



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 Groups (SAWGs)
Traffic and Transit SAWG Meeting #7***

Tappan Zee Bridge/I-287 Corridor Project



April 27, 2010

Meeting Title:	Stakeholders’ Advisory Working Group (SAWG) Joint Land Use/Traffic and Transit SAWG Meeting #7
Meeting Purpose:	Exchange of information
Location Date:	Valley Cottage Library Valley Cottage, NY April 27, 2010 6:00 – 8:00 PM
Agenda:	Item 1. Introduction (Page 2) Item 2. Presentation (Page 3) Item 3. Discussion (Page 9)
	Attendees: <u>Traffic and Transit SAWG Members</u> Charles Borgman Philip Bosco, Rockland R.A.F.T. Joan Connors Erik Simon, Office of Legislator Harriet Cornell Patrick Gerdin, Rockland County Department of Planning Orrin Getz, Empire State Passengers Association / NJ Association for Rail Passengers Randy Glucksman Richard Harrington James Hartwick, Office of Senator Morahan Jane Keller Barton Lee, New Jersey Association of Railroad Passengers Marie Lorenzini, Village of Nyack Lawrence Lynn, Village of Grandview Richard May Catherine Nowicki, Town of Clarkstown & TZB Task Force Mary Jane Shimsky, Office of Assemblyman Richard Brodsky <u>Other SAWG Members</u> Joan Schroeder, Environmental SAWG

Project Team Members

Wil Schraft, FHWA
Yvette Hinds, Department of Transportation (NYSDOT)
Craig Teepell, NYSDOT
Wei Cheung, NYS Thruway Authority
Dan Evans, MTA Metro-North Railroad
Jim Coyle, AECOM
Frank Grande, AECOM
Caren R. Morgan, AECOM
Jim Rashford, Clough Harbor Associates
Rita Campon, Parsons
George Paschalis, Howard Stein-Hudson

Agenda Item 1
Introduction

Craig Teepell (NYSDOT) welcomed members of the Traffic and Transit Stakeholders' Advisory Working Group (SAWG) and introduced the evening's agenda. The goal of this meeting was to present, discuss, and seek input on the results of the project team's evaluation of commuter rail transit (CRT) alignment options in Rockland County. Recommendations and decisions regarding these results have yet to be made. Mr. Teepell asked participants to introduce themselves and encouraged participation in the discussion.

Frank Grande (AECOM) presented illustrations and engineering plans to aid in the discussion. The following transit alignment options, or TAOs, in Rockland were reviewed:

- CRT in the Piermont Railroad Line or along Wayne Avenue,
- CRT Over or Under Airmont Road,
- CRT in the Median or on the South Side of the Thruway, and
- CRT Over or Under the West Shore Line.

Agenda Item 2
Presentation

The transit alignment options are being screened using several engineering, transportation, environmental, and cost evaluation criteria.

Evaluation Results

CRT on Piermont Railroad Line or Wayne Avenue

In evaluating whether the CRT should travel along the existing Piermont freight line or along Wayne Avenue in Suffern, the project team considered several features in a 2.5-mile area of analysis (Interchange 15 to Airmont Road).

In the Wayne Avenue option, the CRT would rise over Route 59, requiring Route 59 to be lowered approximately 4 feet to provide clearance for the grade-separated CRT and overhead highway infrastructure. The CRT would then travel on the north side of Wayne Avenue on retained fill, then on a viaduct over the Mahwah River, continuing east on fill before entering a retained cut to pass under Hemion Road, and climbing to a 2% grade to cross over Airmont Road.

The Piermont Line option would be constructed within the existing rail freight line, which has grade crossings at Route 59, Chestnut Street, and Washington Avenue. To provide grade separation the CRT would tunnel under Route 59 and then travel in a retained cut beneath Chestnut Street and Washington Avenue and then climb to span over the Mahwah River. The CRT would follow the Piermont Line grade, then climb over Dunnigan Drive and Airmont Road into the Thruway right-of-way (ROW). Where the Piermont Line would travel in deep retained cuts, tiebacks (steel rods placed at angles into the surrounding soil) would be required to support the retaining walls. Tiebacks require subsurface easements and can extend as much as 75 feet into the surrounding ground.

