance with General Provisions Section 1-04.4 to provide for the settlement of potential change orders (PCO's) associated with Contract No. 008066 as agreed to on 10/01/2014 and as described in this change order.

CONTRACT REQUIREMENTS:

* PCO's 136, 148, 172, 172.1, 234 - OIC ADDITIONAL WALL 3-26 AND NOISE WALLS DESIGN, Contract Requirements:

Add the Contract Requirements:

"The Design-Builder shall provide the design for the following walls:

- * Retaining Wall 1A located between Wall 1 and the northwest corner of the Evergreen Point Road lid, and Retaining Wall 4A located between Wall 3-26 and the southwest corner of the Evergreen Point Road lid, as shown on page 10 of 008066 Change Order No. 190.
- * Retaining Wall 3-26 located between Wall 4 and Wall 4A as shown on page 11 of 008066 Change Order No. 190.
- * Retaining Wall 4 as shown on page 11 of 008066 Change Order No. 190 to support the Noise Barrier Wall shown in Appendix M1 Conceptual Plans, Bridge Sheet No. WNO1 Noise Barrier Wall Layout.
- * Noise Barrier Wall 1A on top of Wall 1A, Noise Barrier Wall 4A on top of Wall 4A, and Noise Barrier Wall 3-26 on top of Wall 3-26. WSDOT will accept a smooth top of wall configuration or a level "step down" configuration in accordance with Appendix L1 and Appendix D17. The feasibility of compliance with the "step down" criteria shall be presented to WSDOT for review and approval before proceeding with final design. The Design-Builder shall prepare an exhibit showing the Noise Barrier Wall profiles and heights with reference to the edge of the travel way.

The Design-Builder shall perform a slope stability analysis of the temporary cut slopes for Wall 1.

The Design-Builder shall modify the design of all new and existing work as required to accommodate the design and construction of the

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CONTRACT NO: 008066

CHANGE ORDER NO: 190

walls described in 008066 Change Order No. 190. The work shall include, but not be limited to, the following:

- * Earthwork and Grading
- * Roadways
- * Drainage
- * Stormwater Systems
- * Utilities, including Utility Relocation
- * Fire Protection Systems, including Fire Hydrants and Water Supplies
- * Walls, including Ecology Block Walls
- * Ties to the East Approach Bridge
- * Landscape
- * Pedestrian Path Railing
- * Lighting

The Design-Builder shall field verify all existing work related to 008066 Change Order No. 190.

The Design-Builder shall perform all commissioning activities associated with 008066 Change Order No. 190.

The Design-Builder shall neither remove nor cause damage to the cedar tree, including its root system, located at or near 2851 Evergreen Point Road, Medina, Washington."

Technical Requirements Section 2.15.5.1.2 Retaining Wall Aesthetics, as modified in 008066 Change Order Nos. 96 and 133, shall be revised as follows:

After the sentence:

"The following wall types will not be allowed:"

Delete the bulleted item:

"* Ecology block embankment."

And replace with:

"* Ecology block embankment, except that ecology block may be used for the embankment at the heritage tree located south of the pedestrian path if the ecology block is not visible to pedestrians on the path."

Technical Requirements Section 2.15.5.3.3 Bridge Maintenance Facility Landscape and Aesthetics shall be revised as follows:

Delete the bulleted item:

"* The pedestrian path overlook located at the lower terminus of the pedestrian path shall be a minimum of 110 square feet and not more than 120 square feet. The pedestrian path overlook shall be furnished with a 6-foot length bench that is consistent with requirements in Appendix L1. Coordination will be required with the Eastside Contractor so that there is consistency."

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CONTRACT NO: 008066

CHANGE ORDER NO: 190

And replace with:

"* The size and configuration of the pedestrian path overlook located at the lower terminus of the pedestrian path shall be as previously coordinated with WSDOT and the City of Medina, and as depicted on pages 12 and 13 of 008066 Change Order No. 190. The pedestrian path overlook shall be furnished with appropriate seating that is coordinated with WSDOT and the City of Medina, and is consistent with requirements in Appendix L1. Coordination will be required with the Eastside Contractor so that there is consistency."

