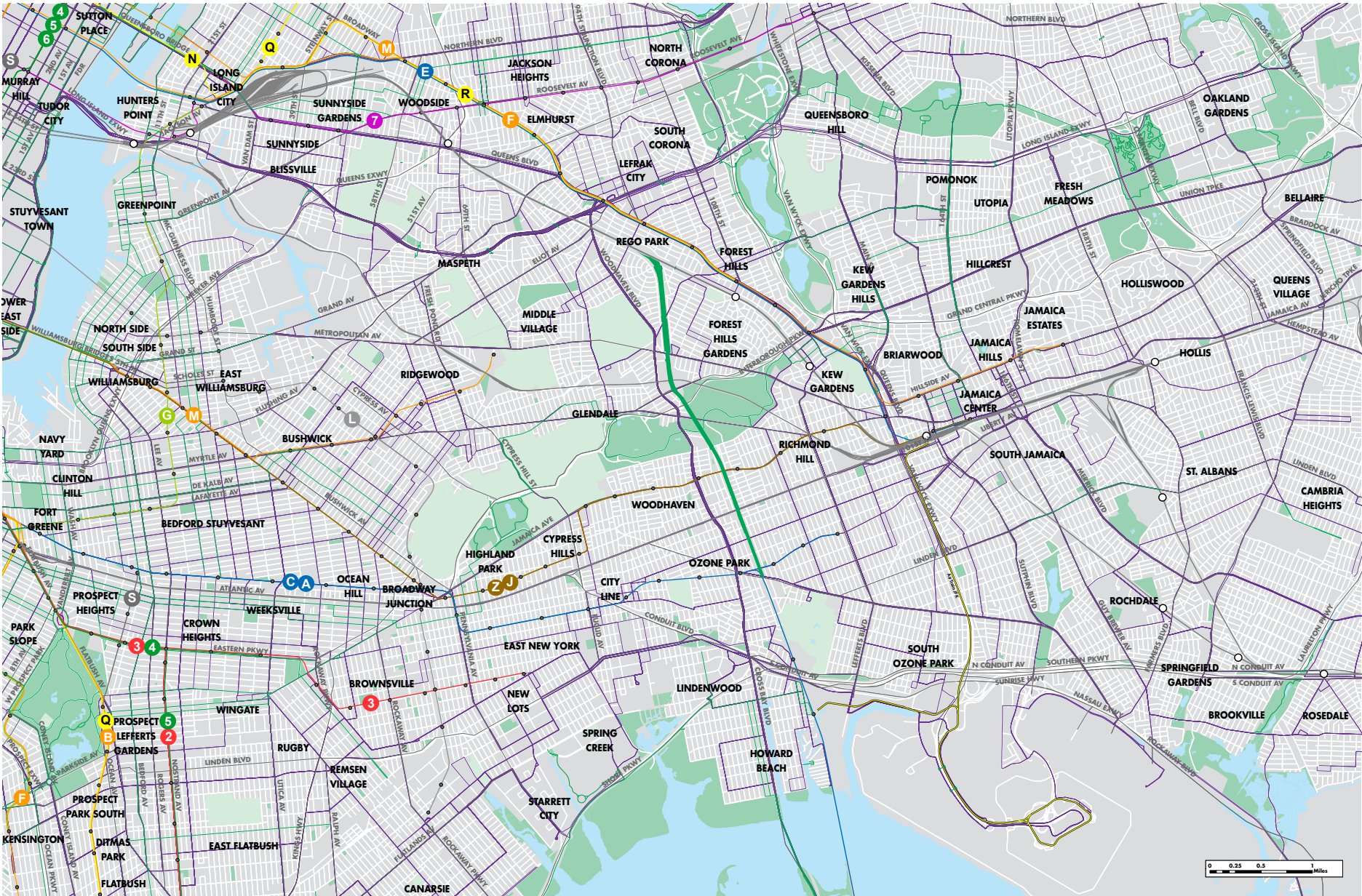


CONNECTIONS

CURRENT CROSS-QUEENS CONNECTIONS

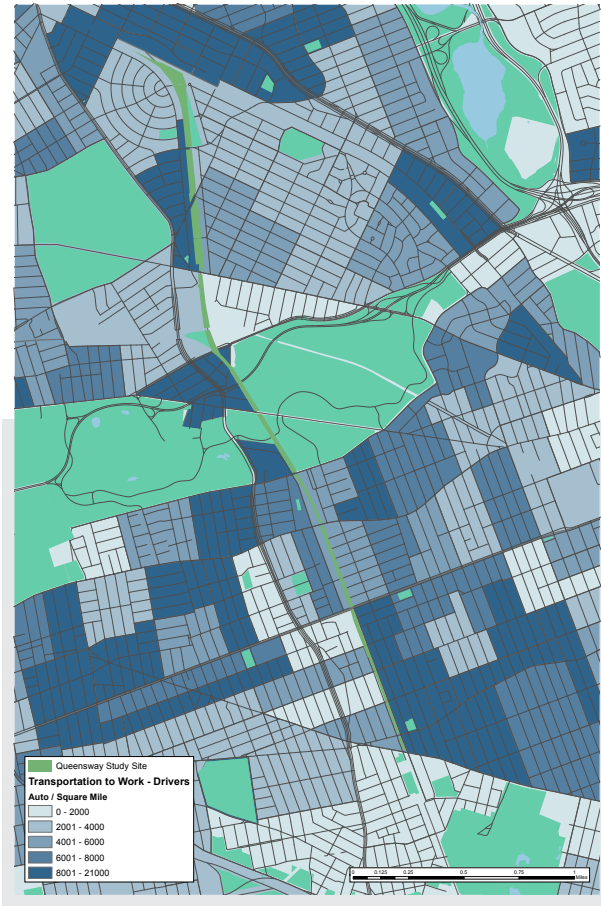


- Casino to Mall connection would link the major commercial destinations, crossing 6 commercial corridors.
- There is currently a lack of walkable and bikeable connections across Central Queens.
- The DOT is planning to improve bike connections moving West to East. They have begun bike route planning in Queens CB2 and CB5.
- West-East greenway connections are planned with the Brooklyn-Queens Greenway.
- There are many buses that connect across Central Queens. Woodhaven Boulevard is a key bus corridor.
- The MTA has planned a new SBS route along Woodhaven Boulevard.
- Train connections in the southern neighborhoods along the QueensWay are limited. There is strong demand for better rail-based transit in Ozone Park and the Rockaways.

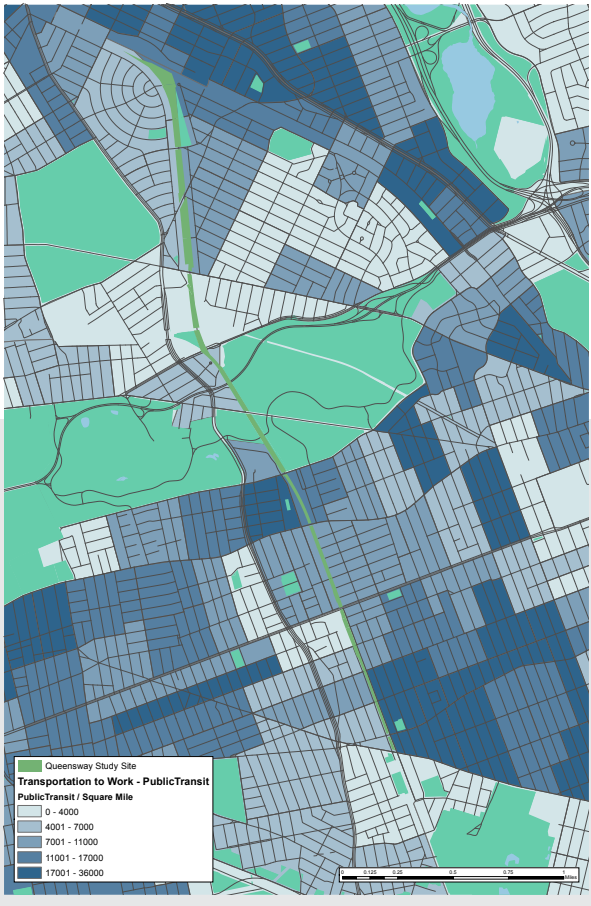
LEGEND

- Queensway Sitaline
- Park
- Cemetery
- NYC Bike Routes
- Proposed On-street Bike Lane
- Bus Routes
- LIRR Routes
- MTA Subway Lines

