

TOWNSHIP OF WEST WINDSOR
Community Development Department
Division of Engineering

MEMORANDUM

TO: Marlena Schmid, Business Administrator

FROM: Francis A. Guzik, PE, CME, *FG*
Director of Community Development / Township Engineer

COPY: Mayor Shing-Fu Hsueh
Joe Pica, Chief of Police
Alex Drummond, Director of Public Works
James Yates, Director of Fire and Emergency Services

SUBJECT: NJDOT US Route 1 Concept Plan
NJ Transit "Dinky" Bridge to Millstone River Bridge

DATE: June 5, 2017

At the May 22nd Council meeting, the Mayor introduced the NJDOT's DRAFT Concept Plan for US Route 1, between the Millstone River bridge and the NJ Transit "Dinky" overpass. The concept plan proposes the following improvements, with the ultimate goal of reducing congestion in this area of Route 1:

- Widen the highway to create a total of four (4) through lanes in each direction of Route 1, as well as a fifth lane for stacking of vehicles turning at Washington Road, Fisher Place and Harrison Street (north bound Route 1 only). All "left" turns for vehicles on Route 1 will remain permitted with this project.

Vehicles exiting the Alexander Road overpass onto Route 1 North, intending to turn right on Washington Road, will already be aligned in the Washington Road exit lane.

Coming over the Millstone Bridge southbound on Route 1 the right lane/4th lane will be a combination through-and-right-turn lane. There will not be a dedicated right turn only lane due to the Millstone River's environmental restrictions.

- To accommodate the widening it introduces two slight curves into the alignment of Route 1 in order to avoid impacts to the Princeton Baptist Church property (both the historic church and inn buildings are preserved) and the PSE&G substation at Eden Way. These curves and the widening will require extensive utility relocations along portions of the project frontage.
- At Washington Road, improvements include modifying the south bound circle size to accommodate two receiving lanes for vehicles heading west on Washington Road into Princeton. Also, two additional traffic signals (metering signals) will be added to stop and stack Washington Road vehicles outside of the circle limits. A metering signal is synced with the existing traffic signals to control the flow of vehicles from Washington Road into the circle, and allow the circle to operate more efficiently.
- The jughandle for the signal at Fisher Place will be widened and lengthened in order to meet current safety standards. Also, Fisher Place will be provided with a right turn lane for traffic wanting to head north on Route 1.

- At Harrison Street the signal currently operates as a 3-phase signal where one phase, or green time, is for Route 1 north and south bound, then a separate phase for the SRI driveway which is also how northbound Route 1 vehicles turn left onto Harrison, and then the phase for Harrison only which permits the left turn from Harrison for Route 1 north bound traffic. The two separate phases for Harrison and SRI increases the stop time for Route 1 traffic, thus increasing congestion.

The concept plan changes the operation to 2-phase by getting rid of the left turn from Harrison to north bound Route 1. Instead, that traffic will travel straight across Route 1 and stack on the SRI side, turning right onto northbound Route 1. That allows the Harrison Street phase to be combined with the SRI phase, changing the signal from a 3-phase to a 2-phase. This reduces the length of stop time for Route 1 traffic. The NJDOT successfully implemented a similar change of eliminating a left turn phase at the intersection of Parsonage Road (CR 657) with US Route 1 in Edison, in front of Menlo Park Mall.

The design of the jughandle at the SRI property, when crossing from Harrison, attempts to maximize the storage of the number of vehicles from Harrison vehicles wanting to heading north on Route 1, as well as the number of Route 1 northbound vehicles that want to turn “left” onto Harrison. It may appear overdesigned, but the project has to account for growth in background traffic levels to be eligible to receive funding.

The proposed concept plan is the result of several years of effort undertaken by the NJDOT, working with a consensus plan that was developed by the coalition the five (5) regional Mayors of the communities along this area of US Route 1, along with representatives of Princeton University and University Medical Center of Princeton at Plainsboro. The consensus plan itself was undertaken by the Coalition after the failure of the Route 1 Pilot Project in 2012, where left turns were prohibited, causing serious safety and quality of life issues to Township residents.

It is recognized that this current concept plan is not a final solution to regional traffic issues, but is an interim one that has been found to be acceptable to all the entities involved to date. More importantly, it is a feasible one with an estimated cost the NJDOT is willing to undertake the pursuit of funding for, conditioned on an endorsement of the project by the affected entities. A request for a resolution endorsing the project will be prepared for Township Council action.

If you have any questions or need any additional information, please let me know.