

**TREND NOTICE**

**ALASKAN WAY VIADUCT & SEAWALL REPLACEMENT PROGRAM**



Washington State  
Department of Transportation

Trend Title: <b>Stage 2 Contract Alignment w/ Bored Tunnel Implementation Plan</b>		Date: 3/23/09	
Trend Log Number/Rev. <b>Trend SS0019R2</b>		Segment Name: Holgate to King, Stage 2	
Prepared By:  Ali Amiri, PE _____ Name / Date  Preparer's Supervisor  _____ Name / Date		Approval Level / Authority:  <input type="checkbox"/> Project Director / Deputy Project Director	
Nature of Change:	<input checked="" type="checkbox"/> Scope	<input checked="" type="checkbox"/> Schedule	<input checked="" type="checkbox"/> Budget
Does Trend Impact Legislative Funding Allocation? <input type="checkbox"/> No <input type="checkbox"/> Yes		Does Trend Affect Biennium Aging? <input type="checkbox"/> No <input type="checkbox"/> Yes	

**Level of Approval Requested:**

- Full Approval
- Approval for Scope Only; Additional Study / Justification to follow

**Description of the Trend (Use Continuation Sheets as Needed):**

This trend update seeks approval of an updated 3B alternative for the interim transition structure by adding an Alaskan Way North bound movement.

**Justification for the Trend (Use Continuation Sheets as Needed):**

***Why are we requesting approval of this Trend, and what are the benefits?***

On March 18, 2009, Trend SS0019R1 was presented to the Change Control Board. The trend's approval status is "Defer Approval Pending Receipt of Additional Information" of an Alaskan Way North bound movement. Alternative 3B (Attachment #1, page 5) was chosen over other proposed interim transition alternatives due to improvements in geometry over 3A and lesser schedule and surface street impacts related to the Alternative 4 families. However, there was the desire to see a North bound Alaskan Way movement accommodated.

***If the Trend is approved, what are the drawbacks? Identify and discuss any negative impacts.***

**Alternatives:**

Inclusion of a North bound Alaskan Way can not be continuously provided for during all stages of the project. During short windows, closures will likely be needed to facilitate construction of the transition structure and a closure would be needed during removal of the portion of the existing viaduct.

It is assumed that NB Alaskan will run under the existing viaduct until traffic is moved onto the interim transition structure and the portion of the existing viaduct can be removed.

Inclusion of the NB Alaskan way movement will further reduce space in the WOSCA property for the tunnel contractor.

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**Impacts of this Trend:**

***Schedule Impacts to QPR Milestones:***

<u>Milestone Description</u>	<u>Date Before Trend</u>	<u>Date After Trend</u>	<u># Calendar Days Impact</u>
Project Definition Complete	29-Jun-07	TBD	
Begin Preconstruction Engr.	23-Jul-07		
Environmental Doc. Compl.	25-Feb-09		
RW Certification	18-May-09		
Advertisement Date	14-Sep-09		
Operationally Complete	31-Dec-12		

***Schedule Impacts to Other Milestones:***

<u>Milestone Description</u>	<u>Date Before Trend</u>	<u>Date After Trend</u>	<u># Calendar Days Impact</u>
Bid Opening	9-Sep-09	TBD	
Award	17-Sep-09		
Execution	26-Jan-10		
Construction Start	8-Feb-10		
Final Contract Completion	30-Sep-13		

***Cost Impacts (x \$1,000)***

<u>Project Phase</u>	<u>Baseline Target Estimate</u>	<u>Trend Estimate</u>	<u>Variance from Trend</u>
PE	40,782	TBD	
RW	49,979		
CN	293,958		
Total	384,719		
Total Estimated Impact			

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**Business Management/Project Controls Review:**

***Aging Summary Table (x \$1,000)***


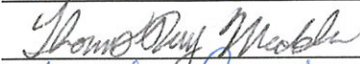
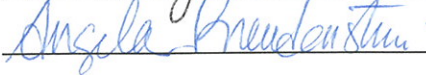
Phase	Cost	07-09	09-11	11-13	13-15	15-17	Future	Total
Prelim Eng	Current Trended Budget	TBD						
	This Trend Estimate							
	Revised Budget							
Right of Way	Current Trended Budget							
	This Trend Estimate							
	Revised Budget							
Construction	Current Trended Budget							
	This Trend Estimate							
	Revised Budget							
Total	Current Trended Budget							
	This Trend Estimate							
	Revised Budget							

**Mitigation(s) for the Trend:**

**List and Description of Attachments:**

- o Attachment #1: Alternative 3B Graphic
- o Attachment #2: Major Considerations between Alternatives (3/25/09)