Both the CRT and bus rapid transit (BRT) services would connect to local buses traveling on Route 59, and to the BRT trunk line, at the intermodal station proposed in Hillburn.

Summary of the key evaluation results:

Engineering:

Both options have grades that are higher than desirable for the operation of a commuter rail service, with the Wayne Avenue option extending longer at a grade above 1.5%. The Piermont Line option would require tunnels and retained cuts to remain grade separated. Both options would assume a viaduct to cross Airmont Road.

The Piermont Line option would need to maintain the existing freight service. In downtown Suffern, where the Piermont Line option would be in tunnel, a pump station would likely be required for drainage as the area is in a floodplain. All the alignments would have retained cuts due to the type of topography found in Rockland County and as such have similar maintenance issues.

Both options would result in temporary construction impacts.

Environmental:

The major difference between the options is in their potential impacts to property. The Wayne Avenue option, due to the narrow ROW in this area, would have 16 total displacements: seven businesses and 64 dwelling units including one property eligible for listing in the National Historic register. The Piermont Line option would require three total displacements: two businesses and one dwelling unit.

Each option would have similar impacts to wetlands, with Wayne Avenue affecting about 1.78 acres and the Piermont Line option about 1.9 acres. In addition, the Wayne Avenue option would result in a noise impact to the south side of Wayne Avenue, although the CRT noise would be masked by the existing highway noise. The Piermont Line option would increase the low ambient noise levels now found east of downtown Suffern. The potential impact of the selected option will be analyzed fully in the DEIS. In terms of potential visual impacts, the Wayne Avenue option would affect adjacent residences, which would be in front of the commuter rail service. Both options would introduce a viaduct over Airmont Road, with greater visual impacts likely from the Piermont Line option.

Costs:

Costs for both options are similar, with the Wayne Avenue option having a slightly higher cost.

Questions and comments regarding the CRT on Piermont Line or Wayne Avenue

Q: What is the grade of the CRT in the Wayne Ave Option when it travels near to Orange Avenue/Route 59?

A: The grade-separated CRT would climb over Orange Avenue/Route 59. Orange Avenue/Route 59 would be lowered to provide clearance for the CRT beneath the interchange infrastructure and maintain adequate clearance over Route 59.

Q: Why is the design of BRT ROW shown in the cross section with CRT so wide?

A: NYSDOT design criteria require shoulders on both sides of the BRT lanes. The total width of the BRT cross section could be reduced (for example, to avoid ROW impacts) with the submission of a design waiver.

Q: Is the Piermont Freight Line still in use?

A: Yes, the Piermont Freight Line is still in use, serving Dykes lumber yard and a beverage distributor. The freight service would utilize the same tracks as the CRT Piermont Line option as it would travel east of Hillburn. Beginning east of Hemion Road, the freight line would diverge from the CRT alignment and maintain turnouts located on Dunnigan Drive.

Q: How wide is the retained cut utilized in the Piermont Line option? How will the Piermont Line be maintained in snow conditions? What type of trains will use the rail line?

A: The retained cut is up to 32 feet wide. Metro-North has equipment to remove snow from rail tracks. The types of trains that would use the Piermont Line option are the EMU's (electric or diesel-powered) and Genesis (diesel-powered) locomotives.

Q: Is the proposed Interchange 14X affected by the Piermont Line option?

A: No, that interchange issue would exist in Monsey, where Route 59 crosses the Thruway, and would not be impacted by either the Wayne Avenue or Piermont Line option.

Q: What is the elevation of the CRT when it travels on Wayne Avenue?

A: The CRT would be elevated about 20 feet over Route 59, then climb up along Wayne Avenue to meet the Thruway grade before Wayne Avenue crosses under the Thruway. The elevation would be approximately equal to a second-story level along parts of Wayne Avenue.

