



MAY 24 2016

Memorandum

May 17, 2016

TO: Derek Case  
MS 47354

THRU: <sup>DB</sup> Dave Becher  
NB 82-99

FROM: <sup>PLB</sup> Robyn Boyd / <sup>AM</sup> Julia Mizukata  
(425) 576-7066 / (425) 576-7059

SUBJECT: Contract 008066  
SR 520 Floating Bridge and Landings Project  
Federal Aid No. BR-0520(047)  
Change Order No. 208 – Eastside Transit and HOV Project Interface Issues

Attached for Headquarters Construction execution and further processing is Project Office recommended Change Order No. 208 – Eastside Transit and HOV Project Interface Issues.

**Description of the Change:**

This WSDOT-initiated change addresses issues related to the integration of the Project (FB&L Project) and the SR 520 Eastside Transit and HOV Design-Build Project (Eastside Project; WSDOT Contract 7963).

Technical Requirements (TR) Section 2.1.1.4 states that the FB&L Project includes the design and construction of the “roadway connections between the East Approach and the new roadway section that will be constructed as part of the SR 520 Eastside Transit and HOV Project in the Evergreen Point Road vicinity.” TR Sections 2.16.1.1.1, 2.18.1.1.1, and 2.18.4.1.1 specify that the illumination and roadway electrical systems and the intelligent transportation systems (ITS) shall be coordinated with the systems for the adjoining Eastside Project.

The following Contract appendices contain reference information related to the interface between the FB&L Project and the Eastside Project:

- Appendix M1 – Conceptual Plans (FB&L Project)
- Appendix M13 – SR 520 Eastside Transit and HOV Project Conceptual Plans
- Appendix M15 – SR 520 Eastside Transit and HOV Project Preliminary Design Evergreen Point Road Vicinity (based on information from the Eastside Project)
- Appendix M19 – Floating Bridge and Landings / Eastside Transit and HOV Interface Drawing (based on information from the Eastside Project)

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The Design-Builder referred to these appendices in order to develop designs that would appropriately integrate the FB&L Project with the previously constructed Eastside Project.

However, design reviews, site surveys, and field observations revealed that certain elements of work performed under the Eastside Project did not conform with the information shown in Appendices M13, M15, and M19 or other information coordinated between the Design-Builder and the Eastside Project Contractor, resulting in an unsuitable transition between the two projects.

This change order adds Contract Requirements to modify, resolve, and/or address the following interface issues between the FB&L Project and the Eastside Project:

- **MR Line and THXE Line:** The Design-Builder shall redesign and rebuild the alignments, grades, and profiles of the MR line and THXE line as necessary to provide a smooth transition between the FB&L Project and the Eastside Project. This may require modifying work constructed by the Eastside Project Contractor.
- **Drainage Structures:** The Design-Builder shall modify and/or relocate the existing drainage structures located on the north side of the MR line under the Evergreen Point Road lid (Station MR 229+50 to Station MR 232+25) to avoid conflicts with the FB&L Project design.
- **Pavement Drainage Systems:** The Design-Builder shall transmit its pavement drainage system design documents to the Eastside Project Contractor for their use in evaluating the Eastside Project pavement drainage system. The Design-Builder shall modify its roadway and drainage system design and construction as necessary to meet the pavement drainage requirements in Section 2.14 Stormwater Management.
- **Barrier Height:** The Design-Builder shall submit a design deviation to decrease the height requirements for the new barrier on the north side of the MR line at the east end of the Evergreen Point Road lid (Station MR 232+79 to Station MR 235+00) in order to allow for the as-built construction of the barrier.
- **Evergreen Point Road Lid Underdeck Lighting Vaults:** The Design-Builder shall develop and implement an engineered solution to resolve the location of the Evergreen Point Road lid underdeck lighting vaults, which conflicts with the new barrier in the left shoulder under the Evergreen Point Road lid (near Station MR 230+00).
- **Intelligent Transportation Systems (ITS) Detection Loop:** The Design-Builder shall revise the location of the detection loop at the 84th Avenue NE ramp to correspond with the location of the existing junction box that was installed approximately 95 feet east of its planned location.

