



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

**Presentation**

***Stakeholders' Advisory Working Groups (SAWGs)  
Joint Land Use/Traffic and Transit SAWG Meeting #5***

***Tappan Zee Bridge/I-287 Corridor Project***

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August 27, 2009



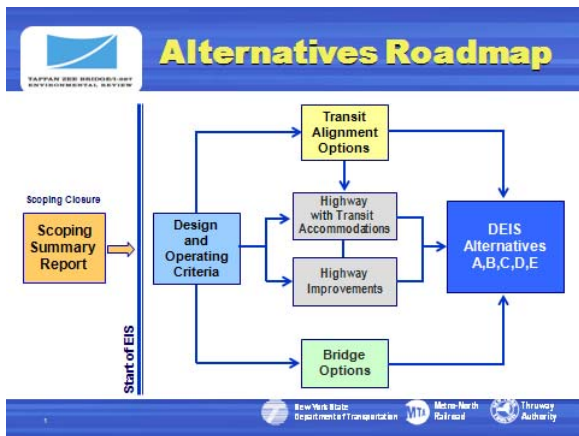
## Slide 1

This is the title slide for the joint session of the Land Use and Traffic and Transit Stakeholders' Advisory Working Groups (SAWGs) that occurred on August 27, 2009.



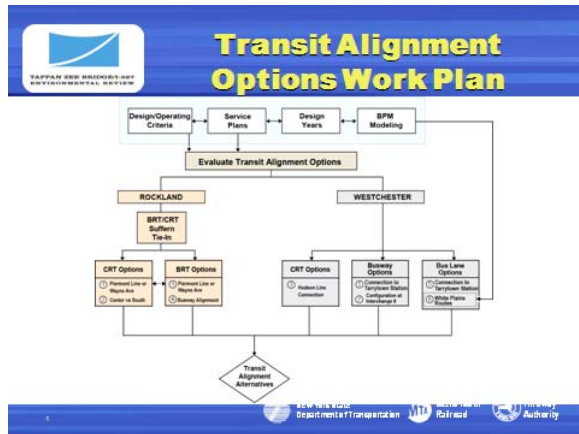
## Slide 2

Tonight's meeting will focus on the bus rapid transit (BRT) options in downtown White Plains, in Westchester County, New York. The meeting format will be a hands-on discussion around maps.



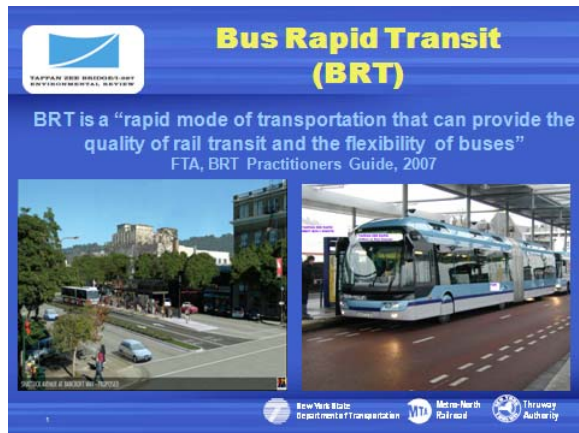
## Slide 3

The project's *Scoping Summary Report* was recently published and enables us to move forward with the analysis of alternatives in the Draft Environmental Impact Statement (DEIS). The evaluation of transit options is the next step in the ultimate definition of the alternatives to be studied in the DEIS. A similar process will be used to narrow down highway and bridge options, as shown in the Alternatives Roadmap presented on this slide.



#### Slide 4

Transit Alignment Options Work Plan – There are currently seven major commuter rail transit (CRT)/bus rapid transit (BRT) alignment options identified in the corridor that support the transit mode recommendation moving forward. These options will be evaluated to establish the full-corridor alignments for each alternative. The full-corridor alignments will be the basis for the Tier 1 Transit Impact Evaluations and an integral part of the Tier 2 Bridge/Highway Impact Evaluations. Tonight's focus is on the busway and bus lane options through the Central Business District (CBD) of White Plains.



#### Slide 5

BRT is a "rapid mode of transportation that can provide the quality of rail transit and the flexibility of buses at a considerably lower cost."