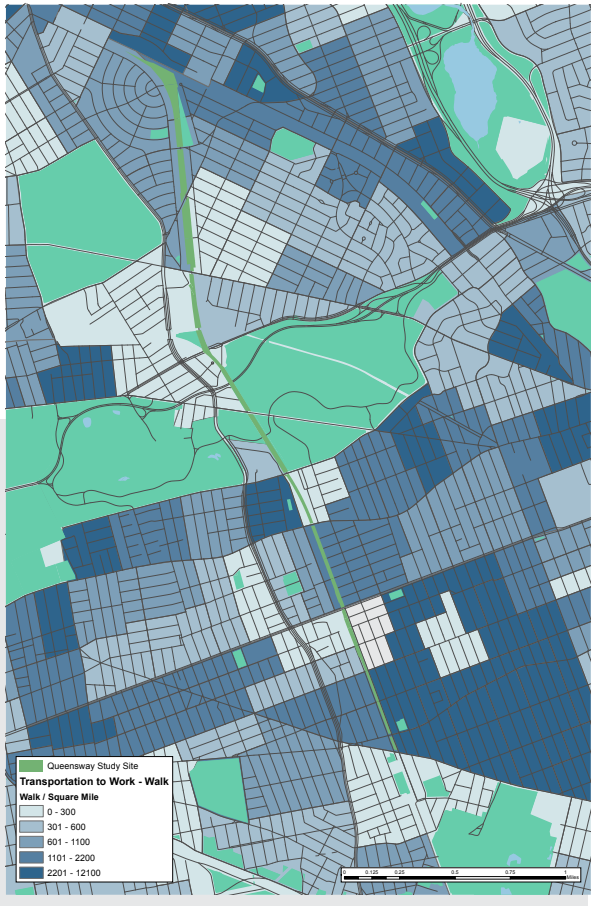
Mode of Transportation to Work



Automobiles

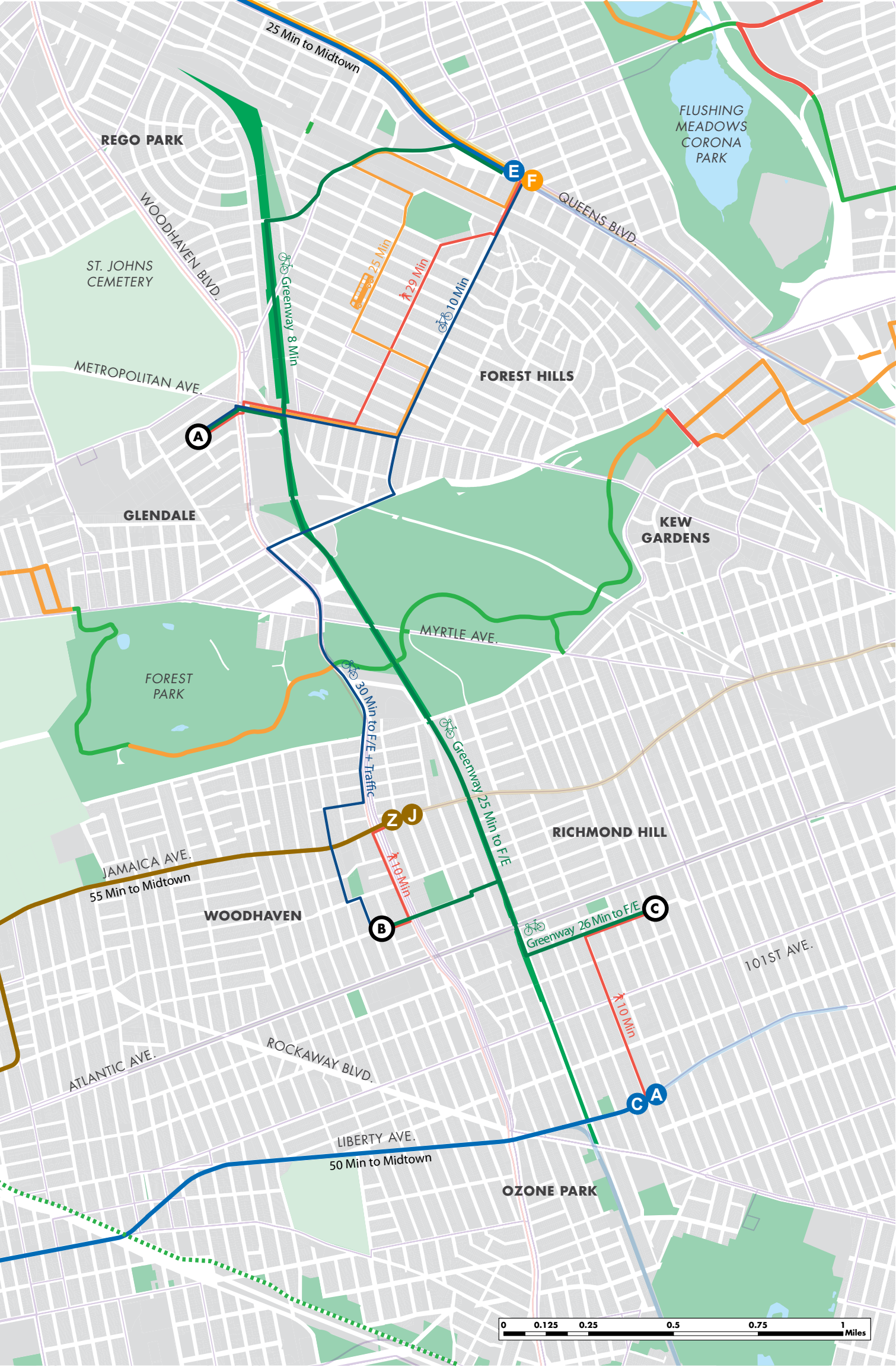


Public Transit



Walking

ROUTES TO KEY DESTINATIONS



5-10 min

Bike route time-savings with QueensWay route

New direct bike routes

for access (off roadways) from Woodhaven, Richmond Hill, Ozone Park to Express F/E trains

LEGEND

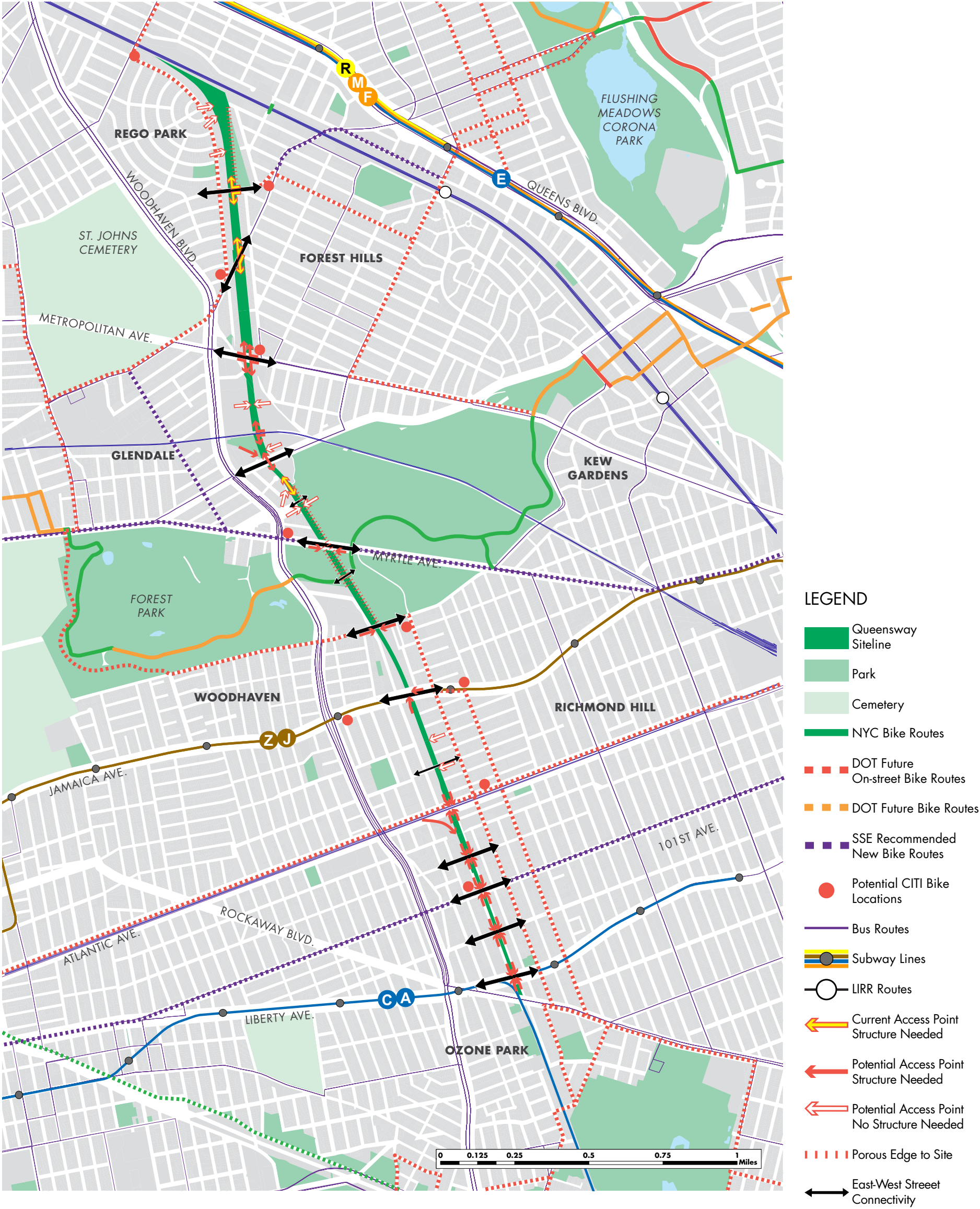
- Queensway Siteline
- Park
- Cemetery
- Originating Point
- Bike Routes on Greenway
- Existing Bike Routes
- Bus Routes to Destination
- Walking Routes
- Bus Routes
- Select Bus Service Routes (SBS)
- Subway Lines
- LIRR Routes

