

New York State Department of Transportation Metropolitan Transportation Authority Metro-North Railroad New York State Thruway Authority

Meeting Minutes

Stakeholders' Advisory Working Groups (SAWGs) Traffic and Transit SAWG Meeting

Tappan Zee Bridge/I-287 Corridor Project



September 1, 2010

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Other SAWG Members Steven Higashide, Land Use SAWG	
<u>her Attendees</u> sh DuBow, Mayor, Village of South Nyack	
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<u>Part1</u> Introduction

Craig Teepell (NYSDOT) welcomed members of the Traffic and Transit Stakeholders' Advisory Working Group (SAWG) and introduced the evening's agenda, which was to discuss the proposed highway design improvements in Rockland County with primary focus on Interchanges 10 and 11. Mr. Teepell encouraged participation in the discussion and asked participants to introduce themselves.

Frank Grande (AECOM) described how the project team has been studying the highway traffic operations and safety aspects of the Thruway in the project corridor in parallel with the ongoing transit analysis. The highway design improvements take into consideration the proposed transit alignments for both commuter rail transit (CRT) and bus rapid transit (BRT) in the corridor.

Part 2 Presentation and Discussion

Mr. Grande began the meeting by providing an overview of the major highway design improvements that were studied as part of the ongoing DEIS. Some of the improvements were developed to address operational issues on the Thruway, and other modifications were developed in areas that would need to be modified as a result of the bridge replacement and/or transit accommodations.

1. Improvements to Highway Operations

The project team investigated the current operations of the Thruway and identified areas where operational issues would warrant consideration of major improvements, including:

- At Interchange 11, the westbound roadway transitions from four lanes to three, resulting in a bottleneck, increased congestion, and greater potential for accidents. The steep climb from Interchange 12 to 11 creates an operational problem due to slower-moving trucks. For this reason, climbing lanes were considered.
- At the Interchange 13 cloverleaf ramps, the limited area to merge/weave causes turbulence. Introduction of collector/distributor (C/D) roads would separate the merge/weave movement from general traffic.
- Between 14 and 14B, the addition of a new interchange, known as 14X, was considered to potentially relieve pressure at these interchanges and improve the operation of the Thruway.

To assess the highway improvements, the project team conducted several traffic analyses. The results are summarized below.

Climbing Lanes

The Thruway's 3% grade from the Hackensack River to Interchange 13 slows down westbound traffic, and cars are often stuck behind slower-moving trucks. The analysis showed that the steep grade and traffic volumes warrant the addition of a climbing lane in this and other steep segments to the west of Interchange 13. Since the segments where climbing lanes are warranted are not continuous, auxiliary lanes would be added to connect them. These would maintain lane balance and create a continuous westbound fourth lane from Interchange 11 to the

Spring Valley truck toll plaza. In the eastbound direction, between Interchanges 12 and 11, traffic is slowed by trucks on the steep grade, creating turbulence as faster-moving vehicles try to maneuver around the trucks and back-ups as far as Interchange 13. To improve safety and to ease the congestion, a climbing lane is proposed in this roadway segment.

Interchange 13

To reduce the conflicts and congestion at Interchange 13, collector/distributor (C/D) roads in each direction are proposed to separate the weave/merge at Interchange 13 from the regular traffic on the Thruway. Traffic wishing to exit the Thruway for the Palisades Interstate Parkway (PIP) would use the exit ramp before the interchange and join the parallel C/D road, which would be separated from the general purpose lanes by a barrier. The exiting vehicles would merge with the entering vehicles from the PIP along the C/D road, and those entering the Thruway would use the entrance ramp beyond the C/D road to merge into the general purpose lanes. This will be discussed more at a future SAWG.

Interchange 14X

An additional interchange was considered to ease traffic volumes at Interchanges 14B and 14. The analysis of Thruway traffic movements with the new Interchange 14X in place revealed that traffic volumes at Interchange 14B would increase because drivers wishing to avoid the congestion on Route 59 would use the new interchange as a short cut. In summary, the Thruway would function as part of the local roadway network, which is counter to Federal Highway Administration policy criteria for new interchanges. The criteria state that the analysis must demonstrate that a new interchange would benefit the interstate highway system and not simply be added to improve local traffic problems. Therefore, Interchange 14X is not to be advanced in the DEIS.