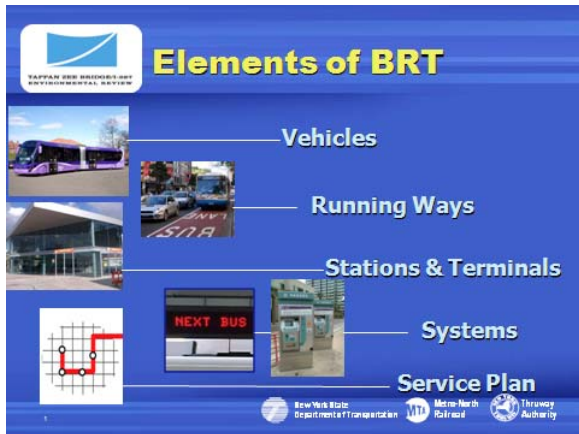
**BRT IS GROWING FAST IN THE US**

**BRT COMMUNITIES IN THE UNITED STATES**

1 Birmingham AL	22 Washington DC	43 Las Vegas NV
2 Phoenix AZ	23 Hillsborough County FL	44 Reno NV
3 AC Transit CA	24 Jacksonville FL	45 Albany NY
4 Bakersfield CA	25 Miami FL	46 New York NY
5 Chula Vista CA	26 Orlando FL	47 Cleveland OH
6 Fresno CA	27 St. Petersburg FL	48 Oklahoma City OK
7 Los Angeles CA	28 Atlanta GA	49 Eugene OR
8 Monterey-Salinas CA	29 Honolulu HI	50 Portland OR
9 Orange County CA	30 Arlington Heights IL	51 Pittsburgh PA
10 Riverside CA	31 Chicago IL	52 Providence RI
11 Sacramento CA	32 Indianapolis IN	53 Austin TX
12 San Bernardino CA	33 Glendale IN	54 El Paso TX
13 San Diego CA	34 Louisville KY	55 Ft. Worth TX
14 San Francisco CA	35 Boston MA	56 Houston TX
15 San Jose CA	36 Montgomery County MD	57 San Antonio TX
16 Santa Clara County CA	37 Kansas City MO	58 Provo UT
17 Santa Monica CA	38 Charlotte NC	59 Salt Lake City UT
18 Boulder CO	39 Omaha NE	60 King County WA
19 Denver CO	40 Mercer County NJ	61 Seattle WA
20 Fort Collins CO	41 Newark NJ	62 Snohomish County WA
21 Hartford CT	42 Albuquerque NM	63 Vancouver WA

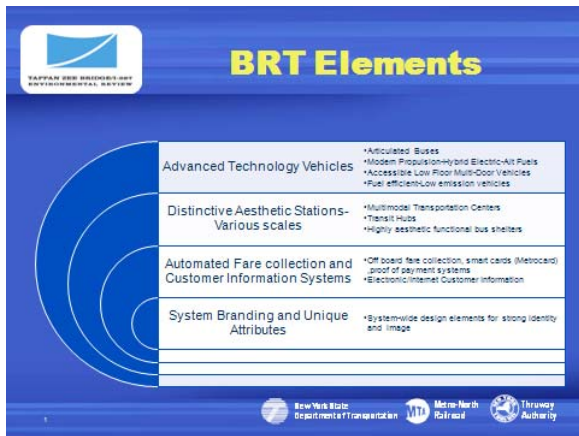
#### Slide 6

BRT is growing very fast in the US and throughout the world. There are over 63 communities in the US that already have BRT systems up and running.



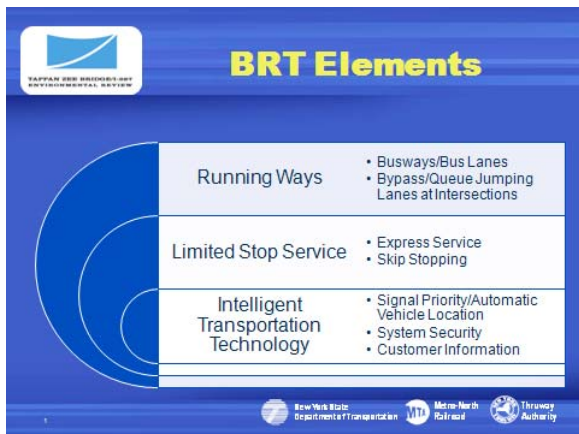
### Slide 7

To review the elements of the BRT system we are planning for the corridor and the City of White Plains.



### Slide 8

Discuss the elements that make up a BRT system.



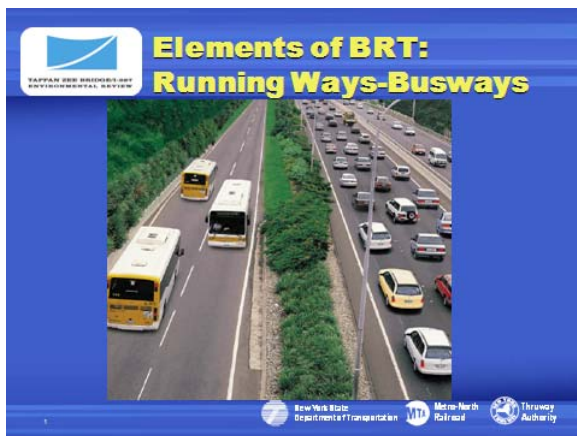
### Slide 9

Discuss the elements that make up a BRT system.



#### Slide 10

BRT vehicles are high tech, fully accessible, multi-door and very comfortable vehicles. Multi-door vehicles and off board ticketing allows fast boarding and exiting to speed travel time. The BRT vehicles also use hybrid electric power systems, ultra low sulfur diesel and other alternative fuels to minimize emissions resulting in environmentally friendly vehicles.



