

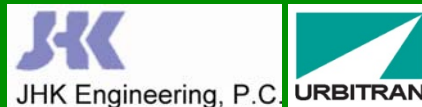
Congested Corridors Project

Woodhaven Boulevard, Queens

Queens Boulevard to Liberty Avenue

September 24, 2009

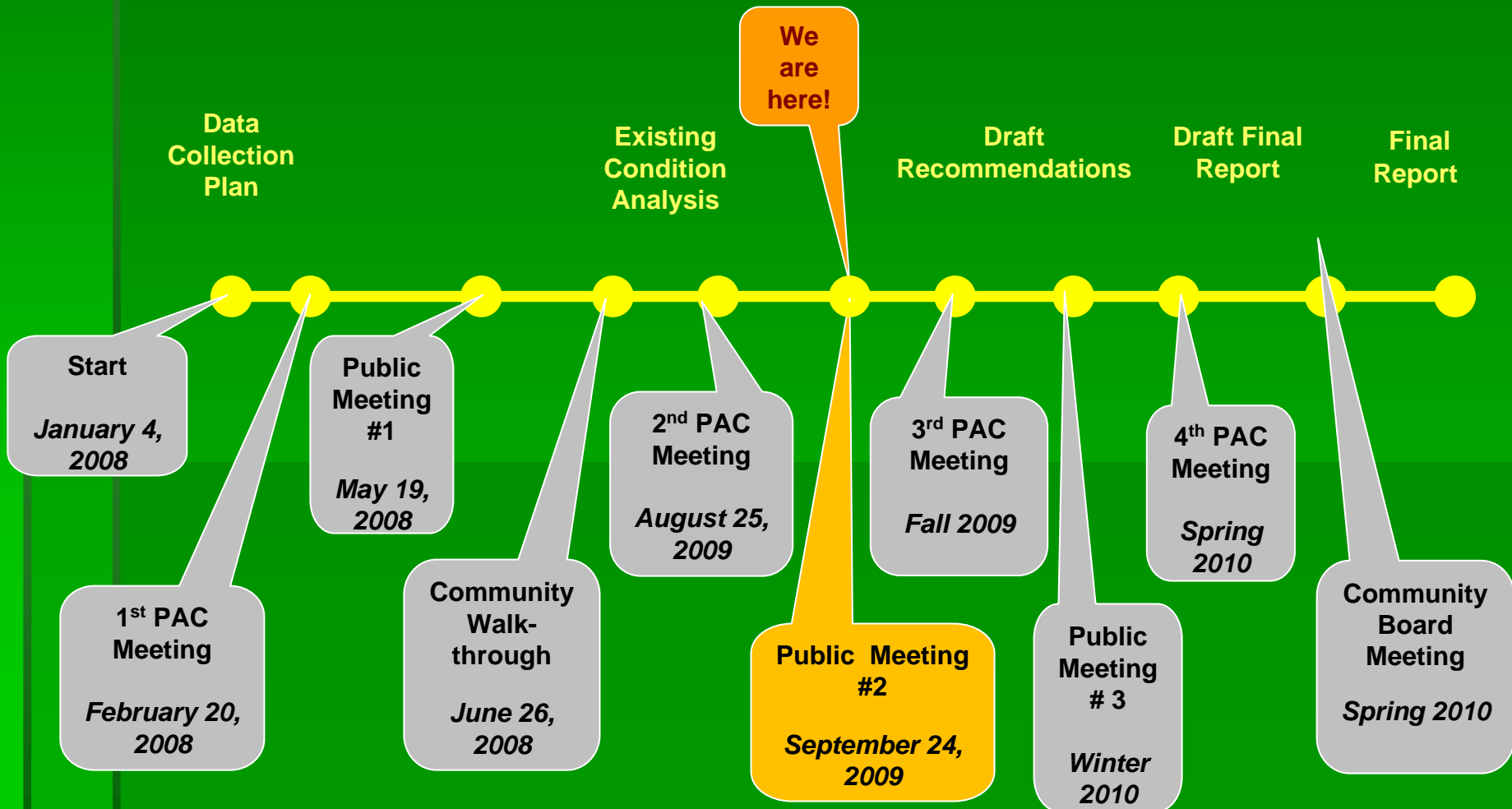
New York City Department of Transportation



Meeting Overview

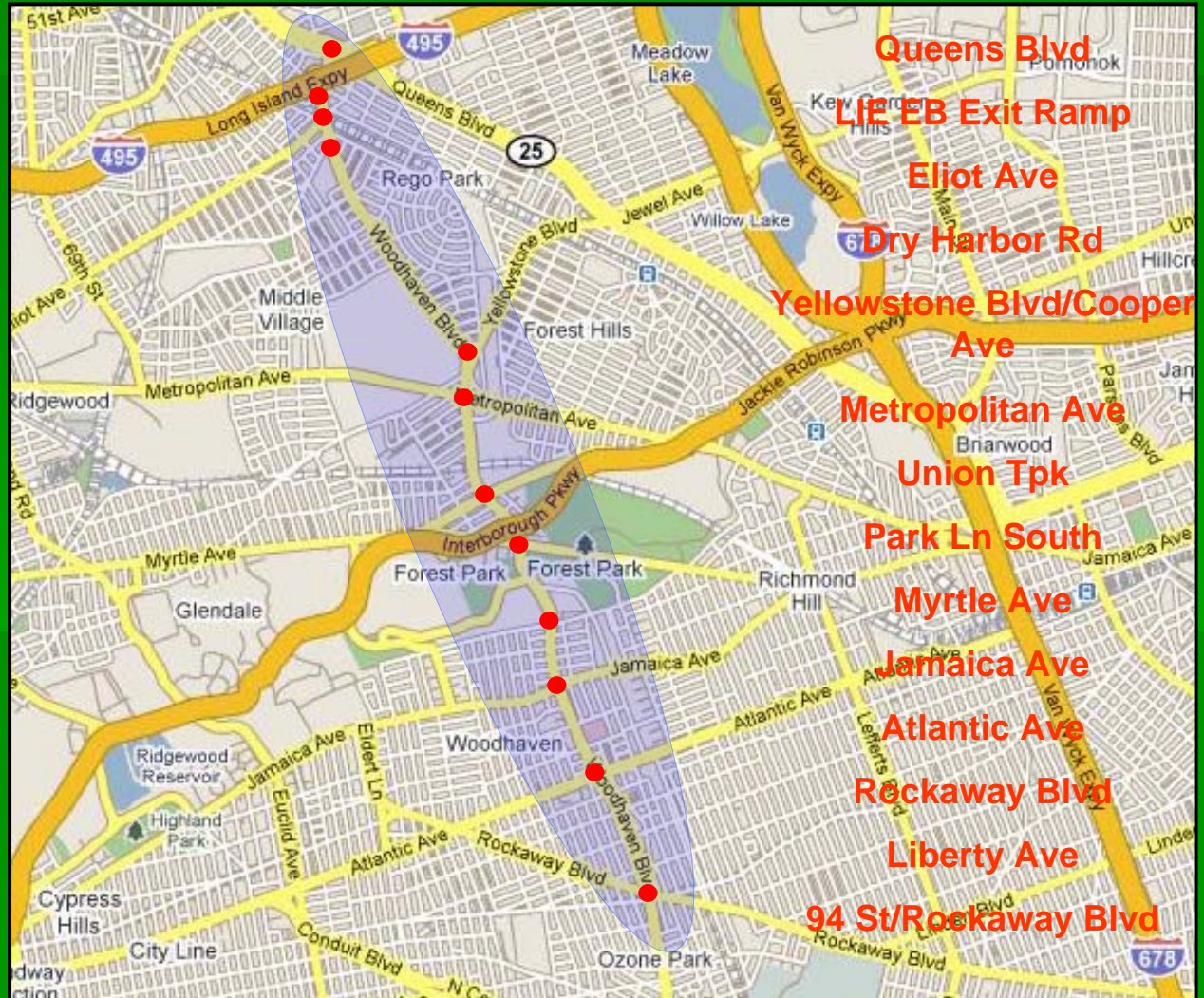
- Summary of Existing Conditions
- Future without Improvements
- Key Issues
- Preliminary Improvement Ideas

