

Nostrand Avenue BRT

New York, New York

(November 2009)

The New York City Department of Transportation (NYCDOT), in cooperation with the Metropolitan Transportation Authority – New York City Transit (MTA-NYCT), is proposing to construct the Nostrand Avenue Bus Rapid Transit (BRT) Project, a 9.3-mile BRT line from Sheepshead Bay to the Williamsburg Bridge in Brooklyn. The project includes seven pairs (14 total) of newly-constructed BRT stations and 5.0 miles of exclusive, solid red painted BRT lanes along Nostrand, Rogers, and Bedford Avenues. The project includes marking the BRT lanes, implementing transit signal priority, and constructing bus lane “bulbs” – curb extensions that allow buses to load passengers without pulling out of the travel lane. Service would operate from 5:30 AM to 10:00 PM on weekdays, with 3-minute headways during peak periods and 7-minute headways during off-peak periods.

The Nostrand Avenue BRT project will provide fast and reliable bus service along a key north-south route in Brooklyn, connecting densely-populated residential areas with multiple subway lines, bus routes, shopping areas, two colleges, and two major hospitals. Traffic congestion in the corridor combined with heavy passenger volumes at key stops resulting in long boarding times, leads to slow and unreliable bus service. The project will improve service in the corridor by offering higher frequencies, exclusive BRT lanes along a portion of the alignment, and off-vehicle fare collection, which will reduce travel time and improve schedule reliability. The project will serve the 17,000 daily riders on the existing B44 Limited service and will attract additional riders who currently avoid bus service due to slow speeds and a lack of reliability.

Summary Description

Proposed Project:	Bus Rapid Transit 9.3 Miles 14 Stations
Total Capital Cost (\$YOE):	\$39.87 Million (includes \$600,000 in finance charges)
Section 5309 Small Starts Share (\$YOE):	\$28.40 Million (71.2%)
Annual Operating Cost (YOE\$):	\$6.12 Million
Opening Year Ridership Forecast (2011):	17,000 Average Weekday Boardings
FY 2011 Local Financial Commitment Rating:	Medium
FY 2011 Project Justification Rating:	High
FY 2011 Overall Project Rating:	Medium-High

Project Development History and Current Status

In October 2006, NYCDOT selected Nostrand Avenue BRT in Brooklyn as one of five New York City “BRT Demonstration Corridors” – one corridor in each borough – for implementation. The project was adopted into the New York Metropolitan Transportation Council’s fiscally-constrained long-range regional transportation plan in December 2008. FTA approved the project into Small Starts project development in February 2009.

Significant Changes Since FY 2010 Evaluation (April 2009)

The project entered Small Starts project development as a bus-corridor project, but has since been slightly re-scoped to include a peak period fixed guideway portion for more than half of the project corridor. This change allows the project to qualify as a fixed guideway Small Starts project. Other changes to the project in the past year include: the 50 buses required to operate the proposed service have been removed from the project and will be purchased without federal funds as part of a broader, MTA-NYCT agency-wide procurement; and, station design refinement has resulted in a modest \$10 million cost increase. Finally, the project schedule has been extended six months so that revenue operations will now commence in 2012 rather than in 2011.

Project Justification Rating: High

The project justification rating is based on the weighted average of the ratings assigned to each of the following criteria: the cost-effectiveness criterion is weighted 33 percent; the transit supportive land use criterion is weighted 33 percent and the economic development criterion is weighted 33 percent.

Cost Effectiveness Rating: High

The rating is based on the level of travel-time benefits (1,460 hours each weekday) relative to the project’s capital and operating costs based on a comparison to a baseline alternative. A computation error underestimated the benefits in last year’s *Annual Report*.

Cost Effectiveness	
Cost per Hour of Transportation System User Benefit	<u>New Start vs. Baseline</u> \$11.71*

*Indicates that measure is a component of Cost Effectiveness rating.

Transit-Supportive Land Use Rating: High

The land use rating reflects the population and employment densities within ½-mile of proposed station areas.

