



TAPPAN ZEE BRIDGE/I-287  
ENVIRONMENTAL REVIEW

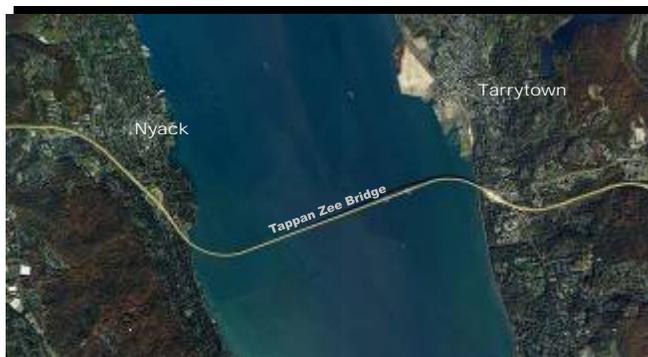
**New York State Department of Transportation  
Metropolitan Transportation Authority Metro-North Railroad  
New York State Thruway Authority**

**Meeting Minutes**

***Stakeholders' Advisory Working Group  
Bridge SAWG 12***

***Tappan Zee Bridge/I-287 Corridor  
Environmental Review***

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**July 28, 2009**

| <b>Attendance at Bridge Stakeholders' Advisory Working Group Meeting<br/>July 28, 2009</b><br>Tarrytown Village Hall, Tarrytown, New York |  |                                    |
|---|--|------------------------------------|
| <b><u>Stakeholders' Advisory Working Group Members</u></b>  | <b><u>Additional Attendees</u></b>   | <b><u>Project Team Members</u></b> |
| William Cerbone   | Tish Dubow, Mayor, South Nyack   | Michael Anderson NYSDOT            |
| Marion Franklin   | Francis Goudie, Sustainability Coordinator, Village of Irvington               | Kristine Edwards NYSDOT            |
| Gilbert Hawkins   |  | Yvette Hinds NYSDOT                |
| William Helmer  |  | Robert Laravie NYSDOT              |
| Robert Hintersteiner  | Carole Griffiths, Chair Tarrytown Environmental Advisory Council               | Tom McGuinness NYSTA               |
| Milton Hoffman  |  | Angel Medina NYSTA                 |
| Barton Lee  | John Sardy, Executive Director, Sleepy Hollow – Tarrytown Chamber of Commerce  | Brian Serman MNR MTA               |
| Marie Lorenzini   |  | Helga Gregory Arup                 |
| Marilan Lund  | Susan Schwarz Study Committee of the Westchester County League of Women Voters | Mark Roche Arup                    |
| Jon Marshall  |  | Rita Campon Parsons                |
| John Messina  |  | George Paschalis HSH               |
| Michael Oliva   | Wolfgang Schwarz   |                                    |
| Ron Weinstein   |  |                                    |

**INTRODUCTION**

Kristine Edwards, the NYSDOT bridge manager for the study, opened the meeting. Those in attendance introduced themselves and the meeting commenced.

This session continued our interactive Stakeholders' Advisory Working Group format, with attendees sitting around a table and drawings and other materials rolled out in front of them for their review. SAWG members and other attendees participated, asked questions, and offered opinions throughout the meeting.

One of the purposes of this meeting was to get further input from the working group as the project team continues its evaluation and screening of options for a new bridge configuration. This meeting specifically addressed commuter rail transit (CRT), bus rapid transit (BRT), and highway alignment issues and how they may impact the Tarrytown side of the proposed new bridge.

Both single level and dual level bridge configurations were shown at the meeting, which focused in part on how highway lanes, BRT/high occupancy vehicle (HOV) lanes, and a commuter rail system could be arranged on the bridge structure while considering project goals, design criteria, right-of-way (ROW) concerns, safety and security, operations, BRT connectivity, CRT connectivity, constructability, possible main span bridge type, and transit accommodations that could be made to the highway and bridge while the transit environmental analysis is under way.

Mark Roche (Arup, engineering consultant) began the meeting with a general introduction and recap of the SAWG meetings on June 3, 2009 and June 25, 2009. Also addressed were the action items from the last SAWG meeting. Minutes of the Joint Environmental and Bridge SAWG held on June 25 were distributed.

Since there were numerous new participants at this Bridge SAWG meeting, some previously addressed items were revisited briefly to bring everyone up to speed. Large-format drawings and aerial photographs depicted the various bridge configuration options under consideration.