Study Process

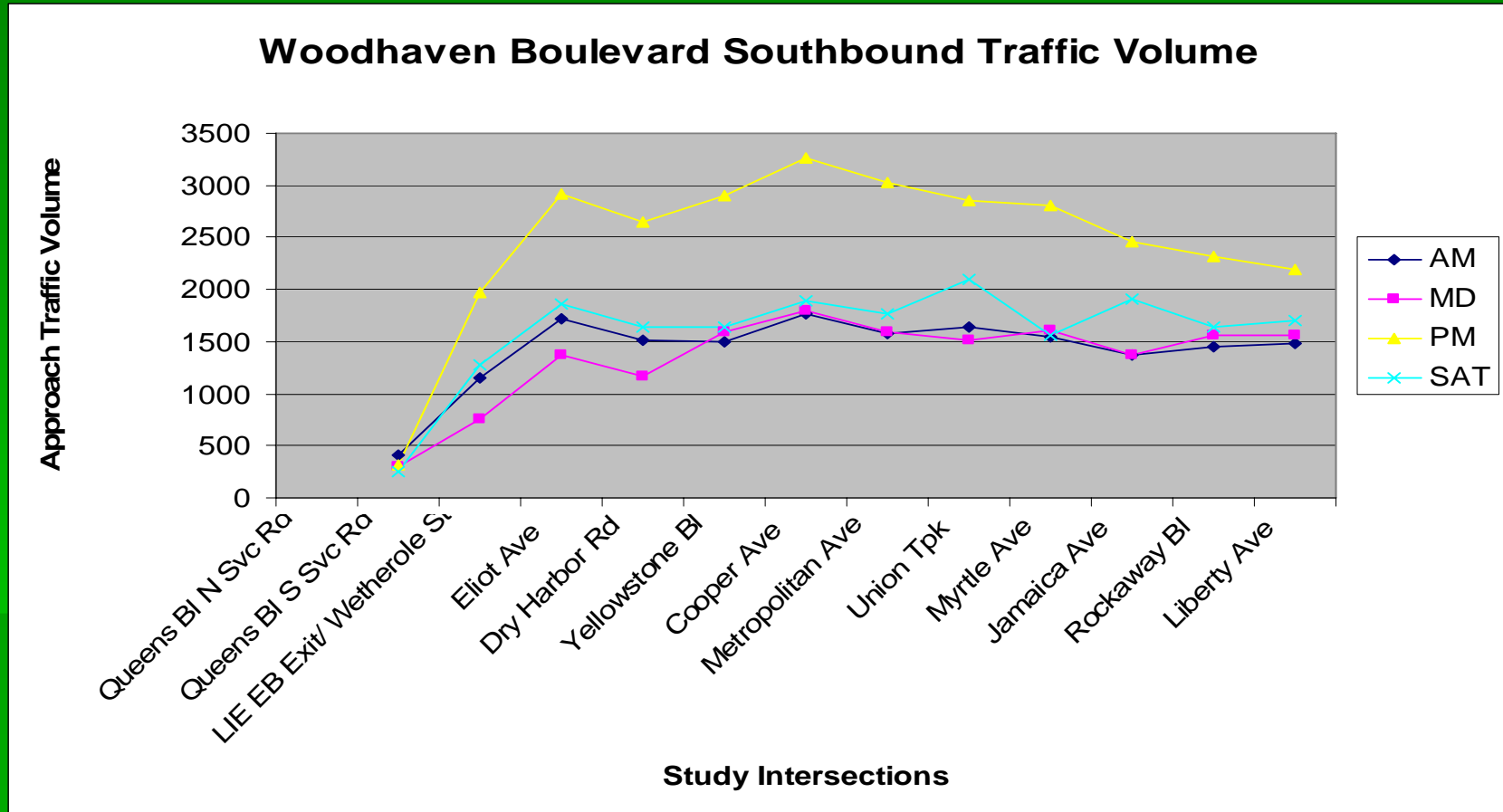


Study Area

- 3.2-mile north-south corridor from Queens Blvd. to Rockaway Blvd./Liberty Ave.
- Community Boards 4, 5, 6, 9 and 10
- 16 Intersections Studied

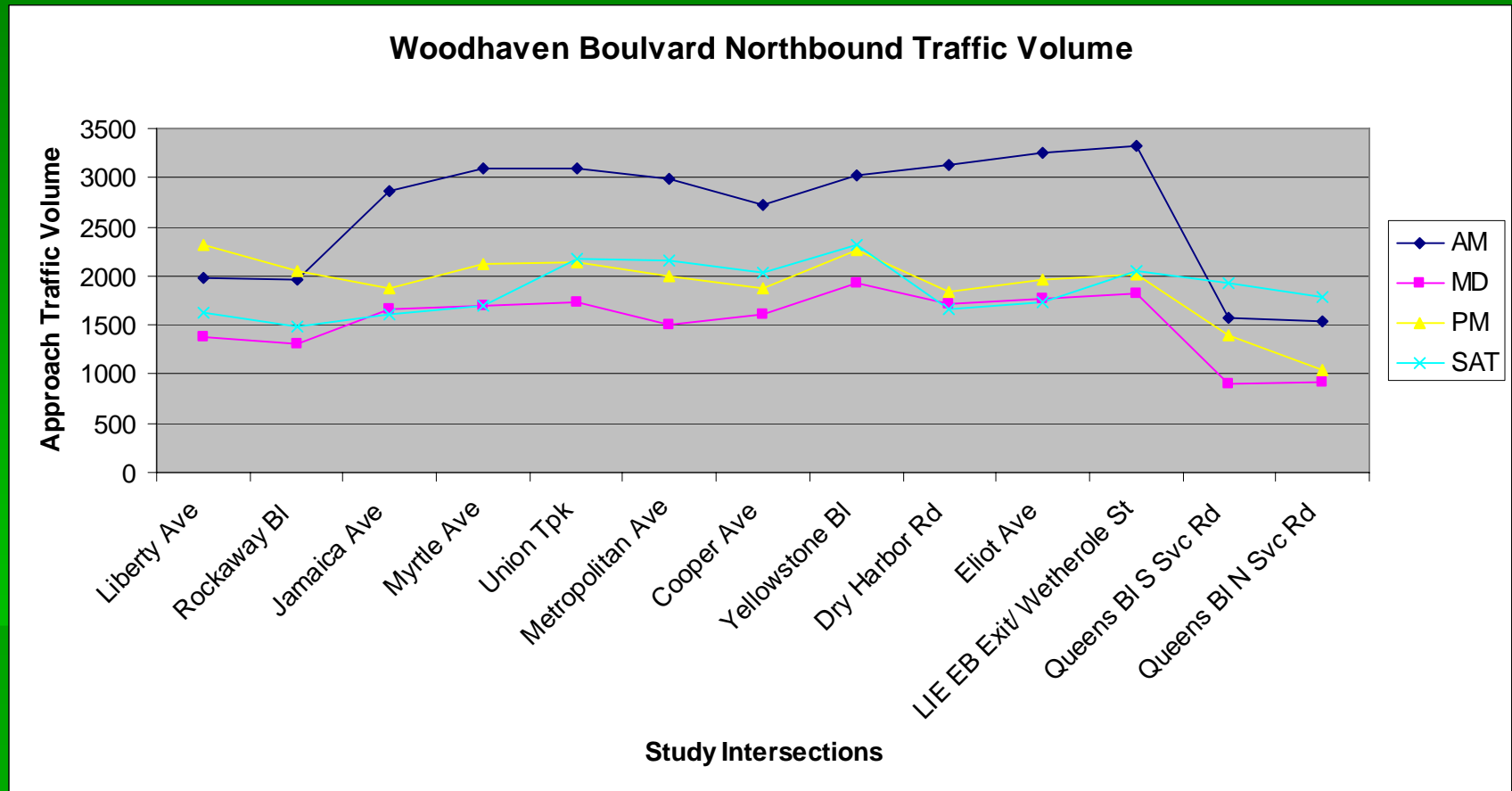


Corridor Traffic Patterns



- Southbound volumes increase significantly at the LIE interchange
- PM volume is significantly higher in the southbound direction

Corridor Traffic Patterns



- Northbound volumes decrease significantly at the LIE interchange
- AM volumes are higher than other peak hour volumes

Travel Time & Speeds

Northbound Woodhaven Blvd

	AM	MD	PM	Sat
Travel time (min)	16.2	9.6	12.8	9.2
Avg. Speed (mph)	12.9	21.8	16.6	22.8