After the bulleted item:

"* Pedestrian paths and pedestrian path overlooks shall meet all applicable Mandatory Standards including the ADA Accessibility Guidelines (ADAAG);"

Insert the bulleted item:

"* Provide the design of a Screening Wall at the location shown on page 11 of 008066 Change Order No. 190. The Screening Wall shall be a minimum of 8-feet high with respect to the finish grade. The Screening Wall shall be constructed using CMU blocks, the surface finish and color of which shall match the CMU blocks used for the exterior of the Bridge Maintenance Facility building; split face finish shall be provided on both sides of the CMU blocks. A stepped profile, in accordance with Section 2.15 and Appendix L1, shall be used in the design and construction of the Screening Wall. The vertical step allowance shall be no greater than 2-foot vertical increments over 48-feet horizontally. Depending upon grade changes, stepping of the wall profile shall maintain the required wall height with modification of distances between steps and/or height of individual steps. Step height shall be consistent with the dimensions of the CMU block used in the Screening Wall. The landscape design of the Screening Wall shall follow the "green over gray" principles specified in Section 2.15, wherever feasible. Provide the necessary earthwork and drainage provisions for the Screening Wall."

Delete the bulleted item:

"* Native conifer and broadleaf evergreen plantings shall be provided along the southern Right-of-Way line, in the proximity of the pedestrian path. Such plantings shall provide a 100% opaque screen with a minimum height of six feet from the finished grade within three years after plantings are accepted."

Appendix E18 Conceptual Noise Barrier Wall Locations shall be revised as follows:

Delete:

Tables titled "Conceptual Noise Barrier Wall Locations - Noise Wall North of SR 520" and "Conceptual Noise Barrier Wall Locations - Noise Wall South of SR 520".

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CONTRACT NO: 008066

CHANGE ORDER NO: 190

And replace with:

Tables titled "North Wall: Wall Stations and Corresponding Top of Wall (ToW) Elevations" and "South Wall: Wall Stations and Corresponding Top of Wall (ToW) Elevations", as shown on page 14 of 008066 Change Order No. 190.

Appendix Ml Conceptual Plans, Bridge Sheet No. WN01 Noise Barrier Wall Layout, shall be revised as follows:

Delete:

Noise Barrier Wall elevations.

* PCO 330 - ADDITIONAL SENTINEL LIGHT MODELING, Contract Requirements:

Technical Requirements Section 2.8.4.6.2.2 Light Levels, as added in 008066 Change Order No. 091 R1, shall be revised as follows:

In the first paragraph, delete the sentence:
"As part of WSDOT's process for acquiring the Shoreline Substantial
Development Conditional Use (Bridge) permit with the City of Medina,
the Design-Builder shall conduct a study of the anticipated light
levels generated by the sentinel lights."

And replace with:

"As part of WSDOT's process for acquiring the Shoreline Substantial Development Conditional Use (Bridge) permit with the City of Medina, the Design-Builder shall conduct a study of the anticipated light levels and the maximum light levels generated by the sentinel lights."

Delete the bulleted item:

"* Participate in two coordination meetings with WSDOT at the main Project office."

And replace with:

"* Participate in coordination meetings with WSDOT."

Under the third bulleted item, delete the sub-item:

"- Develop a nighttime rendering that models the sentinel lights at a single lighting level determined by WSDOT; all other light levels shall be rendered based on relative levels determined from site photos and professional judgment."

And replace with:

"- Develop nighttime renderings that model the sentinel lights at a single lighting level determined by WSDOT and at their maximum lighting level; all other light levels shall be rendered based on relative levels determined from site photos and professional judgment."

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* PCO 346 - ADDITIONAL OVERLOOK PATH RENDERINGS, Contract Requirements:

Add the Contract Requirement:

"The Design-Builder shall develop and submit three renderings of the pedestrian path and pedestrian path overlook located south and west of the Evergreen Point Road lid. The renderings shall be submitted to WSDOT no later than May 5, 2014, and shall depict the following:

- 1. Plan view of the pedestrian path layout showing a straight path alignment and the adjacent screening wall.
- 2. View of the pedestrian path overlook from a distance.
- 3. View of the pedestrian path overlook from up close."
- * PCO 361 DBIC CONDUIT FILL PERCENT, Contract Requirements:

Technical Requirements Section 2.16.4.4.1.2 Conduit System shall be revised as follows:

Delete the paragraph:

"In new conduits, conductors shall occupy a maximum of 26 percent of the cross-section of the conduit. In existing conduits, conductor fill shall meet NEC requirements for conduit with three or more conductors, and shall occupy a maximum of 40 percent of the conduit's cross-sectional area."

And replace with:

"In new conduits, conductors shall occupy a maximum of 26 percent of the cross-section of the conduit, except where the new conduits serve as a main feeder. In new conduits that serve as a main feeder or in existing conduits, conductor fill shall meet NEC requirements for conduit with three or more conductors, and shall occupy a maximum of 40 percent of the conduit's cross-sectional area."

