



Town of Atherton Public Works Department

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MEMORANDUM

October 15, 2013

To: George Rodericks, City Manager
Through: Michael Kashiwagi, P.E., Community Services Director
From: Marty Hanneman, P.E., T.E. – Traffic Engineer

SUBJECT: ALAMEDA DE LAS PULGAS & STOCKBRIDGE AVENUE

Per your request, staff has prepared this technical memorandum to address safety concerns related to the intersection of Alameda De Las Pulgas (DLP) and Stockbridge Avenue.

Existing Conditions

The intersection of Alameda De Las Pulgas (DLP) and Stockbridge Avenue lies partly in the jurisdictions of the Town of Atherton, Woodside, and San Mateo County.

Alameda DLP is a major north/south collector roadway with a slight grade and runs through the Town of Atherton. Alameda DLP has a posted speed limit of 30 MPH and is a 46 foot wide roadway, with two 12 foot travel lanes, a 12 foot center turn lane and 5 foot wide bike lanes. There is no parking allowed on Alameda DLP in this area. Based on a traffic volume count performed on the approach to Stockbridge Avenue on Wednesday September 11, 2013, there were 7,951 vehicles travelling northbound on Alameda DLP and 7,757 vehicles travelling in the southbound direction for a total average daily traffic (ADT) count of 15,708. The AM peak hour was 7 to 8 AM with the PM hour 4 to 5 PM. During these peak periods, minimal gaps in traffic were observed.

Stockbridge Avenue is a 32 foot wide east/west minor collector street with a posted speed limit of 25 MPH. Stockbridge Avenue is stop sign controlled (Caltrans R1-1) on both approaches to Alameda DLP.

There is an existing yellow intersection ahead warning sign (Caltrans W2-1) 500 feet on the northbound approach of Alameda DLP to Stockbridge Avenue. There are 30 MPH speed limit signs (Caltrans R2-1) on Alameda DLP approximately 100 feet north and south of Stockbridge Avenue.

Properties fronting both Alameda DLP and Stockbridge Avenue are primarily single family residences. There are some sight distance restrictions for Stockbridge Avenue drivers due to existing trees, bushes and fences.

Based on collision reports from the California Highway Patrol, San Mateo County Sheriff, and Atherton Police Department, there have been a total of eleven collisions at the Alameda DLP and Stockbridge Avenue intersection since the beginning of 2007. Of these eleven reported accidents, 8 involved injuries and 3 included bicycles. Speeding was not indicated as a contributing factor in any of the reported

collisions. There were no fatal accidents. The most recent reported collision was on August 21, 2013 which involved two vehicles and two injuries. Ten of the eleven reported collisions were broadside in nature with the driver on the Stockbridge Avenue approach found at fault for failing to stop at the stop sign. A summary of the reported collisions are summarized on Attachment A.

Findings

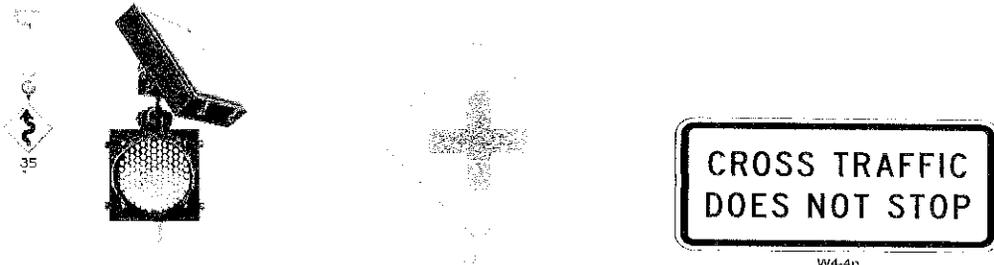
Per Caltrans Highway Design Manual the minimum recommended safe stopping distance for a roadway with a posted speed limit of 30 MPH is 200 feet. Assuming the 85% speed is closer to 35 MPH than 250 feet would be required. However, roadways with sustained downgrades of more than 3% should increase this by 20% or 240 feet for 30 MPH and 300 feet for 35 MPH.

Based on field observations, statements from the drivers involved in the collisions and Police reports, the majority of the eleven reported collisions have occurred due to drivers on the Stockbridge Avenue approaches experiencing sight distance restrictions and/or using poor judgment of vehicle traffic speeds when attempting to enter the Alameda DLP traffic.

Recommendations

It is recommended that the Town of Atherton, in junction with the neighboring jurisdictions, consider the following improvements to enhance safety at this intersection:

- Trim the bushes and trees on Alameda DLP to the approach of Stockbridge Avenue to enhance sight distance.
- Relocate the existing stop line on the westbound approach of Stockbridge Avenue 10 to 15 feet closer to Alameda DLP.
- The existing speed limit sign (30 MPH) on Alameda DLP should be augmented with a "30 MPH" painted on the roadway.
- Install warning signs (Caltrans W4-4P) "Cross Traffic Does Not Stop" (see below) on existing Stockbridge Avenue stop signs.
- Install a yellow intersection ahead warning sign (Caltrans W2-1) 500 feet on the southbound approach of Alameda DLP to Stockbridge Avenue.
- Install flashing solar powered yellow 12 inch LED beacons on the existing northbound Alameda DLP W2-1 and the recommended southbound W2-1 sign to further enhance their visibility. The estimated cost is approximately \$2,000 each.



Please feel free to contact me at (916) 206-2238 if you have any questions, would like additional information, or would like to discuss further.

cc: Ed Flint, Police Chief
Gordon Siebert, City Engineer
Steve Tyler, Public Works Superintendent
Attachment