

CITY TRAFFIC ENGINEER'S REPORT

ISSUE NO. TC 789

Crosswalk and Pedestrian Beacon on SW Millikan Way at Tualatin Hills Nature Park

February 14, 2019

Background Information

Requested by staff. The City's Active Transportation Plan (ATP) has identified pedestrian and bicycle crossing improvement throughout the City. One of these identified locations is the Westside Trail crossing on SW Millikan Way at the Tualatin Hills Nature Park (Project ID # CR-31). The City has also received calls from trail users to install a marked crosswalk at this location.

Millikan Way is classified as a 4-lane Collector Street (two through lanes in each direction) with a posted speed of 35 mph. There are pedestrian crossing warning signs and a median islands on Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park. The median island provides a refuge area for pedestrians when crossing the street. A traffic count taken in August 2017 showed that Millikan Way carries approximately 12,100 vehicles per day.

National research and guidelines published by the Federal Highway Administration (FHWA) does not recommend installing a marked crosswalk at uncontrolled locations (intersections and midblock locations with no traffic signal or stop signs on the approach of the crossing) on multilane roadways (4 or more lanes) that carry greater than 12,000 vehicles per day with a 35 mph speed limit. This recommendation is due to the increase in pedestrian crash risk if marked crosswalks are added without other substantial crossing improvements such as a raised median islands, warning beacons or a traffic signal where warranted to improve crossing safety.

The Manual on Uniform Traffic Control Devices (MUTCD) gave interim approval to allow for the use of Rectangular Rapid Flashing Beacons (RRFB) as a warning beacon to supplement standard pedestrian crossing warning signs and markings where the crosswalk approach is not controlled by a yield or a stop sign, or by a traffic signal.

Research on the RRFB showed a very high compliance rate of motorists yielding to pedestrians. The research showed the RRFB has a high 80's to almost 100 percent compliance rate in comparison to 15 to 20 percent range for a standard yellow circular flashing beacons. Also, the high yielding rates are sustained after 2 years in operation.

Staff is proposing to install a marked crosswalk and a RRFB on SW Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park.

The cost to install the crosswalk and the beacons is approximately \$40,000. The current Public Works budget for Operations has available funds to improve this crossing.

Applicable Criteria

The applicable criteria from Beaverton Code 6.02.060A is:

- 1a (provide for safe vehicle, bicycle and pedestrian movements);
- 1b (help ensure orderly and predictable movement of vehicles, bicycles, and pedestrians);
- 2 (all proposed new traffic devices shall be based on the standards of the MUTCD).

Conclusions:

1. The addition of a marked crosswalk and a RRFB with the existing median island on SW Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park will meet the FHWA guidelines for installing a marked crosswalk and will improve pedestrian safety and ensure orderly and predictable movement of vehicles and pedestrians, satisfying Criteria 1a and 1b.
2. The Rectangular Rapid Flashing Beacons meet the guidelines of the MUTCD, satisfying Criterion 2.

Recommendation:

1. Approve the request to install a marked crosswalk, and a Rectangular Rapid Flashing Beacons on SW Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park.

TC # 789



1" = 50'

PROPOSED
CROSSWALK

PROPOSED
FLASHING BEACON

SW MILLIKAN WAY

PROPOSED
FLASHING BEACON

RAPID
FLASHING
BEACON

PUSH
BUTTON

BEACON DETAIL

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Crosswalk & Pedestrian Beacon on
SW Millikan Way

ENGINEERING DEPARTMENT
TRANSPORTATION DIVISION

Drawn By: GO Date: 2/20/19

Reviewed By: _____ Date: _____

Approved By: _____ Date: _____

MEMORANDUM

Beaverton Police Department



DATE: February 26, 2019

TO: Jabra Khasho, City Transportation Engineer

FROM: Sergeant Steve Schaer

SUBJECT: Traffic Commission Issues No. TC 789

On review of the City Traffic Engineer's report, and my visitation of the location, I concur with the Traffic Engineer's recommendation to approve the request to install a marked crosswalk, and Rectangular Rapid Flashing Beacons on SW Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park.

Sgt Steve Schaer

DRAFT

CITY OF BEAVERTON

FINAL WRITTEN ORDER OF THE TRAFFIC COMMISSION

REGARDING ISSUE NUMBER TC 789

Crosswalk and Pedestrian Beacon on SW Millikan Way at Tualatin Hills Nature Park

1. A hearing on the issue was held by the Traffic Commission on March 7, 2019.
2. The following criteria were found by the City Traffic Engineer to be relevant to the issue:
 - 1a (provide for safe vehicle, bicycle and pedestrian movements);
 - 1b (help ensure orderly and predictable movement of vehicles, bicycles and pedestrians);
 - 2 (all proposed new traffic control devices shall be based on the standards of the MUTCD).
3. In making its decision, the Traffic Commission relied upon the following facts from the staff report and public testimony:
 - The Crosswalk and pedestrian beacon were identified in the City's Active Transportation Plan.
 - The City has received several requests from trail users to install a marked crosswalk at this location to improve pedestrian safety.
 - The functional classification of SW Millikan Way is a 4-lane Collector Street.
 - The posted speed limit on SW Millikan Way is 35 mph.
 - West of 154th Terrace, SW Millikan Way carries approximately 12,100 vehicles per day.
 - There is a median island on SW Millikan Way at the Nature Park that provides refuge area and allow pedestrians to cross the street at two stages.
 - National research and guideline published by the Federal Highway Administration (FHWA) does not recommend installing a marked crosswalk at uncontrolled locations (intersections and midblock locations with no traffic signal or stop signs on the approach of the crossing) on multilane roadways (four or more lanes) that carry greater than 12,000 vehicles per day with a 35 mph posted speed limit without other pedestrian facility enhancements such as raised median islands, pedestrian warning beacons or a traffic signal where warranted.
 - The Manual on Uniform Traffic Control Devices (MUTCD) gave interim approval to allow the use of Rectangular Rapid Flashing Beacons (RRFB) to supplement pedestrian crossing warning signs and markings.
4. Following the public hearing, the Traffic Commission voted (__ aye, __ nay) to recommend the following action:
 - Approve the request to install a marked crosswalk, and a Rectangular Rapid Flashing Beacons on SW Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park.

5. The Traffic Commission decision was based on the following findings:
- The addition of a marked crosswalk and a RRFB to the existing pedestrian warning signs and median island on SW Millikan Way at the Westside Trail crossing near Tualatin Hills Nature Park would improve pedestrian safety and ensure orderly and predictable movement of vehicles and pedestrians, satisfying Criteria 1a and 1b.
 - The Rectangular Rapid Flashing Beacons meets the guidelines of the MUTCD, satisfying Criterion 2.
6. The decision of the Traffic Commission shall become effective upon formal approval of the City Council.

SIGNED THIS ____ DAY OF MARCH 2019

Traffic Commission Chair