5 | Travel Time Results for Bay Crossing Bridges

Alameda County is the geographic center of the region. It borders the San Francisco Bay on the western side and the three bay crossing bridges (Bay Bridge, San Mateo Bridge, and Dumbarton Bridge) provide critical transportation conduits to major employment centers in San Francisco, the Peninsula and Silicon Valley. Currently, the Bay Bridge toll is priced at $6 in the weekday commute periods (between 5:00 a.m. and 10:00 a.m., and between 3:00 p.m. and 7:00 p.m.), $4 for other weekday time periods, and $5 on weekends. The San Mateo and Dumbarton Bridges tolls are $5 all day and every day of the week. Also, the posted speed limit is lower on the Bay Bridge (50 mph) compared to 65 mph on the other two bridges.

Alameda CTC has been monitoring the performance of these three bridges using travel time data since 2002. This was accomplished by using data collected by Caltrans or MTC or from Toll Tag information. The methodology and end points used to monitor the bridges have varied in the previous monitoring cycles depending on the data source.

Starting in 2014, commercial speed data was used for the bridges similar to freeway segments. The 2014 and 2016 data are presented in Appendix B, Tables B-12 through B-14. These tables include the performance of only the bridge CMP segments which are outside of Alameda County. The in-county bridge CMP segments are included in the Freeways (Tier 1) segments listing in Section 3.3.1 | and in Appendix B.1.

Comparing the 2016 performance of the bridges to 2014, a slight decline in speed is generally observed on all three bridges in the morning, afternoon and weekend peak periods (including county and non-county portions of the bridges). A larger average speed reduction was observed in the morning peak period in the westbound directions for the Bay Bridge (- 7.9 mph) and the Dumbarton Bridge (- 10.6 mph). For the Dumbarton Bridge, the afternoon peak in the eastbound direction also had a larger reduction in average speed (- 9.1 mph). Figure 5-1 depicts the performance of the bridges.

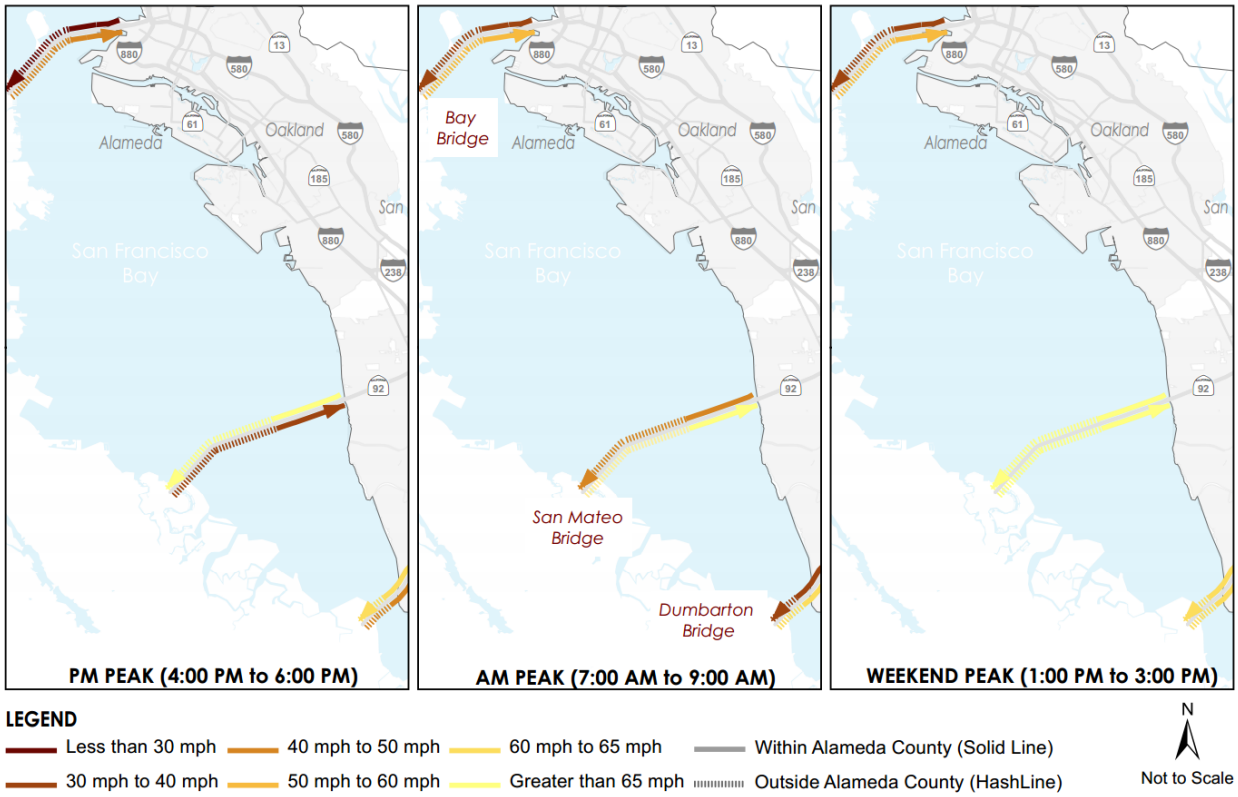

Figure 5-1: Average Speed (mph) across Bay Crossing Bridges (2016)

Based on this data, it is possible to compare the performance of the bridges to each other. It is recognized that some commuters may have the choice of using two bridges for their daily work commute or for weekend travel. The likely choices for drivers may be between the Bay Bridge and San Mateo Bridge, or between San Mateo Bridge and Dumbarton Bridge. Using Figure 5-1 it is also possible to compare the performance of each bridge in either direction between the east and west landings.

A typical Alameda County resident accessing San Francisco or the Peninsula for work, would travel westbound in the morning and eastbound towards Alameda County in the afternoon. For such residents choosing between the Bay Bridge and San Mateo Bridge in the morning, the westbound San Mateo Bridge has a 12 mph faster average speed (43 mph) compared to the westbound Bay Bridge (31 mph). In the evening, the eastbound Bay Bridge has a 5 mph faster average speed (41 mph) compared to the eastbound San Mateo Bridge (36 mph). For residents choosing between the San Mateo and Dumbarton Bridges, a similar speed difference is encountered. In the morning, the westbound San Mateo Bridge has an 11 mph faster average speed (43 mph) compared to the westbound Dumbarton Bridge (32 mph). In the evening, the

eastbound Dumbarton Bridge has an 11 mph faster average speed (47 mph) compared to the eastbound San Mateo Bridge (36 mph). Interestingly, in the commute directions and times (westbound in the morning, eastbound in the evening), the San Mateo Bridge shows faster speeds than the other two bridges in the morning, and slower in the evening. On the weekend, the San Mateo Bridge has the fastest speeds reported in both directions of the three bridges.