Routes and Times

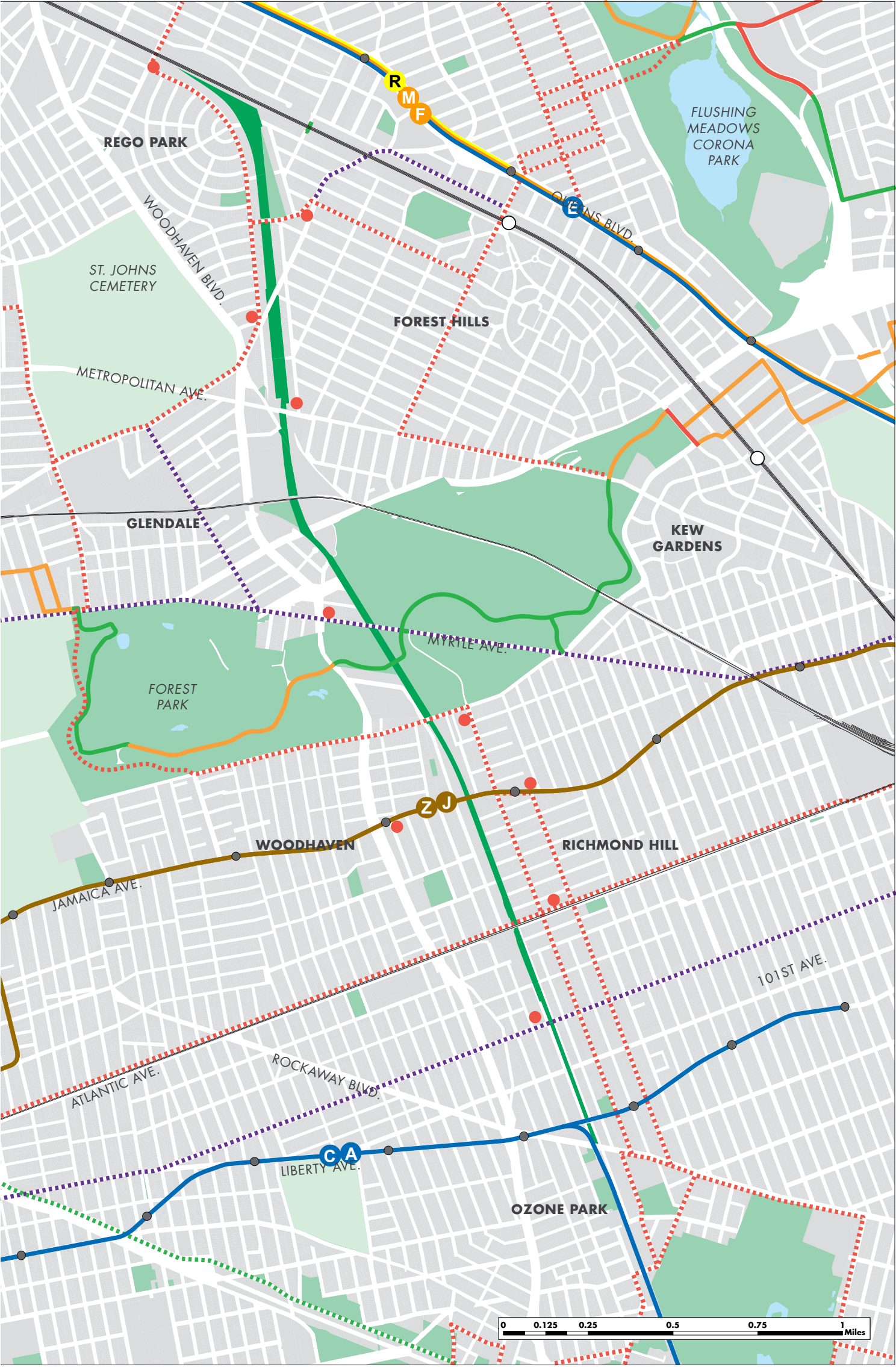
- Glendale to Midtown
- Bus to F/E train:
15 min bus + 25 min train = **40 min**
 - Current bike route to F/E train:
10 min bike (+ traffic) + 25 min train = **35 min + traffic**
 - Walk to F/E train:
29 min walk + 25 min train = **54 min**
 - QueensWay bike route to F/E train:
8 min bike + 25 min train = **33 min**

- Woodhaven to Midtown
- Current bike route to F/E train:
10 min bike (+ traffic) + 25 min train = **35 min + traffic**
 - Walk to F/E train:
29 min walk + 25 min train = **54 min**
 - QueensWay bike route to F/E train:
8 min bike + 25 min train = **33 min**

- Ozone Park to Midtown
- Walk to A train:
10 min walk + 50 min train = **60 min**
 - QueensWay bike route to F/E train:
26 min bike + 25 min train = **51 min**



- Recommendations for access points will likely be at street intersections with a focus on the commercial corridors and access to Forest Park.
- DOT will not manage the new structures since they will not own the bridges.
- DOT is particularly interested in access points, materials/pavers, lighting.



AASHTO standards for bike/pedestrian path widths:

- Min. width:
10 ft. (or 8 ft. if low bike traffic/few peds)
- Typical width:
10 ft – 14 ft
- Heavy volumes width:
15 ft. min is advised, with 10 ft. for bikes and 5 ft. for peds

As a point of reference, the High Line is 8 ft. min. (and has no bikes). The Brooklyn Waterfront Greenway standard is 30 ft., with a 20 ft min. at pinch-points. For example, the new BWG in Brooklyn Bridge Park is 30 ft. – 15 ft for peds, 15 ft for bikes.

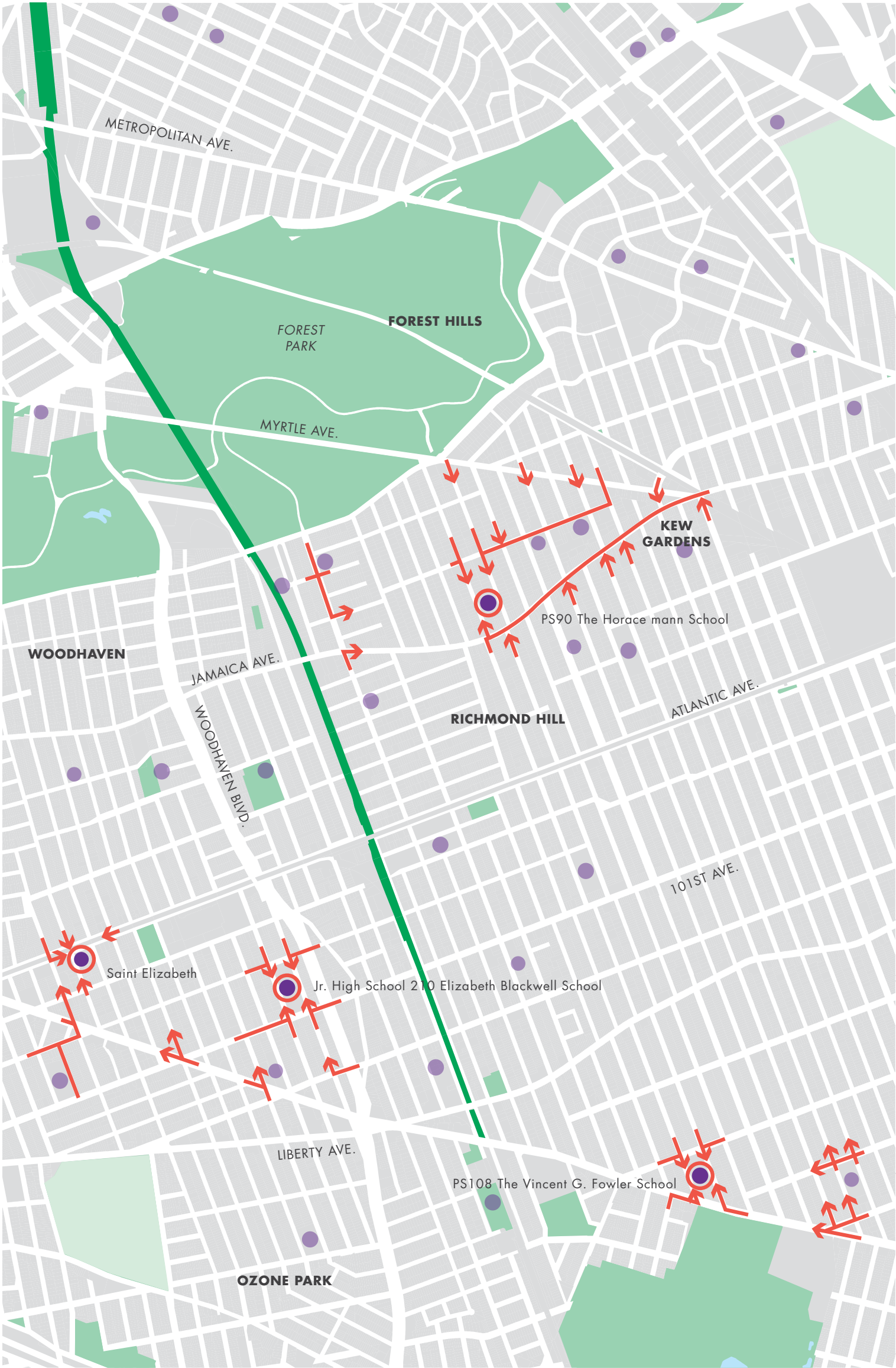
LEGEND

- Queensway Siteline
- Park
- Cemetery
- NYC Bike Routes
- DOT Future On-street Bike Routes
- DOT Future Bike Routes
- SSE Recommended New Bike Routes
- Potential CITI Bike Locations
- Subway Lines
- LIRR Routes

We’ve identified bike share stations that would be appropriate to service the Queensway. These locations were sited near train stations, schools, areas of commercial activity, and the intersection of major streets and proposed bike routes. Only the immediate area adjacent to the Queensway was considered.