* PCO 379 - SENTINEL STAIRS, Contract Requirements:

Technical Requirements Section 2.12.4.2.9.13.1 General, as modified by 008066 Change Order No. 42, shall be revised as follows:

In the second paragraph, delete the sentence:

"The stairway systems and fixed ladders shall be either galvanized steel or FRP material."

And replace with:

"The stairway systems and fixed ladders shall be either galvanized steel or FRP material, unless otherwise noted. Handrails for the maintenance access box column spiral stairway systems may be aluminum."

Technical Requirements Section 2.12.5.4.1 Metal Fabrications, as modified by 008066 Change Order No. 50 R1, shall be revised as follows:

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Delete the paragraph:

"Steel pipe for Ballast Ports shall conform to ASTM A500. All other steel pipes shall conform to ASTM A53 Grade B Type E or S, except they will not be permitted for use as steel tubular members carrying superstructure highway traffic loading."

And replace with:

"Steel pipes for Ballast Ports shall conform to ASTM A500. All other steel pipes shall conform to ASTM A53 Grade B Type E or S, except that the steel pipes used in the maintenance access box column spiral stairway systems may conform to ASTM A513. Steel pipes will not be permitted for use as steel tubular members carrying superstructure highway traffic loading."

Delete the paragraph:

"Steel Bars, plates and shapes shall conform to the requirements of ASTM A588, except as specified in the revised Appendix M22 plan sheets under 008066 Change Order No. 050, unless otherwise indicated."

And replace with:

"Steel Bars, plates and shapes shall conform to the requirements of ASTM A588, or shall be as specified in the Appendix M22 plan sheets revised under 008066 Change Order No. 50 R1, unless otherwise indicated. Steel plates and shapes used in the maintenance access box column spiral stairway systems shall conform to the requirements of ASTM A36 or ASTM A786."

Delete the paragraph:

"All bolts, nuts, washers and studs shall be galvanized after fabrication in accordance with AASHTO M232."

And replace with:

"All bolts, nuts, washers and studs shall be galvanized after fabrication in accordance with AASHTO M232. Alternate materials and finishes may be used for the bolts and screws in the maintenance access box column stairway systems if approved by WSDOT."

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 "South Side Design Settlement" in the amount of \$520,000. The lump sum amount shall be full compensation for all direct and indirect costs related to Work addressed under this change order.

TIME

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

RELEASE:

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

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Upon payment of this change order in the amount of \$520,000, any and all requests for compensation for direct and indirect costs or additional time set forth in the following Potential Change Order (PCO) issues and associated documents including, but not limited to, those documents listed herein, arising out of or pertaining to Contract No. 008066, have been satisfied in full and the State of Washington is discharged and released from any additional requests for extra compensation or time related to the listed PCO issues:

* PCO's 136, 148, 172, 172.1, 234 - OIC ADDITIONAL WALL 3-26 AND NOISE WALLS DESIGN:

KGM Serial Letter #0343 (PCO 234) dated April 3, 2013 KGM Serial Letter #0586 (PCO 172) dated August 4, 2014 KGM Serial Letter #0596 (PCO 172.1) dated August 29, 2014 WSDOT Letter 0174 dated October 24, 2012 WSDOT Letter 0204 dated December 4, 2012

WSDOT Letter 0224 dated December 26, 2012 WSDOT Letter 0254 dated February 7, 2013 WSDOT Letter 0353 dated April 15, 2013