Q: Has an evaluation been completed to assess the negative impact to ratables in Suffern due to acquisitions and displacements?

A: No, the evaluation will be included in the DEIS.

C: There are 144 residents living on Dunnigan Drive adjacent to the Piermont Line.

Q: Who owns the Piermont Rail Line?

A: Metro-North

C: Please research the issues around NJ Transit's presence in the Montclair area.

Q: Will there be two types of trains using the Piermont Line option, and are they on the third-rail system?

A: There would be diesel locomotives approaching from Orange County on the Port Jervis Line, as well as EMU's utilizing the third rail from the Hillburn Station.

Q: Are these trains the same trains that are running currently within the Metro-North system?

A: Yes, they are of the same equipment.

CRT Over or Under Airmont Road

The project team considered whether the CRT should go over or under Airmont Road at the request of stakeholders in the area. The 3.5-mile area from Hemion Road to the Monsey Hill was analyzed. Of particular concern was the area in and around Interchange 14B, freight line maintenance, and the need to maintain a maximum grade for the CRT of 1.5% to 2%. This last requirement dictated how the CRT would travel through the area and was especially challenging reaching the Monsey Hill, where the grade of the Thruway is close to 3%, well above the CRT maximum of 2%.

In the Over Airmont option, the CRT alignment along the Piermont Line ROW would travel at grade to Hemion Road and climb to 25 feet to cross over Dunnigan Drive, the freight line, and Airmont Road on a viaduct. It would return to grade within the Thruway ROW before Spook Rock Road. Continuing east, the CRT would travel in a 25-foot-deep in the approach to the Monsey Hill.

In the Under Airmont option, the CRT would descend at Hemion Road to pass under Dunnigan Drive and the freight line in a tunnel. It would then transition into a retained cut to travel beneath Airmont Road. East of Airmont Road, the CRT would remain in a deep retained cut beneath Spook Rock Road and finally a long tunnel beneath the Monsey Hill. Where the CRT travels under Dunnigan Drive the freight line would remain at its current elevation and cross over the CRT.

Summary of the key evaluation results:

Engineering:

The basic difference between the options is that the Over Airmont Road alignment would remain at the Thruway grade longer as it travels east and would span over Spook Rock Road. The Under Airmont alignment, once in tunnel, cannot climb to reach the Thruway grade; it would remain in retained cut and travel beneath Spook Rock Road, requiring a long tunnel to pass under the Monsey Hill. The retained cuts in the Over Airmont option would be 25-30 feet deep, while the Under Airmont option would have cuts over 50 feet deep.

The Under Airmont option would require ventilation structures to serve the tunnels beneath Airmont Road and the Monsey Hill. This option also would require more complex construction with a longer duration because of the deep retaining walls and tunnels.

Environmental:

Both options would result in impacts to Spook Rock Industrial Park, affecting approximately 15 businesses if the BRT is located within the HOV/HOT lanes (no impacts would result if it is located within a busway).

The Over Airmont option would result in visual impacts to residents adjacent to the viaduct, and the Under Airmont option would result in visual impacts from the tunnel vent shafts.

Costs:

The Under Airmont option is about \$1 Billion more costly than the Over option.

Questions and comments regarding the Over/Under Airmont Road options

Q: Does the Over/Under Airmont Road analysis utilize the Piermont option?

A: Yes. The analysis assumed the CRT would be in the Piermont Line; however, using the Wayne Avenue option would have similar results with respect to the deep retaining walls and tunnels east of Airmont Road.

Q: Is the tunnel utilized in the Under Airmont Road option a bored or cut-and-cover type structure?

A: East of College Road the topography consists of hard rock, requiring a mined tunnel to travel beneath the Monsey Hill.

Q: Is the tunnel structure used in the Under Airmont option similar in some way to the Holland Tunnel?

A: No. The Holland Tunnel is an immersed tube tunnel, not as far below the river bed as a mined tunnel would be.

Q: Would the project team consider using a carry-on engineering design similar to that used by the Lackawanna Line where it travels through the Bergen Arches?

A: Possibly. It would need further study.