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In order to provide sufficient time for the Design-Builder to address the identified interface issues, this change order also revises the Technical Requirements as follows:

- **Transit Stop Closure and Shuttle Services:** TR Section 2.22.4.1.4.5 is revised to increase the maximum duration of the Evergreen Point Road freeway in-line transit stop closure from 14 Calendar days to 28 Calendar days. This section is also revised to specify that the Design-Builder shall provide shuttle services to transport transit passengers between the Evergreen Point Road Park and Ride Lot and an alternate transit stop; these services were requested by King County Metro and Sound Transit in order to accommodate bus riders during the extended closure period.

**Evolution of the Change:**

- **MR Line and THXE Line, Drainage Structures, Pavement Drainage Systems, Barrier Height, Evergreen Point Road Lid Underdeck Lighting Vaults, and Shuttle Transportation for Transit Passengers (PCO 422C):** This issue originated in RFI 1258 which stated that the Design-Builder (KGM) had surveyed the existing catch basins that were constructed by the Eastside Project Contractor and are located within the FB&L Project construction limits, and found that one catch basin conflicted with the location of new barrier to be provided by KGM. This discrepancy led to the discovery of several items of work constructed under the Eastside Project that conflicted with the designs developed for the FB&L Project. WSDOT determined that it would be more efficient to have these interface issues resolved under the FB&L Project Contract rather than under the Eastside Project Contract, and issued WSDOT Letter 0810 dated February 25, 2016, WSDOT Letter 0813 dated March 8, 2016, and WSDOT Letter 0816 dated 21, 2016 identifying specific FB&L/Eastside Project interface issues that required resolution and extending the duration of the Evergreen Point Road freeway in-line transit stop closure. King Country Metro and Sound Transit agreed to the extended transit stop closure provided accommodations were made to transport bus riders from the Evergreen Point Road Park and Ride Lot to another stop on the same routes. KGM responded in KGM Letter 0685 dated April 6, 2016 which included a proposal to address the interface issues, but identifying certain risks that were excluded from its proposal. WSDOT responded in WSDOT Letter 0820 dated April 7, 2016, which accepted KGM's cost proposal but modified the excluded risks.
- **Intelligent Transportation Systems (ITS) Detection Loop (PCO 430):** This issue originated in RFI 1233 in which KGM noted that the new 84th Avenue NE ramp detection loop was designed to tie into an existing junction box installed by the Eastside Project Contractor, but that the junction box was not installed at the location shown in drawings provided by the Eastside Project. The RFI stated that the issue was discussed with WSDOT Electrical Inspector Randy Palmer who indicated that the planned location of the detection loop is not appropriate for the as-built location of the junction box because it would require inappropriately long wire run lengths. WSDOT responded to RFI 1233 stating that it is acceptable to relocate the loop to be within the maximum allowable distance from the as-built location of the junction box.

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Subsequently, KGM submitted KGM Letter 0679 dated February 9, 2016 stating that KGM had fulfilled its Contractual obligation to coordinate the location of the 84th Avenue NE ramp detection loop with the Eastside Project, but the related junction box had been moved by the Eastside Project without notification to the FB&L Project. KGM Letter 0679 included a Request for Equitable Adjustment to the Contract Price based on KGM's cost to relocate the loop and update the associated drawings for the revised loop location.

**Approvals Provided for Change Order:**

- Project Engineer Level – Robyn Boyd, April 7, 2016
- Region/Program Level – Dave Becher, April 7, 2016
- Program Funding Concurrence – Janet Buoy, May 17, 2016
- Headquarters Construction Level – Derek Case, April 7, 2016
- FHWA Level – Anthony Sarhan, May 6, 2016

**Entitlement:**

This WSDOT-initiated change increases the Design-Builder's costs for the performance of the Work; therefore, the Design-Builder is entitled to an equitable adjustment to the Contract Price in accordance with General Provisions Sections 1-04.4(1) and 1-09.4.

**Price:**

As mutually agreed for the performance of the Work described in this change order, WSDOT will reimburse the Design-Builder the lump sum amount of \$1,980,000 under the new item "EASTSIDE PROJECT NON-CONFORM". An Engineer's Estimate was developed by WSDOT for the purpose of reviewing and negotiating the cost of this change order.

