

APPENDIX E
TRANSPORTATION



TECHNICAL MEMORANDUM

TO: NYCDP

FROM: Philip Habib & Associates

DATE: September 9, 2015
(Revised February 5, 2016)

PROJECT: East New York Rezoning Proposal EIS (PHA No. 1223C)

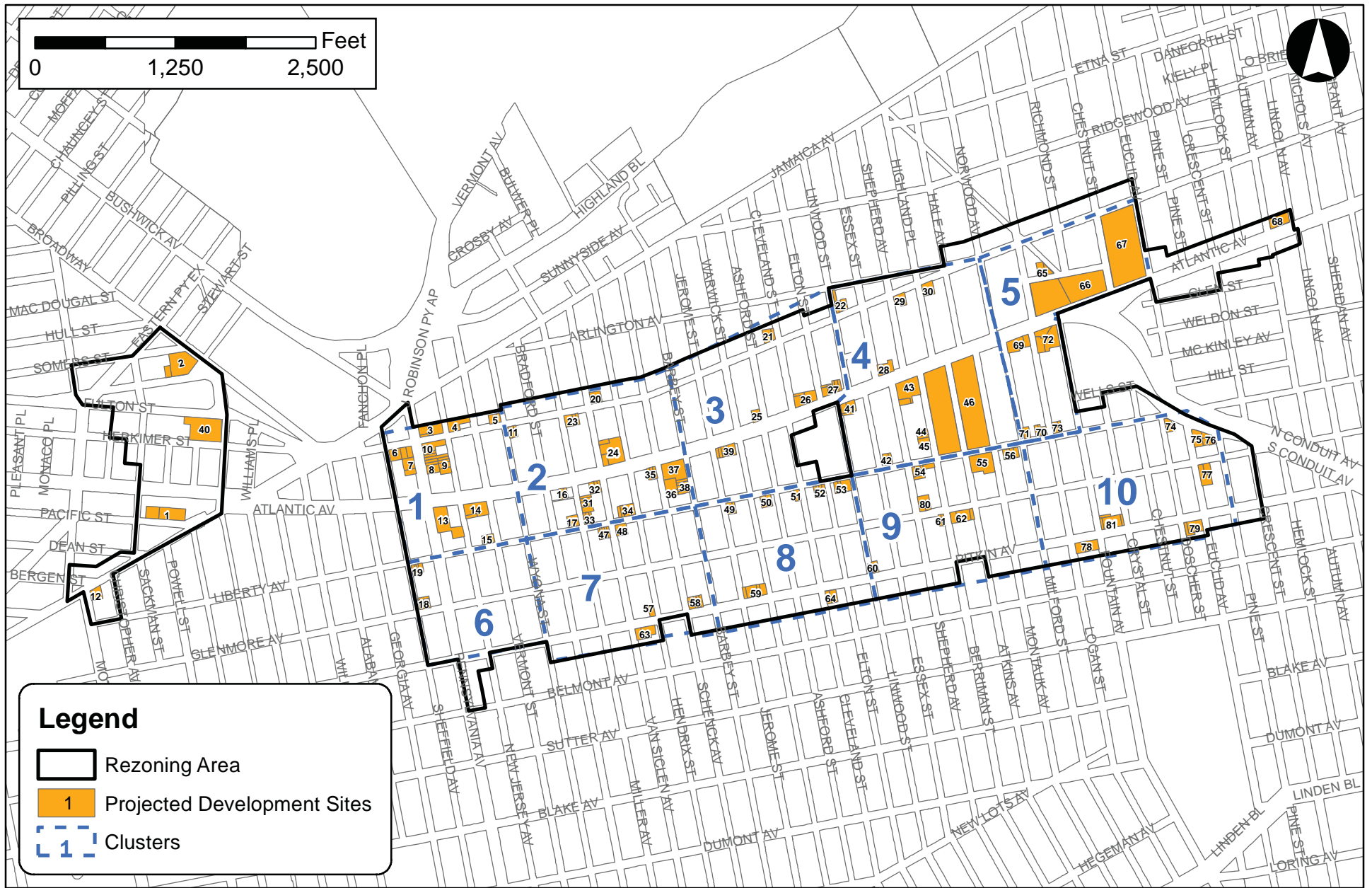
RE: Transportation Planning Factors and Travel Demand Forecast

This memorandum summarizes the transportation planning factors to be used for the analyses of traffic, parking, transit, and pedestrian conditions for the *East New York Rezoning EIS*. Estimates of the peak travel demand for the Proposed Actions' reasonable worst-case development scenario (RWCDs) are provided, along with a discussion of trip assignment methodologies and study area definitions. The data presented in this memorandum have been updated since publication of the DEIS to reflect revisions made for the FEIS.

