

P-0790-001

Thank you for taking the time to submit your comments on the I-5 CRC DEIS.

From: [Steve Citron](#)
To: [Columbia River Crossing](#)
CC:
Subject: Feedback to CRC on DEIS
Date: Tuesday, July 01, 2008 10:20:04 PM
Attachments: [Feedback to CRC on DEIS.pdf](#)



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Feedback
to the
Columbia River Crossing Project
on the
Draft EIS

by
Stephen J. Citron

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All of my data comes from the CRC Traffic Technical Report using Exhibit 6-12 (2030 No-Build Southbound) and Exhibit 7-11 (2030 Replacement Bridge Southbound).

Consider the amount of stop and go congestion (0-10 mph) in the Bridge Influence Area (BIA) defined as from SR-500 ON to Columbia Blvd. ON in the period from 5 AM to 12 Noon.

Counting, note that the Replacement Bridge has 80 red boxes (0-10 mph) in the BIA and the No-Build Option has 37 red boxes in the BIA. Since each box represents 1/4 hour, the Replacement Bridge has 20 hours of stop and go congestion while the No-Build Option has 9 1/4 hours in the BIA.

Thus in the BIA, which was the primary focus of the project, the Replacement Bridge has more than twice the stop and go congestion of the No-Build Option.

With that in mind, in regard to Stop and Go congestion, you are being led to support a Replacement Bridge design that fails its most fundamental functional requirement Southbound into Portland. The CRC Purpose and Needs Statement notes that "Daily traffic demand over the I-5 crossing is projected to increase by 40% over the next 20 years with stop and go conditions increasing to at least 10 to 12 hours each day if no improvements are made."

The No-Build Option has roughly the Stop and Go congestion predicted in the Purpose and Needs Statement. The Replacement Bridge Option rather than improving the situation yields Stop and Go congestion 2X worse in the BIA.

This result is not meant to necessarily reflect my view that No-Build is the way to go, but rather that the design of the Replacement Bridge is flawed. Given the amount of money to be spent, it is not satisfactory to find increased Stop and Go congestion in the BIA when the goal was to reduce congestion.

Discussed above is Stop and Go congestion over the entire BIA. Consider now congestion at the Bridge itself. Using the same Exhibits as above one finds the following results corresponding to different definitions of congestion:

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Thank you for your questions. The response below is the same as that which you received in an email dated June 30, 2008.

The travel speed and traffic congestion "profiles" were created to show speeds at different locations along the I-5 corridor during different times of day. Data were summarized by 15- minute time increments to create an accurate picture of the beginning and ending of congestion. Dark red represents 0-10 mph, dark orange represents 11-20 mph, light orange represents 21-30 mph, yellow represents 31-40 mph, light green represents 41-50 mph, and dark green represents greater than 50 mph. Congestion is defined in the study as occurring when travel speeds are less than 30 mph. In order to determine the duration of congestion at a specific location, the "squares" in a row are counted and added together. As an example, for the No Build alternative, counting across the row that corresponds with the Columbia River bridge, you'll find that there are 25 squares that are either dark red, dark orange, light orange, or yellow (counted only if between squares of red or orange). This equates to 6.25 hours of daily congestion in the morning. There are 4 dark red, dark orange, and light orange squares in the afternoon, indicating 1 additional hour of congestion, for a total of 7.25 hours of daily southbound congestion at the bridge for the No Build alternative. For the Replacement Bridge alternative there are 14 squares that are either dark red, dark orange, or light orange resulting in 3.5 hours of southbound daily congestion at the bridge. All of the southbound congestion under the Replacement Bridge alternative is forecast to occur in the morning hours.

Your analysis counted all squares, including those in the same column. This is an incorrect approach for estimating the duration of congestion. To understand total delay or total congestion, one would need to consider the volume of vehicles delayed at any given point and sum the delay by each vehicle.

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| Congestion Definition | < 10 mph | < 20 mph | < 30 mph |
|-----------------------|----------|----------|----------|
| No-Build Option | 0 hr | 1 hr | 5 1/4 hr |
| Replacement Option | 3 hr | 3 hr | 3 1/2 hr |

Note that at the Bridge the No-Build Option has less congestion than the Replacement Bridge Option up to the point where going 20-30 mph is considered congestion.

Different jurisdictions have used various definitions of congestion. I have focused here on Stop and Go congestion (0-10 mph) because a) it is referenced in the CRC Purpose and Needs Statement and b) it is of critical importance with regard to freight mobility. Heavy trucks under Stop and Go conditions have very poor fuel economy and produce excessive emissions.

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