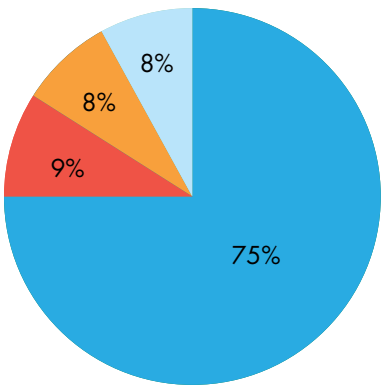
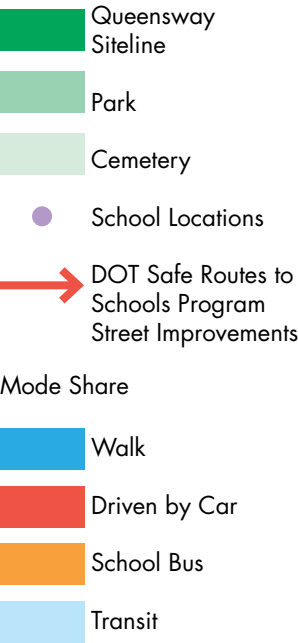
Keep in mind that one of the most important factors to bike share success is station density. Since only the immediate area was considered for siting, station density, and other land uses and destinations in the area were not considered. Access points to the Queensway were also assumed.

SAFE ROUTES TO SCHOOL WALKING MAP + MODESHARE

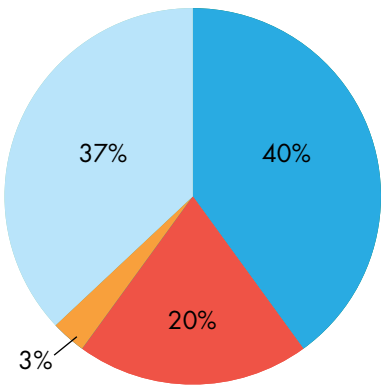


- According to the four DOT Safe Routes to Schools Program schools, most students walk to school in the area. The program has implemented street improvements along routes to these schools.
- Anecdotally, walking conditions to schools has been raised as an issue at the QueensWay public workshops. The QueensWay would potentially offer a more efficient and safer route for students and families to access local schools.

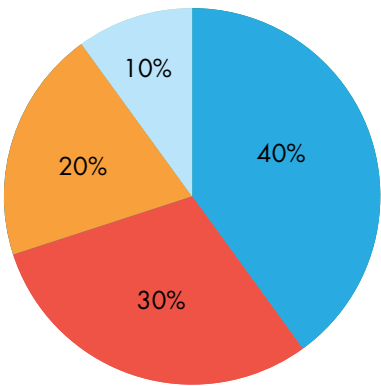
LEGEND



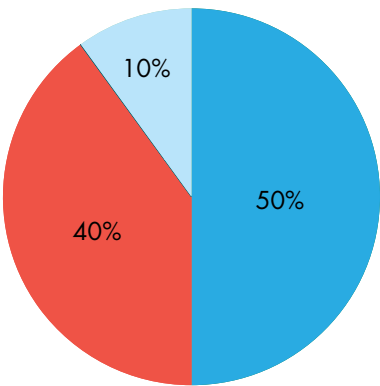
PS108 Vincent G. Fowler School



JHS 210 Elizabeth Blackwell School



PS90 Horace Mann School



Saint Elizabeth's School

AUTO SURVEY - PARKING/DRIVING



- QueensWay Carbon Reduction Fact Sheet Area Statistics
- Proportion of households within 1 mile of QW that own a car: 67%
 - Average proportion of households with a car in New York metropolitan area: 48% (19% lower than QW area)
 - Number of cars given 250,000 residents: 72,000 cars
 - Proportion of motor vehicles to population: 1 vehicle for every 4 residents
 - Yearly CO2 emissions from motor vehicles in this area: 350,000 metric tons CO2/year

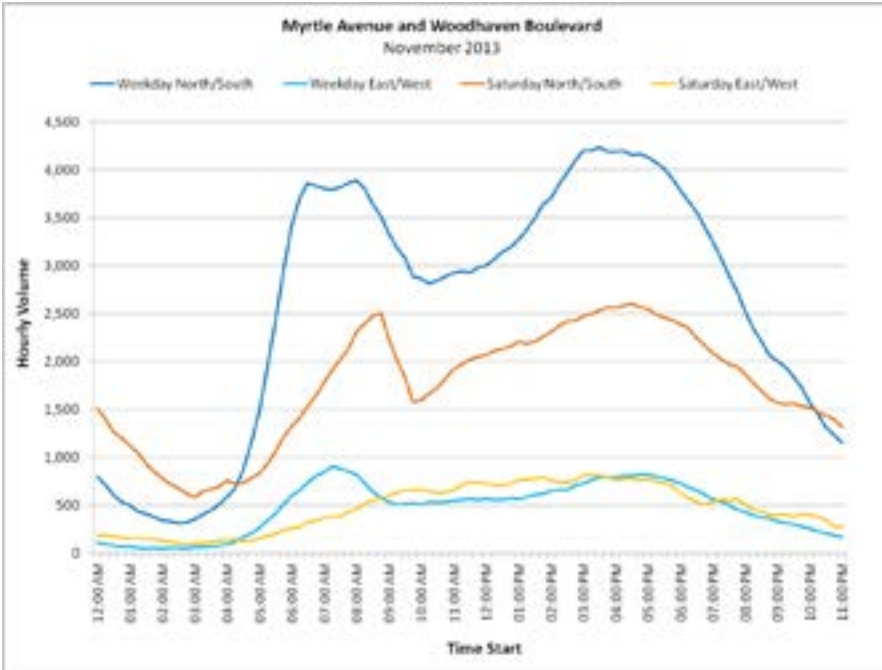
LEGEND

- Queensway Siteline
- Park
- Cemetery
- Parking Lot (PLUTO)
- Woodhaven Blvd. Congestion Study
- Forest Park entrances
- 5 min walking radius
- Subway Lines
- LIRR Routes

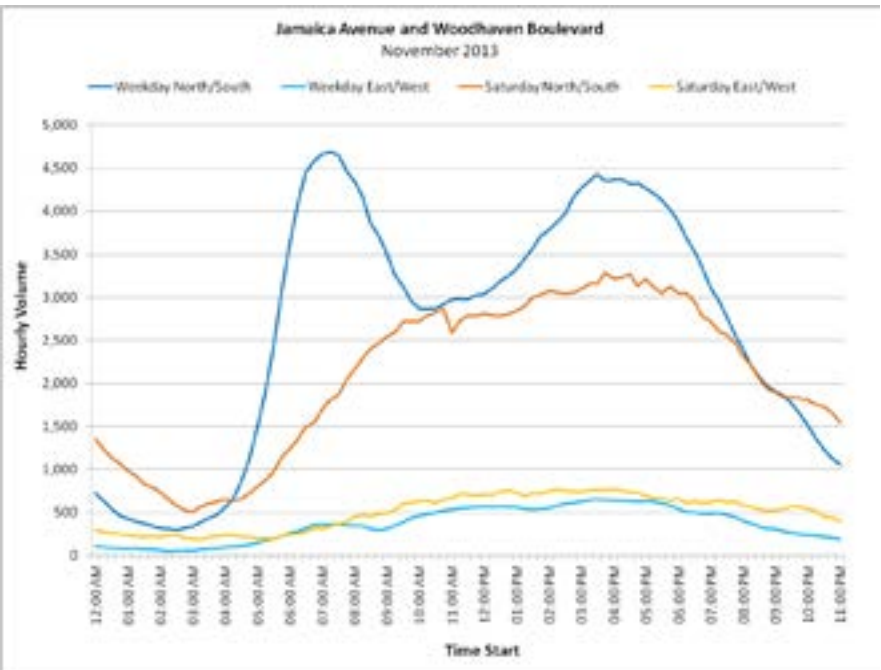
Estimated car ownership in area: 72,000 or 1 cars/4 residents (based on average ownership + population)
Yearly CO2 Emissions from Motor Vehicles in this area =350,000 metric tons CO2/year
(National average of 4.8 metric tons CO2 Emitted/vehicle/year U.S. Environmental Protection Agency)