2. Improvements to Interchanges 11 and 10

In addition to the improvements above, the project team considered other modifications to the highway interchanges, which would be reconstructed as a result of the replacement bridge and/or the proposed transit alignments.

Improvements to Interchange 11

Interchange 11 was assessed because of the known traffic problems at the eastbound exit ramp and the need to rebuild the Mountainview Avenue and Highland Avenue (Route 9W) bridges when the highway is widened to accommodate climbing lanes and transit services. The potential increased traffic accessing the proposed BRT station in Nyack was an additional reason to evaluate traffic movements around the interchange. The existing Interchange 11 was designed as a split interchange with unconnected eastbound and westbound ramps. The project team assessed operations at the eastbound ramps/five-way intersection (Route 59, Mountainview Avenue, and Interchange 11 eastbound ramps). An initial consideration was to relocate Mountainview Avenue to the west to reduce its steep grade, but the results did not improve operations. Instead the eastbound entrance and exit ramps are proposed to be moved about 600 feet west of Mountainview Avenue to create a new intersection with Route 59 and West Broadway Street.

One tool the project team uses to analyze traffic is a simulation model called Paramics. This software creates a virtual model that simulates traffic interactions. SAWG members were shown a Paramics video simulation of traffic on Interchange 11 during a five-minute segment of the AM peak hour in 2047. The video showed long queues approaching the intersection and an unacceptable level of service. Vehicles traveling southbound on Mountainview Avenue and eastbound traffic on Route 59 experienced average delays of over 3 minutes.

SAWG members were then showed a second video, but this time with the proposed modifications in place. With the ramps relocated 600 feet to the west, traffic showed a notable improvement in level of service. Both eastbound Route 59 traffic accessing the Thruway at the new intersection and through traffic at the intersection of Route 59 and Mountainview Avenue improved. Traffic operations at the intersection of Route 59 and Highland Avenue also improved in the simulation.

Potential property impacts of the proposed improvement include the acquisition of one commercial property and one residential property. Ingalls Road would also be impacted and mitigation would need to be investigated. In addition the profile of Route 59 at West Broadway Street has non-standard sight distance and would need to be lowered, potentially impacting properties adjacent to Route 59.

The project team plans to meet in the near future with the Villages of Nyack and South Nyack to present and solicit input on these and other proposed improvements.

Reconfigured Interchange 10

Interchange 10 would be reconstructed because of the new bridge and the need to widen the Thruway to accommodate the transit alignments, which would necessitate the replacement of the interchange's four structures and circular ramps. The existing interchange has a number of deficiencies and operational issues that warrant its reconfiguration, including the lack of an eastbound exit ramp and confusing circular ramps, which provide poor connectivity to the Thruway and to adjacent roads. In addition, the present configuration of the interchange occupies more land than is necessary for the current traffic conditions.

To address these issues, the interchange was redesigned as a four-legged diamond with either signalized ramp intersections or intersections with roundabouts for traffic control. Roundabouts are considered safer than signalized intersections, eliminating head-on collisions, and have reduced operations and maintenance costs as they lack signals and can operate at all times (i.e., in an emergency). It was noted that roundabouts are different from traditional traffic circles; traffic in the roundabout has the right-of-way. Roundabouts will be considered for the new interchange initially and will be finalized based on the traffic analysis results.

SAWG members were shown a Paramics video simulation of traffic on the proposed diamond interchange, with roundabouts, during a five-minute segment of the AM peak hour in 2047. The video showed that the proposed roundabouts would operate with ample capacity for all movements and no sign of queuing or delay.

Positive impacts of the reconfigured interchange 10 would include:

- A new eastbound exit ramp could reduce volumes at Interchange 11,
- Direct access to the westbound Thruway for drivers on the north side of the interchange, which could also reduce volumes at the Interchange 11 westbound entrance ramp, and
- Direct connectivity between the communities on the north and south sides of the Thruway and for Route 9W to Hillside Avenue.

The project team plans to meet in the near future with the Villages of Nyack and South Nyack to present and solicit input on these and other proposed improvements.

Mark Roche (Arup) provided an update on the replacement Tappan Zee Bridge and its potential impacts to Interchange 10. He noted that the six bridge options still under consideration are essentially the same between South Broadway and Interchange 10. Each would use the proposed improvements to Interchange 10 with

roundabouts. The width of the Thruway would differ between South Broadway and the replacement bridge depending on the bridge option selected. Of the six remaining bridge options, three are single level and three are dual level. The single level options would impact more properties because they are wider, while the dual level options would impact views as the structure has more depth. The agencies are reviewing the six bridge options and anticipate reducing the number of options to two or possibly three for the DEIS; there will be a dual level and one or two single level options.

