MEMORANDUM

DATE: September 2012

TO: Oregon City Project Management Team

FROM: Carl Springer, P.E., P.T.O.E., DKS Associates
Kevin Chewuk, DKS Associates

SUBJECT: **Oregon City Transportation System Plan Update**
South End Road/Lafayette Avenue-Partlow Road Intersection Review

This memorandum summarizes the findings of an intersection review at South End Road/ Lafayette Avenue-Partlow Road. The following section provides an introduction to the existing transportation conditions for the area, including a summary of the walking and biking facilities and usage levels in the area.

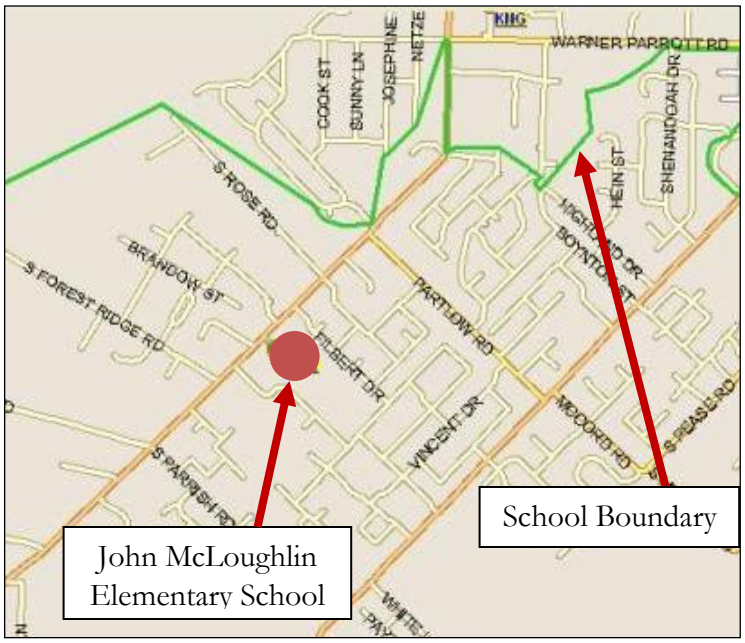


Image Source: Oregon City School District

Figure 1: Study Area

Study Area

The South End Road/ Lafayette Avenue-Partlow Road intersection is located in the South End neighborhood of Oregon City, a little over a quarter mile north of John McLoughlin Elementary School. The posted speed limit along South End Road around this intersection is 40 mph. The cross-section of South End Road consists of one travel lane in each direction and a wide shoulder/bike lane on both sides, with a paved surface width of around 55 feet. Bike lanes provide a direct connection along South End Road from the school to the northern school boundary near Warner Parrott Road. A direct sidewalk connection is not available to connect neighborhoods along South End Road north of the school (see Figure 2).

A marked crosswalk across South End Road is available directly in front of John McLoughlin Elementary School. An additional marked crossing of South End Road is not available for another three quarters of a mile north of the school, at the South End Road/Warner Parrott Road. Based on an aerial photography estimate, 23 households within the boundary of John McLoughlin Elementary

School are located on the west side of South End Road, north of the South End Road/ Lafayette Avenue-Partlow Road intersection. Students from these households would be required to cross South End Road at some point when walking to school. The remaining households with the school boundary north of this intersection are located along the east side of South End Road and therefore students would not be required to cross the street.

Figure 2: Pedestrian Facilities

Volumes

Existing evening peak hour motor vehicle and pedestrian volumes were collected in 2011 and 2012 at the South End Road/ Lafayette Avenue-Partlow Road intersection during school and non-school hours (shown in Figure 3). As shown, motor vehicle volumes along South End Road at the Lafayette Avenue-Partlow Road intersection generally range from around 450 to 750 vehicles per hour. Pedestrian crossings at the intersection are significantly lower, with no more than eight crossings during any particular hour (when the crossings at each of the intersection legs are summed). There were no pedestrian crossings during the morning between 6:30 and 8:30 a.m. Generally, the greatest crossing demand occurred between 1:30 and 3:00 p.m. and 4:00 and 5:30 p.m.