- Total employment served by the BRT project (within a ½ mile radius of stations) is 116,600, but hundreds of thousands of additional jobs can be reached through a subway transfer to the Brooklyn and Manhattan central business districts. Population served is 536,600 at an average density of 49,900 persons per square mile.
- The Nostrand Avenue BRT corridor runs north-south through Brooklyn and consists mostly of mixed-use development including three- to six-story multiple dwellings with retail or other commercial uses located on the ground floor, with greater commercial activity located at a number of key nodes. The corridor also has a number of educational and medical institutions. The corridor is designed to accommodate pedestrians, with sidewalks, pedestrian signals, and other pedestrian amenities located throughout the area. Parking along the corridor is typically on-street, with parking meters located in the densest commercial districts.

Economic Development Rating: Medium-High

The economic development rating is based upon the average of the ratings assigned to the subfactors below.

Transit-Supportive Plans and Policies: Medium-High

- PlaNYC, adopted in April 2007, is a plan for the sustainability of New York City, outlining the 25-year vision for the city and setting priorities for the refurbishment of city infrastructure. One of the main objectives of the plan is to create healthier and more transit-accessible communities by

unlocking the potential of unrealized housing capacity, underutilized and unfinished parks, and contaminated land. The plan's rezoning strategy identifies primary avenues and boulevards near transportation hubs whose width and access to transit enable them to support additional density. PlaNYC aims to fully restore and enhance the Brooklyn transit network (stations and transit lines) to a state of good repair, including making pedestrian improvements in the vicinity of stations.

- Transit-supportive corridor or station area planning activities have not been explicitly undertaken for the Nostrand Avenue corridor. However, zoning for the corridor is already highly transit-supportive as evidenced by the scale and character of existing development. Parking requirements are extremely low. In addition, there have been three significant recent planning and rezoning efforts affecting neighborhoods in the corridor: These efforts are directed at preserving existing neighborhood scale and character while allowing opportunities for residential and commercial growth as appropriate. Commercial district overlays throughout the corridor allow mixed-use development.
- Some general economic development tools are available through the city but these have seen relatively little application in the corridor given the limited development opportunities. The city assisted with land assembly on a recent shopping center.

Performance and Impacts of Policies: Medium-High

- For the most part, land within the corridor was developed decades or even more than a century ago in a strongly transit-supportive manner and there is little opportunity for new construction or redevelopment. However, there are two recent significant developments along the corridor: a 300,000 square foot shopping center adjacent to the planned Flatbush Ave/Brooklyn College BRT Station, in a single three-story building with no surface parking; and a condominium-apartment building (43 apartments in a four-story structure) three blocks from the planned southern terminus of the BRT route.
- Most available land consists of small properties scattered across the corridor, and for this reason land assembly into large parcels is difficult. The greatest concentration of vacant land is near the Flushing Avenue Station in a historically light manufacturing area. While this area is not currently targeted for rezoning, the strong residential real estate market in New York City in recent years has led to the rezoning of some manufacturing areas to allow residential use, and rapid subsequent redevelopment.

Local Financial Commitment Rating: Medium

The local financial commitment rating is based upon acceptable financial conditions of both NYCDOT and MTA-NYCT; a reasonable plan for funding for the non-Small Starts share of capital costs; and evidence that the operations and maintenance cost of the project is less than five percent of the MTA-NYCT's operating budget.

Locally Proposed Financial Plan

<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
Federal:		
Section 5309 Small Starts	\$28.40	71.2%
Section 5309 Bus Discretionary	\$0.43	1.1%
FHWA Flexible Funds (CMAQ)	\$1.79	4.5%
Local:		
MTA-NYCT Bonds, other cash and capital funds	\$0.95	2.4%
MTA-NYCT Operating Budget	\$0.17	0.4%
NYC Income, Sales and Property Taxes	\$5.56	13.9%
NYC Other Revenues	\$2.57	6.4%
Total:	\$39.87	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

Nostrand Avenue BRT

New York, New York



