



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 20

Tappan Zee Bridge/I-287 Corridor Project



August 5, 2010

Attendance at Bridge Stakeholders’ Advisory Working Group (SAWG) Meeting August 5, 2010 Bridge SAWG 20	
<u>Stakeholders’ Advisory Working Group Members</u>	
J. Donald Adams Michelle Bulla Bob Dillon, Rockland R.A.F.T. Francis Goudie, Village of Irvington James Hartwick, Senator Thomas Morahan’s Office Gil Hawkins, Hudson River Fisherman’s Association William Helmer	Robert Hintersteiner Barton Lee, New Jersey Association of Railroad Passengers Marilan Lund John Messina Catherine Nowicki, Tappan Zee Bridge (TZB) Task Force
<u>Other Attendees</u>	
Lorette Adams Eugene DuBow Tish DuBow, Mayor, Village of South Nyack	Jane Keller, Traffic and Transit SAWG member Maureen O’Connell
<u>Project Team Members</u>	
Yvette Hinds, NYSDOT Kristine Edwards, NYSDOT Robert Laravie, NYSDOT Tom McGuinness, NYSTA Angel Medina, NYSTA Brian Sterman, MTA MNR	Mark Roche, Arup Allison Davis, Arup George Paschalis, HSH

INTRODUCTION

The following pages outline the material presented at this meeting of the Bridge Stakeholders’ Advisory Working Group (SAWG). The meeting’s purpose was to discuss different bridge types for the main span and the Rockland landing, the bridge’s facilities, and potential property impacts. The overall objectives were to:

- Show viable bridge types based on international examples,
- Discuss the pros and cons of the bridge types in relation to the six remaining replacement Tappan Zee Bridge options under consideration, and
- Begin to discuss the facilities and potential property impacts of the six remaining options in the area of Rockland near the new bridge.

The meeting’s agenda consisted of:

1. A brief presentation of bridge types including international examples,
2. Detailed discussion of the differences between the replacement Tappan Zee Bridge options in relation to the bridge types, and
3. Detailed discussion of the replacement Tappan Zee Bridge options at the Rockland landing as shown on the current engineering drawings.

The venue: Nyack Library, Nyack, NY

1. Slide Presentation

2. Record of Discussions

Bridge Types

Following the presentation, the bridge options were compared and contrasted based on the main span types shown in the presentation. Everyone was reminded that details would be refined as impacts are evaluated and better solutions to individual issues are identified. It was also highlighted that the purpose of the Draft Environmental Impact Statement (DEIS) is to understand the environmental impacts, not design the perfect bridge. Below are some of the considerations of the different bridge options:

Option 1: Single level with rail between two highway decks

- Visually, the arch span would be clean and simple. But the piers of the arch are more complicated.
- With rail in the middle of the highway spans, emergency response could approach from both sides of the bridge if a problem arose on the rail.

Option 2: Single level with rail on the south side of two highway decks

- Emergency response could come only from Rockland on the east span. Emergency response (or safety) is therefore a differentiator between the bridge options.
- Option 2 could be the least costly option because the highway spans could be built initially and the rail spans could be built later as funding becomes available. However, while this would present the minimum initial investment in rail, it would require that construction and river dredging occur a second time.

Option 3: Single level with rail in the middle on a cross beam

- Option 3 is very similar to Option 1 at the main span. However, the cross beam and rail deck could be added in the future.
- Option 3 has only two piers in the river.
- To build rail after the highway, the shoulder would be closed and the river would not need to be disturbed again.

Option 4: Dual level with commuter rail transit (CRT) stacked

- There are only two towers, presenting potential redundancy issues.
- This option would be very challenging to build due to construction sequencing, as it would need some of the space occupied by the existing bridge during construction.

Option 5: Dual level with CRT on the bottom

- This has a fairly straightforward construction.
- It has a wider cross section than does Option 6.

Option 6: Dual level with CRT and bus rapid transit (BRT) on the bottom

- This option is similar to Option 5 in construction, but it would have a narrower cross section as both transit modes would be on the lower level.