The two "parking lot" items from the last meeting were addressed:

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- The project team is sourcing the data presented at the recent West Point event regarding sustainability
- The project team confirmed that it will reach out to local fishermen, in particular, the son of Bob Gabrielson , to ascertain further data on river fish populations

Over the course of the next two-plus hours, Mr. Roche shared with the group the project team's progress since the last SAWG session in the evaluation and screening of bridge configuration options. Using working drawings, elevations, and aerials, Mr. Roche explained the various issues with regards to the CRT, BRT, and highway and their relationship to the proposed bridge at the Tarrytown landing. He described how the new bridge would meet the land and the elevation issues that need to be considered to accommodate the CRT system. The following issues were among those discussed:

- Possible locations for CRT and BRT on the bridge
- The placement of the multiuse (bicycle/pedestrian) path on the bridge and possible locations for connection to the existing bicycle/pedestrian facilities in the Tarrytown area, including the right-of-way location in the vicinity of the Quay condominiums
- The overall space requirements for the bridge as it approaches Tarrytown were shown. Additionally described were the current and proposed boundaries of the bridge.
- Remaining options for the single and dual level bridges



## **DISCUSSION**

### Questions and comments included the following.

- Question 1: What are the advantages from an engineering point of view of placing the CRT on the south side versus on the center of the proposed bridge?  
Answer: From an engineering point of view, placing the CRT on the center of the bridge would provide a symmetrical bridge structure. If the CRT were to be placed on the south side, the bridge would be unsymmetrical with likely cost implications and possibly more structure in the river at the main spans.
- Question 2: What is the expected life of the proposed new bridge?  
Answer: Current bridge codes and standards stipulate a life of 75 years for a new bridge, although we're estimating 100 – 150 years before major maintenance would be required on the proposed new Tappan Zee Bridge.
- Question 3: Would all options include a bicycle/pedestrian path? Would it be on one side or both sides of the proposed new bridge, and how wide would it be?  
Answer: At the last SAWG some members expressed their opinion that a bicycle/pedestrian path on one side would likely be sufficient, with some further thought needed on which side of the bridge would be more appropriate. An initial width of 15 feet is assumed for the DEIS, but this may change later in the design process. Special meetings are anticipated to discuss the multiuse path and how it would connect to locations across the corridor. No decisions have been made at this point on the connections or whether there would be one or two paths on the bridge.
- Question 4: Would the CRT be continuous across the counties?  
Answer: As outlined in the *Transit Mode Selection Report* (TMSR), available on the project website, [www.tzbsite.com](http://www.tzbsite.com), the CRT would connect to the Port Jervis Line, cross Rockland County and the replacement bridge, and connect to the Hudson Line just south of Tarrytown. The CRT would not cross Westchester, but the potential for a future connection would not be precluded.
- Question 5: What about the safety and infrastructure issues for the shoulder tunnel (the tunnel that would carry the CRT and begin at the Tarrytown landing, looping under the Croton Aqueduct and connecting with the Hudson Line) ?  
Answer: The shoulder tunnel will be discussed at the next meeting or at a future meeting when we will have the drawings to show the alignment and the possible location of support facilities.
- Question 6: What are the benefits of the various bridge configuration options?  
Answer: The configurations differ substantially in the possible span lengths (distance between piers) and therefore the number of piers in the river. They also differ in the depth of the structure: the dual level structure is approximately 40 feet deep at a minimum, and the single level bridge would likely be a minimum of 15 feet deep.
- Question 7: Any special consideration or restrictions for trucks?  
Answer: No change in the truck access along the Thruway is proposed. It is noted that trucks are not allowed on the lower level of the George Washington Bridge for security reasons. This also is an issue for the TZB replacement bridge.
- Question 8: What is the grade in the shoulder tunnel?  
Answer: The grades are approximately 1.5%, which is a vertical rise of 1.5 feet in every 100 feet along the horizontal. The maximum allowable grade would be 2%.
- Question 10: What are the impacts to the Quay?  
Answer: In the concept drawings developed to date, it appears that some of the replacement bridge configurations show some of the bridge extending the property line for the Quay by about 10 feet for a short length. Further development of the alignments and the construction staging will provide additional details, which we will share with you in upcoming meetings.
- Question 11: Can anything be done about truck braking and the noise associated with it? Can the toll plaza be moved to the west in to Rockland County?

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Answer: We are aware of the truck braking noise on the bridge that is caused as trucks slow down to go through the toll plaza. For the new bridge, high-speed toll lanes are envisaged that will not need trucks to slow down, thus reducing the braking noise. There are no plans to move the toll plaza to Rockland County, but the configuration of the toll plaza may change with the possible introduction of high-speed tolls for all lanes in the future.

Question 12: What about the south alignment for BRT?

Answer: We are looking at all alignments for the BRT as it approaches the landing in Tarrytown. However, given the likely location of any BRT station on the north side of the bridge, an alignment for BRT on the north side may be preferable.

Question 13: What about funding for the bridge?

Answer: A financing study is underway, concurrent with the DEIS, to explore funding options for all elements of the project—highway, bridge, and transit.

Question 14: Will there be impacts related to the phasing of the bridge at the landings?

Answer: We are currently developing drawings to fully understand the temporary requirements for the bridge landings. We are developing construction staging and details for access to the construction in the river. Once they are developed, these details can be shared with the SAWG at future meetings.

Question 15: Why can't the CRT shoulder tunnel go north to the Tarrytown station instead of south toward Irvington?

Answer: As part of the Level 1 screening conducted during scoping, a northern shoulder tunnel at the Tarrytown landing was considered. This northern option was eliminated from detailed consideration as it required a substantially larger number of easements when compared with the southern shoulder tunnel option.