#### Slide 11

There are two general types of running ways. Busways are completely separate running ways for the exclusive use of BRT vehicles.



#### Slide 12

The second type running way is bus lanes. Bus lanes are for buses only.



### Slide 13

There is a hierarchy of Station types that will be developed in the corridor and centers that transit serves. A number of multi-modal stations will be built where Bus Rapid Transit and Commuter Rail Transit systems are both present. MTCs allow for all types of transportation including-bus, rail, other transit services, taxi, park and ride, kiss and ride, bike and walk. Transit oriented development at community appropriate density can also be part of MTC development.



### Slide 14

BRT systems include highly aesthetic transit shelters and user amenities.



### Slide 15

Transit is economical, energy efficient, environmentally friendly and sustainable.

**BUS RAPID TRANSIT  
in WHITE PLAINS**

The Bus Lane and Busway Trunk Lines depart from the I-287 Corridor to serve the White Plains CBD



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## Slide 16

The majority of the 30-mile BRT trunk line alignment through Rockland and Westchester is located within or adjacent to the I-87/I-287 roadway. However, White Plains is recognized as the central business hub in the corridor with the primary multi-modal facility at the White Plains Transportation Center and numerous retail and institutional facilities. As such it is a key destination for any proposed transit service.

**Guidelines for BRT on City Streets (TCRP-Report 118)**

- Use the “fastest” streets available
- Operate free of delays from other vehicles
- Prohibit curb parking
- Maintain access to parking garages
- Provide a strong sense of BRT identity
- Provide effective enforcement of bus lanes



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## Slide 17

The Transit Cooperative Research Program provides guidelines for the implementation of BRT. These are a few of the recommended guidelines for BRT on city streets taken from Report 118. We will attempt to follow these guidelines for our routes through the CBD.

**BRT Trunk Line Objectives through White Plains CBD**

- Provide efficient BRT Service through downtown *[prevent service downgrade]*
- Provide connectivity to key destinations *[provide 3 stations in CBD - two ends + center]*
- Integrate route with Bee Line buses where feasible *[route sharing and/or transfer capability]*
- Minimize negative impacts to traffic network, and environmentally sensitive areas

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## Slide 18

The objectives of the BRT alignments through White Plains are listed in this slide. As this is only a small segment of the 30-mile corridor we wish to maintain reliable BRT service by providing an efficient route free from delays that could degrade service. The alignment should provide connectivity to the key destinations in the City through three strategically located stations. There is the potential to share the dedicated lanes with local bus service and also to provide transfers. Understanding the high traffic volumes through the City, we will attempt to minimize the impacts to the traffic network and also to environmentally sensitive areas.



## Slide 19

This slide shows key destinations in White Plains, which include the Metro-North Railroad's (MNR) Harlem Line Station, the Transportation Center, the Galleria Mall, White Plains Mall, City Center (not shown) and Westchester Mall, the complex of county buildings along Martine Avenue, and the White Plains City Hall.

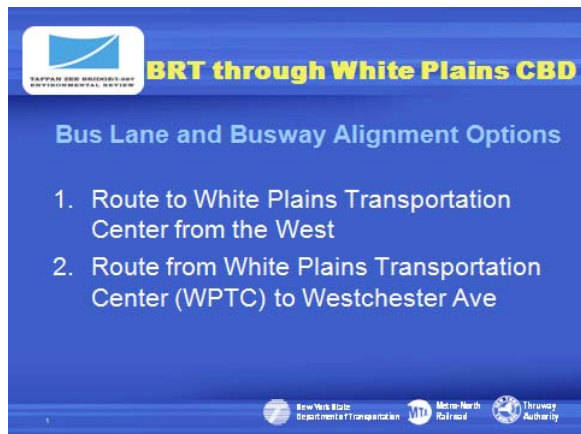
The 1/2-mile radii circles correspond to the maximum recommended radii transit commuters may be expected to routinely walk to access a system.

The significance of this figure is that it shows that a single relatively centrally located station, in addition to a transfer station at the MNR White Plains Station and a station in the vicinity of Westchester Mall, would provide excellent coverage of downtown White Plains. The approximate station locations are shown as blue dots.



## Slide 20

To identify the most promising alignments from a long list of potential routes, it was necessary to use objective performance measures of their most relevant characteristics. The top-level factors considered were service, operations, user convenience, traffic, cost/efficiency, and access. A series of performance measures were developed to assess how well each option performed for the associated factor. This slide summarizes the performance measures.



**BRT through White Plains CBD**

Bus Lane and Busway Alignment Options

1. Route to White Plains Transportation Center from the West
2. Route from White Plains Transportation Center (WPTC) to Westchester Ave

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**Slide 21**

There are two basic alignment options through Whit Plains.



**Next Steps**

- Develop alignment options for analysis
- Coordinate with local communities, stakeholders, County and City agencies – obtain feedback
- Analyze options using a traffic simulation program (Paramics)
- Present results

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**Slide 22**

This slide lists the continuing work on the options.



Thank you

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**Slide 23**

Thank you.