WSDOT Letter 0655 dated July 23, 2014

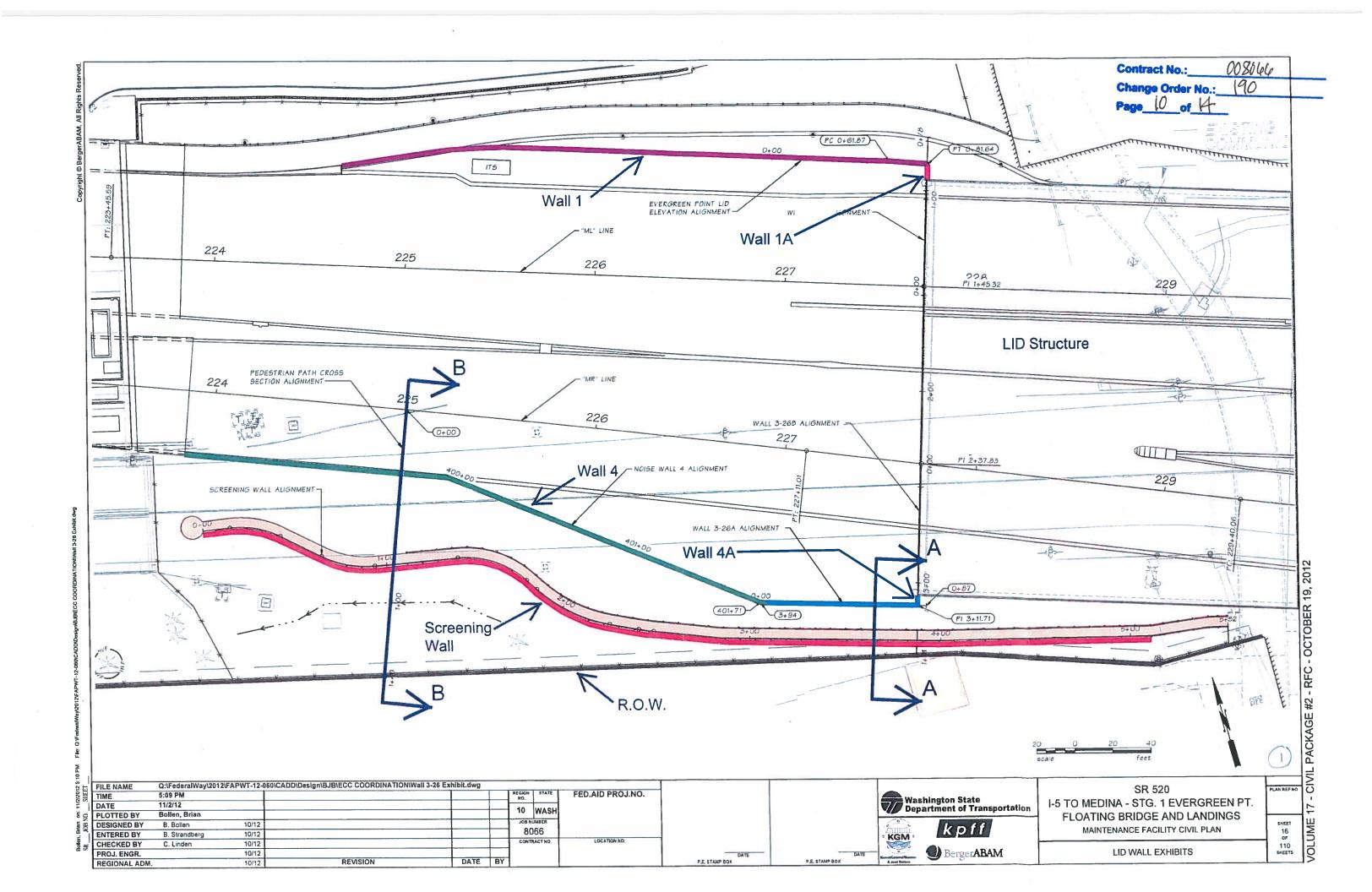
* PCO 324.1 - ECC FOUNDATIONS IN KGM HMA:

