City of Bellevue

MEMORANDUM

TO: **Transportation Commission**

FROM: **Mark Poch, Traffic Engineering Manager**

DATE: **July 12, 2012**

SUBJECT: **SR 520 Tolling and Local Monitoring Update**

The following is intended to provide the Transportation Commission information on the changes in traffic volume on a number of key north-south arterials as measured before and after the implementation of the SR 520 bridge toll. This information was presented to the Bellevue City Council on July 2nd, and is being provided to the Commission in memorandum format due to the number of presentation items already on the Commission's July meeting calendar.

Background:

In 2009, the state legislature authorized collection of tolls on the existing SR 520 bridge per ESHB 2211 in order to generate revenue to rebuild the frail bridge. Legislation passed in 2009 and 2010 compels the Washington State Department of Transportation (WSDOT) to closely monitor the travel effects associated with SR 520 tolling. WSDOT's monitoring efforts have focused largely on the regional state highway system. In order to better understand the local implications of SR 520 tolling, City staff have summarized before and after traffic counts on a number of Bellevue's north-south arterial streets to help gauge the local effects of SR 520 tolling.

SR 520 tolling legislation requires WSDOT to monitor the travel effects associated with toll of the existing SR 520 bridge that began in December 2011. WSDOT has primarily focused its scope of toll monitoring to data collected on the regional highway system including I-90, I-405, I-5, SR 520, SR 522, and SR 167. Bellevue Transportation staff has identified a number of possible diversion routes on Bellevue's north-south arterial system (connecting SR-520 to I-90), and has conducted a number of "before" counts along these routes. Since tolling began, data has been collected at the same monitoring stations ("after" counts).

There has been a significant traffic volume increases on a couple of the possible diversion routes monitored. It should be noted that it is difficult to attribute and isolate all of the traffic volume changes on city streets solely to the implementation of the SR 520 bridge tolling program. General growth in volumes and transitions in travel patterns are constantly in flux to meet changing demands and are influenced by a number of factors including highway construction and local economic condition and energy prices, in addition to regional programs such as tolling. Regardless, the SR 520 bridge tolling has certainly influenced, to some degree, changes in the traffic volumes observed on some of Bellevue's arterials.

Before and After Counts:

Staff identified six potential diversion routes consisting of key north-south arterials that provide connectivity between SR 520 and I-90. Sixteen count stations were located along these routes. The percent change in traffic at each of these stations was calculated from the 2011 Average Daily Traffic (ADT) counts (pre-tolling) and the 2012 ADT counts (post-tolling). Please see Attachment 1 for the monitoring routes and percent change in pre versus post tolling traffic volumes. As seen in Attachment 1, some of the monitored diversion routes received a larger change in traffic than others. For instance, the Bellevue Way SE/112th Ave SE and 148th Ave SE corridors saw the largest increases in percent change while other routes saw little change in traffic volumes.

Bellevue Way NE had a significant decrease in traffic volume at the count station located just south of SR 520. However, the two Bellevue Way SE count stations showed large increases in traffic. The two count stations on 112th Avenue SE also showed significant increases in traffic volume, and unlike Bellevue Way just south of SR 520, 112th Avenue NE south of SR 520 also showed a large increase.

The count station on 148th Ave NE just south of SR 520 did not show a change in traffic; however, 148th Avenue SE just south of SE 16th Street showed an 18% increase.

Attachment 2 summarize the actual ADT traffic volume changes from 2011 to 2012, and also shows the percent change from 2010 to 2011 in the last column. The last column of Attachment 2 suggests there are normal fluctuations in traffic even without tolling. These fluctuations can be caused by a variety of factors, and as seen in the table, are nearly all less than 6%. The changes seen in traffic volumes from 2011 to 2012 (pre and post tolling) are as high as 15% to 25% at some locations.

Conclusions:

- Of the routes monitored, the largest increases in traffic volumes from 2011 to 2012 occurred on the Bellevue Way SE/112th Avenue SE and 148th Avenue SE corridors.

- Traffic volumes fluctuate for multiple reasons including economic influences along with regional policy such as tolling.

- The Transportation Department has received few public comments regarding the SR 520 tolling and city arterial streets.