THE PROPOSED ACTIONS

The Proposed Actions include zoning map amendments and zoning text amendments affecting approximately 190 blocks in eastern Brooklyn. The rezoning area includes portions of the East New York, Cypress Hills, and Ocean Hill neighborhoods in Community Districts 5 and 16, generally extending from Broadway and Fulton Street on the north, Euclid and Lincoln avenues and Crescent Street on the east, Pitkin and Belmont avenues on the south, and Eastern Parkway, Sackman Street, and Mother Gaston Boulevard on the west (see **Figure 1**).

The rezoning area is currently zoned with a mix of residential, commercial, and light manufacturing zoning districts. The proposed East New York Rezoning is intended to facilitate vibrant, inclusive residential neighborhoods with a wide variety of local retail options, job opportunities, and attractive streets for residents, workers, and visitors. Opportunities for new housing, including affordable housing, along key corridors, particularly Atlantic Avenue, would provide more housing choices for current and future residents in this area. Along with zoning map changes, the Proposed Actions include amendments to the text of the Zoning Resolution to apply a new mandatory Inclusionary Housing Program (IHP) to portions of the rezoning area where zoning changes are promoting new housing. Additionally, the



East New York Rezoning TPF Memo

This figure has been updated for the FEIS.

Figure 1

RWCDs Projected Development Sites

Proposed Actions include amendments to the Zoning Resolution to establish a new residential district for moderate residential density along transit corridors and to establish an Enhanced Commercial District within the rezoning area along Atlantic Avenue, Pitkin Avenue, and Fulton Street. Independent of the Proposed Actions, DCP is also proposing a zoning text amendment, known as Zoning for Quality and Affordability (ZOA), to eliminate unnecessary obstacles to the creation of housing, especially affordable housing. This text amendment is currently undergoing public review and, when adopted, will affect the proposed zoning districts. Included in these actions is the elimination of off-street parking requirements for low-income housing or IHP units within areas that fall within a “Transit Zone” encompassing areas well served by transit and with low car ownership and auto commuting rates.

THE REASONABLE WORST CASE DEVELOPMENT SCENARIO (RWCDs)

In order to assess the potential effects of the Proposed Actions, a RWCDs for both “future without the proposed actions” (No-Action) and “future with the proposed actions” (With-Action) conditions is analyzed for an analysis year of 2030. To develop a reasonable estimate of future growth, likely development sites were identified and divided into two categories: projected development sites and potential development sites. The projected development sites are those considered more likely to be developed within the 15-year analysis period for the Proposed Actions (i.e., by the 2030 analysis year), while potential sites are considered less likely to be developed over the same period. Projected development sites are considered for the purposes of the transportation analyses. **Table 1** shows the total anticipated No-Action and With-Action land uses on projected development sites in 2030 under the RWCDs.

Overall, the rezoning area encompasses approximately 190 blocks and includes a total of 81 projected development sites (see **Figure 1**). For travel demand forecasting and trip assignment purposes, the projected development sites were grouped into a total of ten “clusters.” These clusters were defined based on the rezoning area roadway network characteristics and the likely travel routes of vehicle trips to and from the development sites. Five projected development sites were considered “outliers” and treated as unique sites as they are not located in proximity to any of the identified clusters. The location of each cluster is shown in **Figure 1**, and the projected development sites included in each cluster are listed in **Table 2**.

TRANSPORTATION PLANNING FACTORS

The transportation planning factors used to forecast travel demand for the RWCDs land uses are summarized in **Table 3** and discussed below.¹ The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factors for each of the land uses were primarily based on those cited in the 2014 *City Environmental Quality Review [CEQR] Technical Manual*, factors developed for

¹ The 3,055 gsf of No-Action garage floor area is accessory to other uses and is not expected to generate additional vehicle trips independent of these uses. It is therefore not reflected in the travel demand forecast as an independent use.