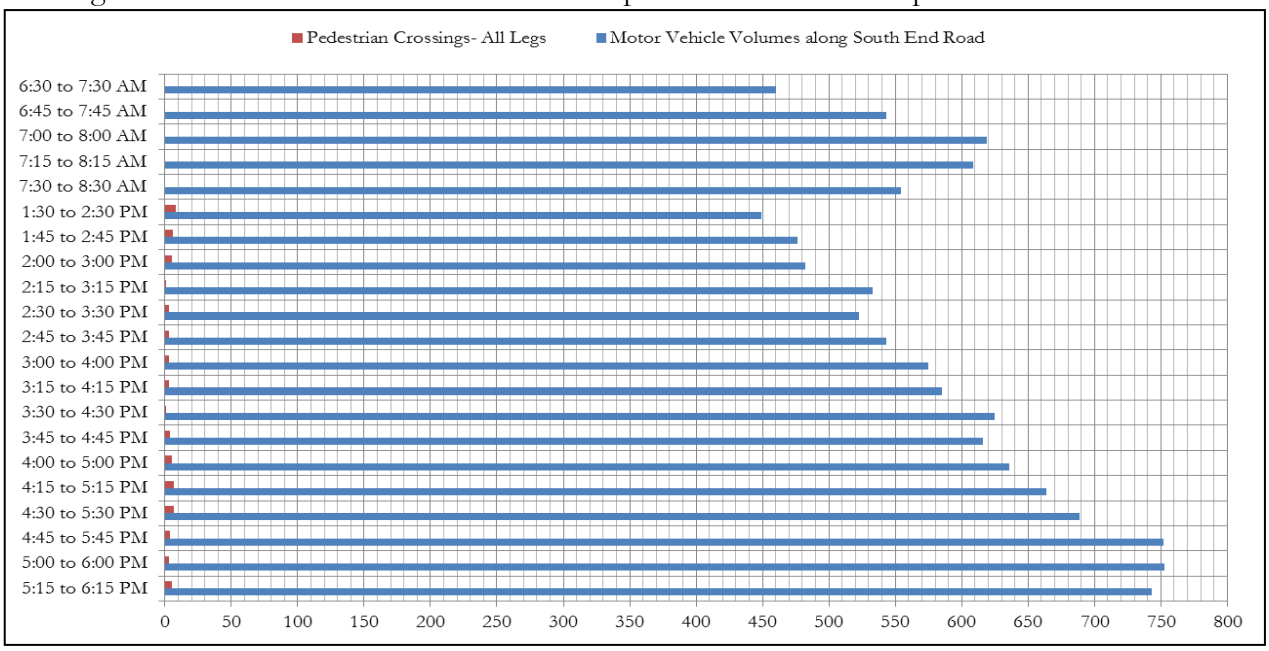


Figure 3: Motor Vehicle and Pedestrian Volumes at South End Road/ Lafayette Avenue-Partlow Road intersection