- Reduction in Personal Motor Vehicle Emissions
- Forest Hills Youth Athletic Association: 1800 players = 5,000 trips = 9 metric tons CO2/year
 - Howard Ozone Little League: 700 players = 2,200 trips = 4 metric tons CO2/ year
 - WORKS Little League: 700 players = 2,200 trips = 4 metric tons CO2/ year
 - Forest Park: 900,000 visitors/year = 200,000 trips = 520 metric tons CO2/year
 - Flushing Meadows-Corona Park: 7,000,000 visitors/year = 330,000 trips = 750 metric tons CO2/ year
- Total reduction: 1,300 metric tons CO2/ year

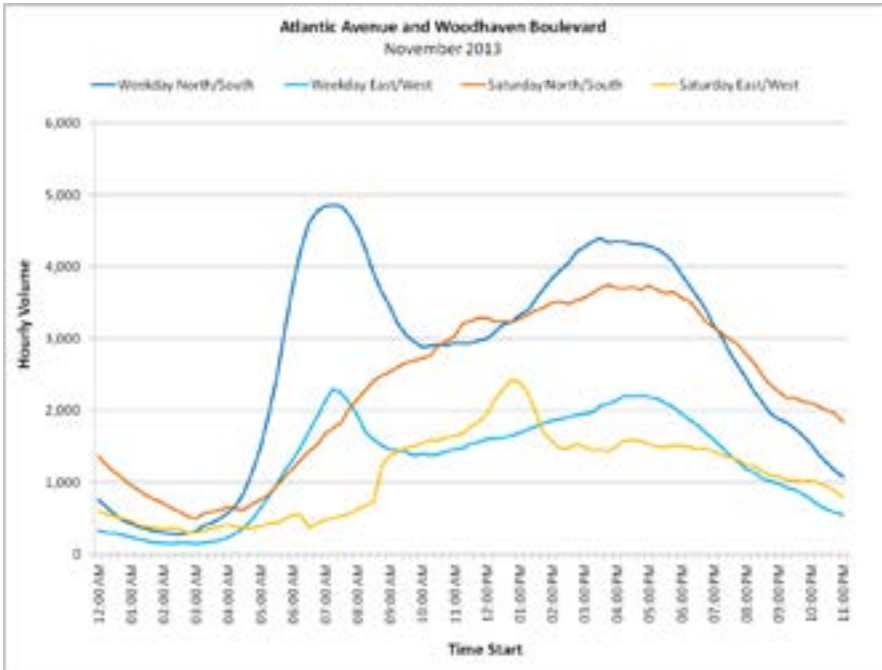
WOODHAVEN BOULEVARD CONGESTION STUDY



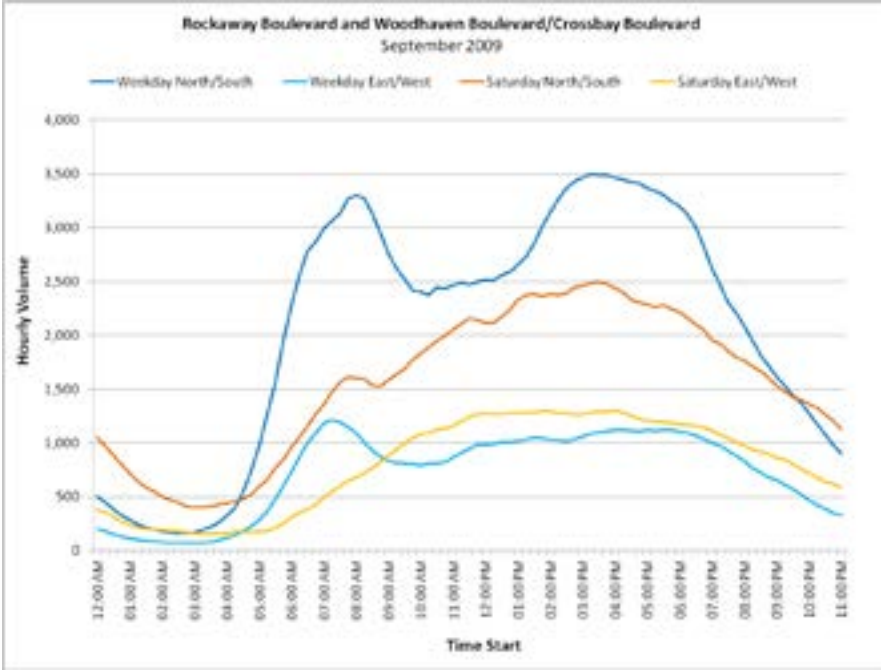
Weekday AM Peak Hour Volume: 4,720
Weekday PM Peak Hour Volume: 5,031
Saturday Peak Hour Volume: 3,393



Weekday AM Peak Hour Volume: 5,048
Weekday PM Peak Hour Volume: 5,078
Saturday Peak Hour Volume: 4,038



Weekday AM Peak Hour Volume: 7,163
Weekday PM Peak Hour Volume: 6,562
Saturday Peak Hour Volume: 5,685



Weekday AM Peak Hour Volume: 4,414
Weekday PM Peak Hour Volume: 4,594
Saturday Peak Hour Volume: 3,789

Woodhaven Boulevard is a highly congested street that is unsafe and unpleasant for pedestrians and bicyclists. DOT is studying new street configurations for the route. The MTA has proposed a new SBS route for Woodhaven Boulevard to offer a faster transit option for residents.

Parking needs are great around Forest Park and Home Depot. The Shops at Atlas Park charges for parking. If visitors had other efficient options for transportation, they might not drive and reduce parking overflows and congestion.

Congestion Hot Spots: The corridor is consistently congested with likely the most congestion experienced, in the AM peak, for example, from Atlantic to Union Turnpike. This is likely due to the longer signal cycles that need to be accommodated for the higher volume east-west arterials like Union Turnpike. DOT installed TEA's at Union Turnpike this Fall.

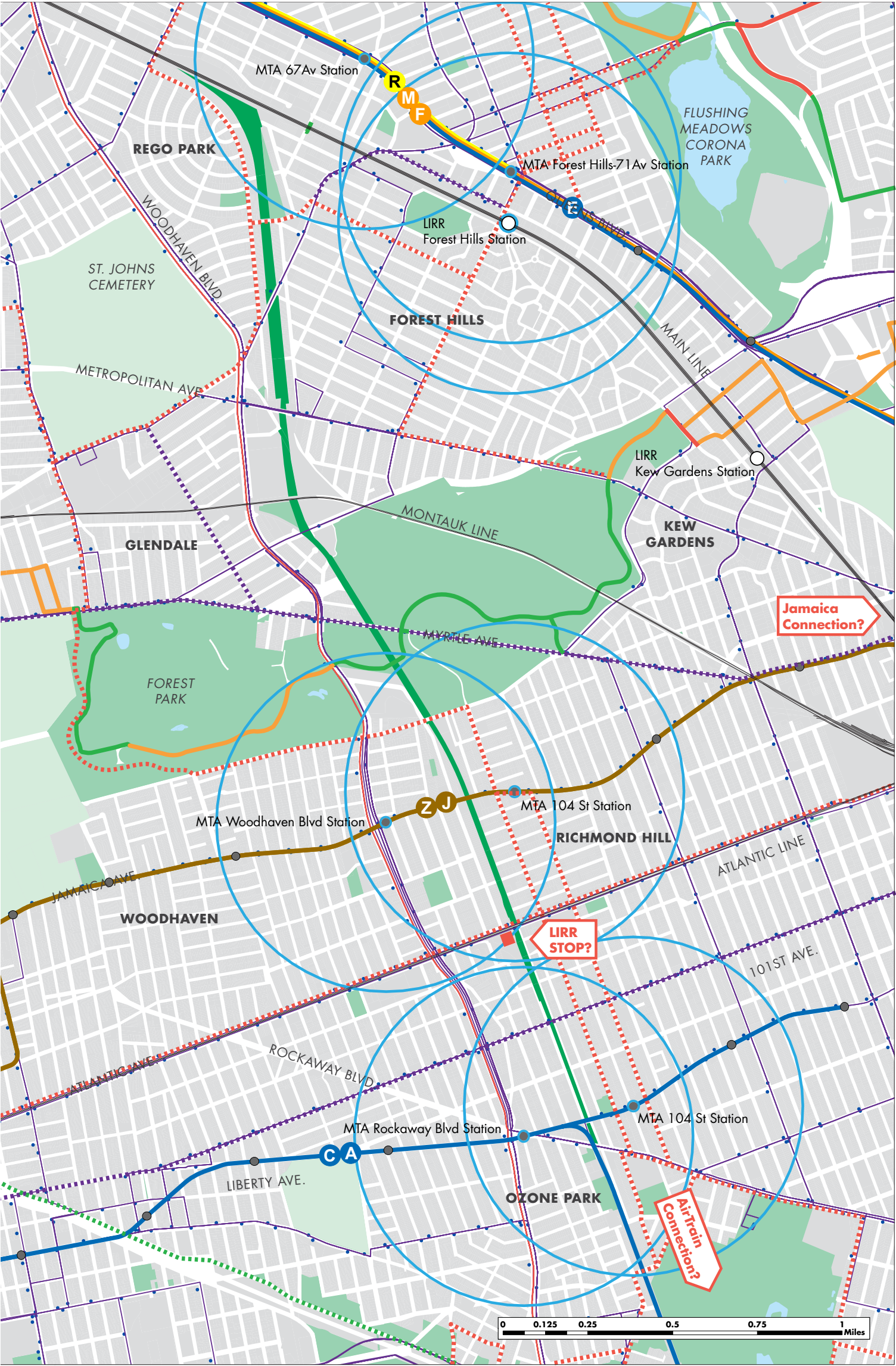
Timing of Congestion: During the AM peak, the bulk of traffic is moving north. During the PM peak, traffic primarily moves south. The AM and PM volumes are not radically different; they just move in different directions depending on time of day. Saturday midday is not as busy as the peak weekday periods, but experiences traffic, in part, due to the retail/commercial uses along the corridor.

