

MEMORANDUM

Date: August 11, 2011

To: Sasha Dansky, Mark Thomas & Co.
Michele Bellows, Nolte NV5 (for CCTA)

From: Julie Morgan and Rob Rees, Fehr & Peers

Subject: I-680 Auxiliary Lanes, Truck Traffic Characteristics

WC11-2840

Per our discussions with MTC's Air Quality Task Force, Fehr & Peers has reviewed historic traffic data as well as the *Interstate 680 Auxiliary Lane Project, Traffic Element, Final Report* (May 2002 Fehr & Peers) to a) determine the expected truck traffic characteristics along the I-680 corridor between Sycamore Valley Road and Crow Canyon Road and b) determine whether or not the Project would increase the vehicle demand served.

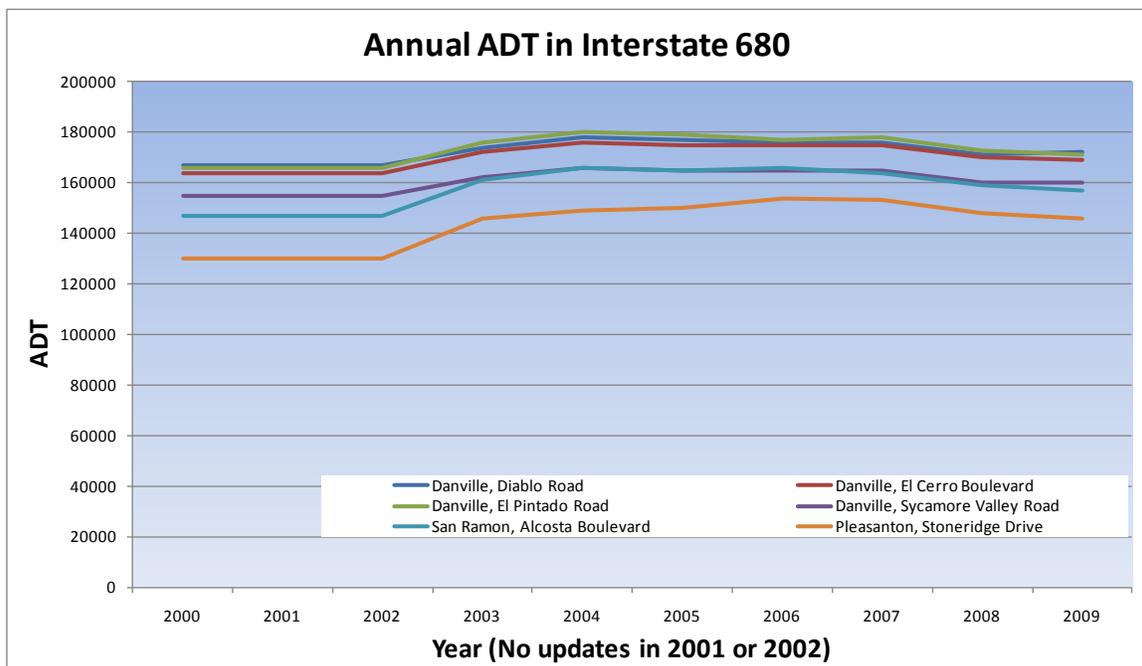
TRUCK TRAFFIC VOLUME TRENDS

Caltrans published daily truck traffic characteristics on I-680. Table 1 compares yearly truck traffic volumes. With the exception of the economic downturn in 2001/02, truck traffic generally ranged between 8,300 and 8,800 trucks in the ten years ending in 2009. The completion of the first two phases of the Auxiliary Lane Project in 2007 did not change the level of truck activities along the I-680 corridor and it is not anticipated that the last phase of the Project will have any impact on truck activities.

Table 1 I-680 Between Sycamore Valley Road and Crow Canyon Road	
Year	Total Trucks
2000	8,600
2001	7,800
2002	7,800
2003	8,500
2004	8,800
2005	8,700
2006	8,800
2007	8,700
2008	8,400
2009	8,300
Source: Caltrans published highway volumes	

DAILY TRAFFIC VOLUME TRENDS

Caltrans published highway volumes showed daily traffic characteristics on I-680 including all vehicles. The chart below compares the average daily traffic volumes through Pleasanton in Alameda County, at the Contra Costa – Alameda County Line (i.e., Alcosta Boulevard) and at several locations through Danville. The traffic volume trends in Alameda County and at the county line are consistent with the trends further north through Danville where previous segments of the auxiliary lane project have been constructed and open since 2007, supporting the conclusion that Segment 1 and 3 of the Auxiliary Lane Project did not increase the corridor’s capacity.



TRAFFIC FORECASTS

Traffic forecasts were obtained from the *Interstate 680 Auxiliary Lane Project, Traffic Element, Final Report* (May 2002 Fehr & Peers) to determine if the Project would increase the traffic demands through the I-680 corridor. Figures 12 through 15 in the study provided the demand volumes from the travel demand forecast model.

Table 2 summarizes the traffic forecast demand volumes through the corridor. The differences in the demand volumes without and with the auxiliary lane project can be explained in the typical variability that occurs when generating traffic forecasts from a regional travel demand model such as the Contra Costa Transportation Authority’s model used in the May 2002 study completed by Fehr & Peers.

Table 2	
I-680 Year 2025 Peak Hour Traffic Forecasts	
I-680 Southbound – Leaving the Study Corridor	
<u>AM Peak Hour</u>	
- Without Auxiliary Lanes	8,500
- With Auxiliary Lanes	8,300
<u>PM Peak Hour</u>	
- Without Auxiliary Lanes	7,500
- With Auxiliary Lanes	7,450
I-680 Northbound – Leaving the Study Corridor	
<u>AM Peak Hour</u>	
- Without Auxiliary Lanes	7,700
- With Auxiliary Lanes	7,650
<u>PM Peak Hour</u>	
- Without Auxiliary Lanes	8,900
- With Auxiliary Lanes	8,750
Source: Caltrans published highway volumes	

CONCLUSION

The historic truck volume data and the average daily traffic data both support the conclusion that Segment 1 and 3 of the Auxiliary Lane Project had no impact on the overall corridor traffic demands. As a result, we conclude that the project's final segment i.e., Segment 2 will also have no impact on the overall corridor traffic demands.

In addition, the traffic forecasts indicate that traffic demands are expected to be similar whether or not the auxiliary lane project is constructed, consistent with the traffic demand trends between 2000 and 2009. We agree with this conclusion because the corridor both north and south are constrained and restrict the total volume reaching this segment of I-680. In addition, auxiliary lanes do not create additional mainline corridor capacity because the lanes are not continuous through interchanges, but rather act to improve mainline flow and efficiency by spreading weave areas which can reduce potential accident rates and reducing incident delays along the corridor.