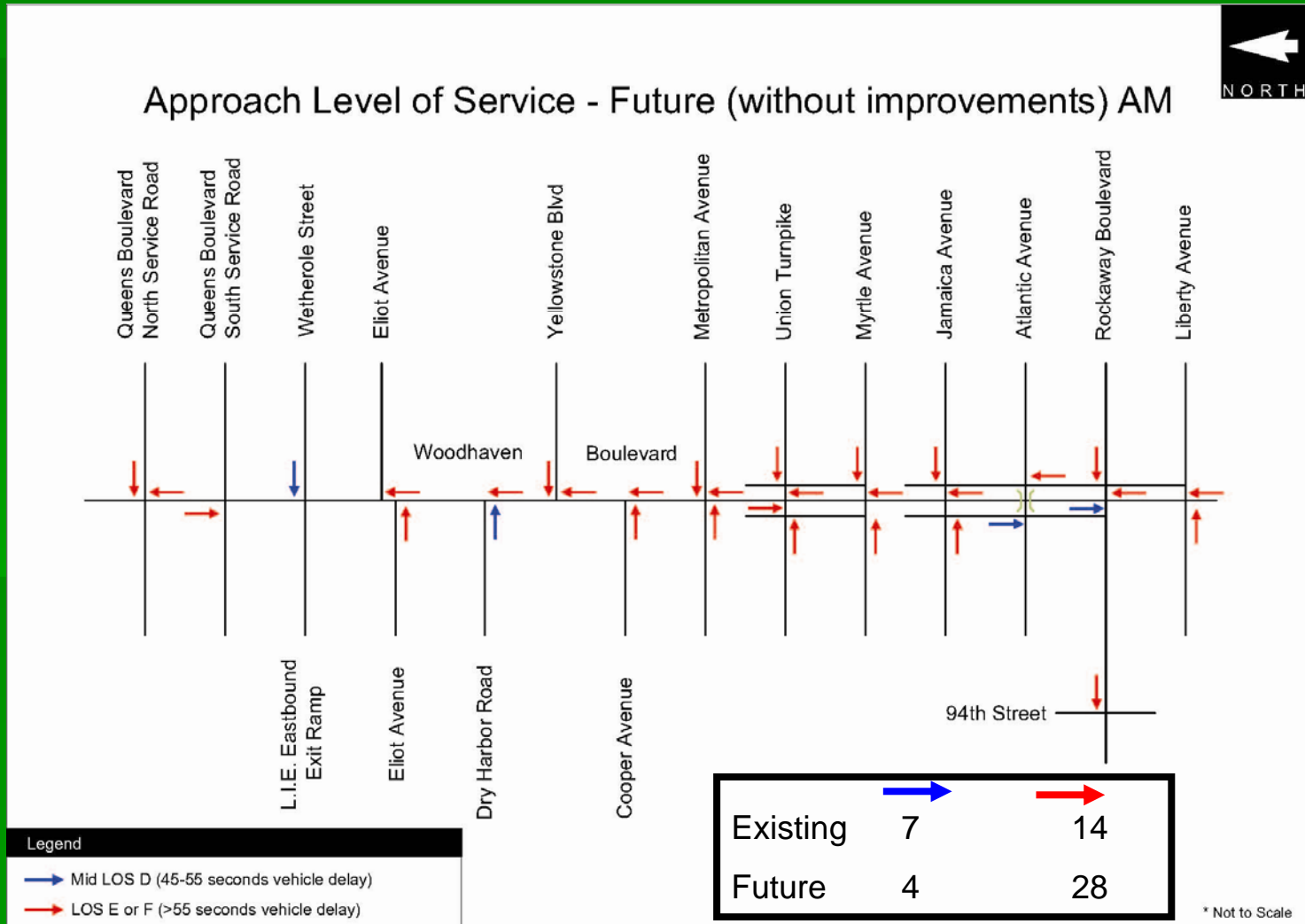
Southbound Woodhaven Blvd

	AM	MD	PM	Sat
Travel time (min)	12.4	10.2	14.0	10.5
Avg. Speed (mph)	17.0	20.6	15.4	20.1

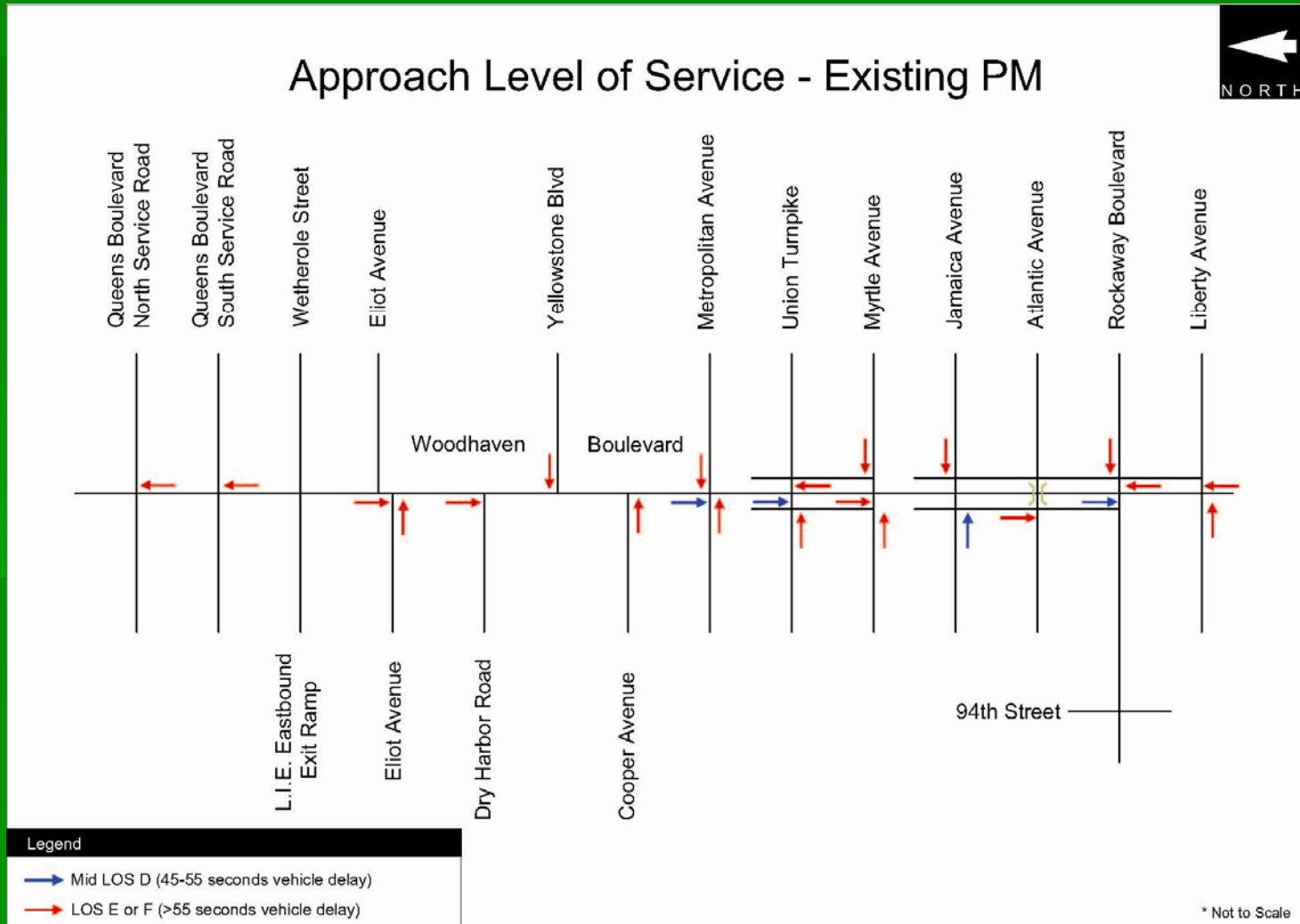
Level of Service by Approach (Existing AM)