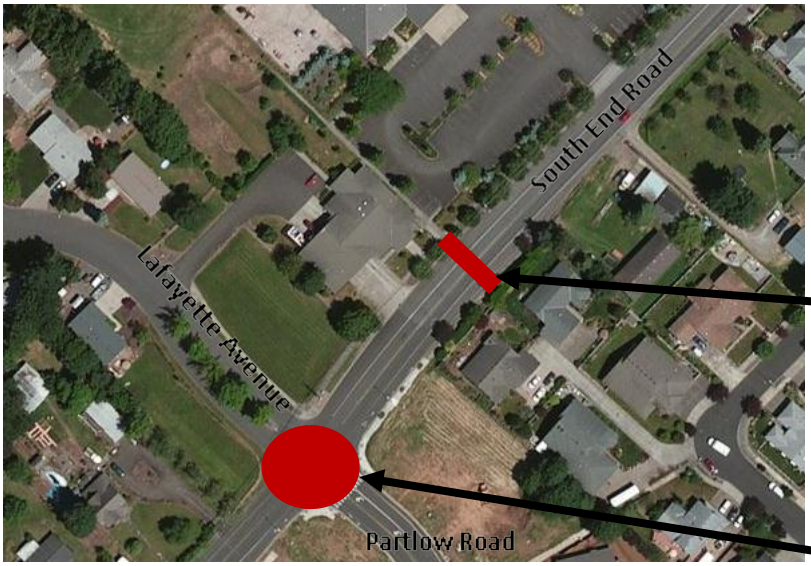
Crossing Treatment Review

A pedestrian crossing treatment review was undertaken following the guidelines from the Transit Cooperative Research Program (TCRP) Report 112/National Cooperative Highway Research Program (NCHRP) Report 562 on improving pedestrian safety at unsignalized crossings. Overall, the review found that posted speeds along South End Road are too high to stripe a crosswalk without further treatments. Given the low pedestrian crossings, the guidelines recommend treatments such as raised median islands offering pedestrian refuge, curb extensions and other traffic calming measures to be incorporated with the crosswalk as feasible. The TSP update also recommends that maximum spacing of pedestrian crossings along Minor Arterials through residential areas should be no more than 530 feet or .10 miles and that they be enhanced crossings. Therefore, the short term solution would be to stripe crosswalks at intersections with curb extensions, while the long term solution (as traffic and pedestrian volumes increase) would be to implement push button activated flashing beacon crossings. Overall recommendations are summarized below:

- **Short-term solution:**
  a) Add striped crosswalk on the north side of Rose Road at existing curb extension (see Figure 5).
  b) Add striped crosswalk north of Lafayette Avenue-Partlow Road and extend the curb out 8 feet adjacent to the southbound bike lane (see Figure 4).

- **Mid-term solution:**
  a) Fill in sidewalk gaps on South End Road.
  b) Add push button activated crossing with flashers on a sign post to the striped crosswalk north of Lafayette Avenue-Partlow Road
  c) Add striped midblock crossing with push button activated crossing, (flashers are on a sign post) just north of Longstanding Court (see Figure 5).

- **Long-term:** Install a roundabout at the South End Road/Lafayette Avenue-Partlow Road intersection to calm vehicle speeds and increase intersection capacity. Add marked crosswalks at each leg of the intersection (see Figure 4).

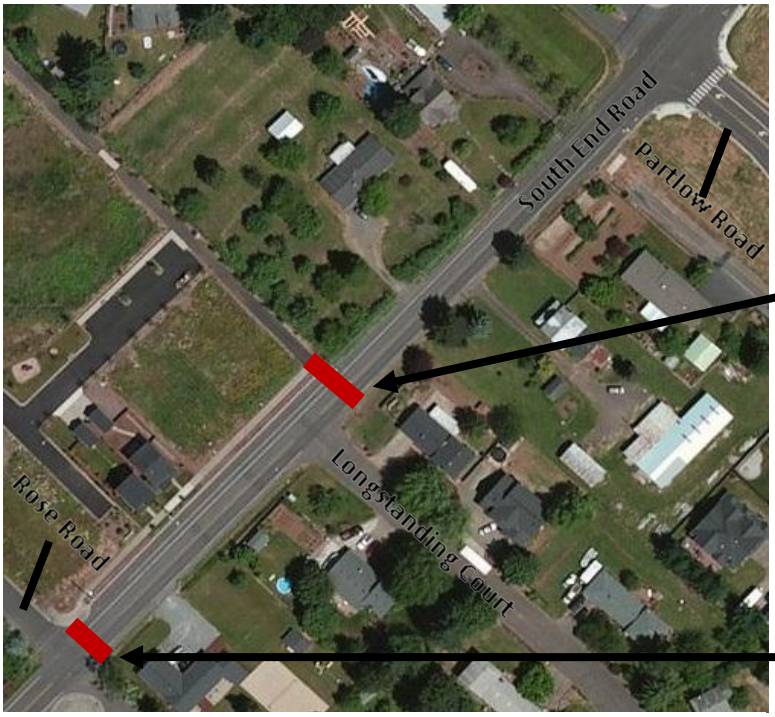


Add striped midblock crossing with curb extension just north of Lafayette Avenue-Partlow Road.

Mid-term: Add push button activated crossing with flashers on a sign post.

Long-term: Install a roundabout to slow traffic and increase capacity at the Lafayette Avenue-Partlow Road intersection.

Figure 4: Pedestrian Improvements north of Partlow Road



Add striped midblock crossing with curb extension just north of Longstanding Court.

Mid-term: Add push button activated crossing with flashers on a sign post.

Add striped crosswalk on the north side of Rose Road at existing curb extension.

Figure 5: Pedestrian Improvements south of Partlow Road