Rockland Landing

We have started to identify the property impacts at the landings. Option 1 is the widest option, although the alignment at the Rockland landing has been tightened as much as possible. Option 1 would have about 12 property impacts, plus some sliver takings or small acquisitions. The rail would enter the tunnel portal at South Broadway Bridge, so it would be just west of the South Broadway Bridge when the highway lanes come back together. Therefore, the highway would be at its widest between the river and Interchange 10. The wider width would impact Ferris Lane, which would need to be relocated to maintain access to properties along the street.

Option 5 is one of the narrowest of the six options and therefore would have fewer property impacts. However, between the river and Interchange 10, the bridge would be higher than it is currently.

We are now placing the various facilities into the landing and assessing the impacts and identifying the mitigations. Facilities include:

- A stormwater and pump facility would need to be added to collect and clean runoff before it enters the river. It would need to be located at the bottom of the hill at the shoreline, where the maintenance building is.
- Troop T and maintenance facilities that are currently on the Westchester side will be relocated to accommodate the proposed Broadway BRT station in Tarrytown. The area within the reconfigured Interchange 10 might be a possible location for both.
- A CRT ventilation building for fire (not exhaust) would be needed and it needs to be a secure facility. The area within the reconfigured Interchange 10 would be the most likely location for this building.
- Along River Road, the existing NYSTA dock access would have to remain.
- A new ramp is proposed for Interchange 10 so all directions on the Thruway would be accessible from Interchange 10. This may impact traffic in South Nyack; a traffic study is underway.
- The Franklin Street bridge is proposed to be removed, so the connection between Clinton Street and Hillside Avenue would be removed. A traffic study is underway for this proposal, as well.

3. Comments (C), Questions (Q), and Answers (A)

Q: Which bridge options have the most piers?

A: The single level bridges have the most piers.

Q: Is capacity over the bridge part of the evaluation criteria?

A: Capacity/ridership is one of the criteria, but all options have the same number of lanes, bus lanes, and CRT. They’ve all been designed to carry the same transit and vehicles, so this is not a differentiator.

Q: I thought the rock was 700 feet into the river, not 250 feet

A: It’s 700 feet deep in the causeway area (near Rockland). The 250-foot depth occurs in the main channel.

Q: Would a cable-stayed, replacement Tappan Zee Bridge be a similar length as the Florida Sunshine Bridge?

A: They would both be the same length at the main span. The big difference is that the replacement Tappan Zee would carry rail, which would give it a different characteristic and require it to be much stiffer than the Florida Sunshine Bridge. Controlling the comfort of people on the trains is one of the design criteria for rail.

Q: Is there a genuine cost difference between arch and cable stay?

A: The cable stay is more efficient and economical. However, arches have a different character.

Q: The existing bridge is safe except in the occurrence of an earthquake. Which one of the bridges would work through a seismic event?

A: All could be designed for a seismic event. The code now requires that for critical structures, the bridge needs to be able to be put back into service quickly after a seismic event.

Q: Would the height of the cable-stayed towers impact aircraft?

A: There’s no limitation that we are aware of. This is unlike other bridges in the region, such as the Goethals Bridge, which has a limitation due to its proximity to Newark Airport.

Q: Has a tunnel under the Hudson River been ruled out?

A: Yes.

Q: How high is the George Washington Bridge?

A: There is a 212-foot clearance under the bridge. It is about another 400 feet above to the top of the towers.

Q: Would the arch have clearance issues on the back span?

A: Yes, that would be possible.

C: The Messina Strait Bridge (in Italy) has the rail as an integral part of the bridge. Option 2 shows rail as an addition after the fact. If you are going to use an element on the bridge, it should be there from the beginning – as an integral part of the bridge.

C: Option 2 has five towers (more than the others), which has cost impacts.

C: There are some other ways to build Option 2 using a different profile. From the beginning, Option 2 was designed to have the same grade for rail and highway (1.2 percent grade). However, it could be designed to have highway at the existing grade and have rail at 1.2 percent grade. This is being investigated.

C: There are many accidents because of the grade on the existing bridge.

A: The grade is one of several factors affecting accidents on the existing bridge. These factors will be taken into account in the design of the replacement bridge.

Q: Could you make the outside shoulders 15-20 feet wide so that when you need to use the shoulders for construction, maintenance, or emergencies, you would not impact regular traffic?

A: Yes, that could be done. Alternatively, traffic could be shifted to the other shoulder, leaving the outside shoulder and the outside travel lane available for construction, maintenance, or emergencies.

