



## FORT BEND COUNTY ENGINEERING

Fort Bend County, Texas

Richard W. Stolleis, P.E.  
County Engineer

November 26, 2013

Commissioner Richard Morrison  
Fort Bend County Precinct 1  
1517 Eugene Heimann Circle  
Richmond, TX 77469

**RE: Del Webb Boulevard Traffic Control**

Dear Commissioner Morrison:

Fort Bend County received a request for all-way stop control at the intersections of Del Webb Boulevard at Persimmon Grove and Del Webb Boulevard at the recreation center driveway. The intersection of Del Webb Boulevard at River Fern Drive was also analyzed. Traffic Volumes were obtained at the intersections which did not meet the warrant requirements of the Texas Manual on Uniform Traffic Control Devices. A sight visit indicated there may not be sufficient intersection sight distance for the 35 mph speed limit on Del Webb Boulevard.

A sight distance analysis was conducted at the intersections. The analyses were performed in accordance with *The American Association of State Highway Transportation Officials (AASHTO): A Policy on Geometric Design of Highways and Streets, 2011*. In accordance with the AASHTO standards, vehicles at the stop sign require sight distances based on the 35 mph speed limit and established driver gap acceptance and reaction times. The safe stopping sight distance was also evaluated and is 250 feet based on the posted 35 mph design speed.

Based on the sight distance analysis, intersection sight distance is not provided for either approach on Persimmon Grove at Del Webb due to the bridge rail. Stopping sight distance is not provided for the southbound approach. At the recreation center driveway, intersection sight distance is not provided for the westbound approach but stopping sight distance is provided. The sight distance obstruction is caused by the earthen berm supporting the parking lot that is several feet above the roadway. There were no sight distance restrictions at the intersection with River Fern Drive.



Del Webb Boulevard at Persimmon Grove



Del Webb Boulevard at Recreation Center Driveway

Several solutions were evaluated to address the restricted sight distance at the intersections:

- Lowering the speed limit which reduces the required sight distance and stopping distance
- Changes to the bridge rail
- Installing retaining wall at the recreation center parking lot to eliminate the earthen berm
- Installing all-way stop controlled intersections

The underlying cause of the sight distance restrictions are that the design engineers did not account for all physical obstructions and the overall curvature of the roadways. Without the curved roadways, these obstructions probably would not have created sight distance restrictions to the extent observed. These obstructions could have been addressed during design and construction to eliminate the sight distance restrictions.

The Fort Bend County Engineering Department recommends all-way stop control at the intersections of Del Webb Boulevard at Persimmon Grove and Del Webb Boulevard at the recreation center driveway. If Del Webb Boulevard is reconstructed in the future, efforts should be made to redesign the roadway and adjacent areas to eliminate the sight distance restrictions.

If we can be of further assistance please do not hesitate to contact me at 281-633-7509.

Regards,

*Rick J. Staigle, PE, PTOE*

Rick J. Staigle, PE, PTOE  
First Assistant County Engineer

RJS/mjs

cc: Judge Robert E. Hebert, County Judge  
Marc Grant - FBC Road & Bridge  
Marc Grant - Signage Department  
File



