

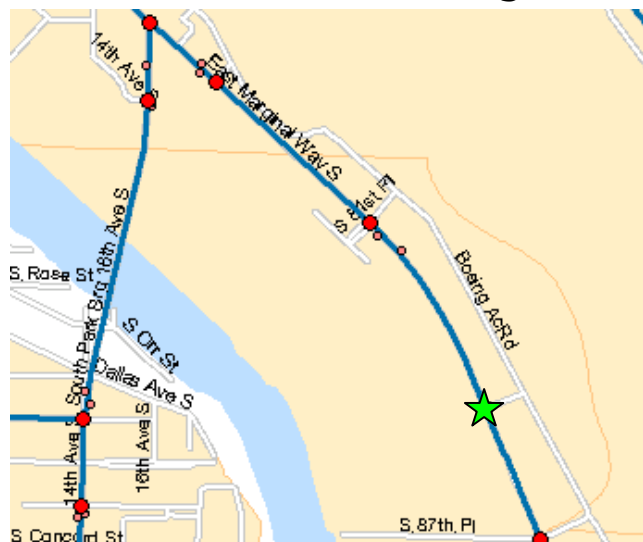
Transit Speed & Reliability

Spot Improvement Bi-Annual Report

Fall/Winter 2007

Transit Speed and Reliability (S&R) continues its efforts to improve traffic operations problems that affect the daily operation of Metro buses. Spot improvements are relatively low-cost, single location solutions that can be implemented to benefit transit with a minimum of impacts to other roadway users. Once reported and identified, spot improvements can take anywhere from a month to over two years to implement, depending on the nature of the problem, the solution, and agency staff resources. This bi-annual report highlights the spot improvements that have been completed within the past six months.

E Marginal Way S & S 86th Place



Problem Reported

Through an OSFR (Green Sheet) a Route 174 operator from South Base reported that this signal was often red during late-night hours.

Assessment

S&R staff visited the location during night-time hours and confirmed that the signal was stopping traffic on Marginal Way on every cycle. Since this signal has vehicle detection on the side street approaches, and there is very infrequent traffic on these approaches at night, the signal operation was determined to be abnormal. Upon further investigation, it was noted that a business located to the west of the intersection had installed a chain-link security gate directly over the loop detectors

The Fix

S&R staff reported the findings to a signal engineer at the City of Tukwila. The signal engineer made some adjustments to the loop detectors so that they would not be tripped by the gate.

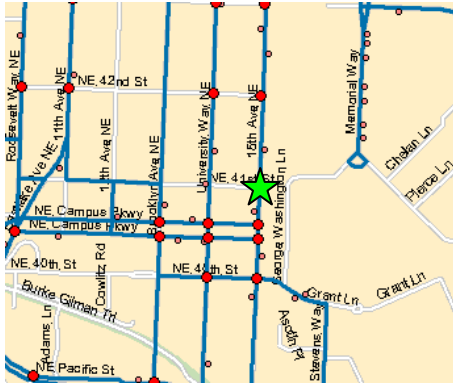
Resolution

This quick fix returned the signal to proper operation, providing a continual green signal to Marginal Way unless vehicles or pedestrians are detected on the side-street approaches. This fix reduces delay to routes 154, 173, and 174 that operate through this intersection.

Agency Staff Contacts

Scott Bates, City of Tukwila
Owen Kehoe, KC Metro

15th Avenue NE @ NE 41st Street



Problem Reported

A transit operator reported that this signal was providing too much green time to the east-west direction while little traffic was being served.

Assessment

S&R Staff visited the location and confirmed that the signal was not operating efficiently. A broken loop detector was the suspected cause. The findings were reported to a SDOT signal technician.

The Fix

SDOT confirmed that a loop detector was not functioning properly. As an interim fix, the maximum green time for the east-west signal phase was reduced to provide more green time to north-south traffic.

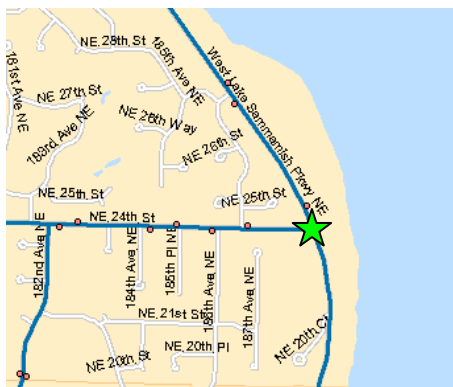
Resolution

The interim fix reduces delay for traffic and many buses on 15th Avenue NE. Eventually, the loop detector will be fixed so that the signal can respond to traffic.

Agency Staff Contacts

Ralph Carroll, SDOT
Owen Kehoe, KC Metro

West Lake Sammamish Parkway & NE 24th Street



Problem Reported

At a recent East Base visit, operators reported that the eastbound left-turn at this intersection was difficult. It was requested that an all-way stop be installed at this intersection.

Assessment

S&R staff looked at traffic counts of the area and pulled up site photos taken at the intersection several years ago. Due to the high volume of traffic on West Lake Sammamish Pkwy, an all-way stop would not be warranted. However, the site photos suggested that sight distance could be improved by trimming some vegetation.

The Fix

S&R staff contacted the City of Redmond and reported these findings. Redmond made an evaluation and trimmed some shrubs on the southwest corner to improve sight distance.

Resolution

The trimmed vegetation helps vehicles on the eastbound approach see vehicles approaching from the south. This should help route 249 and 250 operators assess when the turn can be completed safely.

Agency Staff Contacts

Rob Crittenden, City of Redmond
Owen Kehoe, KC Metro

Bothell Way NE & NE 153rd Street



Problem Reported

A new signal was being planned for the intersection of Bothell Way NE & NE 153rd Street in the City of Lake Forest Park. As part of this construction project, a new pullout was constructed for the Northbound bus stop. S&R and operations staff had concerns that buses would have difficulty pulling into traffic after serving the bus stop.

Assessment

S&R staff worked with engineers at WSDOT to include a special bus loop at the head of the bus stop pullout area, as part of this capital improvement project led by WSDOT.

The Fix

The bus loop is designed to activate a red signal on Bothell Way as a bus is ready to pull into traffic. The red signal creates a gap in traffic, providing an easy merge for the bus.

Resolution

The bus loop at this new signalized intersection is an innovative solution to reduce delay to buses pulling out of a bus stop onto a busy state highway.

Agency Staff Contacts

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Franco Fernandes, KC Metro