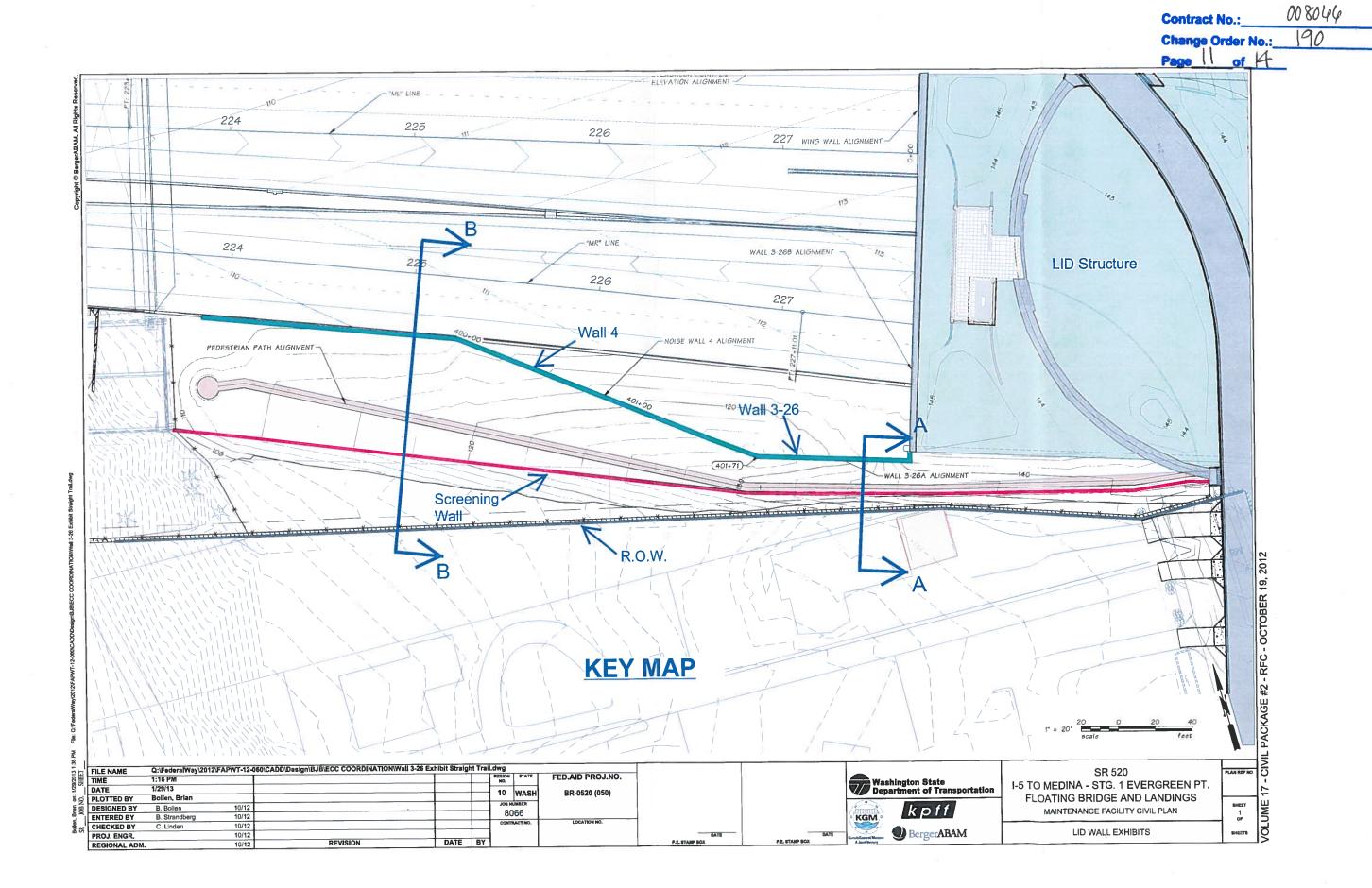
- KGM Serial Letter #0592 dated August 25, 2014
- * PCO 330 ADDITIONAL SENTINEL LIGHT MODELING: KCM Serial Letter #0517 dated March 19, 2014 KCM Serial Letter #0585 dated August 4, 2014
- * PCO 346 ADDITIONAL OVERLOOK PATH RENDERINGS: KGM Serial Letter #0534 dated April 22, 2014 KGM Serial Letter #0560 dated June 6, 2014 WSDOT Letter 0598 dated April 14, 2014 WSDOT Letter 0659 dated July 28, 2014
- * PCO 361 DBIC CONDUIT FILL PERCENT: KGM Serial Letter #0601 dated September 9, 2014
- * PCO 379 SENTINEL STAIRS: KGM Serial Letter #0603 dated September 11, 2014
- * PCO 381 P36 WCB SHEAR KEY MODIFICATION: Non-Conformance Report 0199

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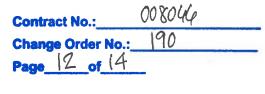
CON	TRACT	VO: 00	08066	CHANGE ORDER NO: 190			
ITEM NO	GROUP NO	STD	ITEM DESCRIPTION	UNIT MEASURE	UNIT PRICE	EST QTY CHANGE	EST AMT CHANGE
1094	01		SOUTH SIDE DESIGN SETTLEMENT	L.S.	0.00	0.00	-2,254.00
1094	02		SOUTH SIDE DESIGN SETTLEMENT	L.S.	0.00	0.00	4,000.00
1094	03		SOUTH SIDE DESIGN SETTLEMENT	L.S.	0.00	0.00	-2,254.00
1094	04		SOUTH SIDE DESIGN SETTLEMENT	L.S.	0.00	0.00	78,064.00
1094	06		SOUTH SIDE DESIGN SETTLEMENT	L.S.	0.00	0.00	417,444.00
1094	Nl		SOUTH SIDE DESIGN SETTLEMENT	L.S.	0.00	0.00	25,000.00

