

**Canarsie Line Power and Station Improvements**  
**New York, New York**  
**Core Capacity Project Development**  
**(Rating Assigned November 2016)**

<b>Summary Description</b>	
<b>Proposed Project:</b>	Heavy Rail Capacity Improvement 6.0 Miles, 2 Stations
<b>Core Capacity Capital Cost (\$YOE):</b>	\$408.26 Million <small>(Includes \$31.0 million in finance charges)</small>
<b>Section 5309 Core Capacity Share (\$YOE):</b>	\$130.00 Million (31.8%)
<b>Annual Operating Cost (opening year 2020):</b>	\$1.10 Million
<b>Existing Ridership in the Corridor:</b>	346,700 Daily Linked Trips 106,093,300 Annual Linked Trips
<b>Existing Useable Space per Passenger:</b>	5.0 Square Feet
<b>Overall Project Rating:</b>	Medium-High
<b>Project Justification Rating:</b>	Medium-High
<b>Local Financial Commitment Rating:</b>	Medium-High

**Project Description:** The Metropolitan Transportation Authority (MTA) proposes to implement capacity improvements to the Canarsie L Line, which operates between South Brooklyn and Manhattan. Improvements include three new power substations, contact rail, circuit breaker houses, and other upgrades needed to increase capacity on the line. The proposed project also includes enhanced and improved station access at the Bedford Avenue and First Avenue Stations. MTA estimates that when the project is complete, it will increase capacity in the corridor by 10 percent, which meets the requirement in law for Core Capacity projects.

**Project Purpose:** The Canarsie L Line has an average weekday ridership of 400,000. Ridership on the line has increased by over 300 percent since the 1970s, largely due to population growth and changing commute patterns in the neighborhoods served by the line. MTA completed installation of a new signal system and a communications-based train control system in 2007, which allows MTA to operate the current 20 trains per peak hour on the Canarsie L Line. However, MTA cannot add further trains due to traction power constraints. Severe crowding occurs during peak hours at the Bedford Avenue and First Avenue stations, which results in longer dwell times as large volumes of customers enter and leave the trains. The Core Capacity project includes traction power improvements that will allow two additional trains per hour, reduce passenger congestion on board trains, and improve service reliability. The project also includes station improvements that will result in better access, more evenly loaded trains, fewer train delays due to long dwell times and less platform crowding.

**Project Development History, Status and Next Steps:** The project entered Core Capacity Project Development in December 2014. MTA selected the locally preferred alternative and had it adopted into the region's fiscally constrained long-range transportation plan in September 2015. The project completed the environmental review process with FTA's approval of a documented Categorical Exclusion in August 2016. MTA has submitted a request to enter

Engineering, which is currently under review. MTA anticipates receipt of a Full Funding Grant Agreement in mid-2017, and completion of the project in 2020.

**Significant Changes Since Last Evaluation (November 2015):** The total project cost increased from \$273.64 to \$408.26 million. The design advanced from the conceptual stage to 100 percent, resulting in additional costs for the Bedford Avenue station improvements and the three power substations. As a result of the cost increase, the finance charges associated with the project increased from \$11.1 to \$31.0 million. MTA also increased its requested amount of Section 5309 Core Capacity funds from \$100.00 to \$130.00 million. The Core Capacity funding share decreased from 36.5 percent to 31.8 percent.