QUEENSWAY PLAN

Average Annual Daily Traffic



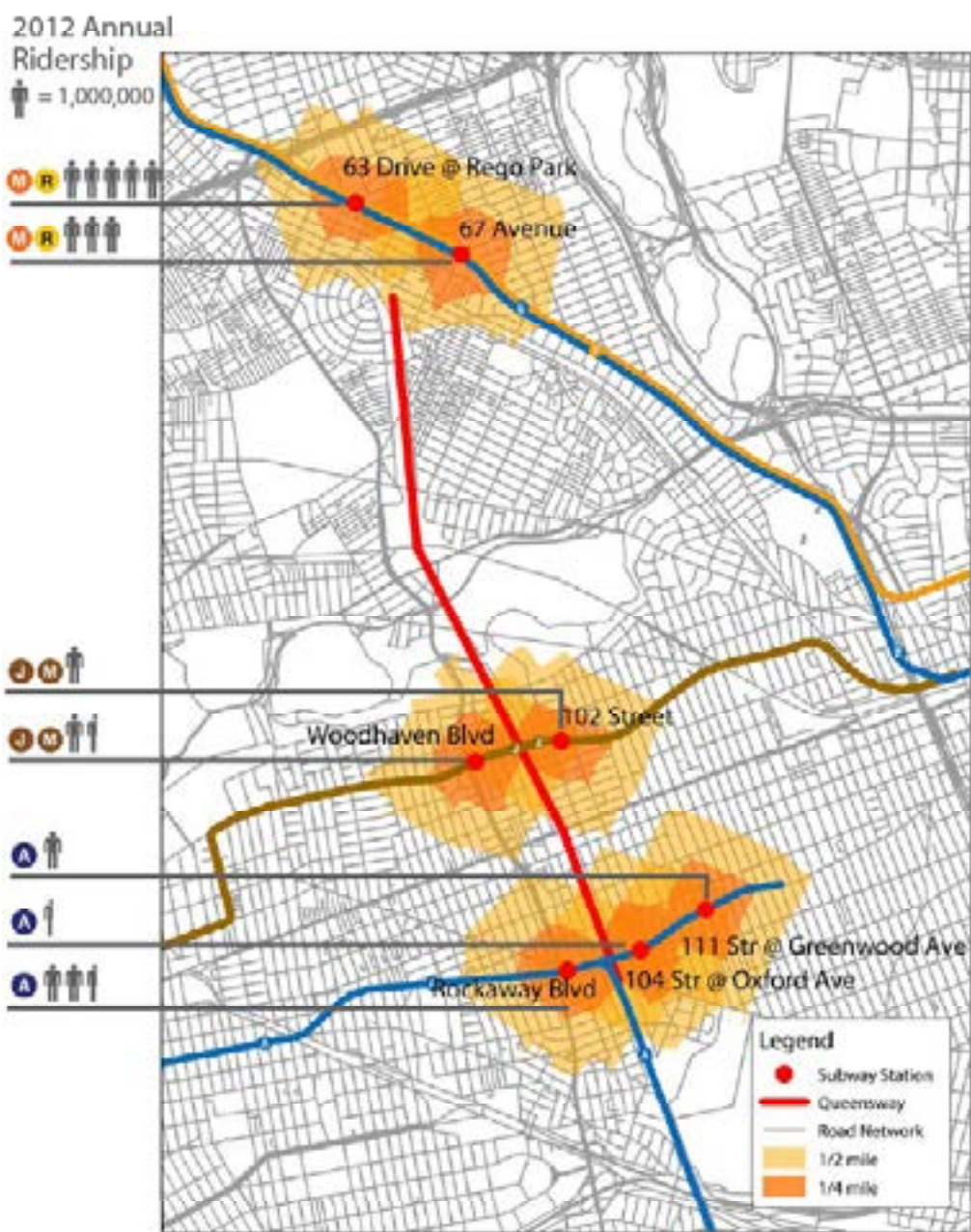
TRANSIT CONNECTIONS



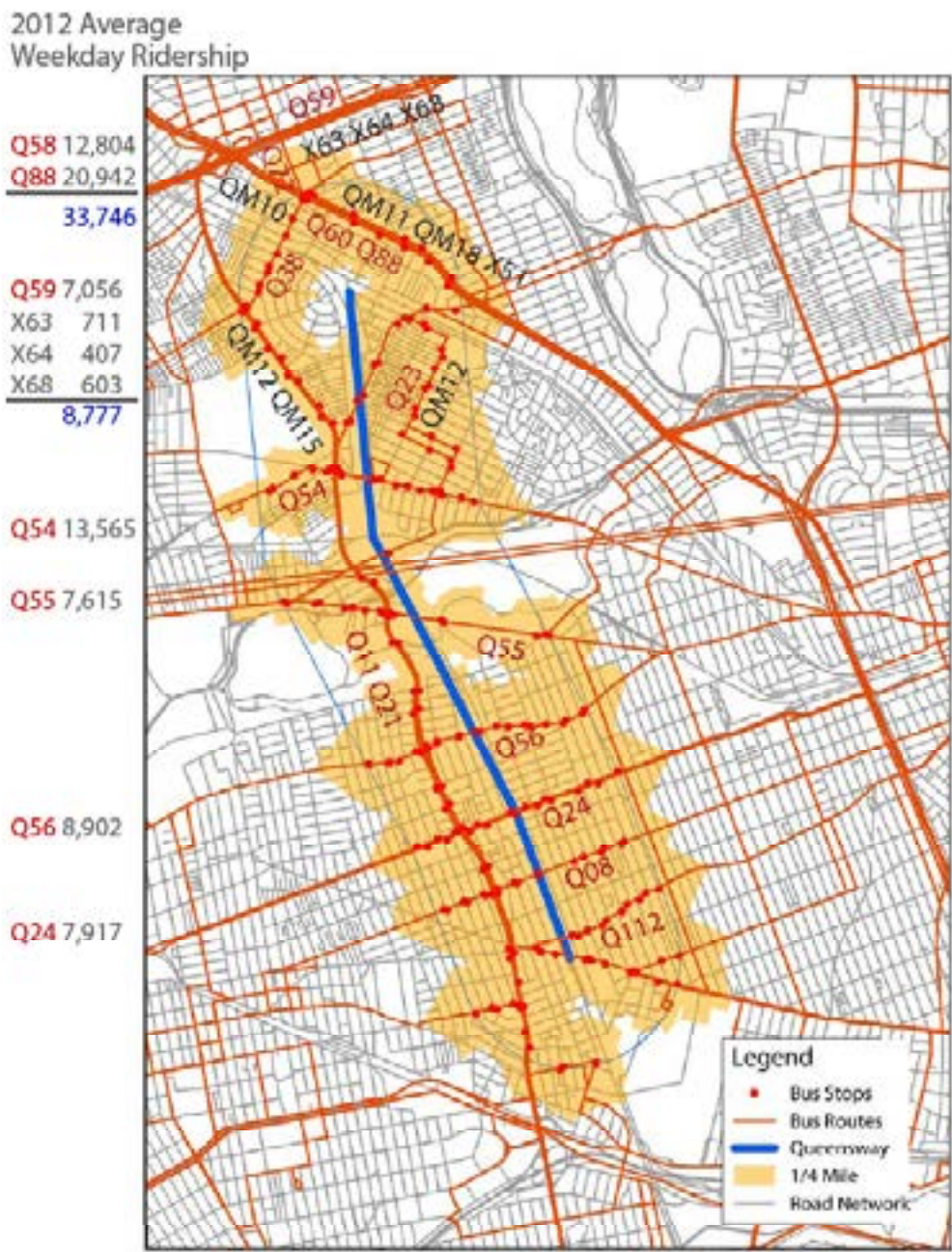
LEGEND

- Queensway Siteline
- Park
- Cemetery
- NYC Bike Routes
- DOT Future On-street Bike Routes
- DOT Future Bike Routes
- SSE Recommended New Bike Routes
- Bus Routes
- Select Bus Service Routes (SBS)
- Subway Lines
- LIRR Routes
- 10-Min Walking Radius From Stations