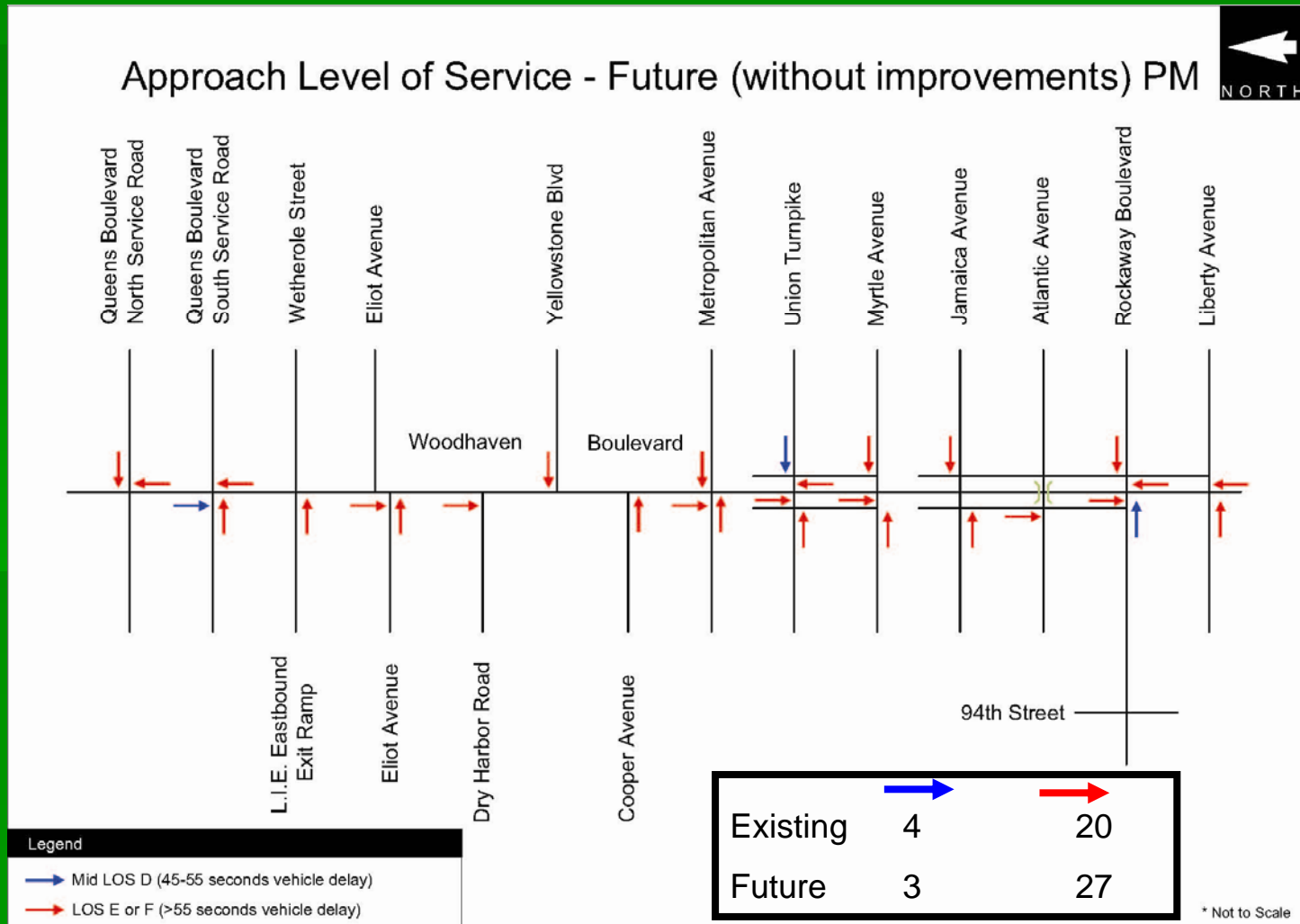
Level of Service by Approach (Future w/o Improvements AM)



Level of Service by Approach (Existing PM)



Level of Service by Approach (Future w/o Improvements PM)

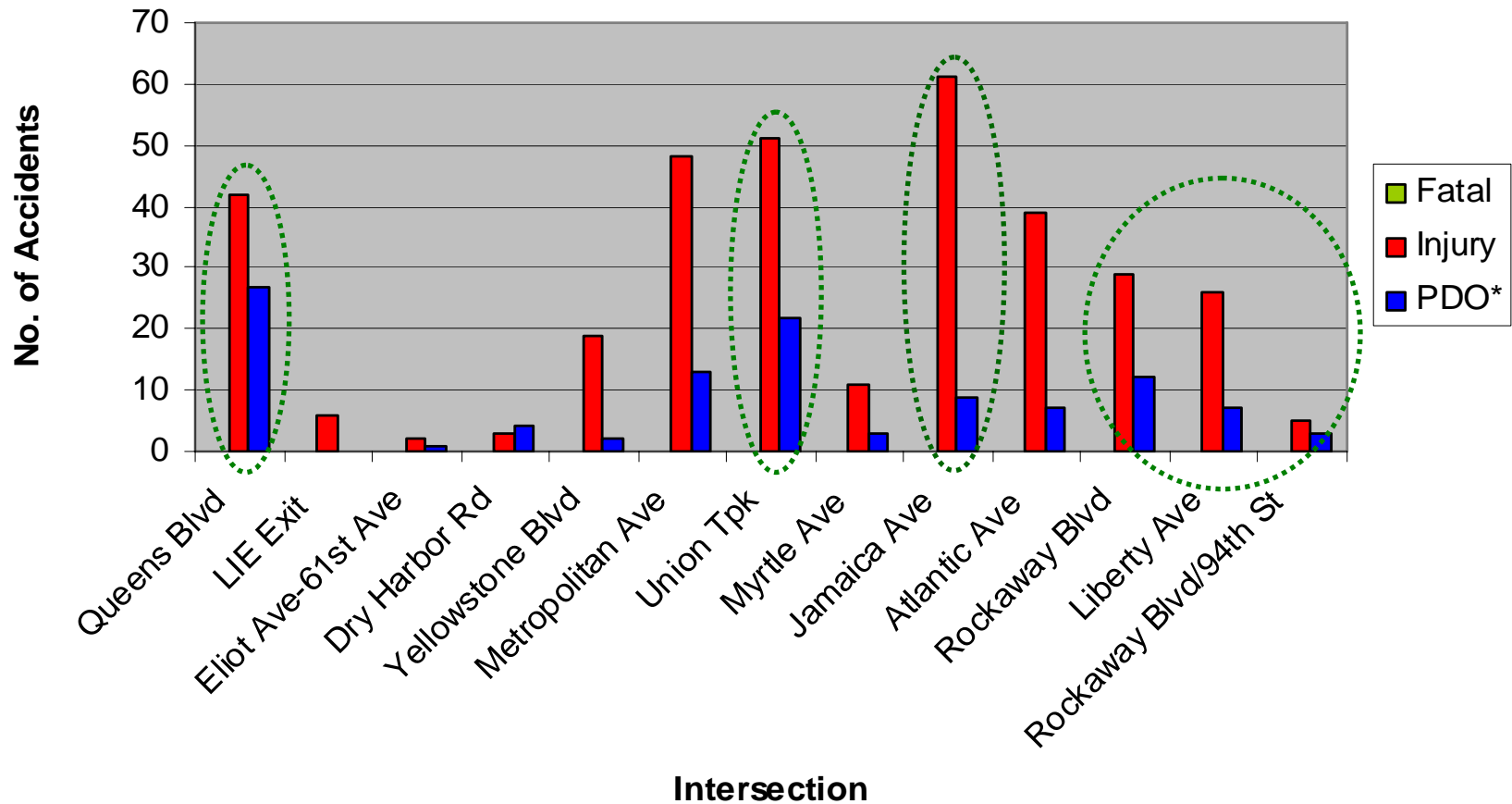


Safety

Year	2004	2005	2006	3-Year Total
No. of Reportable Accidents	136	162	197	495

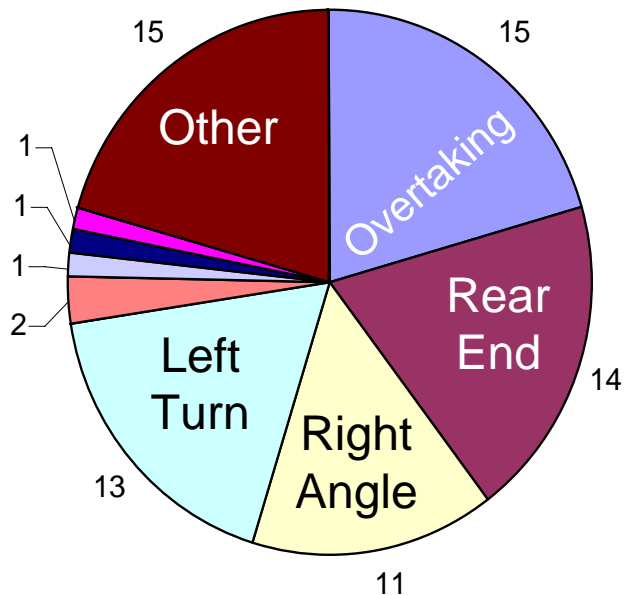
Reportable Accidents by Severity

Accidents By Severity at Woodhaven Blvd Study Intersections



Accident Types (Union Turnpike)