**Contract Time:**

This change order does not impact Contract Time.

**Attachments:**

- Change Order No. 208 (Approved)
- Change Order No. 208 Checklist
- Engineer's Estimate
- Approval Documentation
- KGM Letters 0679 and 0685 (including Attachments 1 and 2)
- WSDOT Letters 0810, 0813, 0816, and 820

RLB:cma

cc: Julie Schurman, NB 82-230  
PW 17.02.00.CO-208 / folder


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DEPARTMENT OF TRANSPORTATION  
CHANGE ORDER**

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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: 208 EASTSIDE PROJECT INTERFACE


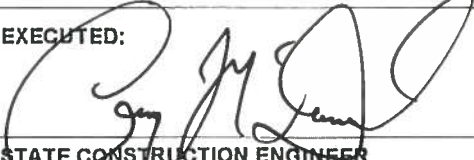

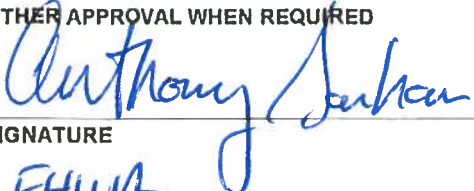
PRIME CONTRACTOR: SW0106139 KIEWIT/GENERAL/MANSON, A JOINT  
 33455 6TH AVE S  
 FEDERAL WAY WA 98003-6335

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

ENDORSED BY:  _____ CONTRACTOR <b>JEFF ELLIS V.P.</b>  _____ DATE <b>MAY 11, 2016</b>	SURETY CONSENT: _____ ATTORNEY IN FACT _____ DATE
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ORIGINAL CONTRACT AMOUNT: 586,561,000.00  
 CURRENT CONTRACT AMOUNT: 761,018,141.77  
 ESTIMATED NET CHANGE THIS ORDER: 1,980,000.00  
 ESTIMATED CONTRACT TOTAL AFTER CHANGE: 762,998,141.77

Approval Required:  Region  Olympia Service Center  Local Agency

<input checked="" type="checkbox"/> APPROVAL RECOMMENDED <span style="float: right;"><input type="checkbox"/> EXECUTED</span>  PROJECT ENGINEER _____ DATE <b>5/17/2016</b>	EXECUTED:  STATE CONSTRUCTION ENGINEER _____ DATE <b>May 25<sup>th</sup> 2016</b>
<input checked="" type="checkbox"/> APPROVAL RECOMMENDED <span style="float: right;"><input type="checkbox"/> EXECUTED</span> REGIONAL ADMIN. <b>SR 520 Director of construction</b>  BY: _____ DATE <b>5/18/2016</b>	OTHER APPROVAL WHEN REQUIRED  SIGNATURE _____ DATE <b>5/20/16</b> REPRESENTING <b>FHWA</b>

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

This contract is revised as follows:

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 is a WSDOT-initiated change in accordance with General Provisions Section 1-04.4(1) to address the as-built condition of certain items of work constructed under the SR 520 Eastside Transit and HOV Project (WSDOT Contract 7963), and to modify the requirements related to the temporary closure of the Evergreen Point Road freeway in-line transit stop.

**CONTRACT REQUIREMENTS:**

Technical Requirements Section 2.22.4.1.4.5 Allowable Freeway In-Line Transit Stop Closures shall be revised as follows:

Delete the sentences:

"In addition, the Design-Builder may close the transit operations at the Evergreen Point Road freeway in-line transit stop for a maximum duration of 14 Calendar days to facilitate the traffic shift from the old floating bridge to the new floating bridge. The Design-Builder shall maintain transit egress and ingress and full functionality of the Evergreen Point Road transit facility at all other times. The Design-Builder shall be responsible for obtaining approval from WSDOT, King County Metro and Sound Transit for all in-line transit stop closures."

