

March 26, 2007

**TO:** Hal Dengerink and Henry Hewitt, Co-Chairs  
**FROM:** Fourth Alternative Subcommittee (Prepared by CRC Staff)  
**SUBJECT:** Fourth CRC DEIS Alternative Recommendation  
**COPY:** Doug Ficco, WSDOT and John Osborn, ODOT – Co-Directors  
**ATTACHMENTS:** Fourth Alternative Progression Diagram  
Fourth Alternative Subcommittee Recommendation

**BACKGROUND**

At the February 27, 2007 Task Force meeting, a subcommittee was formed to develop a potential fourth alternative for analysis in the CRC project's DEIS. The subcommittee included the following members:

Metro Councilor Rex Burkholder, Co-Chair  
Clark County Commissioner Steve Stuart, Co-Chair  
Hal Dengerink, CRC Task Force Co-Chair, ex-officio subcommittee member  
Henry Hewitt, CRC Task Force Co-Chair, ex-officio subcommittee member  
Dean Lookingbill, SW Washington Regional Transportation Council  
Fred Hansen, TriMet  
Jeff Hamm, C-TRAN  
Walter Valenta, Bridgeton Neighborhood  
Scot Walstra, Greater Vancouver Chamber of Commerce  
Tom Zelenka, Schnitzer Group

Meetings were held weekly at the former Hayden Island Yacht Club, 12050 N. Jantzen Drive, Portland, Oregon. Meeting dates and times were:

March 12, 2007, 2:30 p.m. to 4:30 p.m.  
March 19, 2007, 8:00 a.m. to 9:00 a.m.  
March 26, 2007, 8:00 a.m. to 10:00 a.m.

The following ground rules were adopted at the initial March 12<sup>th</sup> meeting:

***Ground Rules for Developing the Fourth Alternative:***

1. We will produce an alternative in three weeks.
2. The alternative will aspire to meet the CRC project's Purpose and Need Statement.
3. Our job is to assemble the best possible solutions that do the following:
  - a. Maximize the utility of the existing bridges
  - b. Provides High Capacity Transit (HCT) between Clark and Multnomah counties
  - c. Provides high quality bicycle and pedestrian access
  - d. Minimizes impacts on downtown Vancouver and Hayden Island
  - e. Ensure better freight mobility
  - f. Address issues of barge and ship traffic on the Columbia River
4. The Task Force members named by the chairs will be the members of the subcommittee unless the co-chairs (Commissioner Stuart and Councilor Burkholder) and the CRC Task Force co-chairs decide more expertise is needed.

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5. While subcommittee meetings will be noticed and will be open to the public, only officially designated members will participate. Given that the recommendation on including any proposed alternative will be made by the CRC Task Force, the subcommittee will not take any public testimony.
6. Our goal is to make decisions by consensus.

#### ***Evaluation Criteria for the Fourth Alternative***

The subcommittee recommended the performance of the fourth alternative should aspire to achieve the following criteria in accordance with the CRC project's Purpose and Need:

- encouraging mode shift
- moving people and freight
- optimizing interchanges
- using existing bridges most effectively
- minimizing impacts to land use, minimizing footprints
- providing a lower cost alternative

#### **PROCESS**

For the initial meeting, CRC presented two "book-end" options for review by the committee. Option A was essentially a "No-Build" for I-5 with TDM/TSM and transit service. Option B added six lanes of new capacity for I-5, three in each direction, and used the existing bridges for auxiliary lanes in addition to transit service. Both alternatives addressed appropriate interchange modifications, safety improvements, TDM/TSM, freight enhancements, bicycle/pedestrian upgrades, seismic retrofits, and relocation of the railroad moveable span.

For the March 19, 2007 meeting, CRC staff was asked to provide conceptual layouts for three modifications to Options A and B along with an evaluation of their performance sufficient to begin shaping the proposed fourth alternative. The following three recommendations were optimized and evaluated by CRC staff:

- Option A+: Essentially a No-Build option for I-5 with aggressive TDM and Transit components to meet the demand to move people across the river, including a new HCT bridge across the river. I-5 improvements were targeted at improving safety and system flow.
- Option A++: The same as Option A+ with the addition of two I-5 auxiliary lanes, one in each direction, on a new bridge combined with HCT.
- Option B-: Uses the existing I-5 Bridges as auxiliary lanes and provides for two new I-5 lanes in each direction on a new bridge to carry through traffic and HCT. Appropriately sized TDM strategies and increased transit service is added to balance the demand.