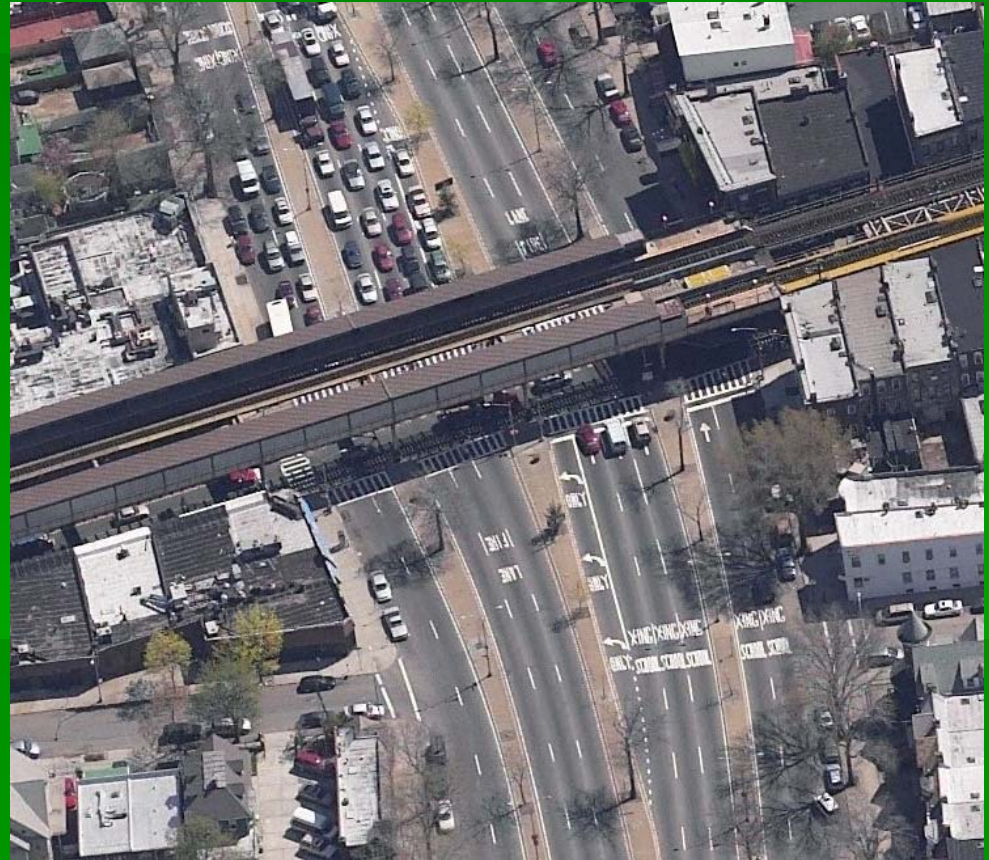
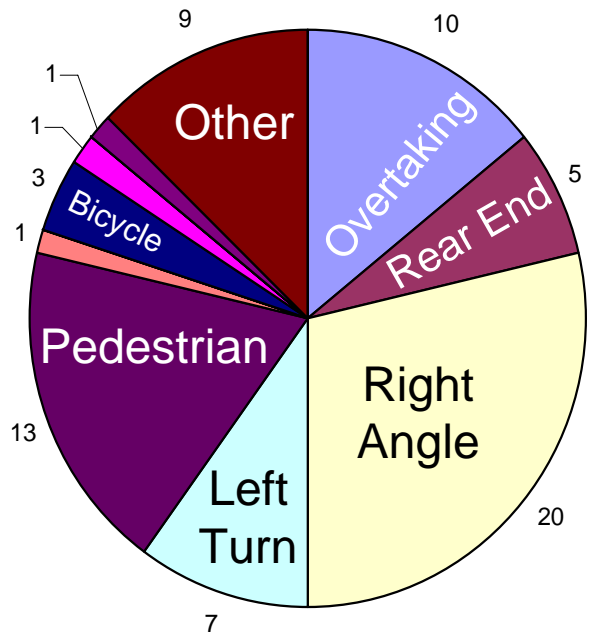
Accident Types: Union Turnpike



- | | | | | |
|--------------|----------|----------------|-----------|------------|
| Overtaking | Rear End | Right Angle | Left Turn | Pedestrian |
| Fixed Object | Head-On | Side Swipe | Bicycle | Right Turn |
| Driveway | Backing | Parked Vehicle | Other | Unknown |

Accident Types (Jamaica Avenue)

Accident Types: Jamaica Avenue

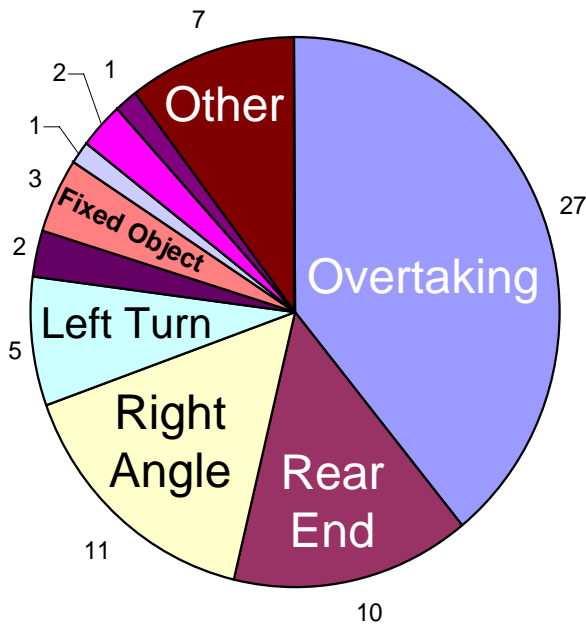


- | | | | | |
|--------------|----------|----------------|-----------|------------|
| Overtaking | Rear End | Right Angle | Left Turn | Pedestrian |
| Fixed Object | Head-On | Side Swipe | Bicycle | Right Turn |
| Driveway | Backing | Parked Vehicle | Other | Unknown |

Accident Types

(Queens Blvd No. & So. Service Roads)