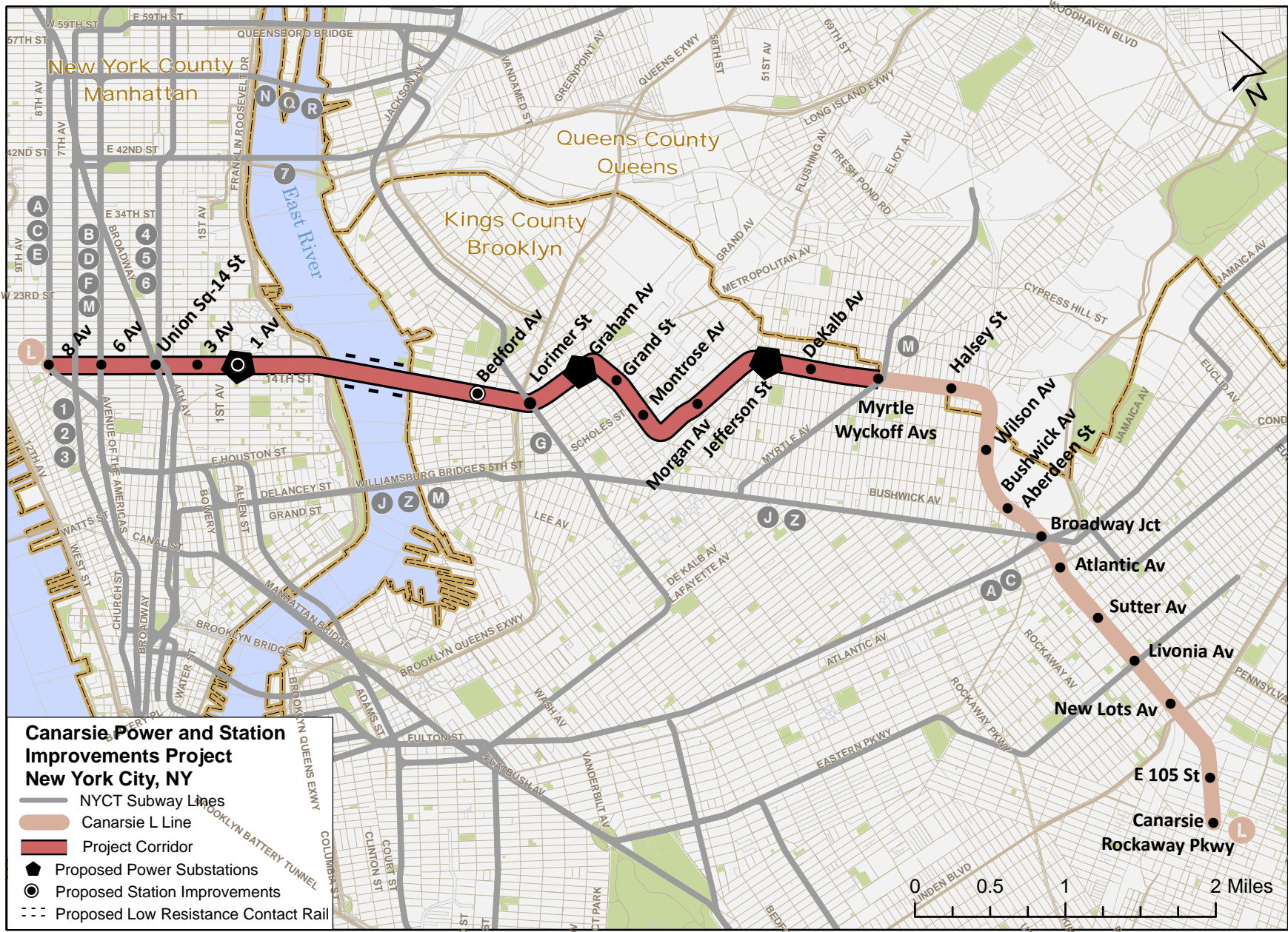
<b>Locally Proposed Financial Plan</b>		
<b><u>Source of Funds</u></b>	<b><u>Total Funds (\$million)</u></b>	<b><u>Percent of Total</u></b>
<b>Federal:</b> Section 5309 Core Capacity	\$130.00	31.8%
<b>Local:</b> MTA Bond Proceeds and/or Other MTA Generated Revenues	\$247.23	60.6%
MTA Operating Revenues	\$31.03	7.6%
<b>Total:</b>	<b>\$408.26</b>	<b>100.0%</b>

**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.

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<b>Factor</b>	<b>Rating</b>	<b>Comments</b>
<b>Local Financial Commitment Rating</b>	<b>Medium-High</b>	
<b>Non-Section 5309 Core Capacity Share</b>	<b>+1 level</b>	The Core Capacity share of the project is 31.8 percent.
<b>Project Financial Plan</b>	<b>Medium</b>	
Current Capital and Operating Condition (25% of local financial commitment rating)	Medium	<ul style="list-style-type: none"> <li>• The average age of the bus fleet is 7.2 years, which is in-line with the industry average.</li> <li>• The most recent bond ratings for the New York Metropolitan Transportation Authority (MTA), issued in August 2016, are as follows: Standard &amp; Poor's AA-, Moody's Investor Service A1, and Fitch A.</li> <li>• MTA's current ratio of assets to liabilities as reported in its most recent audited financial statement is 1.17 (FY2015).</li> <li>• There have been no recent service cutbacks or cash flow shortfalls.</li> </ul>
Commitment of Capital and Operating Funds (25% of local financial commitment rating)	High	<ul style="list-style-type: none"> <li>• All of the non-Section 5309 Core Capacity funds are committed or budgeted. Sources of funds are provided entirely by MTA, and would be blended from bond proceeds and/or other MTA generated cash fund sources, and MTA operating revenue fund sources.</li> <li>• Approximately 67.8 percent of the funds needed to operate and maintain the transit system in the first full year of operation are committed or budgeted, and the rest are considered planned. Sources of funds include revenues from dedicated state taxes, fares, other operating revenues, and local operating assistance.</li> </ul>

<p>Reasonableness of Capital and Operating Cost Estimates and Planning Assumptions/Capital Funding Capacity (50% of local financial commitment rating)</p>	<p>Medium-Low</p>	<ul style="list-style-type: none"><li>• Growth in capital revenue assumptions is optimistic compared to recent historical experience.</li><li>• The capital cost estimate is reasonable.</li><li>• Regarding growth in operating revenue assumptions, farebox collections are conservative and tax revenues are conservative compared to recent historical experience.</li><li>• Operating cost estimates are optimistic compared to recent historical experience.</li><li>• MTA has access to funds via additional debt capacity, cash reserves, or other committed funds to cover cost increases or funding shortfalls equal to at least 50 percent of estimated project cost and zero percent of annual system wide operating expenses.</li></ul>
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New York County  
Manhattan

Queens County  
Queens

Kings County  
Brooklyn

8 Av  
6 Av  
Union Sq-14 St  
3 Av  
1 Av

Bedford Av  
Lorimer St  
Graham Av  
Grand St  
Montrose Av  
Morgan Av  
Jefferson St  
Dekalb Av

Myrtle  
Wyckoff Avs  
Halsey St  
Wilson Av  
Bushwick Av  
Aberdeen St

Broadway Jct  
Atlantic Av  
Sutter Av  
Livonia Av

New Lots Av  
E 105 St  
Canarsie

Rockaway Pkwy

