

## **Providence/Hillside Intersection Safety Improvements**

The Providence/Hillside Project, proposed by Schenectady County, was originally submitted to CDTC under the ITS for Local Signals set-aside. The proposed project calls for installing a fully-actuated traffic signal, improving intersection geometry, and constructing a right-turn lane on the westbound approach to the intersection. The project would include a controlled pedestrian crossing, crosswalks, and other pedestrian and bicycle treatments. The geometric changes to the intersection will require strip-takings, relocations of utility poles, and some drainage work.

After screening all project candidates prior to the July 2 Planning Committee meeting, it was determined by CDTC staff that the Providence/Hillside project was not eligible for the ITS set-aside. However, the project would be eligible for either the Intersections/Roundabouts/Queue Jumpers set-aside or the Safety for Non-State Roads set-aside. A roundabout project at the intersection was considered and evaluated but was not funded through the Intersections/Roundabouts/Queue Jumpers set-aside at the July 2 meeting. A safety project using the submitted project scope was also considered however the Planning Committee raised a question about the safety benefits related to the proposed right-turn lane.

The crash history at the intersection indicates that there are a relatively high number of severe, right angle type crashes at the intersection. This crash type can be reduced with the installation of the traffic signal as noted by the County's engineering consultant. However, the crash history does not directly support for the need for the right turn lane under current traffic conditions. The capacity and level-of-service analysis of the intersection using Highway Capacity Manual procedures indicates that a signalized intersection, including the westbound approach, would operate at a very high level-of-service during the afternoon peak hour under current traffic and geometric (without a right-turn lane on Providence) conditions.

Constructing a right turn lane may benefit bicycle and pedestrian traffic that use the existing shoulder by keeping impatient drivers off the shoulder and away from non-motorized users. However, because the intersection would operate at low average delays, the use of the shoulder by right-turning vehicles that would interfere with bicycles and pedestrians is likely to be small. Installing an electronic 'No Turn on Red' sign could be more effective in reducing vehicle/pedestrian conflict.