Accident Types: Queens Boulevard

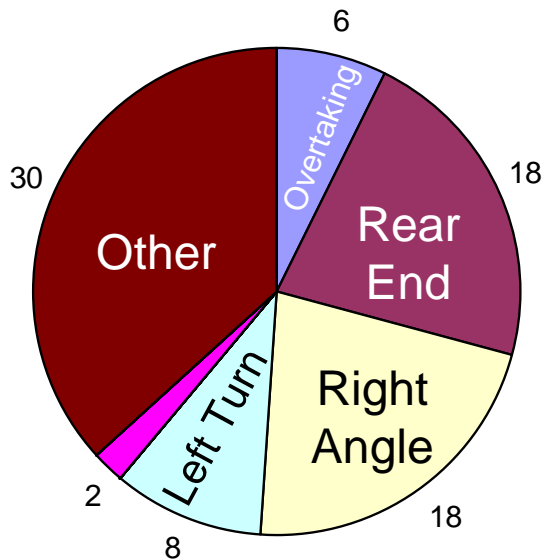


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Accident Types

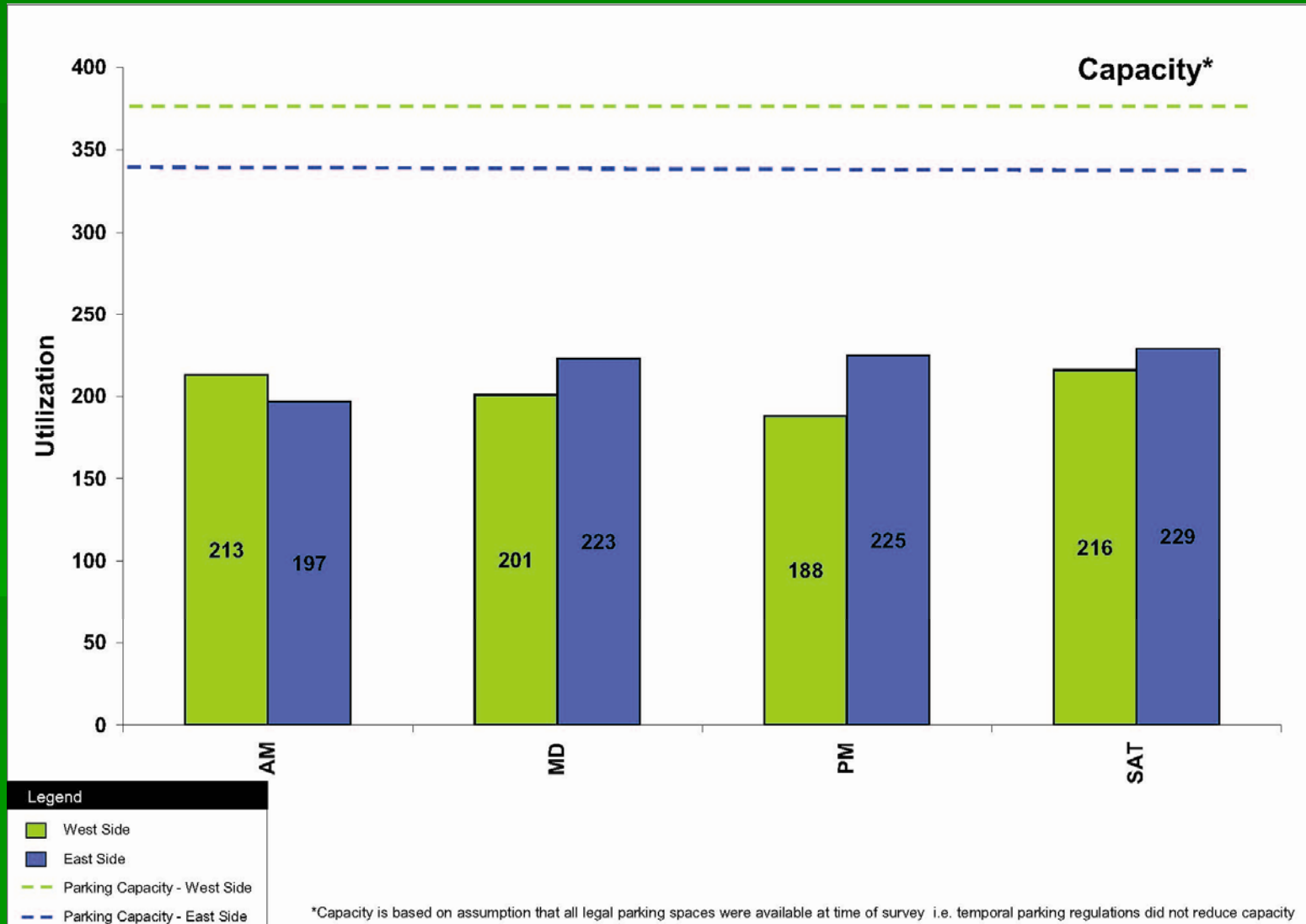
(Rockaway Blvd/Liberty Ave/94 St)

Accident Types:
Rockaway Blvd/Liberty Ave/94 St



- | | | | | |
|--------------|----------|----------------|-----------|------------|
| Overtaking | Rear End | Right Angle | Left Turn | Pedestrian |
| Fixed Object | Head-On | Side Swipe | Bicycle | Right Turn |
| Driveway | Backing | Parked Vehicle | Other | Unknown |

On-Street Parking Utilization

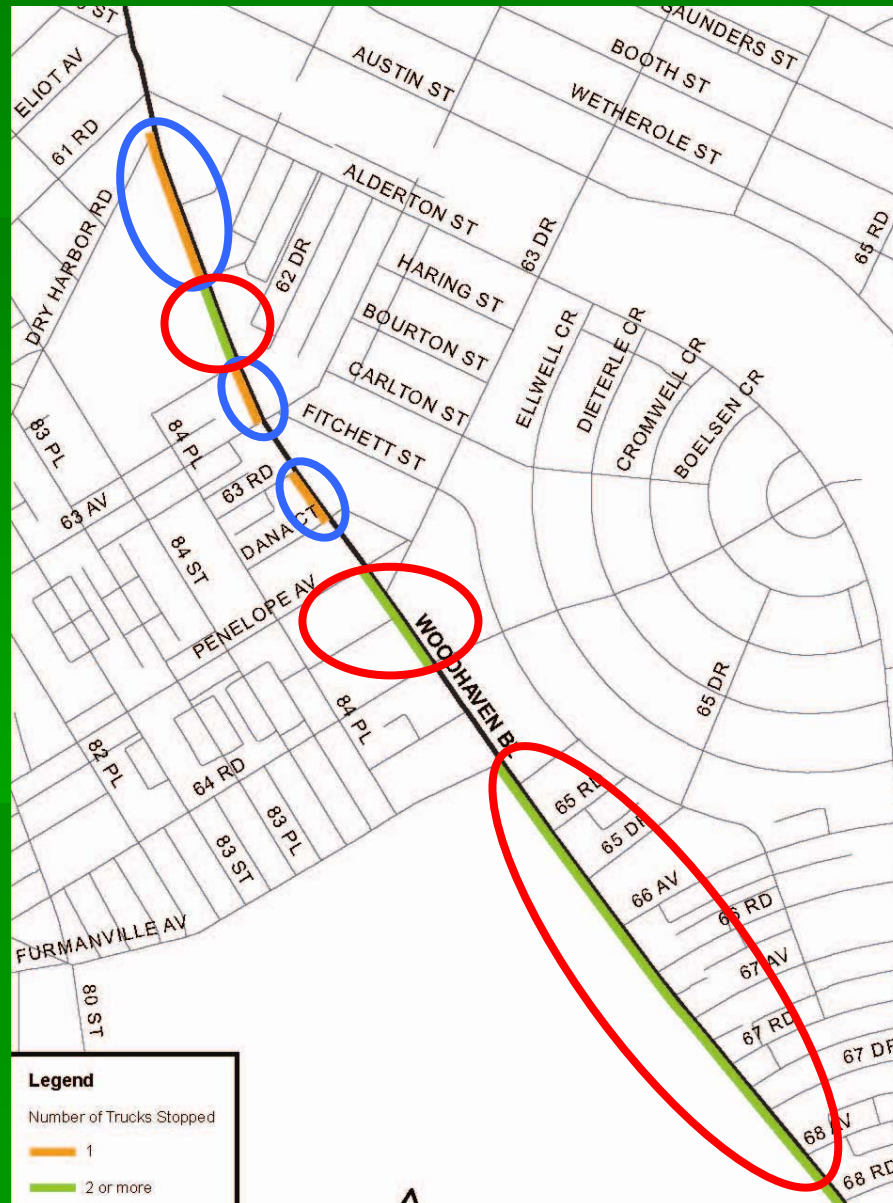


Truck Routes in Study Area



Goods Movement (MD)

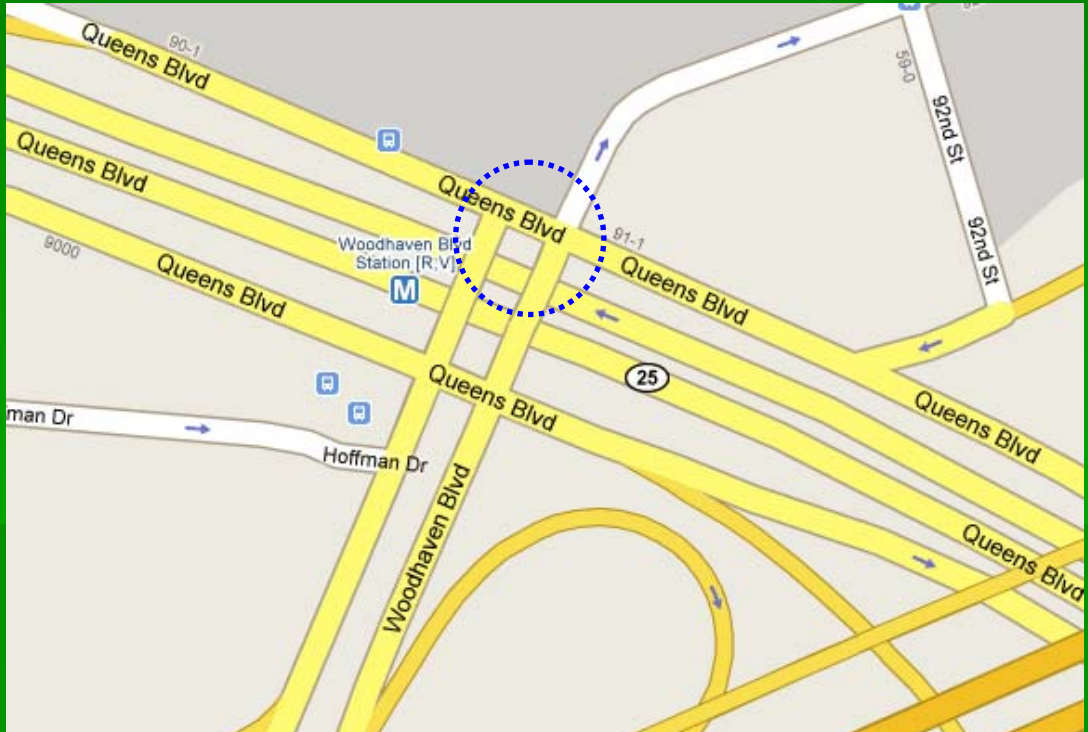
- Truck observations conducted at the north end of corridor