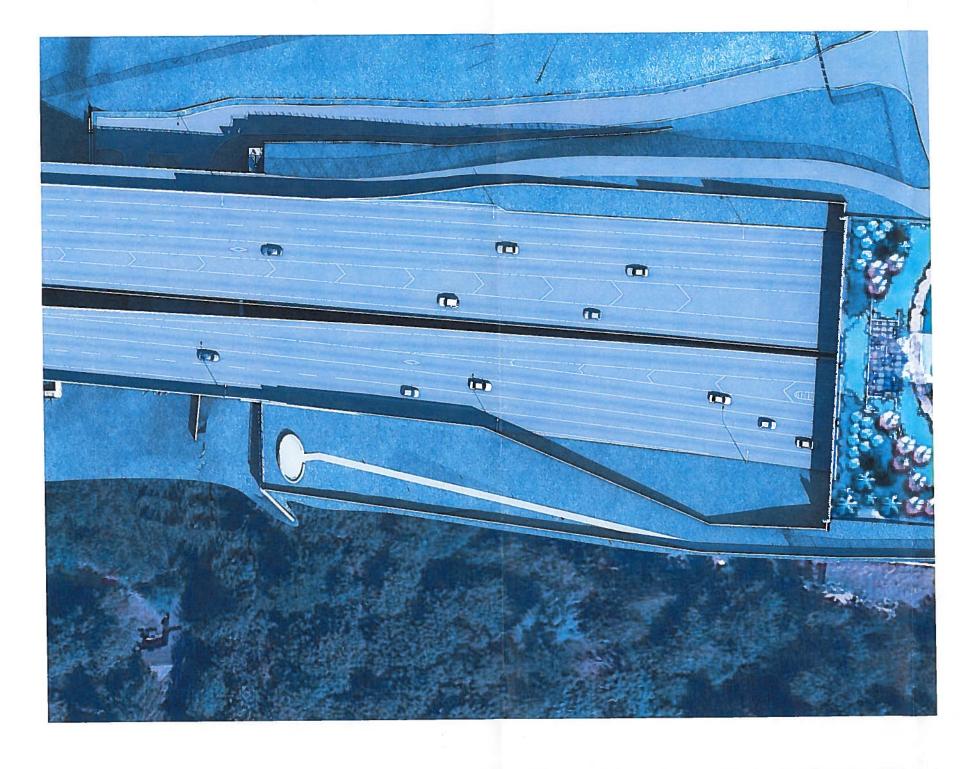
520,000.00





SR 520 BRIDGE PEDESTRIAN OVERLOOK



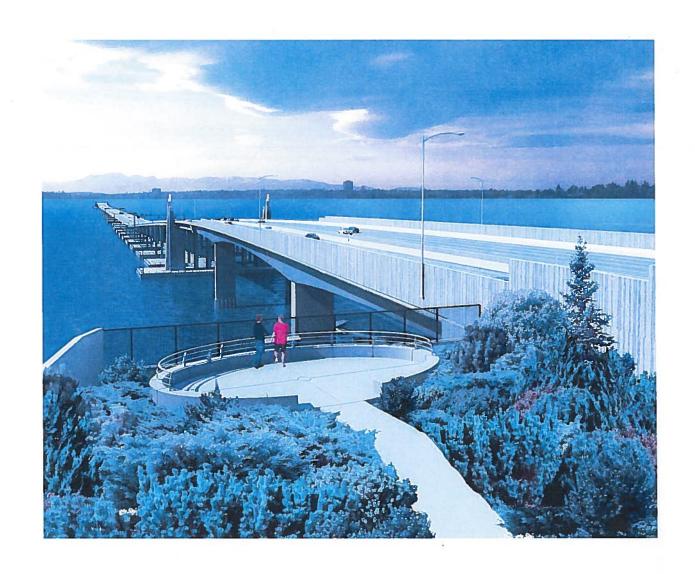


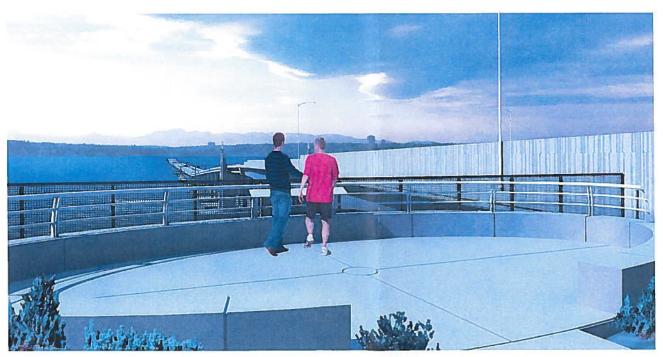


SR 520 BRIDGE PEDESTRIAN OVERLOOK

008064

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North Wall: Wall Stations and Corresponding Top of Wall (ToW) Elevations