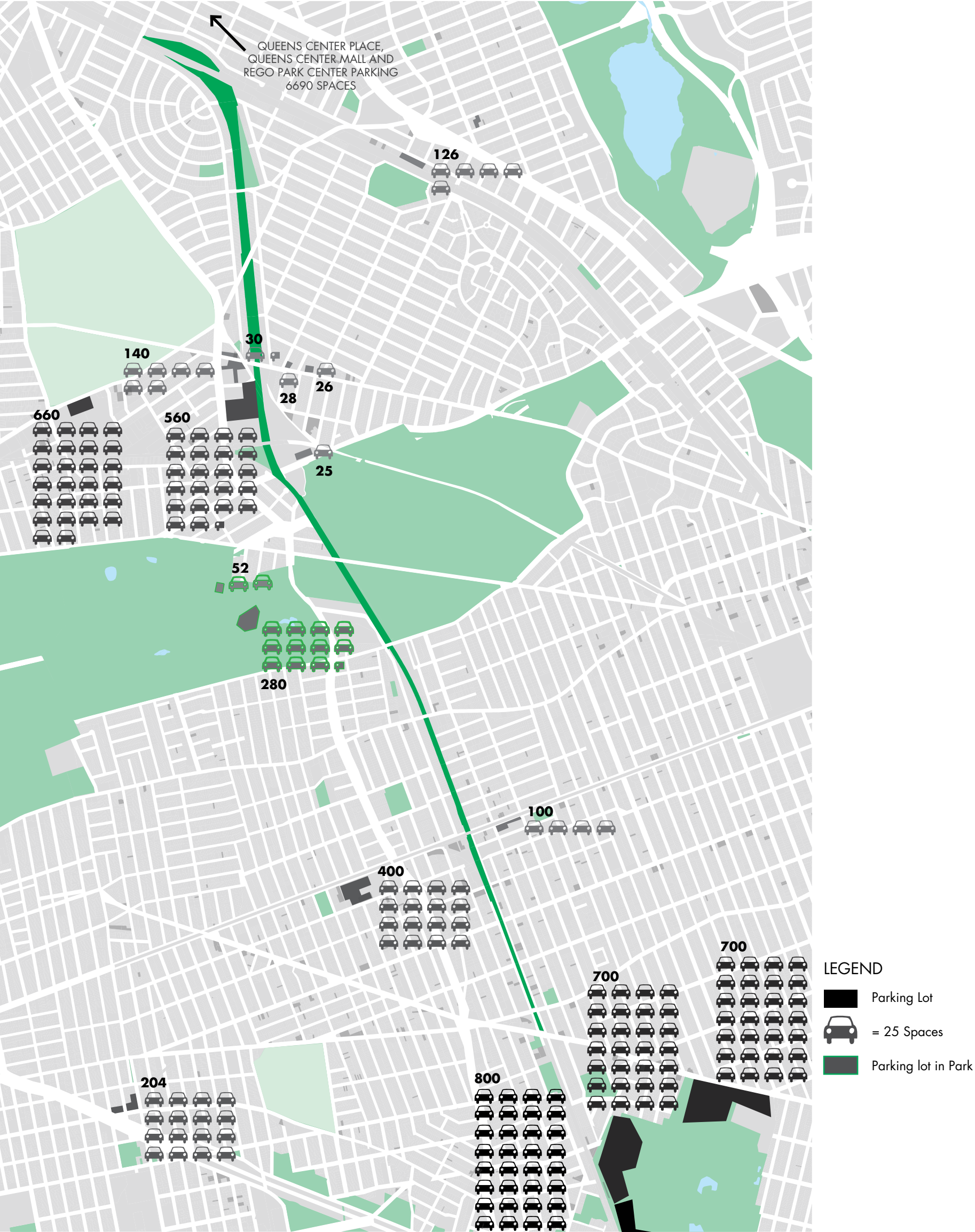
Connectivity - Subway



Connectivity - Buses



QUEENSWAY PUBLIC PARKING LOTS



- The highest concentration of parking in the area is at the Aqueduct Racetrack.
- The largest concentrated parking area directly adjacent to the QueensWay is at the Home Depot. The Home Depot lot combined with the Trader Joe’s lot provides 700 spaces.
- Queens Center Place has the largest amount of parking spots in the area.



- Two sided street parking is predominant in the study area.
- At the entrance to Forest Hills Gardens no parking is permitted. Within the Gardens parking is further limited to one sided parking.
- The highest variation in parking exists on Woodhaven Boulevard and ????. This likely reflects the varied street conditions of the boulevard.
- Atlantic Avenue is the only continuous street with one sided parking. However it is important to note that this reflects the street section of the avenue, which includes an island. Parking could also be limited as a result of the Long Island Rail Road beneath Atlantic Avenue.
- No street parking exists within Forest Park and on the Expressways.

Job Density Analysis — 0.5 mile
All Jobs for All Workers in 2006

Created by the U.S. Census Bureau's OnTheMap <http://onthemap.ces.census.gov> on 12/05/2013

Counts and Density of All Jobs in Work Selection Area in 2006
All Workers



Map Legend

Job Density [Jobs/Sq. Mile]	Job Count [Jobs/Census Block]
5 - 675	1 - 5
676 - 2,685	6 - 66
2,686 - 6,036	67 - 334
6,037 - 10,726	335 - 1,055
10,727 - 16,758	1,056 - 2,575
Selection Areas	
Analysis Selection	



Job Density Analysis — 0.5 mile
All Jobs for All Workers in 2011

Created by the U.S. Census Bureau's OnTheMap <http://onthemap.ces.census.gov> on 12/05/2013

Counts and Density of All Jobs in Work Selection Area in 2011
All Workers



Map Legend

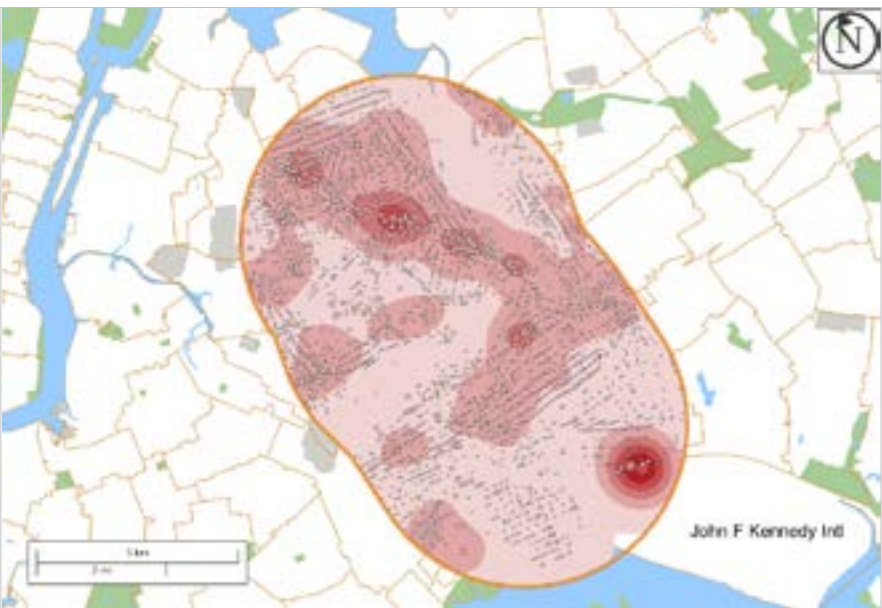
Job Density [Jobs/Sq. Mile]	Job Count [Jobs/Census Block]
5 - 648	1 - 5
649 - 2,578	6 - 76
2,579 - 5,794	77 - 380
5,795 - 10,298	381 - 1,201
10,299 - 16,088	1,202 - 2,933
Selection Areas	
Analysis Selection	



Job Density Analysis — 2.5mile
All Jobs for All Workers in 2002

Created by the U.S. Census Bureau's OnTheMap <http://onthemap.ces.census.gov> on 12/05/2013