Q: Is the entire Spook Rock Industrial Park impacted by one or both options?

A: Three buildings would be displaced by both options in the BRT in the HOV/HOT lane alternatives because of widening to accommodate the T-shaped access ramps, but BRT in Busway alternatives would not require these displacements.

CRT in the Median or on the South of the Thruway

The south side alignment was developed because the connection to the Port Jervis Line would be on the south side and because it would provide a direct connection to Parking Lot J at the Palisades Center Mall. During the analysis, the south side alignment was found to have impacts to the ramps at Garden State Parkway Interchange, Interchange 14, and the Palisades Interstate Parkway (PIP). These impacts led to the development of the median alignment. The area of analysis is the 9-mile segment between the Monsey Hill and Nyack. From an engineering perspective, the Monsey Hill area would be the easiest place for the CRT to transition into the median by tunneling under the hill.

The engineering design is similar for both options, and both options would generally stay within the existing Thruway ROW except at stations and where the BRT in HOV/HOT lanes would require T-shaped access ramps that would widen the roadway footprint. Both options would travel close to the Thruway grade from the Monsey Hill to east of the Pascack Valley Line before tunneling under the PIP. In West Nyack, the options would travel on retained fill and then on a long viaduct over the Hackensack River Valley. The viaduct would be necessary to maintain the CRT design grades in the segment where the Thruway is at 3%. The viaduct would be approximately 25 to 30 feet above the Thruway at Strawtown Road in both options. East of Strawtown Road the viaduct would be approximately 45-50 feet above the Thruway at Parking Lot J for both options.

Summary of the key evaluation results:

Engineering:

Both options would require retained cuts and viaducts that generally fit within the 250-foot ROW, except in station areas where T-shaped and H-shaped access ramps would widen the highway footprint.

The introduction of commuter rail within a highway would present operation and maintenance (O&M) issues for the CRT and the highway. Emergency access and incident management would favor CRT on the south side because major accidents occurring only on the south side of the Thruway could affect the CRT and an incident on the CRT would only impact the eastbound Thruway. With CRT in the median, accidents on either side of the Thruway could impact the CRT. The south side option would permit the shifting of traffic to either side, but foliage could be a problem. The median option would include areas where U-turns are located to accommodate shifting traffic to the other side of the Thruway and snow plows. Construction of the median option would require 3-4 years longer to complete due to the need to relocate the Thruway to make space for the CRT alignment, while construction of the south option would not directly impact the Thruway footprint.

Transportation:

No key differences since all connections would be possible for both options. BRT connection to stations with CRT within the median option would require an H-shaped access ramp. In this construction, the ramps would rise separately using a bridge to travel over the CRT into the station. In the south option, BRT access would be simpler with T-shaped ramps. Additionally in the south option, the Palisades Mall Intermodal Station would be adjacent to Parking Lot J where a direct connection between BRT and CRT would be simpler since it would not require crossing the Thruway to access the CRT platforms.

Environmental:

The major environmental impact of the options discussed is the visual impact of the viaduct at Strawtown Road. Each option would introduce a viaduct, a notable visual element to residents on both sides of the Thruway; the south side option would be closer to residents along Deer Meadow Drive and Louise Drive.

Costs:

The median option, which has a more complex design, would be about \$2 billion more costly and take longer to construct as it would relocate the Thruway and would involve work in the highway median with traffic on both sides.

Questions and comments regarding CRT in the south or median of the Thruway

Q: Is there an option with the CRT located along the north side of the Thruway?

A: CRT on the north side was considered in Stage 1 of the project. It was not carried forward because it did not offer any advantages over the south side or median alignments. However, the project is considering locating a BRT busway along the north side of the Thruway.

Q: Why is the project team not considering the continued use of the existing Piermont Line east of Airmont Road? Use of an existing rail line would be cost-effective.

A: Past analyses considered using this alignment for Light Rail Transit (LRT) and BRT. It was found to be undesirable for a CRT alignment because it would deviate quite a bit from the Thruway ROW, would require grade separations at local streets, and there are mostly residences along the ROW.