South Wall: Wall Stations and Corresponding Top of Wall (ToW) Elevations

Station	Smooth Profile ToW EI., ft		Station	Conceptual Stepped Profile El. (ft), steep top slope only	Station	Smooth Profile ToW EI., ft		Station	Conceptual Stepped Profile El. (ft), steep top slope only
0+00	113.67		0+00		0+00	114		0+00	
0+44	114.52		0+44		0+41	114.69		0+41	
0+68	114.8		0+68		0+65	115.13		0+65	33,0
0+70	114.83		0+70		0+89	115.44		0+89	
0+92	115.14		0+92		1+13	115.77		1+13	
1+16	115.45		1+16		1+37	116.03		1+37	
1+40	115.75		1+40		1+61	116.29		1+61	
1+64	116.02		1+64		1+85	116.53		1+85	
1+88	116.26		1+88		2+09	116.74		2+09	
2+12	116.47		2+12		2+33	116.92		2+33	<u> </u>
2+36	116.65		2+36		2+57	117.09		2+57	
2+60	116.81	1	2+60		2+80	117.25		2+80	
2+84	116.98	+	2+84		3+04	117.42		3+04	
3+08	117.14	 	3+08		3+28	117.59		3+28	
3+32	117.31	+	3+32		3+52	117.75		3+52	
3+56	117.47	+	3+56		3+76	117.92		3+76	
	117.64	++	3+80		3+99	118.08		3+99	
3+80	117.84	+	4+04		4+24	118.25		4+24	
4+04		++	4+04		4+48	118.42		4+48	
4+28	117.97	+			4+72	118.58		4+72	
4+52	118.13		4+52		4+96	118.75		4+96	
4+76	118.3	-1.01-	4+76	Step from 118.46 to 120.63	5+20	118.91	-	5+20	
5+00	118.46	at Sta.	5+00		5+44	119.08	at Sta.	5+44	Step from 119.08 to 121.63
5+24_	120.63	at Sta.	5+24	Step from 120.63 to 122.96	5+68	121.63	at Sta.	5+68	Step from 121.63 to 123.40
5+48	122.79	1	5+48	Otan from 100 00 to 107 10	5+80	123.3	at Sta.	5+80	Step from 123.40 to 125.58
5+72	122.96	at Sta.	5+72	Step from 122.96 to 127.12	5+99	123.4	ai Oia.	5+99	Stop Helli 128. Is to 128.60
5+94	127.12	at Sta.	5+94	Step from 127.12 to 129.66		125.5	-	6+10	
6+20	129.66	at Sta.	6+20	Step from 129.66 to 131.11	6+10	125.58	at Sta.	6+16	Step from 125.58 to 127.74
6+44	131.11	at Sta.	6+44	Step from 131.11 to 132.99	6+16		at Sta.	6+40	Step from 127.74 to 129.91
6+68	132.99	at Sta.	6+68	Step from 132.99 to 134.91	6+40	127.74			Step from 129.91 to 130.22
6+92	134.91		6+92		6+64	129.91	at Sta.	6+64	Step Hottl 129.91 to 130.22
7+16	134.91	at Sta.	7+16	Step from 134.91 to 136.09	6+88	130.08	+	6+88	
7+40	136.09	at Sta.	7+40_	Step from 136.09 to 138.01	7+09	130.22		7+09	
7+64	138.01	at Sta.	7+64	Step from 138.01 to 139.93	7+32	130.38		7+32	
7+88	139.93	at Sta.	7+88	Step from 139.93 to 140.6	7+66	130.61	-	7+66	
8+20	140.47		8+20	<u> </u>	7+99	130.83		7+99	
8+36	140.6		8+36		8+33	131.06		8+33	
8+60	140.8		8+60		8+55	131.21		8+55	
8+80	140.96		8+80		8+82	131.39		8+82	
8+84	141.02	at Sta.	8+84	Step from 141.02 to 141.68	9+04	131.54		9+04	10: 10
9+10	141.39				9+37.35	131.56	at Sta.	9+37.35	Step from 131.56 to 135.03
9+20	141.68	at Sta.	9+20	Step from 141.68 to 142.74	9+49.35	135.03	at Sta		Step from 135.03 to 138.5
9+60	142.86				9+61.35	138.5	at Sta		Step from 138.5 to 141.97
9+56	142.74		9+56	Step from 142.74 to 145.22	9+73.35	141.97	at Sta		Step from 141.97 to 146.48
9+92	145.22		9+92		9+89	146.48		9+89	

