Study Background

- 47 NYCT, MTA Bus and LI Bus routes – hub for services throughout SE Queens
- Very high volume of bus to subway transfers
- E F J Z subway service

Study goals
- Improve bus travel within Jamaica
- Improve connections to subway and rail stations
- Balance bus travel with pedestrian and vehicle traffic

Study Progress
- Data Collection & Bus Passenger Survey
- Initial Community Input
- Existing Conditions Evaluation
- Bus Use Forecasting and Issues ID
- Develop Preliminary Recommendations
- Evaluate Preliminary Recommendations
- Community Input and Review
- Implement Desired Recommendations
What We Learned

Field Observations

Many misaligned intersections and complex street geometry

Many narrow streets with heavy bus and local traffic

Existing bus lane markings are difficult to see and in poor condition

Community Outreach

Community Advisory Committee meetings (September 2009 and April 2011)
Bus passenger survey (Fall 2009)

Findings:

Bus Operations:
- Undesirable bus layovers
- Lack of passenger amenities at bus stops
- Frequent bus bunching
- Long waits for certain bus routes

Traffic:
- Turns add to congestion
- Traffic diversions to side streets
- Confusing signage and lane markings
- Insufficient enforcement of parking and at busy intersections

Business Outreach

Survey of Jamaica Avenue merchants (May 2011) in coordination with the Jamaica Center Business Improvement District
Business owners interviewed to better understand impact of bus lane improvements on Jamaica Avenue

What time do you typically receive delivery?

<table>
<thead>
<tr>
<th>Time</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midnight to 7 AM</td>
<td>5%</td>
</tr>
<tr>
<td>7 AM to 10 AM</td>
<td>10%</td>
</tr>
<tr>
<td>10 AM to noon</td>
<td>25%</td>
</tr>
<tr>
<td>Noon to 2 PM</td>
<td>30%</td>
</tr>
<tr>
<td>2 PM to 7 PM</td>
<td>25%</td>
</tr>
<tr>
<td>7 PM to midnight</td>
<td>10%</td>
</tr>
</tbody>
</table>

Where do delivery vehicles typically park?

- In a bus stop: 5%
- On a side street: 10%
- Across the street from my business on Jamaica Avenue: 20%
- In front of my business on Jamaica Avenue: 25%
- Other: 30%
Bus Lanes in New York City

Bus Lane Elements

- Improved markings and terra cotta paint
- Large, easy-to-read sign showing bus lane and parking/delivery hours

Bus Lane Rules

When the bus lane is in effect, stay out of the lane except to:
- Turn right at the next corner
- Quickly drop off or pick up passengers

Types of Bus Lanes

- Offset bus lane:
  - One lane out from the curb
  - Parking/loading/bus stops remain at the curb

- Curbside bus lane:
  - Buses only, during posted time periods
  - Metered parking, truck loading at other times

Livingston Street, Downtown Brooklyn

Jamaica Bus Improvement Study
Proposed Bus Lanes

Bus lane features:
- Combination of offset and curbside bus lanes, improved with red lane markings and overhead signage
- Bus lane hours to be determined
- Midday loading windows will be implemented where needed

Bus lane length:

<table>
<thead>
<tr>
<th>Description</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Bus Lanes</td>
<td>1.6 miles</td>
</tr>
<tr>
<td>Proposed Bus Lane Additions</td>
<td>1.4 miles</td>
</tr>
<tr>
<td>Proposed Bus Lane Removal</td>
<td>0.1 miles</td>
</tr>
<tr>
<td>New Total</td>
<td>2.9 miles</td>
</tr>
</tbody>
</table>
Archer Avenue: Sutphin Boulevard to Parsons Boulevard

Archer Avenue: Parsons Boulevard to Merrick Boulevard

Benefits of bus lane improvements:
- Benefits 1,100 to 1,300 buses per direction daily
- Faster, more reliable bus service
- Improves eastbound bus and vehicle flow
Bus Lanes - Jamaica Avenue

Jamaica Avenue: Sutphin Boulevard to Parsons Boulevard

Benefits of bus lane improvements:
- Benefits 600 to 750 buses per direction daily
- Faster, more reliable bus service
- Offset lanes provide access to curb for parking and deliveries
- Reduces congestion by removing bus from general traffic

Jamaica Avenue: Parsons Boulevard to 168th Street

KEY
- Offset bus lane proposed (currently curbside bus lane)
Bus Lanes - Merrick Boulevard & 165th Street

**Merrick Boulevard:** Archer Avenue to Hillside Avenue

- Bus Lanes – Merrick Boulevard & 165th Street

**165th Street:** 89th Avenue to Hillside Avenue

Benefits of bus lane improvements:
- Faster, more reliable bus service
- Reduces congestion by removing bus from general traffic
- Helps buses quickly enter and exit 165th Street Bus Terminal

Photo: Merrick Boulevard near 165th Street Bus Terminal
**Jamaica Bus Improvement Study**

**Jamaica Recommendations**

**Bus Lane Recommendations**
- Extend existing EB bus lane east to Sutphin Blvd and west to Merrick Blvd
- Implement WB bus lane - curbside between Parsons Blvd & 150th St; offset between Parsons Blvd & 160th St with flexible delineators
- Prohibit bus-only lane between 160th Street & Sutphin Blvd
- Maintain existing EB curbside bus lane with highly visible paint and improved pavement markings
- Implement EB interior bus lane between Sutphin Blvd & Guy R. Brewer Blvd
- Install shelter and information panels
- Facilitating Transfers Recommendations
  - Install shelter; passenger amenities in tunnel
  - Install cantilevered canopy & additional amenities
- Install shelter and information panels

**Site Specific Recommendations**
- Prohibit EB, RT, LR-LT except for buses; install ASTC; extend pedestrian refuge
- Implement "No Stopping Anytime" move center line north on Archer Av west of Sutphin Blvd
- Adjust signal timing; install signage; install ASTC; install curb extension of NW corner
- Bus Stop & Routing Recommendations
  - Extend NB Q20A/B, Q43, Q44 bus stop
  - Relocate bus stops & layover areas
  - Relocate WB Long Island Bus stop
  - Relocate RT Long Island Bus stop
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Other Recommended Improvements

Bus Stop Re-Configurations

**Existing**

Location of bus stops leads to turning conflicts

**Recommended**

Lengthen, separate, and reverse bus stop locations

Parking Regulation Changes

**Proposed**

- Legalize existing daytime truck loading
- Provide additional truck loading space
- Extend one-way westbound operation on 91st Avenue

These changes will eliminate conflicts with bus layover area

Intersection Changes (Hillside Ave., Home Lawn St., & 169th St.)

**Current Issues**

Buses merge onto 169th St.

Vehicles back out into traffic

**Opportunity**

Home Lawn St. becomes primary north/south roadway

Provision for more pedestrian space

Please note that the examples presented on this board show only a few of the improvements recommended for the study area.