DOWNTOWN JAMAICA TRANSPORTATION STUDY
Future Conditions & Recommendations

Public Meeting #3
March 28, 2018
AGENDA

1. STUDY BACKGROUND
2. ANALYSIS AND FINDINGS
3. RECOMMENDATIONS & IMPROVEMENT MEASURES
4. NEXT STEPS
Study Background
WHY JAMAICA?

Mayor/BP (Jamaica Now Action Plan)

City Council (Study Request)

NYMTC - RTP (Desired Growth Areas)

NYCDCP (Jamaica Plan Rezoning)

NYCEDC (Development Projects)

GJDC (Studies & Initiatives)
OTHER MAJOR INITIATIVES

• Atlantic Avenue Extension
• Station Plaza
• York College Campus Expansion
• Van Wyck Expressway Widening
• NYCT Bus Depot Expansion
• Jamaica Airport Gateway (GJDC/RPA)
• Downtown Revitalization Initiative
• Citywide Commuter Van Study
• Citywide Freight Plan
• Streetscape & Urban Design Plan
STREETSCAPE CONCEPT PLAN
DRAFT

Legend

Proposed Public Space Amenity Zone
- Featuring CityKits seating, movable seating, newsstands, concessions at plazas, and sidewalk cafes

Proposed Transit Amenity Zone
- Featuring bus stops, CityKits seating, bike parking, leaning bars, ticket kiosks, and wayfinding

Visualization Viewshed

Proposed Pedestrian Improvement Zone

ADA Ramp and High-Visibility Crosswalk

Proposed Bus Shelter Location

Existing Subway Entrance

A. Archer Avenue

B. 153rd Street

C. Parsons Boulevard

D. York College Entrance

E. Jamaica Avenue
GOALS, OBJECTIVES & STUDY AREA

Goal:
- To improve travel and traffic conditions, enhance mobility, safety, quality of life, and economic activity

Objectives:
- Analyze existing traffic conditions
- Assess future travel demand/needs
- Develop recommendations to:
  - Reduce congestion and improve travel speeds
  - Enhance safety
  - Improve transit service
  - Improve pedestrian mobility/accessibility

Study Areas:
- Primary – Hillside Ave, 183 St, Liberty Ave, Van Wyck Expwy
- Secondary – Union Tpke, 193 St/Farmers Blvd, Linden Blvd, 130 St/Austin St
STUDY PROCESS

Study Initiation & Scope of Work

Data Collection
Community Input

Existing Conditions Analysis - 2016
(Problem Identification & Short Term Recommendations)

Future Conditions Analysis - 2026
(Long Term Recommendations)

Develop and Evaluate Improvement Measures

Draft Final Report

Implement Short-Term Recommendations

Project Development, Design, and Implementation

Final Report

We are here
Summary of Analysis

- Existing (2016) & Future (2026) Conditions
STUDY PLAN – DATA COLLECTION & ANALYSIS

- Demographics
- Zoning and Land Use
- Traffic
  - Existing Condition
  - Future Travel Demand
  - Network Simulation
- Transit
- Pedestrian and Bicycles
- Parking
- Trucks/Goods Movement
- Crashes/Safety
COMMUNITY INPUT
CONCERNS, ISSUES & IDEAS

- Elected Officials Requests
- Street Ambassadors/Workshop
- Jamaica Leadership Council
- Technical Advisory Committee
- Public Meeting
- Web Portal/IBZ Survey
- Community Board

Community Input
## WHAT WE HEARD

### TAC/PUBLIC MEETING
- Too much congestion; need TEA to direct traffic
- Too many buses – better manage buses circulating in the core
- Need to manage commuter van operations
- Insufficient parking
- Provide better lighting to make the place more inviting and safe
- Use art to beautify LIRR retaining wall

### STREET AMBASSADORS/WORKSHOP
- Too much congestion
- Speeding is prevalent; speed and red light cameras are needed
- Traffic Enforcement Agents needed at busy intersections
- Poor roadway condition - potholes, etc.
- Not enough parking spaces

