



Legislation Text

File #: 2019-1362, **Version:** 1

To: Board of Supervisors

Department or Agency Name(s): Transportation and Public Works

Staff Name and Phone Number: Johannes J. Hoevertsz 707-565-2231

Vote Requirement: Majority

Supervisorial District(s): Fifth

Title:

All-Way Stop Controls for the Intersection of Barnett Valley Road and Olsen Road

Recommended Action:

Adopt a resolution designating the intersection of Barnett Valley Road (#69011) and Olsen Road (#69054) as an All-Way stop intersection and that all-way stop controls be placed at all entrances thereto. (Fifth District)

Executive Summary:

The Department of Transportation and Public Works (TPW) have worked to identify and address existing operational and traffic safety issues at the intersection of Barnett Valley Road and Olsen Road. TPW has evaluated this intersection and recommends it be converted into an all-way stop providing more orderly movement at the intersection and minimizing the effect of any sight distance restrictions that may be present.

Discussion:

Barnett Valley Road carries an average daily traffic (ADT) volume of approximately 600 vehicles per day combined for eastbound and westbound traffic entering the intersection. Barnett Valley Road services the transportation needs of the immediate unincorporated area and provides a direct connection west to Bodega Highway and the west county area, and east to Bloomfield Road, Highway 116, and Sebastopol.

Olsen Road is functionally classified as a local road and carries an average ADT volume of up to 100 vehicles per day for northbound traffic entering the intersection. Olsen Road services the transportation needs of the immediate unincorporated area by providing a direct connection from Barnett Valley Road to Bodega Highway, Bloomfield Road, Highway 116, and Sebastopol.

Kennedy Road residents and neighboring communities contacted TPW staff in June and July 2018 regarding vehicles speeding and running stop signs and limited sight distance at two intersections: one at Barnett Valley Road and Kennedy Road, and the other at Barnett Valley Road and Olsen Road.

There is a widespread belief that installing stop signs on all intersection approaches will slow traffic. Studies have shown that this is not the case, and stop signs are relatively ineffective as a speed control measure. At the point of installation, speeds are reduced, but the effect on traffic approaching or leaving the stop-controlled intersection is negligible. Studies show some instances of motorists actually increasing their speed to make up for the "lost time" of stopping, accelerating to their original speed prior to the stop sign in less

than 200 feet.

State-wide road standards under the California Manual on Uniform Traffic Devices (MUTCD) establish criteria and conditions (“warrants”) for when stop signs on all intersection approaches (i.e., “all-way stops”) are appropriate. These include:

- Define intersection right-of-way where it's unclear
- Protect certain turning movements
- Serve as interim treatment prior to signals
- Streets of similar traffic volumes
- Intersections with restricted stopping sight distance

TPW staff evaluated the intersections and retained the services of a traffic engineering consultant, W-Trans, to perform a multi-way stop report using the warrants criteria contained in the MUTCD. The results of the multi-way stop warrant study are attached and are summarized as follows:

Barnett Valley Road and Kennedy Road Intersection

None of the warrants were met. There were no reported collisions during the applicable review period and traffic volumes fell short of applicable thresholds. No left-turn conflicts during the applicable review period are documented and no high pedestrian volumes exist. Also, adequate sight distance as to the applicable approaches is available.

Barnett Valley Road and Olsen Road Intersection

One of the warrants were met for this intersection. Based on site distance criteria contained in materials published by the American Association of State highway Transportation Officials (AASHTO), the recommended corner sight distance from the Olsen Road northbound approach is 390 feet (based on on-coming traffic speeds of 35 mph on Barnett Valley Road). Depending on proximity to the edgeline of Barnett Valley Road, traffic on Olsen Road has site distance of only 35 to 230 feet (and the latter, only if vehicles are to “creep” forward from the existing painted stop bar/limit line). The sight distance for westbound motorists entering Barnett Valley Road from Olsen Road was restricted from on-site vegetation and landscaping around the Olsen Road entrance. This sight distance is accordingly inadequate based on generally-accepted standards and the warrant for an all-way stop is met.

W-Trans concluded that an all-way stop is warranted for this location and that such controls be installed at the Barnett Valley Road/Olsen Valley Road intersection. TPW agrees with the conclusions and recommendations for both intersections studied. Accordingly, TPW requests the Board designate the intersection of Barnett Valley Road and Olsen Road as a stop controlled intersection with all-way stop controls at all entrances thereto.

The estimated cost of labor and materials to implement the all-way stop controls will be \$3,500 and

appropriations are available within the FY 2019-20 Road Maintenance Budget to accommodate these costs.

If approved, staff will begin work to install signage and pavement markings approximately 30 days after approval of the resolution.

Prior Board Actions:

None.

FISCAL SUMMARY

Expenditures	FY 19-20 Adopted	FY20-21 Projected	FY 21-22 Projected
Budgeted Expenses	\$3,500.00		
Additional Appropriation Requested			
Total Expenditures	\$3,500.00		
Funding Sources			
General Fund/WA GF			
State/Federal	\$3,500.00		
Fees/Other			
Use of Fund Balance			
Contingencies			
Total Sources	\$3,500.00		

Narrative Explanation of Fiscal Impacts:

Appropriations are available in the FY 2019-20 Road Maintenance adopted budget for installation of signs and intersection paint, to be funded with operating revenues comprised largely of state gas tax.

Staffing Impacts:			
Position Title (Payroll Classification)	Monthly Salary Range (A-I Step)	Additions (Number)	Deletions (Number)

Narrative Explanation of Staffing Impacts (If Required):

None

Attachments:

Location Map, Resolution, W-Trans AWSC Warrant Study dated 10/1/2018

Related Items "On File" with the Clerk of the Board:

None