

## **APPENDIX N**

### **BUS RAPID TRANSIT (BRT) ANALYSIS**

## Bus Rapid Transit (BRT) Analysis

This appendix discusses the potential effects of implementing the Telegraph Avenue BRT project on both Telegraph Avenue and on parallel roadways.

**(1) Background.** In May of 2007, AC Transit published a Draft Environmental Impact Statement / Environmental Impact Report (EIS/EIR) to implement Bus Rapid Transit (BRT) on Telegraph Avenue and International Boulevard connecting Berkeley, Oakland, and San Leandro. The proposed system would dedicate one travel lane in each direction to bus operations only, allowing buses to provide a quicker and more reliable service than regular bus service today. In the vicinity of the project, the proposed BRT project would generally eliminate one through lane in each direction and narrow Telegraph Avenue to one through lane in each direction. In addition, existing bus stops are likely to shift from present locations, and some local bus stops may be eliminated or consolidated with BRT facilities.

Currently, there are no finalized design plans, an assurance of full funding for the BRT project, or approvals from AC Transit, the City of Oakland and other public agencies. Although proposed (but not approved) transit improvements are not typically considered as part of the projected baseline conditions, this EIR nevertheless (conservatively) provides a non-CEQA discussion of the potential effects on project impacts caused by proposed modifications to the traffic circulation network by the proposed BRT.

On Telegraph Avenue, within the study area, the BRT project would eliminate one northbound and one southbound travel lanes on Telegraph Avenue. This configuration would result in a single travel lane in northbound and southbound directions on Telegraph Avenue. In addition, the BRT project would eliminate left-turn lanes and prohibit left-turns at most intersections along its route. Left-turns would be allowed at the following locations along Telegraph Avenue within the study area: 51<sup>st</sup> Street (southbound only), 52<sup>nd</sup> Street (southbound only). The BRT project would include new traffic signals and improvements to existing traffic signals (interconnection) to improve traffic flow.

By eliminating one travel lane in each direction, the BRT project would reduce the vehicular capacity on Telegraph Avenue. As previously shown in the project analysis, many of the study intersections on Telegraph Avenue would operate at poor levels of service under Cumulative Year 2030 Baseline plus Project conditions. Thus, it is likely that the increased vehicular congestion on Telegraph Avenue would result in some vehicles diverting to other north-south arterials, such as Shattuck Avenue, Martin Luther King Jr. Way and Broadway.

**(2) Traffic operations Analysis.** The intersection LOS operations compares intersection LOS under Cumulative Year 2030 Baseline Plus Project (i.e., Creekside Project) conditions as previously presented in Section 10.0 of this report with intersection LOS under Cumulative Year 2030 Baseline Plus Project Plus BRT conditions. The Cumulative Year 2030 Baseline Plus Project Plus BRT conditions was developed by adjusting the Cumulative Year 2030 Baseline plus Project Condition of the Creekside Project to account for geometric and volume changes related to the BRT project. These adjustments were based on the traffic analysis completed for the BRT EIR. Thus, this analysis is limited to the following intersections only, which are analyzed in both EIRs:

#5 Telegraph Avenue & 52nd Street - Claremont Avenue (A.M. peak hour only)

#7 Telegraph Avenue/51st Street (A.M. peak hour only)

Based on the traffic volumes developed for the BRT EIR, the BRT project would reduce peak hour traffic volumes on Telegraph Avenue by about **250** vehicles in each direction.<sup>1</sup> However, the BRT EIR does not provide traffic volumes on all parallel roadways that diverted traffic would use.

Table N-1 summarizes intersection LOS for the two study intersections under both Cumulative Year 2030 Baseline plus Project No BRT (i.e., the Cumulative Year 2030 Baseline plus Project conditions analyzed in the Creekside Project Scenario) and Cumulative Year 2030 Baseline plus Project plus BRT conditions.

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<sup>1</sup> Traffic diversion on Telegraph Avenue is likely a function of increased congestion on Telegraph Avenue relative to alternative routes, caused by BRT. Therefore, it is questionable that under the BRT traffic an Telegraph Avenue would result in an improvement over the pre-BRT scenario.

**Table N- 1**  
**Cumulative Year 2030 With Project vs. With Project – With BRT (A.M. peak)**

Level of Service Analysis Summary											
A.M. Peak Hour											
#	Intersection	Traffic Control <sup>1</sup>	2030 plus Project			2030 plus Project plus BRT			Difference Project –Project with BRT		Potentially Significant Impact? <sup>2</sup>
			Avg. Delay	V/C	LOS	Avg. Delay	V/C	LOS	Avg. Delay	V/C (%)	
5.	Telegraph Ave & 52 <sup>nd</sup> St – Claremont Ave	Signal	167.5	1.41	<b>F</b>	199.7	1.53	<b>F</b>	32.2	12.5	Yes
7.	Telegraph Ave & 51 <sup>st</sup> St	Signal	145.0	1.33	<b>F</b>	107.7	1.24	<b>F</b>	-37.3	-9	No

Source: DKS Associates, 2007

**Intersection operates below acceptable LOS D.**

Notes: Average Delay: in seconds per vehicle

V/C: Volume to Capacity Ratio

LOS: Level of Service

<sup>1</sup> For signalized intersections, delays >80 are beyond the upper limits of LOS delay estimation equations under the HCM 2000 methodologies. .

<sup>2</sup>Impact determination based on the thresholds of significance.

As shown in Table N-1, the implementation of the BRT would increase delay and degrade LOS at the intersection of Telegraph Avenue & 52<sup>nd</sup> Street-Claremont Avenue. Both intersections would operate at unacceptable LOS E or LOS F regardless of the BRT project:

#5 Telegraph Avenue & 52nd Street - Claremont Avenue (A.M. peak hour only)

#7 Telegraph Avenue/51st Street (A.M. peak hour only)