### WEB PORTAL
- Create pickup/dropoff area near Sutphin/Archer station
- Bus only lanes on Jamaica Ave do not function as planned
- Gridlock at Archer Ave/Sutphin Bl is terrible esp. in PM peak
- Parsons Bl/Jamaica Ave – most dangerous intersection in Downtown Jamaica

### IBZ SURVEY
- Douglas Ave is substandard east of 170th St
- Too much congestion on Sutphin Bl bet/ Liberty Ave & Hillside Ave
- Merrick Bl & Liberty Ave are problematic due to the number of commuter vans and buses
- Liberty Ave needs to be repaved
- Curb space for truck loading/unloading is needed
DEMOGRAPHICS & SOCIOECONOMICS

Population

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2025</th>
<th>Change (%)</th>
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<tbody>
<tr>
<td>Primary</td>
<td>53,076</td>
<td>55,678</td>
<td>4.9%</td>
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<tr>
<td>Secondary</td>
<td>132,487</td>
<td>134,812</td>
<td>1.8%</td>
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Median HH Income

<table>
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<th>2015</th>
<th>2025</th>
<th>Change (%)</th>
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<tr>
<td>Primary</td>
<td>$45,072</td>
<td>$50,715</td>
<td>12.5%</td>
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<tr>
<td>Secondary</td>
<td>$57,720</td>
<td>$70,446</td>
<td>22.0%</td>
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1+ Vehicle Ownership

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<th>2015</th>
<th>2025</th>
<th>Change (%)</th>
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<tbody>
<tr>
<td>Primary</td>
<td>44%</td>
<td>43%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Secondary</td>
<td>59%</td>
<td>59%</td>
<td>0.0%</td>
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2015 Journey To Work

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>23%</td>
<td>35%</td>
</tr>
<tr>
<td>Subway/Rail</td>
<td>48%</td>
<td>39%</td>
</tr>
<tr>
<td>Bus</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>Walk</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>4%</td>
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Pop Change 2015-2025

- 0 - 100
- 101-200
- 201-350
- Primary Area
- Secondary Area
FUTURE DEVELOPMENT SITES

- Hotels – Twelve sites
- Mixed Use - Twenty-four sites
NEW DEVELOPMENTS

The Crossing at Jamaica Station
670 DU's + Ground Floor Retail

92-61 165th St
88 DU's + Ground Floor Retail

Mary Immaculate Hospital Campus
320 DU's

Hilton Inn
240 Rooms

160-16 Jamaica Ave
150K sq ft Commercial

92-33 168th St
389 DU's + Ground Floor Retail

148-18 Archer Ave
500 Rooms

92-18 150th St
80 Rooms

nyc.gov/dot
Detailed Traffic Analysis
TRAFFIC
PM PEAK HOUR APPROACH VOLUME - EXISTING

- Highest traffic volumes:
  - Van Wyck Expy SR – over 1,500
  - Hillside Ave and Liberty Ave – over 1,000
TRAFFIC
PM PEAK HOUR APPROACH LOS - EXISTING
TRAFFIC
PM PEAK HOUR APPROACH LOS - FUTURE

LEGEND
- LOS F (30)
- LOS E
- LOS D
PM PEAK CORRIDOR TRAVEL SPEED – EXISTING

- 4 corridors with average travel speed less than 5mph
PM PEAK CORRIDOR TRAVEL SPEED – FUTURE

- 9 corridors with average travel speed less than 5mph
PEDESTRIAN ISSUES

HIGH PEDESTRIAN DENSITY
NARROW SIDEWALKS
MISSING SIDEWALK
PARKING
ON-STREET/OFF-STREET

Parking Garage
- Off-Street
  - 4,200 spaces

Parking Lot
- On-Street
  - 3,500 spaces

<table>
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<tr>
<th>Parking Location</th>
<th>Metered</th>
<th>Parking Study Area</th>
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<tbody>
<tr>
<td>Parking Garage</td>
<td>30-200</td>
<td>30-200</td>
</tr>
<tr>
<td>Parking Lot</td>
<td>40-400</td>
<td>40-400</td>
</tr>
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Unmetered - 60%
Metered - 40%
PARKING
ILLEGAL PLACARD USE

