Existing Transportation Analysis Fact Sheet

The existing conditions transportation analysis summarizes traffic volumes, traffic operations, provides a physical feature summary, and a safety summary.

Traffic Volumes

Traffic volume data was collected at 39 intersections and five 24-hour classification count locations within the study area. The common peak hour for the intersections was 7:30 to 8:30 AM and 4:45 to 5:45 PM. The peak hour at each intersection may not correspond to the common peak hour, but all individual peak hours generally overlap within at least a portion of the common peak hour. The Figure on the next page illustrates the study area intersections.

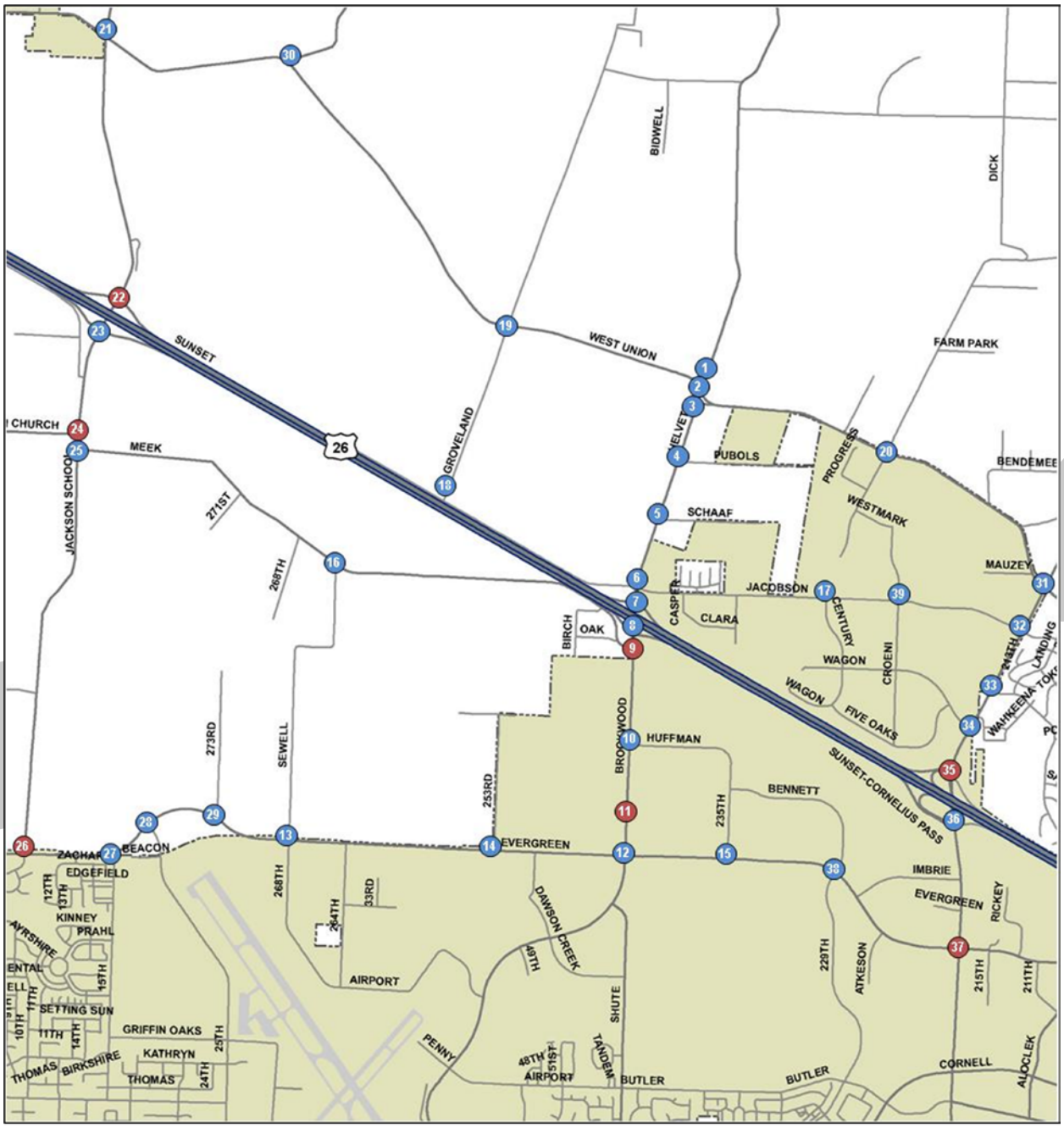
Traffic Operations

The two methods used to measure traffic operations of roadways and intersections are volume-to-capacity (v/c) ratio and level of service (LOS). When the v/c ratio is closer to zero, traffic conditions are generally good, with little congestion and low delays for most intersection movements. As the v/c ratio approaches 1.00, traffic becomes more congested and unstable, with longer delays. Six LOS standards have been established, ranging from LOS A, where there is little or no delay, to LOS F, where there is delay of more than 50 seconds at unsignalized intersections, or more than 80 seconds at signalized intersections.

Discussion Draft

Intersection Operations

Traffic operations were evaluated at all 39 study area intersections during the PM peak hour and at the 15 key AM peak hour intersections. The Figure on the next page illustrates the study area intersections. Intersections highlighted in red show intersections failing to meet operational standards in the AM and/or PM peak hour.