**Acknowledgement Status (Name / Date):**

<input checked="" type="checkbox"/>	AWV&SRP Design Manager		3/25/09
<input checked="" type="checkbox"/>	AWV&SRP Construction Manager		3-31-09
<input checked="" type="checkbox"/>	AWV&SRP Environmental Manager		3-25-09

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**Approval Status:**

- Fully Approved
- Elevate to UCO Regional Administrator/SDOT Director
- Approved for Scope Only; Additional Study / Justification Required (See "Instructions" Below)
- Defer Approval Pending Receipt of Additional Information (See "Instructions" Below)
- Rejected

**Instructions:**

UPDATE COST EST. WITHIN 1 WEEK  
POST 90% SUBMITTAL

**Approval Authority (Name / Date):**

- Project Director / Deputy Project Director [Signature] / 3/25/09
- UCO Regional Administrator \_\_\_\_\_ / \_\_\_\_\_

**Instructions:**

- Does Fully Approved Trend require a PCRf?  Yes  No
- Does Fully Approved Trend require a 603 Form?  Yes  No

**If Approved; Updating of Project Cost / Schedule Basis/Baselines:**

- Cost Basis / System Updated
- Schedule Basis/ System Updated

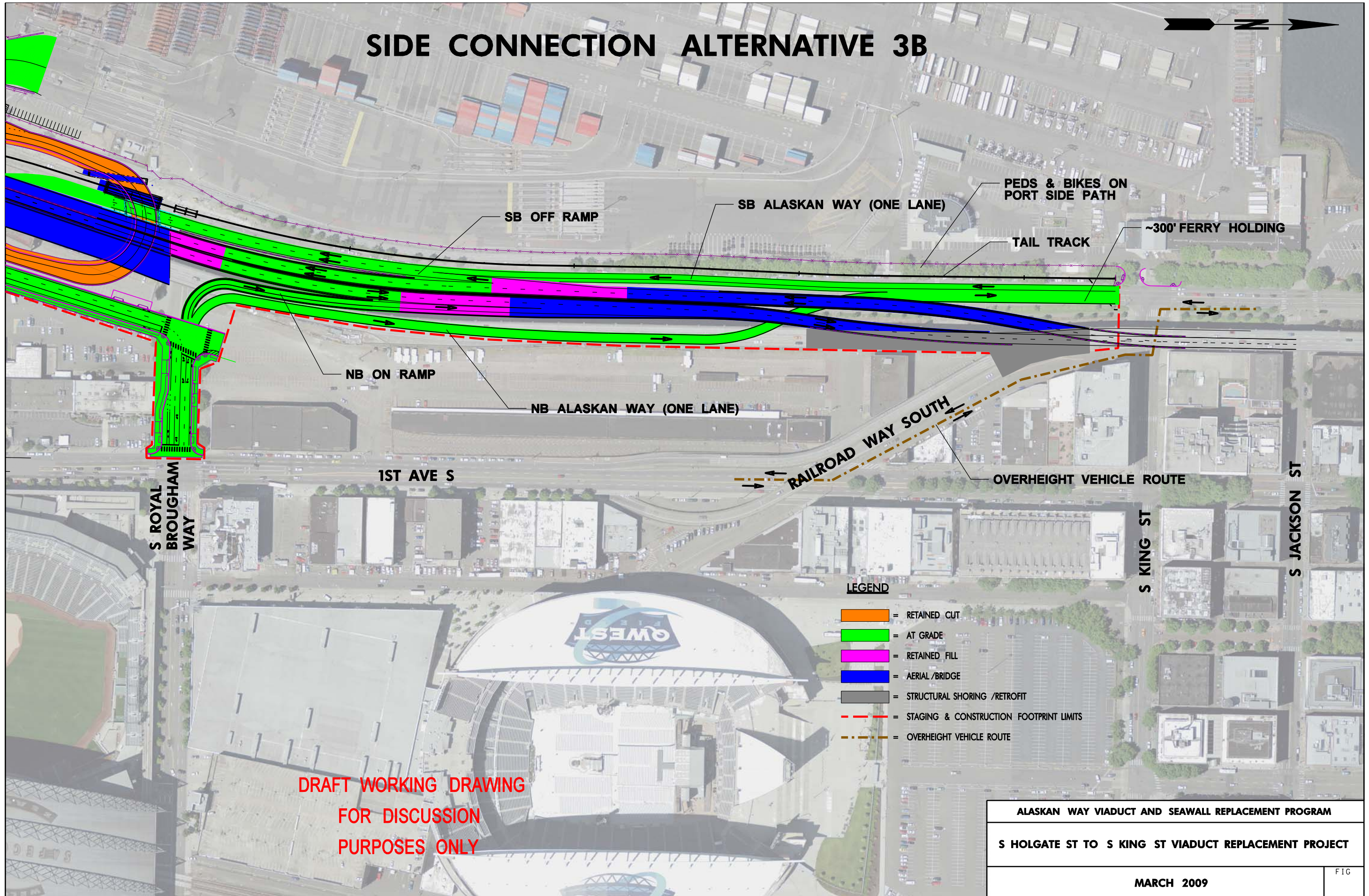
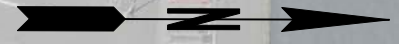
Project Controls Manager Name / Signature / Date

