The Queensboro Bridge
Bus Priority Study

Manhattan Community Board 6
September 13, 2010
Queensboro Bridge Bus Priority Study

Agenda

• Project Need
• Study Overview
• Data Collection
• Preliminary Findings
• Questions
Queensboro Bridge Bus Priority Study

Overview

Study Goal:
• Identify cost-effective ways to improve bus speed and reliability for local and express buses that use the QBB.

Study Principles:
• Consult stakeholders
• Ensure pedestrian and driver safety
• Balance the needs of all bridge users
• Evaluate benefits and potential impacts
• Minimize impact on adjacent neighborhoods
Queensboro Bridge Bus Priority Study
Project Need

• **The Queensboro Bridge (QBB) is a major bus corridor**
  – 16,000 bus trips a day, including about 8,000 local riders
  – 110 buses during PM rush hour or one bus every 30 seconds
  – Q101, Q60 and Q32 provide direct service between Queens and Manhattan

• **Congestion on the QBB is a significant cause of bus delay**
  – QBB travel times increase significantly during rush hour due to congestion
  – Over 75% of QBB express and local bus riders report that traffic congestion regularly delays their bus
  – Congestion slows buses and makes service less reliable, making transit less attractive
Queensboro Bridge Bus Priority Study

Study Area

- Manhattan Side includes area from Fifth Ave to the East River from 57th Street to 63rd Street

- The study assumes Queens Plaza improvements will be implemented as planned.
Queensboro Bridge Bus Priority Study
Project Schedule

April-May  Gathered information on traffic and pedestrian patterns and survey local and express bus riders

June-July  Presented study to Qns CB 1 and 2 and Mn CB 8 for comment

Aug.-Oct.  Develop preliminary bus improvement options and evaluate impacts on transit riders, drivers, pedestrians, and adjacent communities

November  Present study results to local community boards for comment

Nov.-Dec.  Incorporate comments and release recommendations
Queensboro Bridge Bus Priority Study
Data Collection Items

- Bus ridership
- Bus counts and travel time runs
- Express and local bus rider survey

- Traffic volume counts and turn counts
- Automobile travel time runs

- Pedestrian counts
## Queensboro Bridge Bus Priority Study
### Local Bus Routes

<table>
<thead>
<tr>
<th>Route</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q60 (Eastbound)</td>
<td>1,430</td>
</tr>
<tr>
<td>Q60 (Westbound)*</td>
<td>1,280</td>
</tr>
<tr>
<td>Q60 (Total)</td>
<td>2,710</td>
</tr>
<tr>
<td>Q101 (Eastbound)</td>
<td>450</td>
</tr>
<tr>
<td>Q101 (Westbound)*</td>
<td>400</td>
</tr>
<tr>
<td>Q101 (Total)</td>
<td>850</td>
</tr>
<tr>
<td>Q32 (Eastbound)</td>
<td>2,290</td>
</tr>
<tr>
<td>Q32 (Westbound)</td>
<td>2,050</td>
</tr>
<tr>
<td>Q32 (Total)</td>
<td>4,340</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,900</td>
</tr>
</tbody>
</table>

* Estimated ridership volume
Queensboro Bridge Bus Priority Study
Express Bus Routes

**Route**
- QM1 750
- QM1A 2,020
- QM2 1,160
- QM2A 720
- QM3 90
- QM4 350
- QM10 130
- QM12 220
- QM15 430
- QM16 140
- QM17 200
- QM18 110
- QM21 340
- QM24 150
- X51* 180
- X63* 380
- X64* 220
- X68* 330
- **Total** 7,920

*Estimated ridership volume

- Deadhead route for QM1, 1A, 2, 2A, 10, 11, and 12 buses
Queensboro Bridge Bus Priority Study
AM/PM Peak Hour Bus Volumes

Legend
# / # = AM / PM
- Upper Level Roadway
- Lower Level Roadway
Queensboro Bridge Bus Priority Study
AM/PM Peak Hour Bus Volumes

Legend

# / # = AM / PM

Upper Level Roadway

Lower Level Roadway

55 / 20

20 / 20

70 (PM)

n.a.

55 / 20

20 / 20

70 (PM)

n.a. (AM)

n.a. (PM)

n.a.

n.a. (AM)
### Queensboro Bridge Bus Priority Study

#### PM Express Bus Travel Times

<table>
<thead>
<tr>
<th>PM Period</th>
<th>Average Travel Time</th>
<th>Average Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-5:00</td>
<td>0:03:40</td>
<td>23.9</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td>0:04:50</td>
<td>18.1</td>
</tr>
<tr>
<td>6:00-7:00</td>
<td>0:04:12</td>
<td>22.0</td>
</tr>
</tbody>
</table>

#### PM Period Average Speed

<table>
<thead>
<tr>
<th>PM Period</th>
<th>Average Travel Time</th>
<th>Average Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-5:00</td>
<td>0:07:29</td>
<td>15.0</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td>0:09:19</td>
<td>12.2</td>
</tr>
<tr>
<td>6:00-7:00</td>
<td>0:05:49</td>
<td>21.2</td>
</tr>
</tbody>
</table>

#### PM Period Average Travel Time

<table>
<thead>
<tr>
<th>PM Period</th>
<th>Average Travel Time</th>
<th>Average Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00-5:00</td>
<td>0:03:48</td>
<td>4.3</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td>0:02:59</td>
<td>5.3</td>
</tr>
<tr>
<td>6:00-7:00</td>
<td>0:01:47</td>
<td>8.8</td>
</tr>
</tbody>
</table>
## Queensboro Bridge Bus Priority Study
### Bus Rider Survey Findings

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th></th>
<th>Express</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total respondents</strong></td>
<td>313</td>
<td></td>
<td>511</td>
<td></td>
</tr>
<tr>
<td><strong>Travelling to or from work</strong></td>
<td>75%</td>
<td></td>
<td>88%</td>
<td></td>
</tr>
<tr>
<td><strong>Ride the bus daily</strong></td>
<td>68%</td>
<td></td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td><strong>Sometimes use another means of transportation</strong></td>
<td>68%: subway Reason: “faster” or “more convenient”</td>
<td>52%: subway Reason: destination, time of day, or “faster”</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceive traffic congestion on their bus</strong></td>
<td>76%: sometimes, often or always Locations: Queensboro Bridge and Queens Plaza</td>
<td>80% (PM): sometimes, often or always; Locations: LIE, Queensboro Bridge, and Queens Boulevard</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average delay on Queensboro Bridge</strong></td>
<td>Of those who perceive delay on the bridge, 58% said 5-15 minutes</td>
<td>Of those who perceive delay on the bridge, 62% said 5-15 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Suggested improvements for trip speed</strong></td>
<td>“Bus lanes” and “More buses”</td>
<td>“Bus lanes,” “Enforcement of bus lanes,” and routing suggestions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Queensboro Bridge Bus Priority Study
Queens: Traffic Data

Legend
- Manual TMC
- ATR

5 ATRs

ATR at exit ramp from Upper Roadway to 21st St

2 ATRs
Queensboro Bridge Bus Priority Study
Next Steps

• Develop preliminary ideas for bus priority improvements
• Evaluate effectiveness of preliminary improvements
• Present preliminary concepts to CB’s in November
Questions and Comments?