Agenda

1. Project Background and Feedback
2. Design Concepts
3. Next Steps
Woodhaven / Cross Bay Corridor
Woodhaven / Cross Bay SBS Corridor

• Based on the existing Q52/53 LTD bus route
• 30,000 daily bus riders
• 14 miles long from Woodside to the Rockaways
• Within a 15-minute walk of the corridor:
  – 400,000 residents
  – 43% of households do not own a car
  – 60% of residents commute by transit
Community outreach process

Community Advisory Committee

Public Open Houses and Workshops

Community Board Meetings

Stakeholder Meetings
Community feedback

1. **Bus service** is unreliable and slow during rush hour

2. **Improvements to the bus route** are needed to better serve customers, especially in the Rockaways

3. **Pedestrian crossings** are long and dangerous

4. **Congestion** leads to long and difficult trips for buses and drivers

5. **Changing road widths and configurations** make the corridor difficult to navigate
Project goals

Make Woodhaven Boulevard a Great Street

1. Faster and more reliable bus service
2. Safer streets for pedestrians and drivers
3. Maintain appropriate traffic flow
Transit

• One-way travel time can vary by up to 30 minutes (varies between 55 and 85 minutes)

• Q53 LTD buses are stopped almost half of the time

• Many passengers are riding the bus long distances

CB9 covers 2 out of the top 5 busiest Q52/53 stops (#3 Jamaica Ave, and #4 Atlantic Ave). 10,000 bus riders get on and off the bus at those two stops every day.
Safety

- High Crash Corridor
  - Vision Zero Priority Corridor
  - 32.6 KSI per mile
  - 24 fatalities (17 ped) (2008-14)
  - 9 fatalities in CB9 (plus recent Atlantic Avenue fatality)

- Difficult pedestrian crossings
Traffic

• High traffic speeds along some portions of the corridor
• Congestion is concentrated at key points
• Traffic volumes are noticeably higher during rush hours
Design Concepts
Existing Conditions

- Long pedestrian crossing distance with no refuge
- Left turns create congestion and safety issues
- Wide roadway encourages speeding
- Bus stops lack amenities
- Mixed traffic; lack of organization
Existing Conditions

- Wide roadway
- 4+ Lanes of traffic; changing road widths
- Complex roadway design, difficult to transition between local and main roads
- Service roads
Design features of all concepts

• All standard SBS features
• Bus lanes and 3 lanes of general traffic in each direction
• Changes to left-turns where needed for traffic flow and safety
• Transit Signal Priority / optimized signal timings
• Pedestrian safety enhancements
Concept 1

Offset Bus Lanes

A smaller capital project that uses the existing SBS toolbox within the existing roadway configuration
Concept 1 – Offset Bus Lanes

Station rendering

- SBS Bus Bulb Station
- Local Bus Stop
- Offset bus lanes (one lane away from the curb)
- Parking
- Median pedestrian refuge
Concept 1 – Offset Bus Lanes

Non-station rendering

- Offset bus lanes in service road
- Local Bus Stops at curb
- Parking
- Existing roadway configuration
Concept 1 – Offset Bus Lanes

Plan view

- Offset bus lanes
- Local Bus Stop
- Parking
- Pedestrian Neckdowns
- SBS Bus Bulb Stations
- Median pedestrian refuge
- Three travel lanes
- Left-turn bay

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Concept 1 – Offset Bus Lanes

Examples

Nostrand Avenue, Brooklyn

First Avenue, Manhattan

Webster Avenue, Bronx
Concept 1 – Offset Bus Lanes

Key points

Transit
• “Offset” bus lanes and SBS bus bulbs
• Parking and turning vehicles delay buses

Safety
• Primarily uses existing roadway geometry
• Neckdowns and widened medians at station locations

Traffic
• Consistent 3 lanes of traffic
Concept 2

Main Road Bus Lanes

Boulevard roadway design with priority for bus travel in the main roadway and uses service roads to separate local and through traffic
Concept 2 – Main Road Bus Lanes

Station rendering

- Calmed service roads with parking
- Curbside bus lanes in the mainline roadway
- SBS stations and Local bus stops on side median
- Shortened crossing distance with pedestrian refuges
- Separates local and thru traffic
Concept 2 – Main Road Bus Lanes

Non-station rendering

- Curbside bus lanes in the mainline roadway
- Calmed service roads with parking
- Separates thru and local traffic
- Left-turn bays at non-station locations
Concept 2 – Main Road Bus Lanes

Plan view

SBS Stations and Local bus stops on expanded median

Calmed service roads for local access and parking

Slip opening

Right-turn lane

Curbside bus lanes and thru traffic lanes in the main roadway

Left-turn bay
Concept 2 – Main Road Bus Lanes

Examples

Pelham Parkway, Bronx

Taipei, Taiwan

K Street, Washington DC
Concept 2 – Main Road Bus Lanes

Key Points

Transit
• “Main Road” bus lanes and stations; options for physical separation / raised lanes
• No conflicts with turning vehicles or parking

Safety
• New service roads clam traffic and shorten pedestrian x-ings
• Consistent roadway design

Traffic
• Separates local and thru traffic
• 3 lanes total (1 lane in service road and 2 lanes in main road)
Concept 3

Median Bus Lanes

Center-running bus lanes and median stations separate general traffic into northbound and southbound roadways
Concept 3 – Median Bus Lanes

Station rendering

Three lanes of traffic with parking

Median Bus Station for SBS and Local buses

Rush hour parking restrictions

Median Busway with passing lane

Pedestrian refuge

Rush hour parking restrictions
Concept 3 – Median Bus Lanes

Non-station rendering

- Median Busway
- Three lanes of traffic with parking
- Planted center median at non-station locations
Concept 3 – Median Bus Lanes

Plan view

- Pedestrian neckdowns
- Three travel lanes and parking
- SBS Stations and Local bus stops at median station
- Rush hour parking restrictions
- Requires left-turn only signal

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Concept 3 – Median Bus Lanes

Examples

- Seoul, South Korea
- Mexico City, Mexico
- Euclid Avenue, Cleveland, OH
Concept 3 – Median Bus Lanes

Key points

Transit
• Median bus lanes with passing lanes; options for physical separation / raised lanes
• No conflicts with general traffic

Safety
• Separated NB and SB roadways
• Alignment challenges
• Long pedestrian crossings

Traffic
• Consistent 3 lanes of traffic
• Rush hour parking restrictions
• Left-turn only signal required to cross busway
Public Meeting Feedback (sample)

• Support for substantial redesigns of Woodhaven (options 2 and 3)

• Important to maintain local bus service (Q11, Q21)

• Particular concerns about how left turns will be accommodated under all concepts, especially NB at Rockaway Blvd and SB at Liberty Av

• Unsynchronized traffic signals are problem on the corridor

• Right-turning vehicles in the bus lane will delay buses

• Better to look at designs that are proven success for NYC (Option 1 and Option 2)

• Good to standardize corridor design so there is less convergence/divergence as the road narrows/widens
Next Steps
Design Progress

- Continue to gather feedback from the public, elected officials, and Community Boards.

- Continue to conduct technical analysis of effects on traffic, bus service, road safety.

- Select design concept this winter.

- Work with communities on block by block design.
Project Schedule

Winter 2015: Select design concept

Spring-Fall 2015: Develop block by block design plans, station locations, full corridor traffic analysis

Fall 2015-6: Begin detailed civil engineering/utility design

2017-8: Construct improvements, implement SBS
Thank you!