Q: Why is Clarkstown carrying the burden of the majority of stations within Rockland County? Have you met with the Town to discuss this scenario?

A: Yes, the project team has met with Clarkstown planners.

C: The Clarkstown Task Force is opposed to the number of stations to be located with Clarkstown.

A: Stations will be analyzed in detail in the Tier II transit analysis, but for now these station locations are considered appropriate for a Tier I analysis. The interconnectivity diagrams illustrate the positive impacts that these station locations (Interchange 14 Station and Palisades Station) have in providing intermodal connections. At these stations, arterial roadways provide connections to BRT feeder buses included in the BRT Service Plan and local buses from the Transport of Rockland (TOR) and the Clarkstown Mini-Trans. Furthermore, to accommodate the feeder buses traveling north and south of the Thruway in the service plan for the BRT trunk line, there must be a

connection provided, as is accomplished with these stations. Additionally, there are existing park-n-ride facilities at both proposed station locations.

Other areas were investigated. A CRT station is precluded east of Interchange 12 because with the alignment in a deep tunnel, a station would need to be located at least 100 feet below ground. This area of Clarkstown (Garden State Parkway to Palisades Center Mall) would provide high levels of potential ridership (for more information, see the *Transit Mode Selection Report* on the project website). Finally, we agree that station locations are a very sensitive and important issue; however, this particular SAWG focuses on the transit alignment options, not the station locations.

C: The park-n-ride facility at the Garden State Parkway Interchange 14 is maxed out.

A: That park-n-ride facility could be built up to accommodate future need. Parking Lot J (at the Palisades Center Mall) has available space for parking.

Q: Will there be a connection provided to the Pascack Valley Line from the Tappan Zee Bridge/I-287 Corridor Project? There should be a connection made to this line. The Access to the Region's Core project (ARC) provides service in the other direction, so why is this project not considering a connection?

A: The potential transfers that would occur from the Pascack Valley Line (PVL) would come from stations to the south. The current PVL service plan does not provide northbound AM peak period service since it is a one track line; therefore, projected transfers would not occur. As a result it would not be a cost-effective connection. However, the option to provide a connection is not precluded and if there were changes made to the service plan on the Pascack Valley Line the project team could reconsider the option in the Tier 2 transit analysis.

C: There is a high level of negative sentiment against elements of this project in Clarkstown. Many people feel their concerns are being ignored.

A: The project team has met with the Clarkstown Planning Department and held public meetings where we have heard positive support for the introduction of the CRT, potential alignments, and station locations in Clarkstown. This statement is not meant to negate the legitimacy of the comment, but to note that a silent contingent exists.

Q: Will guard walls be constructed to eliminate the visual impacts in some areas?

A: Yes, although the height of the guard walls depends on many factors.

Q: Will the replacement bridge be one or two decks?

A: That decision has not been made.

Q: Where is parking being provided when the CRT travels on the south side option?

A: Parking would be provided in Parking Lot J (at the Palisades Center Mall).

Q: Is Parking Lot J maxed out?

A: No, there is still room for additional vehicles and modeling conducted as part of the DEIS will aid in the understanding of the number of potential spaces needed.

C: Strawtown Road is a historic district and home to many residents as well as the Clarkstown Reformed Church.

Q: What is the elevation on Strawtown Road as compared to the viaduct?

A: Strawtown Road is approximately 20 feet lower than the Thruway. The CRT traveling on the viaduct would be approximately 25 feet above the Thruway. The CRT alignment would descend east of Interchange 13 at a 1.5% grade whereas the Thruway descends at a 3% grade. The CRT would need to travel over the CSX Railroad tracks and over Palisades Center Drive.

CRT Over or Under West Shore Line (WSL)

The Under WSL alignment was developed as an option to the Over WSL viaduct, which would result in visual impacts in the Strawtown Road area. The Over option would generally follow the Thruway profile beginning at Interchange 14 before entering a tunnel beneath the PIP, and climbing to a viaduct over the Hackensack River Valley. The Under option would begin at the Thruway grade beneath the WSL, then require deep retained cuts and a 2-mile-long tunnel to Interchange 14.