Upon presentation of the performance results of the three options, CRC staff was asked to evaluate an additional option that fell somewhere between Option A++ and Option B-. CRC staff added another option for review at the March 26<sup>th</sup> meeting. These two options are described below:

- Option A++ Modified: This option uses the existing Interstate Bridges for I-5 traffic and adds two lanes, one in each direction, on a new bridge with HCT. Pricing or tolling may be used on the new or existing lanes to reduce vehicle demand. Transit service is increased sufficiently to encourage options to driving alone. A new moveable span is provided on the railroad crossing that best serves navigation needs.
- Option B- Modified: CRC staff recommended an option that uses the existing bridges for NB traffic and a new bridge for SB traffic. The total number of lanes can be limited to eight, two lanes each on the existing bridges and four lanes on the new bridge. This option has the same number of I-5 lanes as Option A++ Modified described above, but more effectively and efficiently uses existing infrastructure and alignments. SB lanes can transition directly to the new alignment without the need for additional shoulders and the fly-over. TDM and Transit is

similar to Option A++ Modified. HCT can share the SB highway bridge. This option also improves opportunities to toll all vehicles crossing the Columbia River.

At the March 26, 2007 subcommittee meeting, Option B- Modified was recommended as the fourth alternative for presentation to the Task Force at their March 27, 2007 meeting.

Following is a detailed description of the Fourth Alternative subcommittee recommendation:

#### **FOURTH ALTERNATIVE SUBCOMMITTEE RECOMMENDATION**

A total of eight I-5 lanes will be provided, four in each direction. The existing Interstate Bridges will carry northbound traffic and will be modified to carry two lanes on each bridge. The existing southbound bridge will be converted to northbound for two general purpose through lanes. The existing northbound bridge will carry two lanes, one for general purpose and the other as an auxiliary lane. Four I-5 southbound lanes will be provided on a new bridge with HCT, three general purpose lanes and one auxiliary lane. HCT lanes can either be for light rail or express bus. Transit service will be sized to meet increase demand for riders. Tolling will be used for project funding and will also reduce travel demand. Other TDM as well as TSM and freight enhancements will be included. Bicycles and pedestrians will be on a wider, retrofitted path on the existing bridges. Interchange modifications will be included in relationship to the mainline I-5 improvements to assure the best operational characteristics. A seismic upgrade of the existing bridges may be required. A new railroad moveable span may be required to benefit navigation.

Component improvements recommended include:

##### ***Highway***

- The existing I-5 bridges are re-striped to provide two lanes on each bridge and allows for an outside safety shoulder for disabled vehicles. The two lanes on the NB bridge will connect with the interchanges as well as allow for through traffic. The two lanes on the SB bridge will become through NB lanes.
- Four new SB I-5 lanes are provided on a new bridge along with HCT. The new lanes will allow for three through lanes and one auxiliary lane connecting SR 14 with Hayden Island.
- Interchanges are modified to improve intersection performance in accordance with operational analysis that balances the mainline improvements. Spot safety improvements are included.
- Traffic system management tools are incorporated to improve I-5 operations.

##### ***Transit***

- A new river crossing bridge for HCT is included with the new highway bridge.
- HCT capacity is increased to serve approximately 25,000 persons per day.
- Express bus service and local and feeder bus service are increased to serve the added transit capacity. Increase in transit service is based on data generated from model runs and confirmed by the transit providers.
- Park-and-ride lot capacity is increased from the existing 1,872 spaces in the I-5 corridor to approximately 7,500. Recommendations for reduction in park-and-ride spaces can be achieved based on modeling results and transit service recommendations.

##### ***TDM/TSM***

- Tolling is included for both the new I-5 bridge and existing bridges with variable pricing to reflect peak hour demand. Pricing is focused on generating revenue to help fund the new improvements as well as reducing demand.
- Transit operating subsidies are provided to encourage increased transit service and use.

##### ***Freight Mobility***

- Trucks have the opportunity to use the new I-5 capacity.

- Spot modifications at key intersections improve truck flow in the interchanges.
- Rebuilding the SB lanes allows ramp by-pass lanes for transit and trucks.

***Bicycle/Pedestrian***

- Bicycle and pedestrian traffic will use the existing Interstate Bridges. Existing facilities will be widened either on the east side only to provide for a 15 foot-wide path or 10 feet on each side of the two bridges for two paths.
- Bicycle and pedestrian connections are improved throughout the corridor.

***Seismic***

- Seismic retrofit to “no-collapse” standards would most likely be required for this option.

***Railroad Swing Span***

- A new railroad marine navigation moveable span is constructed to align with primary navigation needs.

It is important to note that the description of components for the fourth alternative is much more detailed than CRC staff recommendations for the replacement bridge. All alternatives carried into the DEIS will undergo operational analysis to assure best performing elements are included and transit and interchange improvements will be carried forward that are cost-beneficial and sized to meet 2035 demand as required by FHWA and FTA.

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