Fails to meet operational standards in either the AM and/or PM Peak Hour

The **Table** below summarizes the intersections that exceed operational standards for ODOT, City of Hillsboro, or Washington County.

Intersections Where Operational Standards Are Exceeded

	Location	AM		PM		Jurisdiction Where Operational Standard Not Met [2]
		v/c	LOS	v/c	LOS	
Intersections are operating at capacity given the current demand volume during peak periods.						
9	Brookwood Pkwy at Meek Rd	**>1.0**	**F**	0.33	**F**	All
11	Brookwood Pkwy at Genentech Access	Not analyzed in AM Peak Hour		**>1.0**	**F**	County & City
35	Cornelius Pass Rd at US-26 Westbound Ramps	**>1.0**	**F**	0.91	**D**	All
37	Cornelius Pass Rd at Evergreen Pkwy	0.79	D	**>1.0**	**E**	County/City
Intersections do not meet standards because the overall delay is too high for the City standard or the demand volume is too close to the capacity of the intersection to meet operational standards.						
22	Jackson School Rd at US-26 Westbound Ramps	0.63	C	0.98	**F**	City
24	Jackson School Rd at Scotch Church Rd	Not analyzed in AM Peak Hour		0.83	**F**	City
26	Jackson School Rd at Evergreen Pkwy	0.85	**E**	0.89	D	City

1. **SHADED** cell indicates intersection that fails to meet operational standards
2. "All" indicates the following jurisdictions: ODOT, City of Hillsboro, Washington County, and Metro.
3. For a signalized intersection, the overall operation of the intersection is reported. For an unsignalized intersection, the worst stopped (or yield) movement is reported.

Discussion Draft

Freeway Operations

US 26 within the Study Area (between the Jackson School Road interchanges and the Cornelius Pass Road interchange) is operating within ODOT standards.

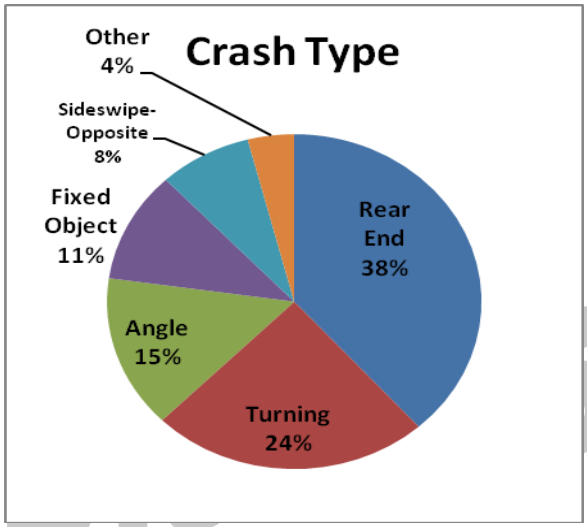
Safety Summary

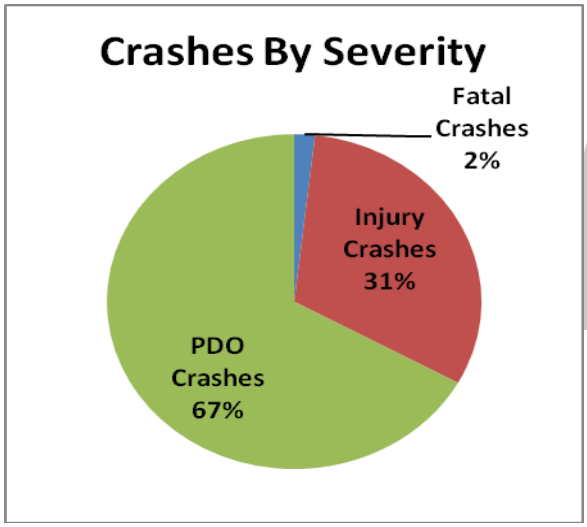
A crash analysis was conducted to determine whether any significant, documented safety issues exist within the study area. The crash analysis included a review of crash history data supplied by the ODOT Crash Analysis and Reporting Unit for the period between January 1, 2008 and December 31, 2010, the three most recent full years of complete data records.

During the three-year period there were 182 reported crashes within study area on local roadways or at intersections. Approximately 30 percent (55 crashes) involved minor injuries, and 69 percent (125 crashes) were property-damage-only (PDO) crashes. The majority of crashes (63 crashes) were rear end-related crashes, which are frequently attributed to congestion and queuing. The next most frequent type of crash (53 crashes) was turning-related. There were two reported bicycle/pedestrian crashes within the study area. There are no obvious crash trends that would warrant mitigation within the study area, although modifications to the geometry at the unsignalized intersection of Jackson School Road at West Union Road would have the potential to improve safety.

The 42 crashes which occurred along US 26 within the study area during the three-year period were primarily rear end, fixed-object, and sideswipe related. The data highlight this section of US 26 as having a low incidence of traffic crashes (one-fourth the statewide average for similar facilities within the urban highway system). Approximately 35 percent (15 crashes) of all reported crashes involved minor injuries, 60 percent (25 crashes) involved property-damage-only crashes, and the remaining 5 percent (2 crashes) involved a fatality or serious injury collision. The majority of collisions were rear end-related crashes and there are no obvious crash trends that would warrant mitigation.

The following **Figures** summarize the total crashes on all facilities within the study area by crash type and by severity.





Note: These Figures represent the combined total mainline and intersection crashes.