Summary of the key evaluation results:

Engineering:

The Under option would require deep retained cuts and much longer tunnels than the Over WSL alignment, lowering of Strawtown Road by 11 feet, ventilation shafts (possibly 100 feet in height), and pump stations because of the floodplain at the Hackensack River. The Under option also would require at least an additional year of construction.

Transportation:

The steep grades of the Under WSL option would require the proposed Interchange 14 station to be relocated to an area to the west that would not provide efficient transportation connectivity.

Environmental:

The Under option would preclude a station at Interchange 14 due to steep grades that exceed the maximum allowable for a station minimizing TOD potential. The lowering of Strawtown Road would result in the potential displacement of some homes and the need to modify existing driveways along the Strawtown Road Historic District; the Under option also would have direct impacts to properties within the district. In addition, the Under option would impact several major watercourses and wetlands around the Hackensack River and have floodplain issues at the Hackensack River. Notable visual impacts would result from the Over WSL option; there would be none with the Under WSL option.

Costs:

The Under WSL option would be approximately \$800 million more costly.

Q: Will widening the Thruway require shifting of the columns supporting the CSX Railroad tracks?

A: The CSX railroad alignment would be relocated onto a new structure over the Thruway adjacent to the existing bridge. We cannot make significant changes to the CSX Railroad alignment.

C: The Tappan Zee Bridge/I-287 Corridor Project provides an opportunity to rectify the flooding problem that exists in the Hackensack River Valley area. The economic vitality of the county must be considered where there will be a negative impact to the ratable. The 15 billion dollars would be better spent on passenger rail utilizing the CSX Railroad with a connection to the Pascack Valley Line.

Q: Has the potential ridership for the transit alignment options been modeled? Will NYMTC be responsible for modeling ridership?

A: Ridership will be modeled for 2010-2017, and 2047 in the DEIS. The *Transit Mode Selection Report*, available on the project website, used previous data, but current data will be used to model the alternatives in the DEIS. The *Transit Mode Selection Report* considered seven to eight different combinations of transit components. The present combination, CRT/BRT, resulted in the highest ridership.

C: There is a weight cap, as well as a 23-foot clearance existing design standard for CRT design, The NYSDOT Commissioner would need to be sign off on any deviation from these design standards.

Q: Is the Under the WSL option located within the floodplain?

A: Yes, and it is assumed that pump stations would be required for drainage.

C: Currently, the drainage infrastructure around the mall was built for a 50-year flood, but we are having regular 100-year floods now.

Q: Would there be a wall constructed to block the negative visual impacts from the viaduct over the Hackensack River Valley?

A: A noise wall may be constructed along Louise Drive and Deer Meadow Drive, but it would not be tall enough to block the visual impacts of the viaduct. Additional buffers (trees) could be planted where space permits.

C: It will take 50 years to grow a buffer of trees.

C: It would be helpful if you would compare the total costs by adding the least expensive options together and the more expensive options together and provide a comparison.

A: The analysis requires a balance of considerations and a review of all the evaluation criteria. We do not want to let the option costs become the most important criterion. Cost cannot be the only component.

C: The overall cost is a major issue and the FTA will consider this issue.

A: The total difference between the options is in the range of \$2 to \$4 Billion.

Q: Has the project team considered the CRT above ground in Nyack with a station?

A: The alignment is in tunnel then transitions onto the bridge. A station at this location was not considered because of the low residential density at this location. A more suitable station location would be on Main Street in downtown Nyack; however, that area is far removed from the Thruway ROW.

C: An extension of the CRT alignment on the existing Piermont Line ROW east of Airmont Road and using the CSX Railroad alignment should be seriously considered for use in this project. The federal government will have no problem removing trespassers that have encroached on the Piermont Line ROW.

A: A past analysis of these options indicated that there are many grade crossings and that ROW impacts would occur.

Adjournment

The meeting adjourned at 8:20 pm.