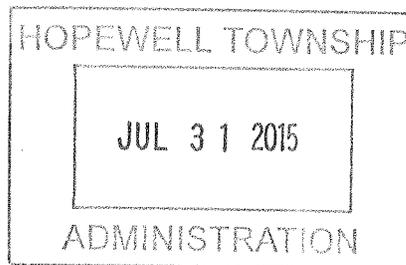




State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
Trenton, New Jersey 08625-0600



CHRIS CHRISTIE
Governor

JAMIE FOX
Commissioner

KIM GUADAGNO
Lt. Governor

July 29, 2015

Paul E. Pogorzelski, P.E.
Hopewell Township Administrator/Engineer
201 Washington Crossing-Pennington Road
Titusville, NJ 08560

Re: Route 31 Pennington Circle Project
Resolution#15-255, Traffic Metering Signals

Dear Mr. Pogorzelski:

I am writing in response to Hopewell's adoption of the Resolution#15-255 requesting changes to the traffic metering signals on the subject project. I appreciate the opportunity to address your concerns.

The Route 31 Pennington Circle project has an extensive history. Over the life of the project, the Department evaluated sixteen (16) conceptual improvement options (alternatives) at the circle. We conducted an extensive alternative analysis of the concepts and progressed with the option that included metering signals with striping improvements. The Department has worked closely with Hopewell on every facet of the project. At least twelve (12) meetings have been conducted with Hopewell local officials, township committees, and property owners on the current project design. The Department also received Resolution (#14-156) in support of the project from Hopewell on April 28, 2014. The project has been awarded for construction and work is starting.

We are in receipt of Hopewell's Resolution#15-255 passed on July 27, 2015 which references the following concerns:

- Location of the Route 31 SB metering signal – There are concerns that the queue from the Route 31 SB metering signal may block the residential driveways north of the Pennington Circle.

- Location of the Route 31 NB metering signal – There are concerns that the Route 31 NB metering signal is not required and that the Denow Road traffic signal currently provides metering.
- Removal of Route 31 NB and SB metering signals – Hopewell Township would like both metering signals removed from the project.
- Traffic signal at Route 31/Ingleside Avenue – Hopewell Township would like the existing flashing beacon at Route 31/Ingleside Avenue to be replaced with a full traffic signal, which could provide metering for Route 31 SB traffic at the circle.

We have reviewed your comments/concerns and provide the following response:

- The current locations of the metering signals were selected to provide the least impact to the residential and commercial driveways. Route 31 southbound, north of the Circle, consists of several residential properties adjacent to Route 31 from Ingleside Avenue to the Nursery. The southbound signal is located adjacent to the nursery. Route 31 northbound, south of the circle, consists of some commercial and residential properties. The northbound signal is located adjacent to a wooded area.
- The existing Denow Road traffic signal is located approximately ½ mile south of the Pennington Circle. In this case, the platoon of Route 31 NB vehicles from Denow Road disperses as these vehicles travel farther away from the traffic signal. In addition, there is a high percentage of heavy trucks on Route 31, which require more time to accelerate and often disperse the platoons. As a result, platoons from Denow Road can be dispersed by the time the vehicles approach the Pennington Circle, which reduces the amount of available gaps for vehicles entering from CR 546 and CR 640.
- Similar to Denow Road, Ingleside Avenue is located far enough away from the Pennington Circle that it may not provide consistent platoons of vehicles on Route 31 entering the circle, especially with the high volume of heavy trucks on Route 31. Additionally, during times when traffic needs to be metered at the circle, the Ingleside Avenue traffic signal would turn red for Route 31 during every cycle, even if there is no traffic on Ingleside Avenue. Motorists on Route 31 may get frustrated that they have a red signal indication when there is no opposing traffic on Ingleside Avenue, not realizing that the red signal indication is to meter traffic at the circle.
- The Route 31 and Ingleside Avenue intersection is located approximately ½ mile north of the Pennington Circle and is outside the limits of this safety and operational improvement project. At this time, a traffic signal warrant analysis based on current MUTCD guidelines has not been conducted to determine if installation of a traffic signal is warranted at this location. Hopewell Township is encouraged to submit a problem statement to NJDOT regarding installation of a traffic signal at the Route 31/Ingleside Avenue intersection. However, installation of a traffic signal at Route 31/Ingleside Avenue is not included as part of the Route 31 Pennington Circle project.
- Removal of the Route 31 NB and SB metering signals is not recommended since the signals will provide gaps for vehicles entering the circle from CR 546 and CR 640 and improve traffic operations and queuing within the circle.

The metering signals were analyzed using both VISSIM and Synchro/SimTraffic 8 software to determine the traffic signal timings and offsets. The proposed traffic signal timings were further evaluated and it was determined that the red times for the northbound and southbound metering signals can be reduced to 15 seconds while still providing adequate gaps for entering vehicles. Reduction of the red time will decrease queuing on Route 31, thereby reducing impacts to residential driveways in the vicinity of the metering signals. In an effort to minimize impacts to Route 31 traffic, NJDOT will implement the recommendation of our design consultant to reduce the proposed red times from 20 seconds to 15 seconds. Further reduction of the red time to less than 15 seconds would eliminate the effectiveness of the metering signals since there would be very few gaps between vehicle platoons entering the circle from CR 546 and CR 640.

Additionally, re-locating the southbound signal further south would require tree clearing and grading impacting the Riparian Buffer for the tributary crossing Route 31. This area has mapped deciduous wooded wetlands and is listed by the US Fish and Wildlife Service as having potentially suitable habitat for the endangered Indiana Bat. State-Concerned species, Great Blue Heron and Cooper's hawk, or their habitats have been indicated near this project section.

I hope this information helps to alleviate some of your concerns as well as your constituents' concerns regarding this project. If you have any additional questions, please feel free to contact Kimberly Nance, Office of Community and Constituent Relations, at (609) 530-2110.

Sincerely,



Scott Stephens
Director, Community and Constituent Relations
New Jersey Department of Transportation

- c. Kim Nance, NJDOT
John Campi, NJDOT