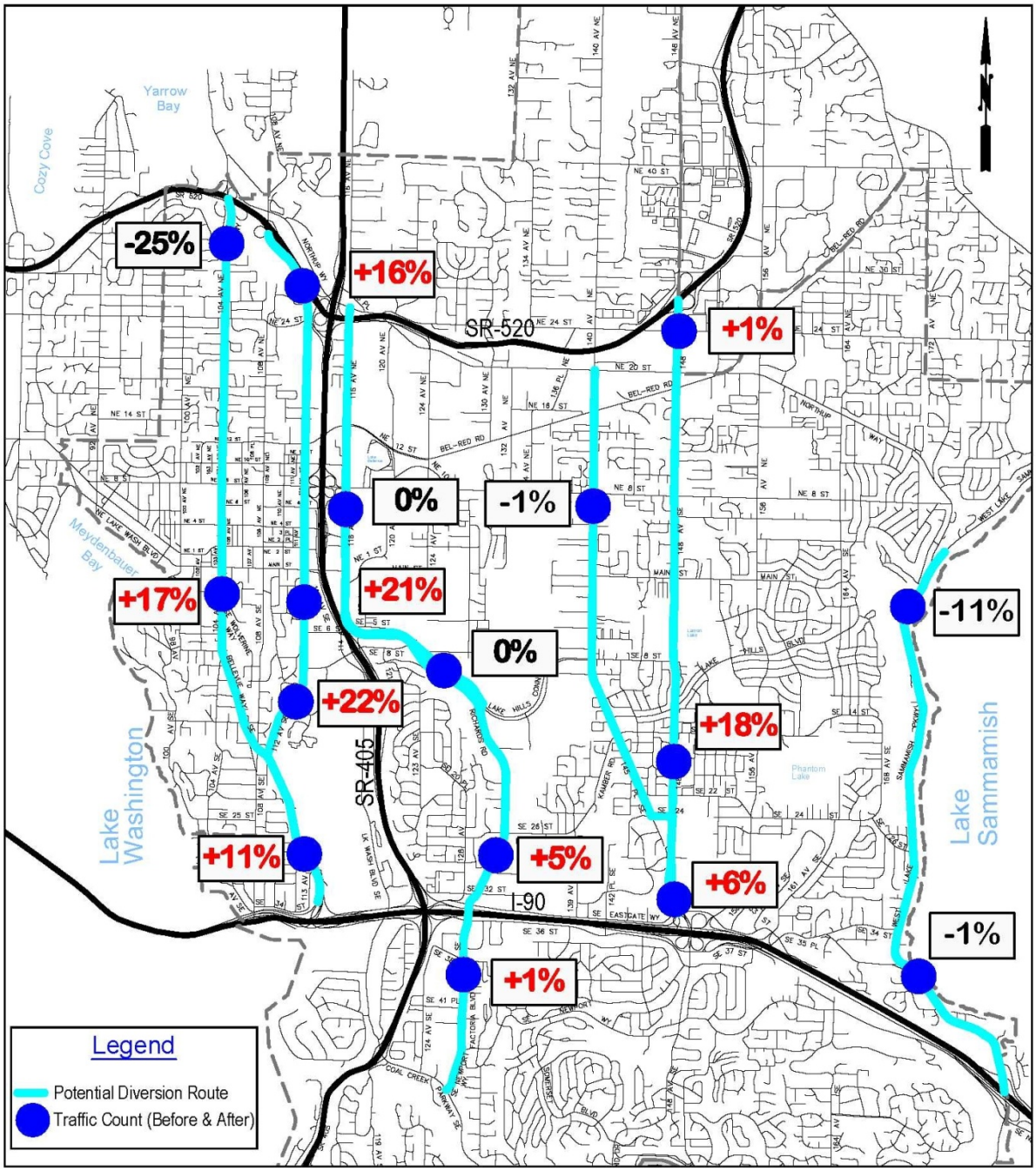
- Although it is difficult to directly control changes in traffic volumes on arterial streets, Bellevue has the ability to adjust traffic operations to be more responsive. For instance, the SCATS traffic adaptive signal system is planned to be installed on the 148th Avenue corridor in the fall of 2012, and SCATS is scheduled for the Bellevue Way SE/112th Avenue SE corridor in 2014 (although moving up implementation to 2013 is currently under consideration).

- Bellevue plans to continue to monitor these same possible toll diversion routes.

The effects of tolling are still considered preliminary and staff expect that traffic patterns will continue to be very dynamic over the coming months as drivers adjust to changing traffic patterns regionally, especially on the state highways. Staff plans to conduct a second round of traffic counts and analysis in autumn 2012 after the start of the new school year in order to continue monitoring traffic volume changes on Bellevue arterials.

Attachments:

(1) Percent Change in Traffic Volumes on Monitored Routes
(2) Summary of Before and After Counts



(1) Percent Change in Traffic Volumes on Monitored Routes

Location	2011 Daily Traffic	2012 Daily Traffic	Change	% Change	'10 to '11 % Change
Bellevue Way s/o 520	20,900	15,700	-5,200	-25%	-2%
Bellevue Way s/o Main	22,000	25,800	3,800	+17%	3%
Bellevue Way s/o 112th	29,900	33,100	3,200	+11%	-1%
108th s/o 520	6,900	8,000	1,100	+16%	-6%
112th s/o Main	11,200	13,600	2,400	+21%	-5%
112th s/o SE 8th St	8,700	10,600	1,900	+22%	-14%
116th s/o NE 8th St	19,200	19,100	-100	0%	+7%
Lk Hills Conn s/o SE 8th St	20,100	20,000	-100	0%	+6%
Richards Rd s/o Kamber	16,400	17,200	800	+5%	+1%
140th s/o NE 8th St	14,800	14,600	-200	-1%	+4%
148th s/o 520	46,800	47,300	500	1%	-3%
148th s/o SE 16th St	31,000	36,500	5,500	+18%	-3%
148th s/o SE 28th St	25,600	27,000	1,400	+6%	-1%
W Lk Samm s/o Main	10,000	8,900	-1,000	-11%	-1%
W Lk Samm s/o SE 38th St	9,800	9,700	100	-1%	0%

(2) Summary of Before and After Counts