<u>Agenda Item 3</u> Questions (Q), Answers (A), and Comments (C)

Q: Would the footprint of the new and existing bridge be at the relative same location?

A: Yes, but only for part of the structure since the new bridge is considerably wider. The north span would be built first and all traffic would be transferred to this structure. Then the existing bridge would be demolished and the south span would be built relatively within the existing bridge's footprint.

Q: Why are people objecting to a higher bridge? I would think that property is more valuable than views.

A: A higher bridge would have a notable visual impact to those who live close to the bridge.

Q: How did you know that Interchange 14X would increase traffic on Route 59, on the Thruway, and at Interchange14B?

A: The simulation model analyzed the projected future traffic on the Thruway between Interchanges 15 and 14 with and without Interchange 14X. The results indicated that additional volumes would be entering and exiting at Interchange 14B when Interchange 14X was added.

Q: If the existing westbound merge from four lanes to three lanes at Interchange 11 is shifted west, won't the bottleneck also be shifted?

A: The proposed westbound climbing lane is recommended to terminate as an entry lane into the Spring Valley truck toll plaza. In this segment of the corridor, traffic volumes are lighter than they are east of the Garden State Parkway. Therefore, we do not anticipate a bottleneck where the climbing ends at the truck toll plaza, which is where the lane drop occurs.

Q: Are we considering ramp metering?

A: Ramp metering, which controls the rate at which vehicles enter the highway, is under consideration as a transportation system management tool to facilitate safer merging from an interchange ramp into the general traffic lanes.

C: Issues at Interchange 11 are (1) westbound Route 59 when a vehicle blocks the free right turn and (2) eastbound Route 59 when vehicles run the light to make the turn onto Interchange 11.

Q: What are the provisions for pedestrians with the proposed Interchange 11 improvements?

A: DOT's projects that reconstruct arterials, or signalized intersections, consider the need for sidewalks and crosswalks, and these would be included in the final design for the Interchange 11 improvements.

Q: How does the widening resulting from the climbing lanes at Interchange 11 affect the proposed BRT station? A: The plans shown included the climbing lanes and there is enough area at the proposed location for buses to access and egress to and from the station in both the BRT busway and HOV/HOT lane alternatives. C: The Nyack BRT station should not be in the location proposed.

A: The proposed location will be included in this DEIS and further studied in the future Tier 2 transit analysis. That analysis could result in the station location shifting to another location.

C: Since space will be freed up at Interchange 10, the proposed Nyack BRT station should go there.

A: For this DEIS, the Nyack BRT station will be analyzed at Interchange 11. The current thinking is to relocate the existing Thruway maintenance facility and state police headquarters in Tarrytown, which will be displaced by the proposed BRT station on Broadway, to the available space at Interchange 10.

Q: Do we have an alternative for roundabouts? People aren't familiar with these and they could cause confusion.

A: The alternative to roundabouts is signalized intersections; however, NYSDOT's policy is to look at roundabouts first and determine if the traffic analysis reveals operational problems. Yes, there is a short learning curve for roundabouts, but they have been found to be safer than signalized intersections because they force drivers to slow down before entering the roundabout and practically eliminate head on collisions.

Q: If I am heading south on 9W and want to get on the new bridge, how do I do that?

A: Approximately 1,000 feet south of the interchange there would be a new "T"-shaped intersection between Hillside Avenue and Route 9W. Here, vehicles would make a left turn, travel a short distance to the roundabout, and turn onto the eastbound entrance ramp onto the Thruway and the bridge.

Q. Why does the interchange have two lanes heading south and only one northbound lane?

A: Most traffic heading north from Route 9W wishes to enter the Thruway and cross the Tappan Zee Bridge. The traffic volumes heading north were found to be quite small. However, we will consider adding the second northbound lane for a balanced interchange.

C: The South Nyack community would like the project team to consider their proposals to build a structure over the Thruway in such a way that reconnects the north and south sections of South Nyack that were separated when the Thruway was built.

Adjournment

The meeting adjourned at 7:45 pm.