Contract No.:	008044	
Change Order No.:	190	
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DESIGN-BUILD CHANGE ORDER CHECKLIST

Cont. #: 008066 Cont. Title: SR 520,	Approval from					
C.O. #: 190 C.O. Title: South S	State Construction Office Required					
🗵 Design-Builder initated. 🗵 Agency ir	Office Required					
I. Executed by the State Construction Office	1 1					
Cost or credit equal to or exceeding \$200,0	✓ Yes	□ No	Х			
Change in the contract documents beyond original contract.*2	the scope, intent or termini of the	☐ Yes	⊠ No	Х		
3. Change in the condition of award.		☐ Yes	⊠ No	Х		
4. Change in contract time greater than 30 wo	rking days.	☐ Yes	⊠ No	х		
II. Executed by the Region 5. Cost or credit greater than \$100,000 but less than \$200,000.*1			⊠ No			
Change in contract time greater than 10 an must be related to changes implemented b		☐ Yes	⊠ No			
III. Executed by the Project Engineer		☐ Yes	I I⊽I NI≃			
7. Determination of impacts and/or overhead.				×		
Design or construction work that does not only	comply with the Mandatory Standards.	☐ Yes	⊠ No	X		
9. A change to a Chapter 1 General Provision	A change to a Chapter 1 General Provision.					
10. A change to a technical requirement in any Deviations, Geotechnical Design, Pavemel Structures, Control of Materials, MWBE Go WSDOT Standard Specifications.	✓ Yes	□ No	х			
11. Determination of changed condition (Section	☐ Yes	⊠ No	х			
12. Settlement of a claim (Section 1-09.11(2) of	☐ Yes	⊠ No	x			
13. Repair of damage regarding "acts of God" or "acts of the public enemy or of government authorities (Section 1-07.13 of the Request For Proposal).			⊠ No	x		
14. A "no-cost" change based upon a determination of "equal or better".			⊠ No	х		
Approvals obtained:						
Project Engineer: (REQUIRED)	Dave Becher		Date:	11/12/2014		
Region: (REQUIRED)	Tom Horkan		Date:	12/05/2014		
State Construction Office: Derek Case Date:			12/17/2014			
To be completed by the Project Engineer :						
CO Reason(s) (See CCIS Source/Outcome) :						
Change Order Prepared By:			Date:	11/21/2014		
Has change been entered as lesson learned? ☐ Yes ☒ No ☐ N/A						
Has design documentation been updated? ☐ Yes ☒ No ☐ N/A						
Is change approved by program management? No INA No N/A To be completed by the Region :						
Is the change eligible for Federal participation? Yes No N/A						
Change Order Reviewed by: 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.

DESIGN-BUILD CHANGE ORDER CHECKLIST

SR 520 Corridor Program: Design-Build Change Order Page 2 - Checklis	t Supplement				
Cont. #: 008066 C.O. #: 190					
To be completed by the Business Manager:					
Does this change order require coordination with other SR 520 Projects / Program Areas?					
Coordination has taken place with:					
Contract Project (identify your project): FB&L					
Pontoon Yes No No NA Name:	Date:				
Pontoon Mitigation Yes No No Name:	Date:				
Pontoon Moorage Yes No No NA Name:	Date:				
Eastside HOV Yes No N/A Name:	Date:				
Evans Creek Yes No N/A Name:	Date:				
FB&L Yes No N/A Name:	Date:				
WCB Yes No N/A Name:	Date:				
WABN Yes No No NA Name:	Date:				
Identified risk has been entered into the SR 520 Risk Management Database:					
Risk ID Number (if pending, identify as Pending):					
Project Risk ID No.: CNS.20.03 Noise Var or Other Permits with Medina; CNS.80.03b					
Project Risk ID No.: ECC and KGM Coord Evergreen Pt Rd Vicinity; CNS.900.37 Mods to					
Project Risk ID No.: Eastside Noise Walls; PSP.20.05 Visual Fencing at East Approach					
	5				
To be coordinated with Program Finance, Budget and Controls Group:					
Program Funding Concurrence? Yes No Funding Concurrence Obtained on:	Date: 12/23/2014				
Is Sales Tax Included in CO Cost?					
Max Payment Curve Changes discussed with: Sherry Felke	Date: 12/23/2014				
Third Party Agreements discussed with:	Date:				
Coordination with Others:					
Design / Technical Lead: Name: N/A	Date:				
Maintenance: Name: N/A	Date:				
Environmental Commitments: Name: N/A	Date:				