Counts and Density of All Jobs in Work Selection Area in 2002
All Workers



Map Legend

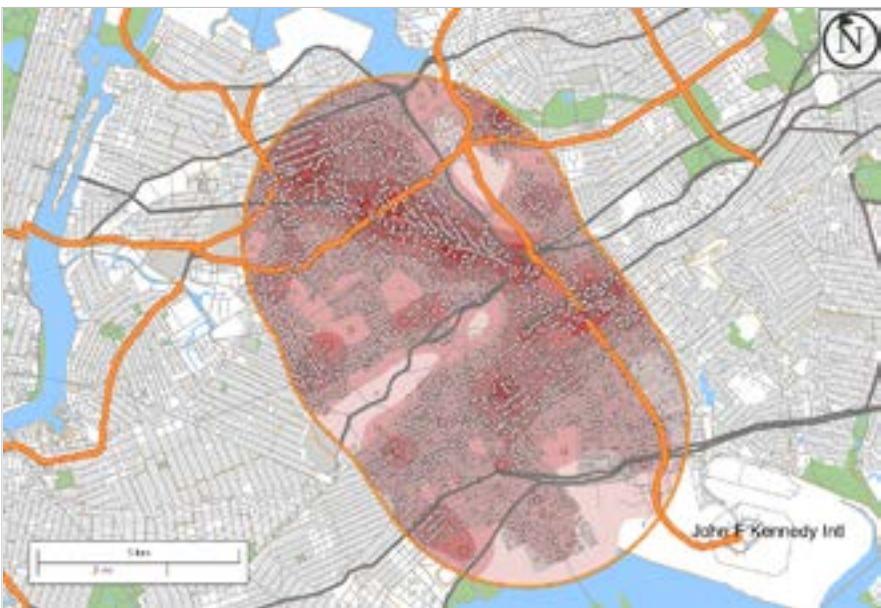
Job Density [Jobs/Sq. Mile]	Job Count [Jobs/Census Block]
5 - 3,161	1 - 44
3,162 - 12,629	45 - 691
12,630 - 28,411	692 - 3,498
28,412 - 50,504	3,499 - 11,056
50,505 - 78,911	11,057 - 26,991
Selection Areas	
Analysis Selection	



Job Density Analysis — 2.5mile
All Jobs for All Workers in 2011

Created by the U.S. Census Bureau's OnTheMap <http://onthemap.ces.census.gov> on 12/05/2013

Counts and Density of All Jobs in Work Selection Area in 2011
All Workers



Map Legend

Job Density [Jobs/Sq. Mile]	Job Count [Jobs/Census Block]
5 - 975	1 - 9
976 - 3,886	10 - 136
3,887 - 8,738	137 - 686
8,739 - 15,532	687 - 2,166
15,533 - 24,266	2,167 - 5,287
Selection Areas	
Analysis Selection	



TRANSPORTATION ANALYSIS - CORNELL RESEARCH

Work Area Profile Report - 0.5 miles from Site				
Total All Jobs				
	2011		2006	
	Count	Share	Count	Share
Total All Jobs	22,210	100.0%	23,170	100.0%
Jobs by Worker Age				
	2011		2006	
	Count	Share	Count	Share
Age 29 or younger	4,977	22.4%	5,551	24.0%
Age 30 to 54	12,627	56.9%	13,366	57.7%
Age 55 or older	4,606	20.7%	4,253	18.4%
Jobs by Earnings				
	2011		2006	
	Count	Share	Count	Share
\$1,250 per month or less	6,469	29.1%	6,959	30.0%
\$1,251 to \$3,333 per month	9,017	40.6%	9,811	42.3%
More than \$3,333 per month	6,724	30.3%	6,400	27.6%
Jobs by NAICS Industry Sector				
	2011		2006	
	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	0	0.0%	0	0.0%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	1	0.0%
Utilities	2	0.0%	0	0.0%
Construction	2,159	9.7%	2,653	11.5%
Manufacturing	469	2.1%	567	2.4%
Wholesale Trade	520	2.3%	744	3.2%
Retail Trade	4,434	20.0%	3,788	16.3%
Transportation and Warehousing	2,042	9.2%	1,909	8.2%
Information	183	0.8%	223	1.0%
Finance and Insurance	1,477	6.7%	1,490	6.4%
Real Estate and Rental and Leasing	910	4.1%	1,327	5.7%
Professional, Scientific, and Technical Services	591	2.7%	858	3.7%
Management of Companies and Enterprises	68	0.3%	17	0.1%
Administration & Support, Waste Management and Remediation	640	2.9%	1,358	5.9%
Educational Services	1,585	7.1%	1,297	5.6%
Health Care and Social Assistance	3,733	16.8%	3,002	13.0%
Arts, Entertainment, and Recreation	167	0.8%	1,240	5.4%
Accommodation and Food Services	1,798	8.1%	1,486	6.4%
Other Services (excluding Public Administration)	1,367	6.2%	1,188	5.1%
Public Administration	65	0.3%	22	0.1%
Jobs by Worker Race				
	2011		2006	
	Count	Share	Count	Share
White Alone	14,047	63.2%	-	-
Black or African American Alone	4,854	21.9%	-	-
American Indian or Alaska Native Alone	175	0.8%	-	-
Asian Alone	2,655	12.0%	-	-
Native Hawaiian or Other Pacific Islander Alone	52	0.2%	-	-
Two or More Race Groups	427	1.9%	-	-
Jobs by Worker Ethnicity				
	2011		2006	
	Count	Share	Count	Share
Not Hispanic or Latino	16,087	72.4%	-	-
Hispanic or Latino	6,123	27.6%	-	-
Jobs by Worker Educational Attainment				
	2011		2006	
	Count	Share	Count	Share
Less than high school	3,253	14.6%	-	-
High school or equivalent, no college	4,193	18.9%	-	-
Some college or Associate degree	5,112	23.0%	-	-
Bachelor's degree or advanced degree	4,675	21.0%	-	-
Educational attainment not available (workers aged 29 or younger)	4,977	22.4%	-	-
Jobs by Worker Sex				
	2011		2006	
	Count	Share	Count	Share
Male	11,192	50.4%	-	-
Female	11,018	49.6%	-	-

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2011).

Work Area Profile Report - 2.5 miles from Site						
Total All Jobs						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
Total All Jobs	160,171	100.0%	176,114	100.0%	182,169	100.0%
Jobs by Worker Age						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
Age 29 or younger	37,018	23.1%	43,739	24.8%	41,401	22.7%
Age 30 to 54	89,627	56.0%	99,892	56.7%	110,997	60.9%
Age 55 or older	33,526	20.9%	32,483	18.4%	29,771	16.3%
Jobs by Earnings						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
\$1,250 per month or less	46,426	29.0%	51,366	29.2%	56,959	31.3%
\$1,251 to \$3,333 per month	60,081	37.5%	71,775	40.8%	73,858	40.5%
More than \$3,333 per month	53,664	33.5%	52,973	30.1%	51,352	28.2%
Jobs by NAICS Industry Sector						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	14	0.0%	11	0.0%	7	0.0%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	3	0.0%	5	0.0%
Utilities	2,852	1.8%	2,669	1.5%	1,997	1.1%
Construction	8,679	5.4%	10,921	6.2%	10,291	5.6%
Manufacturing	5,352	3.3%	7,028	4.0%	10,506	5.8%
Wholesale Trade	6,149	3.8%	6,679	3.8%	7,644	4.2%
Retail Trade	27,613	17.2%	24,931	14.2%	24,030	13.2%
Transportation and Warehousing	7,565	4.7%	26,369	15.0%	26,861	14.7%
Information	2,535	1.6%	1,891	1.1%	1,446	0.8%
Finance and Insurance	5,463	3.4%	5,311	3.0%	4,398	2.4%
Real Estate and Rental and Leasing	4,884	3.0%	6,313	3.6%	6,601	3.6%
Professional, Scientific, and Technical Services	4,795	3.0%	4,649	2.6%	4,584	2.5%
Management of Companies and Enterprises	931	0.6%	400	0.2%	326	0.2%
Administration & Support, Waste Management and Remediation	5,387	3.4%	8,769	5.0%	8,873	4.9%
Educational Services	5,351	3.3%	4,360	2.5%	4,134	2.3%
Health Care and Social Assistance	45,360	28.3%	42,038	23.9%	46,254	25.4%
Arts, Entertainment, and Recreation	2,412	1.5%	2,117	1.2%	2,110	1.2%
Accommodation and Food Services	13,934	8.7%	12,709	7.2%	13,338	7.3%
Other Services (excluding Public Administration)	8,121	5.1%	7,026	4.0%	6,993	3.8%
Public Administration	2,774	1.7%	1,920	1.1%	1,771	1.0%
Jobs by Worker Race						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
White Alone	94,912	59.3%	-	-	-	-
Black or African American Alone	36,875	23.0%	-	-	-	-
American Indian or Alaska Native Alone	1,306	0.8%	-	-	-	-
Asian Alone	23,605	14.7%	-	-	-	-
Native Hawaiian or Other Pacific Islander Alone	384	0.2%	-	-	-	-
Two or More Race Groups	3,089	1.9%	-	-	-	-
Jobs by Worker Ethnicity						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
Not Hispanic or Latino	120,009	74.9%	-	-	-	-
Hispanic or Latino	40,162	25.1%	-	-	-	-
Jobs by Worker Educational Attainment						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
Less than high school	21,337	13.3%	-	-	-	-
High school or equivalent, no college	27,838	17.4%	-	-	-	-
Some college or Associate degree	35,657	22.3%	-	-	-	-
Bachelor's degree or advanced degree	38,321	23.9%	-	-	-	-
Educational attainment not available (workers aged 29 or younger)	37,018	23.1%	-	-	-	-
Jobs by Worker Sex						
	2011		2007		2002	
	Count	Share	Count	Share	Count	Share
Male	77,863	48.6%	-	-	-	-
Female	82,308	51.4%	-	-	-	-

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2011).