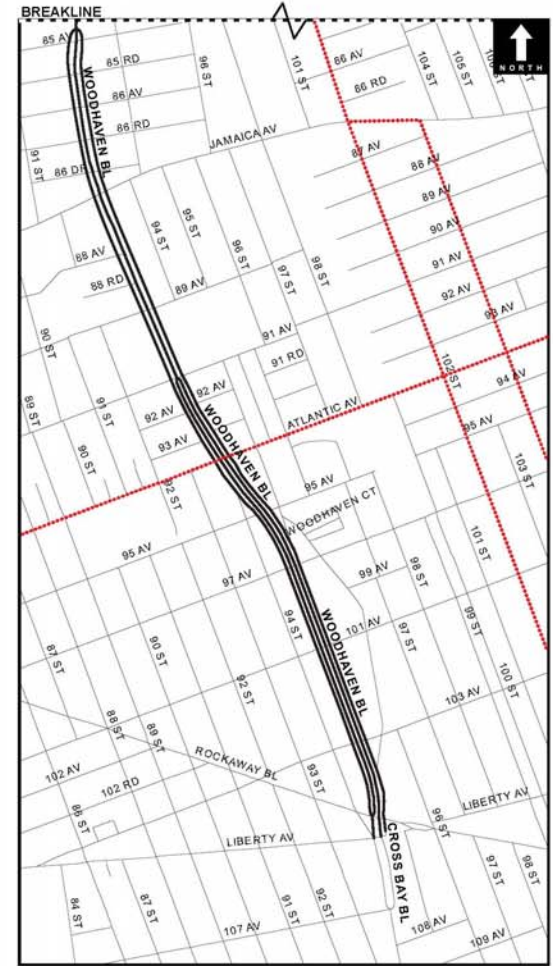
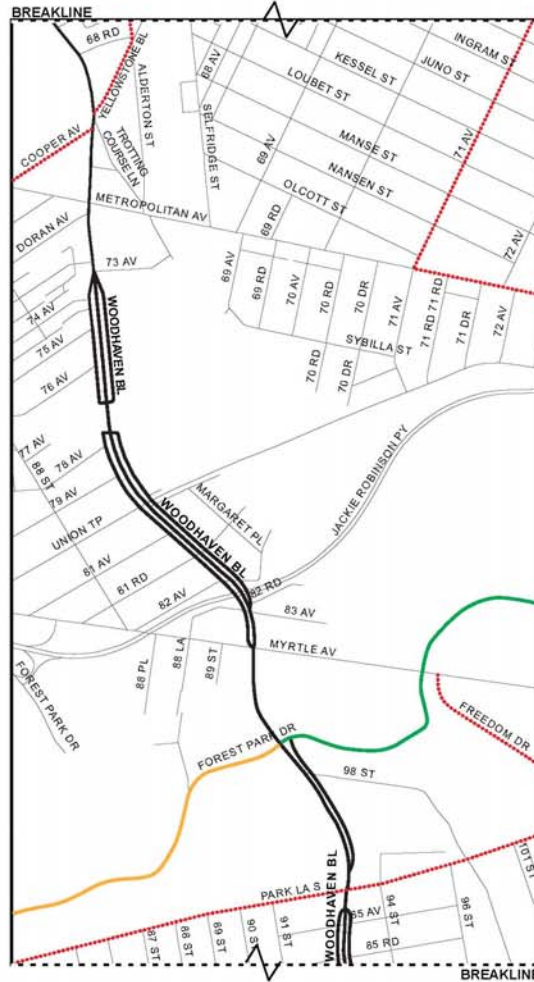
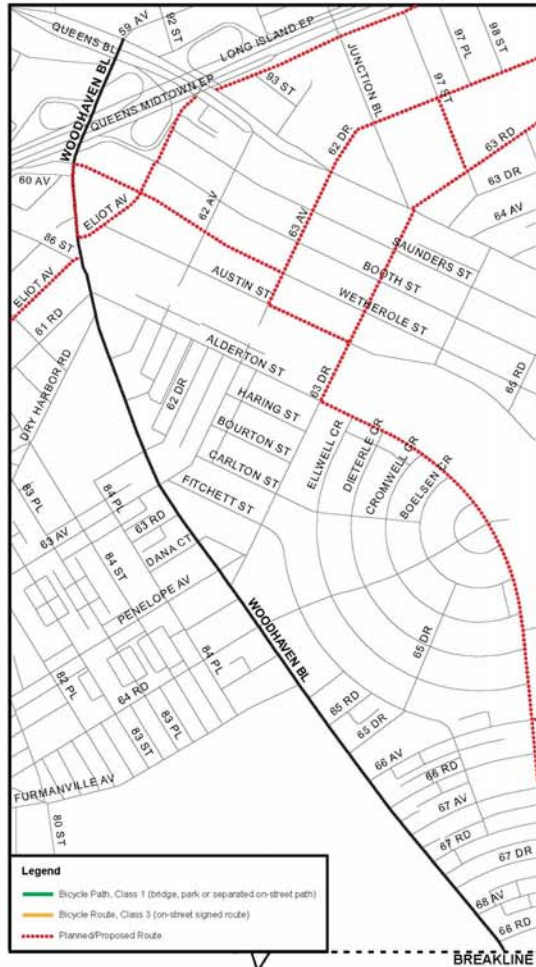
Heaviest Pedestrian Volumes (Peak Hour)

- Crosswalks:

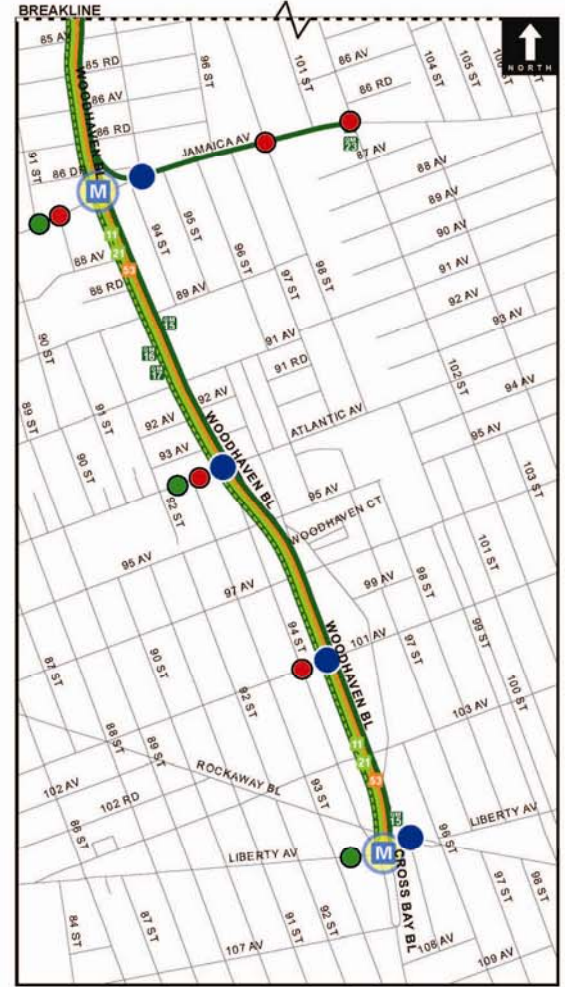
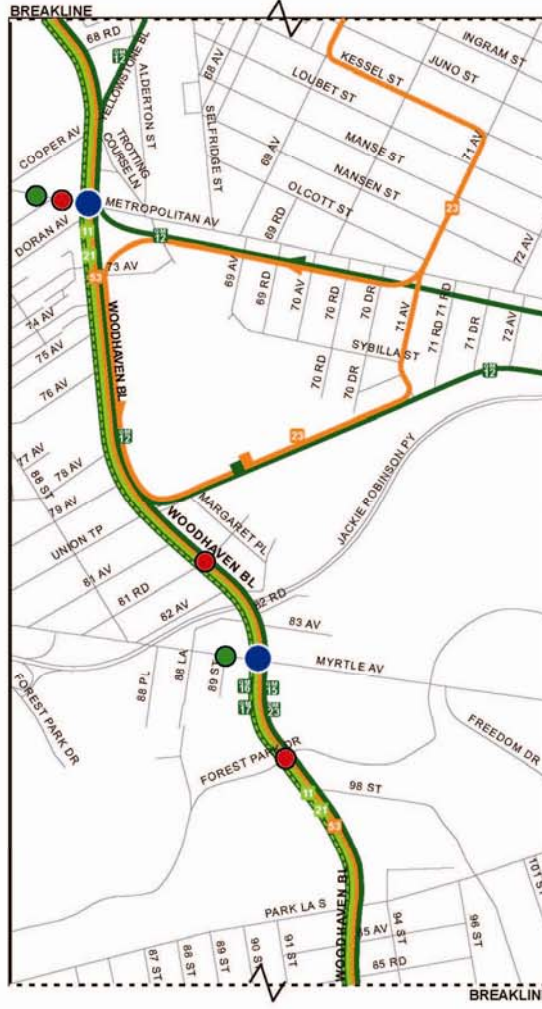
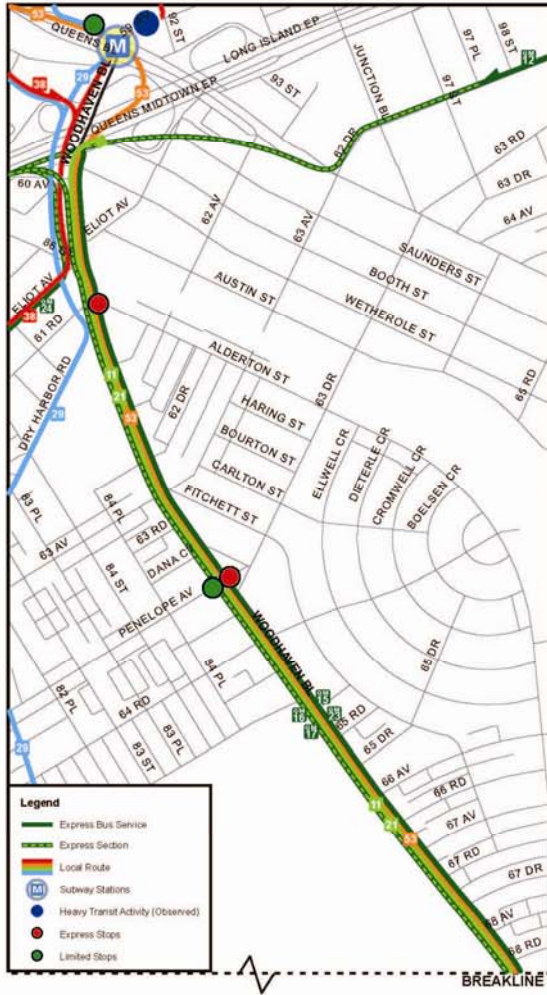
- Queens Blvd
No. Service Rd
(PM): 5,400 total
pedestrians
- Queens Blvd
No. Service Rd
(AM): 3,500 total
pedestrians



Bicycle Routes



Transit



Existing Conditions & Issues

- Localized Traffic Congestion
 - Alternate route to Van Wyck Expressway
 - Local truck route
 - Roadway configuration (mainline/service)
 - Major traffic generators
 - Vehicle-pedestrian conflicts
 - Poor levels of service – failing conditions

Existing Conditions & Issues

- Conflicts between Vehicles & Pedestrians
 - Heavy traffic turning movements
 - Lack of exclusive pedestrian phasing/LPI

Existing Conditions & Issues

- Complex Intersection Geometries
 - Mainline & service roads
 - Closely-spaced Intersections
 - Lane continuity & alignment (e.g. Union Tpk)
 - No crossovers between mainline & service roads



Existing Conditions & Issues

- Discontinuous Service Roads
 - Between Union Tpk and Metropolitan Ave
- Bottleneck at the LIRR Overpass
 - Lane reduction in both directions
 - Highly-trafficked area due to LIE



Existing Conditions & Issues

- High Frequency of Vehicle Crashes
 - Highest number of intersection accidents
 - Rockaway Blvd / Liberty Ave / 94 St
 - Union Tpk, Jamaica Ave, Queens Blvd
 - 76% of accidents involve injuries
 - Contributing factors to accidents:
 - Complex intersection geometry
 - Concurrent vehicle-pedestrian movements
 - Recurring congestion
 - Lane configuration & alignment
 - Narrow lanes

Existing Conditions & Issues

- Transit
 - Local (3), limited-stop (1) and express (4) bus routes serve the *entire* corridor
 - Buses operating in mixed traffic
 - Bus-pedestrian conflicts
 - Locations of bus stops



Existing Conditions & Issues

- Lack of Pedestrian Amenities
 - No preferential treatments for crossing pedestrians
 - Pedestrians exposed to high volume of conflicting turning vehicles
 - Poor visibility of pedestrians to drivers
 - Narrow sidewalks at LIRR overpass
 - Long crossing distances across Woodhaven Boulevard



Existing Conditions & Issues

- Geometric Issues, Signage & Signalization
 - Narrow travel lanes at some locations (e.g. 9' or 10'; SB at Rockaway Blvd)
 - Insufficient signage re: lane and alignment changes
 - Inadequate storage length in left-turn bays resulting in spillback to through lanes (e.g. Metropolitan Ave)
 - Vertical & horizontal curvature (No. of Yellowstone Bl)
 - Pre-timed traffic signals with variations by time of day

Preliminary Improvement Ideas (Early Action)

■ Traffic Operations

- Modify signal timings
- Restripe / Revise pavement markings
- Add Left turn lanes/phasing
- Localized parking restrictions
- Turn restrictions



■ Signage along the Corridor

- Lane usage signs
- Way-finding signs



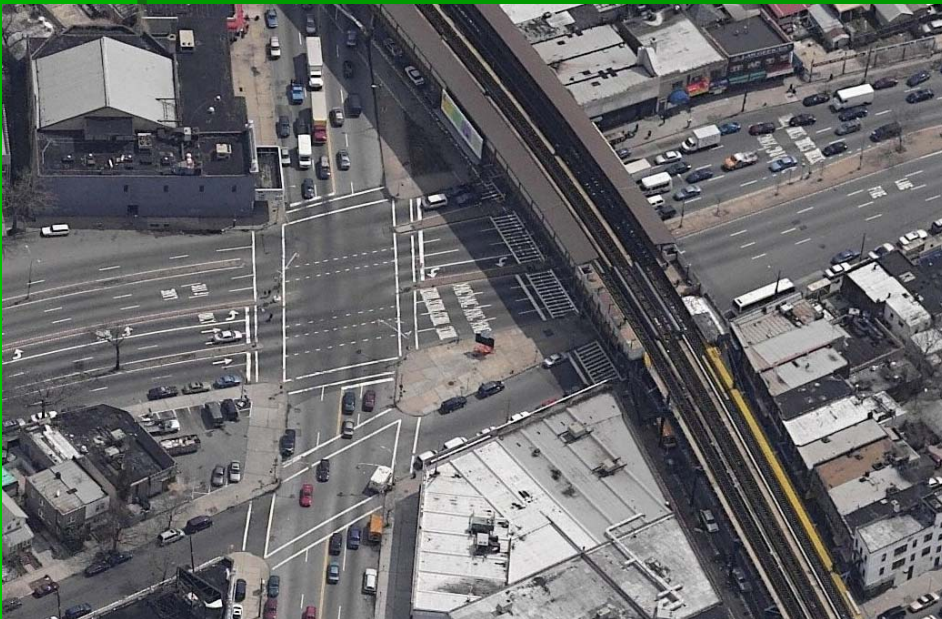
Preliminary Improvement Ideas (Early Action)

- Pedestrians
 - Improve/install refuge islands
 - Modify signal timings
 - High-visibility crosswalks



Preliminary Improvement Ideas (Long Term)

- Reconfigure intersections
- Install crossovers between mainline and service roads



Preliminary Improvement Ideas (Long Term)

- Provide curb extensions (Eliot, Jamaica, Rockaway, Liberty Aves)
- Coordinate with NYCT on bus routes and schedules
- Improve pedestrian access to A-train subway station
- Exclusive bus lanes / BRT lanes
- Additional transit service

Questions?