Q: How difficult will the transition be on the Westchester side for the dual level bridge?

A: Actually it is quite easy. CRT needs to be below the highway to get to the Hudson Line, which is where it is for the dual level bridge options. For single level options, between the main span and the Westchester landing, CRT would descend below the highway to make the connection.

Q: What would happen if there is a rail accident on the dual level bridge? How would emergency vehicles access the train?

A: Emergency vehicles would stop on the upper deck, maximizing the use of the shoulders to the extent possible. Responders would use stairs or other strategically placed access ways to reach the train as quickly as possible.

Q: Where would the bike/ped path be?

A: On our plans it is always shown on the outside, which would keep it away from the critical points of the bridge. Our Bicycle/Pedestrian Advisory Panel recommended an extra wide path on the north side of the bridge.

Q: What would happen to the road level on the Nyack side of the bridge?

A: It would be higher than the existing level, although it depends on whether a dual or single level option is selected.

C: I like Option 3 – it is simpler, has less structure, and would be easier for emergency access.

C: Options 5 and 6 may have emergency access issues.

Q: In Option 6, how wide would the busway be underneath?

A: The busway would include a 12-foot lane, a 2-foot inside shoulder and an 8-foot outside shoulder in each direction. The actual infrastructure would provide for 70 feet between girders.

C: NYSTA may need to be able to cross traffic in the event of an emergency. Option 2 would allow that, while Options 1 and 3 would present potential issues with the rail.

C: If you want to put rail underneath, put a 15-foot shoulder next to it so that emergency vehicles would not impede vehicle traffic on the upper deck.

Q: What about freight rail?

A: Although freight is not planned for the project, it would not be precluded. State law does not allow us to develop rail without allowing for freight loads and clearance envelopes. We are evaluating the impacts

associated with designing the bridge and corridor to accommodate freight loads. Exceptions to this law are possible but must be justified.

Q: How would a shared use (bike/ped) path on the north side impact emergencies?

A: It wouldn't. There would be plenty of space on the bridge for emergency vehicles.

Q: What would you do to limit suicides?

A: That is a factor that we are aware of and one that certainly will be a consideration in the final design of the railings, but it does not impact a decision between the bridge options.

Q: With rail in the middle, how would you shift traffic to the other side if necessary?

A: This would only happen in the event of a very high level incident. With the addition of shoulders and BRT lanes, the replacement bridge will be much wider than the existing bridge, providing emergency responders with greatly increased space to work in the event of an accident. However, provisions for suspending rail service in such an event and having vehicles cross the rail would be required. It would not be acceptable to trap vehicles on the bridge.

Q: Would you have to close the bridge when there is a fatality?

A: No. The replacement structure would be much wider than the existing, allowing any required accident investigation to continue without interrupting traffic.

Q: Have you had to close the bridge due to ice falling from the main span?

A: We have not. We've been very fortunate as this is an issue on the George Washington Bridge.

Q: What are the core financial strategies for funding the whole package?

A: We are not sure yet as various core strategies for funding are still being investigated. Another study is underway which is ongoing separately.

Q: Where are we in the environmental process?

A: The Draft Environmental Impact Statement (DEIS) is underway.

Q: Reconnecting South Nyack via a park over the Thruway – has this been included in the drawings?

A: Not at this time.

Q: Is Interchange 10 going to be redesigned?

A: Yes, that is the current plan. Interchange 10 may be the site of staging areas during construction and the relocated NYSTA and trooper facilities from Westchester.

C: It appears that South Nyack is being very negatively impacted again. Where's the giveback? Where are the mitigations?

A: At this stage, we are still identifying the impacts. Once those are better defined, then we can identify potential mitigations.

Q: Where will all the construction staging happen?

A: That will be discussed at the next meeting.

Q: Why not elevate the Thruway at the landings and put CRT under it to narrow the footprint in Nyack?

A: This is essentially what would occur under Options 5 and 6. First, however, we need to understand the impacts of a full single level bridge. The major differences between single level and dual level bridges are the number of piers (greater for single level), width at landing (wider for single level), and height at landing (taller for dual level).

Q: How far into the landing would be affected by the bridge choice?

A: Through interchange 10.