And replace with the sentences:

"In addition, the Design-Builder may close the transit operations at the Evergreen Point Road freeway in-line transit stop for a maximum duration of 28 Calendar days to facilitate the traffic shift from the old floating bridge to the new floating bridge, during which the Design-Builder shall provide and coordinate shuttle transportation to transport transit passengers between the Evergreen Point Road lid park and ride lot and the 92nd Avenue NE freeway in-line transit stop. The Design-Builder shall maintain transit egress and ingress and full functionality of the Evergreen Point Road transit facility at all other times. The Design-Builder shall be responsible for obtaining approval from WSDOT, King County Metro, and Sound Transit for all in-line transit stop closures and shuttle transportation services."

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Add the Contract Requirements:

The Design-Builder shall perform the following work related to construction performed under the SR 520 Eastside Transit and HOV Project (WSDOT Contract 7963):

\* MR LINE AND THXE LINE:

The Design-Builder shall redesign the alignments, grades, and profiles of the MR line and THXE line, as referenced in Appendix M1 Conceptual Plans, as necessary to provide a smooth transition between the Project and the SR 520 Eastside Transit and HOV Project. The Design-Builder shall perform all construction associated with the redesign, which may require modifying work constructed under the SR 520 Eastside Transit and HOV Project such as demolition of existing Portland Cement Concrete Pavements (PCCP) and Hot Mix Asphalt (HMA), regrading of PCCP and HMA subgrades, PCCP and HMA surfacing, HMA planing, adjustments to existing barrier, adjustments to existing drainage systems and other utilities, and Maintenance of Traffic (MOT). The superelevation of the roadway shall be consistent across all lanes, with no break points located within a driving lane. The preferred break point location between the MR and THXE lines is in the gore area.

\* DRAINAGE STRUCTURES:

The Design-Builder shall modify and/or relocate the existing drainage structures located on the north side of the MR line between Station MR 229+50 and Station MR 232+25 as approved by WSDOT.

\* PAVEMENT DRAINAGE SYSTEMS:

The Design-Builder shall transmit to the Contractor for the SR 520 Eastside Transit and HOV Project all design documents required to facilitate the coordination and evaluation of the pavement drainage systems for the Project and the SR 520 Eastside Transit and HOV Project. The Design-Builder shall modify the roadway and drainage system design and construction for this location as necessary to meet the pavement drainage system requirements specified in Section 2.14 Stormwater Management. The Design-Builder is not required to revise the Hydraulic Report(s) to address the modifications at this location.

\* BARRIER HEIGHT:

The Design-Builder shall develop for WSDOT's use a design deviation to modify the height requirements for the new barrier on the north side of the MR line from Station MR 232+79 to Station MR 235+00 in order to resolve issues related to the interface with existing barrier. The barrier height design deviation shall be in accordance with Section 2.2.3.3.6 Design Deviations, except that a Professional Engineer's stamp from the Design-Builder is not required for this deviation.

\* EVERGREEN POINT ROAD LID UNDERDECK LIGHTING VAULTS:

The Design-Builder shall develop and implement an engineered solution to resolve the as-built location of the Evergreen Point Road Lid underdeck lighting vaults in the vicinity of Station MR 230+00 at

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the left roadway shoulder, which are located in line with the new barrier. The engineered solution shall either protect the vaults in their as-built location, or relocate the vaults out of the barrier alignment.

\* INTELLIGENT TRANSPORTATION SYSTEMS (ITS) DETECTION LOOP:

The Design-Builder shall revise the location of the detection loop at the 84th Avenue NE ramp to correspond with the existing junction box that was installed approximately 95 feet east of its planned location.

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 "EASTSIDE PROJECT INTERFACE" in the amount of \$1,980,000.

The lump sum amount shall be full compensation for all direct and indirect costs related to Work addressed in this change order, except that the lump sum amount does not address potential costs or impacts related to the following:

- \* Items of work constructed under the SR 520 Eastside Transit and HOV Project that are not in accordance with the Contract documents or are otherwise deficient, which are not addressed in this change order.
- \* Delay to Substantial Completion resulting from work specified in this change order.
- \* Differing site conditions related to the work specified in this change order.

CONTRACT TIME:

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



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

1106	06		EASTSIDE PROJECT INTERFACE	L.S.	0.00	0.00	1,975,000.00
1106	07		EASTSIDE PROJECT INTERFACE	L.S.	0.00	0.00	5,000.00

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1,980,000.00  
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