• Approximately 170 designated authorized parking spaces
• More than 800 vehicles with placards during AM/MD peaks
Jamaica Center processes the highest number of commuters daily (over 40K) followed by Sutphin Blvd/Archer Ave, and 179th St.
PM BUS VOLUME & PERCENTAGE OF TRAFFIC

Legend
Number of Vehicles
- 0 - 30
- 30 – 60
- 60 – 90
- 90 – 120
- >120
AM BUS SPEEDS

- Bus speeds on the major corridors was generally under 15 miles/hour
Commuter vans and black cars provide feeder service to the two main transit hubs.
CRASHES (2013-2016)
TRUCKS/GOODS MOVEMENT
TRUCK ROUTES
VISSIM SIMULATION
EXISTING CONDITIONS

Archer Av

Sutphin Blvd
VISSIM SIMULATION
FUTURE CONDITIONS & OTHER SCENARIOS

Parsons Blvd/Archer Av
Future Conditions

Parsons Blvd/Archer Av
Future Conditions with Archer Av between 153rd St and 160th St Transit Only
VISSIM SIMULATION NETWORK

AVERAGE TRAVEL SPEED – Existing PM PEAK
VISSIM SIMULATION NETWORK
AVERAGE TRAVEL SPEED – Future PM PEAK

- 0-3 mph
- 3-6 mph
- 6-9 mph
- 9-12 mph
- 12-15 mph
- 15-18 mph
- 18-21 mph
- 21-24 mph
- > 24 mph
Issues Identification & Problem Definition
TRAFFIC & TRANSPORTATION ISSUES

Queues/Congestion

Heavy Bus Traffic

Commuter Vans

Narrow Two-way Streets

High Volume of Surface Transit Commuters

High Parking Demand/Placard Abuse
TRAFFIC NETWORK CONFIGURATION
NORTH/SOUTH CONNECTIVITY

- Limited north-south travel options between Liberty and Hillside Aves contribute to congestion in the study area.
NARROW TWO-WAY STREETS

- Narrow two-way streets are common, primarily in the secondary study area, south of Liberty Ave.
Recommendations & Improvement Measures
SYNTHESIS OF ISSUES

- High Pedestrian Vol.
- Mobility Challenges.
- Livery Taxi
- Commuter Vans
- Placard Abuse/Ill. Pkg
- Fatalities (10)
- LOS E/F (47)
- Avg. speed >10 mph
- Avg. speed <10 mph
- Poor Roadway Cond.
CRITICAL IMPROVEMENT FOCUS AREAS

- Future Induced Traffic Demand
- Buses/Commuter Vans
- Core Congestion Area
- N/S Connections
RECOMMENDATIONS

Legend
- Geometric changes
- Traffic controls
- Pedestrian Refuge
- Signage
- Roadway reconstruction
- Conversions
- Parking
- 2017 SIP - Implemented
- 2018 SIP
- Streetscape Plan Props.

Primary Study Area
Secondary Study Area
Short-term Improvements
2018 STREET IMPROVEMENT PROJECTS (SIPS)

Transportation Study
1. Liberty Ave – Allendale St to Waltham St
2. Sutphin Blvd – Jamaica Ave to 95 Ave
3. Jamaica Ave – 148th St to Sutphin Blvd
4. 188 St/McLaughlin Ave/G. Central Pkwy SR
5. One-Way Conversions
6. 168 Pl & 169 St
7. 160 St – South Rd to 110 Ave
8. 142 St/Van Wyck Expy SR
9. Union Hall St – Jamaica and Archer Aves
10. Liberty Ave – 183 St to Dunkirk St
11. 175 St – Jamaica Ave to 91 Ave
12. Sayres Ave/111 Ave/177 St

Streetscape Plan
13. Parsons Blvd/153 St

Other
14. Hillside Ave – 179 St – 208 ST

Legend
- Primary Study Area
- Secondary Study Area

Source: Esri, HERE, Google

nyc.gov/dot
**168 PL & 169 ST – GRAND CENTRAL PKWY TO 90 AVE**

**EXISTING**

- Issue(s):
  - Peak hour congestion heading south towards Hillside Ave in the vicinity of 169th St

**PROPOSED**

- Improvement:
  - Convert 168th Pl to SB and 169th St to NB (Highland Ave to GCP)
JAMAICA AVE – SUTPHIN BL TO 148 ST