Question 16: How high is the busway likely to be in front of the Quay tennis courts?

Answer: The tennis courts are at an elevation of 40 feet. The minimum elevation of the busway is about 85 feet if it is placed on the lower level of the dual level bridge option.

Question 17: Are you considering air and noise impacts in your configuration assessment?

Answer: Yes: These will be considered in detail once the number of bridge options is reduced as part of the current engineering evaluation.

Question 18: Why does CRT need to connect to the Hudson Line? Why not go to White Plains and connect to the Harlem Line there?

Answer: A capacity analysis of the existing Metro-North lines in Westchester was completed to answer this question. It concluded that the Hudson Line was the only line that had sufficient capacity to support the additional trains.

Question 19: Where will the CRT make its first stop on the east side of the river?

Answer: The service plan indicates that the CRT connecting to the Hudson Line would provide express service to Manhattan with the first stop in Yonkers. Provision for possible local stops starting in Irvington would not be precluded.

Question 20: Will tracks be added to the Hudson line?

Answer: No additional tracks will be added. The Hudson Line has 4 tracks.

Question 21: Can you use the Manhattan Bridge as an example for configurations?

Answer: The Manhattan Bridge is a good example of how highway and rail can be combined into one bridge structure. However, it is noted that the CRT on this structure is located on the outside and twisting of the structure is a concern.

Question 22: What about the phasing of the bridge? The George Washington Bridge was designed for transit, but it doesn't carry transit. Those areas of the bridge are now used by vehicular traffic. Could that happen on the new Tappan Zee Bridge?

Answer: No lanes will be added to either the Thruway or I-287. The solution for this project is not additional lanes but additional transportation choices – BRT and CRT – to meet the growing travel demand and mobility needs of the corridor.

Question 23: What are the ideas on the drawing board to get to the Tarrytown station?

Answer: Three potential options for the BRT connection to Tarrytown were discussed. Each one would use a new route along the existing Hudson Line in front of the Quay condominiums.

- Question 25: What about demand for this BRT connection to Tarrytown?  
Answer: We can discuss the expected ridership at a future meeting. The connection at Tarrytown is integral to the operation of the BRT system and the integration of the transit modes in the region.
- Question 26: Is there a reason that the Tarrytown station has been the station chosen for the BRT?  
Answer: Tarrytown was identified in the service plan as the likely area for a station. The exact location of the station would not be determined until the Tier 2 transit analysis, which would begin after the completion of this Tier 1 Transit/Tier 2 Highway and Bridge EIS. The possible BRT station at Tarrytown would allow feeder buses from Route 9 to enter the BRT system and potentially reduce traffic on Broadway and through Tarrytown.
- Question 27: Only 4 traffic lanes are proposed on the replacement bridge. Has a 6 traffic lane configuration been discussed or considered?  
Answer: There are no plans to increase the number of general purpose traffic lanes in the corridor or on the replacement bridge. It is not our goal to build our way out of congestion by providing more vehicular lanes. . The addition of transit – both BRT and CRT—would allow travelers additional options.
- Question 28: What about air quality?  
Answer: Once the number of bridge options has been reduced based on the current engineering studies, we will quantify potential air quality impacts during and after construction.

John Messina handed Mark Roche the following questions at the meeting:

- Question 29: Will you be designating a spoil area?  
Answer: Yes, we will be considering where spoil can be deposited.
- Question 30: Will you assume that spoil will be clean—with additional payments for the contractor to be negotiated for contaminated spoil—or will you assume that the spoil is contaminated?  
Answer: The samples taken from the river will tell us the make-up of the possible contaminants in the river. Details on the contaminants will be presented in the DEIS. Contracting decisions are premature at this time.
- Question 31: Can driven sheeted cofferdams be cut off below river bottom and left in place? It may be hard to pull the cofferdams, and they might cause too much turbidity.  
Answer: This will be evaluated in the design process.
- Question 32: How close is the nearest shipyard that could be used for pre-fabrication? There used to be one south of Newburgh-Beacon bridges on the west shore. Anything closer?  
Answer: No assessment of fabrication locations has yet been undertaken as this would be premature at this point.
- Comment 33: We should discuss the possibility of using a “hung cofferdam” in the construction of the proposed new bridge at the next meeting.
- Comment 34: Steel pile shells one meter in diameter will go together in perfect alignment with an inner ring pre-welded to the added section.  
Answer: These details are premature at this time and will be evaluated later, during the design process.
- Question 35: Would the steel pipe piles be filled with a rebar cage and concrete?  
Answer: It is anticipated that the steel piles will have a reinforcement cage in the upper section only.
- Question 36: Will the contract also encourage value engineering?  
Answer: Value engineering is part of the normal NYSDOT process on all projects.

### **Parking Lot Issues**

Discussion of these issues was postponed to future SAWG meetings:

- Estimated ridership and cost of the BRT Tarrytown connection
- Shoulder tunnels: alignments and facilities