**If Approved; Updating of Project Cost / Schedule with PCRf Submittal:**

- PCRf Submitted

Business Manager Name / Signature / Date

# SIDE CONNECTION ALTERNATIVE 3B



**DRAFT WORKING DRAWING  
FOR DISCUSSION  
PURPOSES ONLY**

### LEGEND

- = RETAINED CUT
- = AT GRADE
- = RETAINED FILL
- = AERIAL / BRIDGE
- = STRUCTURAL SHORING / RETROFIT
- = STAGING & CONSTRUCTION FOOTPRINT LIMITS
- = OVERHEIGHT VEHICLE ROUTE

<b>ALASKAN WAY VIADUCT AND SEAWALL REPLACEMENT PROGRAM</b>
<b>S HOLGATE ST TO S KING ST VIADUCT REPLACEMENT PROJECT</b>

MARCH 2009

FIG

**Trend SS0019R2 Attachment #2**  
**Alaskan Way Viaduct Replacement S – Holgate St to S. King St – MOT Alternatives**

Alternative	Description	Cost	Traffic Operations			Impact to Bored Tunnel	Other Considerations
			SR 99	SR 99 Detour	Other Parallel Routes		
<b>3A</b>	25 MPH - side connection	Base	Weekend closures 25 MPH curves 60% to 65% of capacity maintained	No detour required	Moderate impact to 1 <sup>st</sup> Ave Up to 15% increase on parallel N-S streets Up to 3 to 4% increase in traffic on I-5 (9,000 – 12,000 trips per day)	No Impact to schedule WOSCA available Jan 2011 RR Ramps removed Oct 2011	Existing Viaduct needs shoring and retrofitting over 4 frames  N-S movements of Alaskan Way will be maintained during the majority of the project duration to provide connectivity to the central waterfront
<b>Recommended Alternative 3B</b>	40 MPH - side connection	+\$5 Million	Weekend closures 40 MPH curves 65% to 70% of capacity maintained	No detour required	Moderate impact to 1 <sup>st</sup> Ave Up to 10% increase on parallel N-S streets Up to 2 to 4% increase in traffic on I-5 (6,000 – 12,000 trips per day)	No Impact to schedule WOSCA available Jan 2011 RR Ramps removed Oct 2011	Existing Viaduct needs shoring and retrofitting over 4 frames. Also, structural modifications to achieve 40 MPH design speed involve additional risk.  N-S movements of Alaskan Way will be maintained during the majority of the project duration to provide connectivity to the central waterfront
<b>4B</b>	Inline connection with modified WOSCA detour – using 1 <sup>st</sup> Ave	+\$1 Million	Closed 1 month 40 MPH curves 65% to 70% of capacity maintained	25 MPH detour 50-60% of capacity maintained (13 months SB, 8 months NB)	Alaskan Way and 1 <sup>st</sup> Avenue closed – detoured to other streets Severe congestion on 4th Avenue Up to 40% increase on parallel N-S streets Up to 3 to 5% increase on I-5 during detour (9,000 – 15,000 trips per day)	10 Month Delay WOSCA available July 2012 RR Ramps removed July 2012	A two-way N-S connection between 1 <sup>st</sup> Ave and Alaskan Way via Railroad Way will be maintained to provide N-S connectivity to the central waterfront except when 1 <sup>st</sup> Ave is closed between Royal Brougham and Railroad Way
<b>4C</b>	Inline connection with modified WOSCA detour – using 1 <sup>st</sup> Ave with traffic signal	+\$2 Million	Closed 1 month 40 MPH curves 65% to 70% of capacity maintained	25 MPH detour 30-40% of capacity maintained for NB 50-60% of capacity maintained for SB (13 months SB, 8 months NB)	Alaskan Way detoured to 1 <sup>st</sup> Ave Severe congestion on 1 <sup>st</sup> Avenue Up to 20% increase on parallel N-S streets Up to 4 to 6% increase on I-5 during detour (12,000 – 18,000 trips per day)	10 Month Delay WOSCA available July 2012 RR Ramps removed July 2012	A two-way N-S connection between 1 <sup>st</sup> Ave and Alaskan Way via Railroad Way will be maintained to provide N-S connectivity to the central waterfront