Issue(s):
- Mismatched designated bus lane and usage
JAMAICA AVE – SUTPHIN BL TO 148 ST

Improvement:
• Shift curbside bus lane to the designated left turn lane
• Reassign curb lane as a moving lane at all times
• Provide truck loading/unloading on 148 St/147 Pl (side streets)
Issue(s):

- Congestion and conflicts along the corridor impedes bus operation
SUTPHIN BL – JAMAICA AVE TO 95 AVE

PROPOSED

Improvement:
- Convert 91 Ave to EB
- Install ‘For Hire’ taxi stand on 91 Ave
- Install hardened centerline on Sutphin Blvd from 91 Ave to Archer Ave
- Sutphin Blvd/94 Ave
  - Signal timing changes
- Sutphin Blvd/95 Ave
  - Remove parking to provide add’l moving lane
  - Provide exclusive left turn lane
  - Truck loading/unloading on 95 Ave
MURDOCK AVE – DUNKIRK ST TO FARMERS BL
EXISTING

Issue(s):
- Roadway is wide (46’) and generally unmarked
- Complex, unsignalized intersections
MURDOCK AVE – DUNKIRK ST TO FARMERS BL PROPOSED

Improvement:
• Install hatched median with left turn bays
• Install curb extensions to shorten crossing distance
• Convert street direction to reduce conflicts at complex intersections
Issue(s):
- Wide intersection with pedestrian refuge islands
- Unmarked crosswalk
188 ST/MCLAUGHLIN AVE/GCP SVC RD

Improvement:
• Install pedestrian refuge islands
• Install curb extensions to shorten crossing distance
• Install missing crosswalk
Long-term Improvements
(Concepts)
 Issue(s):
- Narrow sidewalks limit pedestrian mobility
Improvement:

- Widen sidewalk between Guy R. Brewer Blvd & 165 St by 4 feet to 9 feet
- Identified for capital project
SOUTH ROAD – GUY R BREWER BLVD TO 165 ST ROADWAY RECONSTRUCTION

Issue(s):
- Narrow under developed roadway without sidewalk
Improvement:

• Reconstruct roadway to appropriate width with sidewalk on north curb
• Identified for capital project
Q40 BUS ROUTE IMPROVEMENT CONCEPT
LAKEWOOD AVE & 142 ST - EXISTING

Issue(s):
- Narrow roadway with two-way bus routes
- Lakewood Ave and 142 St are bus routes (Q40)
- Roadway width is generally less than 30’
- Parking on both sides
**Q40 BUS ROUTE IMPROVEMENT (CONT’D)**

**Improvement:**
- Limit parking on the north/west curb to facilitate traffic operations
LAKEWOOD AVE @ INWOOD ST

Existing

3.5' Planting Strip
7' Parking lane
8' Travel lane
8' Travel lane
7' Parking lane
3.5' Planting Strip

Proposed

3.5' Planting Strip
11.5' Travel lane
11.5' Travel lane
7' Parking lane
3.5' Planting Strip
**Issue(s):**
- Limited north-south through streets
Improvement:

- Remove parking and convert 150th St to two-way operation from Hillside Ave to Jamaica Ave to correspond with use north of Hillside Ave and south of Jamaica Ave.
CORRIDOR AVERAGE TRAVEL SPEED
Existing Conditions PM Peak

LEGEND
- < 10 mph
- > 10 mph
CORRIDOR AVERAGE TRAVEL SPEED
Existing with 150th Street Conversion PM Peak

Average Queue Length reduction
• 168th St – 2%
• Merrick Blvd – 16%
• Sutphin Blvd – 54%
• Archer Av – 4%
• Jamaica Av – 56%
• Hillside Av – 21%
LESSONS LEARNED

• Downtown Jamaica is complex with competing uses/needs

• Parking/curb space is at a premium – needs stronger curb management

• High concentration of pedestrians - destination and through transfer traffic

• Need to balance the needs of pedestrians, safety, traffic, and commuter needs
NEXT STEPS

- Community Board SIP Presentations – April 2018
- Final Report – June 2018
- Project Feasibility Checks/Implementation
THANK YOU!

Questions?