TABLE 1: 2030 RWCDs No-Action and With-Action Land Uses

Land Use	No-Action Condition	With-Action Condition	Net Increment
Residential			
Market-Rate Residential	550 DU	3,504 DU	+ 2,954 DU
Affordable Residential	0 DU	3,538 DU	+ 3,538 DU
<i>Total Residential</i>	<i>566,224 sf (550 DU)</i>	<i>7,082,257 sf (7,042 DU)</i>	<i>+ 6,516,033 sf (6,492 DU)</i>
Commercial			
Local Retail	249,316 sf	930,752 sf	+ 681,436 sf
FRESH Supermarket	40,000 sf	60,000 sf	+ 20,000 sf
Restaurant	13,150 sf	64,550 sf	+ 51,400 sf
Auto-Related	128,365 sf	0 sf	- 128,365 sf
Hotel	167,551 sf	0 sf	- 167,551 sf
Office	95,992 sf	228,687 sf	132,695 sf
Warehouse	73,170 sf	0 sf	-73,170 sf
Garage	3,055 sf	0 sf	- 3,055 sf
Total Commercial	770,599 sf	1,283,989 sf	+ 513,390 sf
Other Uses			
Industrial	125,886 sf	98,851 sf	- 27,035 sf
Community Facility	156,972 sf ¹	614,842 sf ²	+ 457,870 sf
Total Floor Area	1,619,680 sf	9,079,938 sf	+ 7,460,257 sf
Parking			
Parking Spaces	1,484	2,554	+ 1,070
Notes:			
¹ Includes 69,720 sf of house of worship uses, 49,138 sf of medical office uses, 28,302 of day care center uses and 9,812 sf of community center uses.			
² Includes 77,593 sf of house of worship uses, 141,119 sf of medical office uses, 163,000 sf of school uses and 233,130 sf of community center uses.			

**TABLE 2:
Transportation Analysis Development Clusters**

Cluster	Projected Development Sites
1	3-10, 13-15
2	11, 16, 17, 20, 23, 24, 31-38
3	21, 25, 26, 27, 39
4	22, 28-30, 41-46
5	65-67, 69-73
6	18, 19
7	47, 48, 57, 58, 63
8	49-53, 59, 64
9	54-56, 60-62, 80
10	74-79, 81
Outlier Development Sites	
	Site 1
	Site 2
	Site 12
	<u>Site 40</u>
	Site 68

TABLE 3: Transportation Planning Factors

Land Use:	Local Retail	Office	Residential (Market Rate)	Residential (Affordable)	Hotel	Light Industrial	Restaurant	Auto Repair	Auto Dealership	Warehouse	FRESH (Supermarket)	Pre-K (Student) (14,23)
Size/Units:	681,436 gsf	132,695 gsf	2,954 DU	3,538 DU	-418 Rooms	-27,035 gsf	51,400 gsf	-118,365 gsf	-10,000 gsf	-73,170 gsf	20,000 gsf	263 Students
Trip Generation:	(1)	(1)	(1)	(1)	(1)	(2)	(5)	(2)	(6)	(7)	(9,10)	(12)
Weekday	205	18.0	8.075	8.075	9.4	14.7	173.0	19.42	2.63	4.87	205	2
Saturday	240	3.9	9.600	9.600	9.4	2.2	139.0	19.42	2.63	1.68	271	0
	per 1,000 sf	per 1,000 sf	per DU	per DU	per room	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per Student
Temporal Distribution:	(1)	(1)	(1)	(1)	(1)	(2)	(5)	(2)	(6)	(7,8)	(9,11)	(12)
AM	3.0%	12.0%	10.0%	10.0%	8.0%	13.2%	1.0%	13.2%	12.0%	11.8%	3.0%	50.0%
MD	19.0%	15.0%	5.0%	5.0%	14.0%	11.0%	13.7%	11.0%	12.0%	11.0%	12.0%	0.0%
PM	10.0%	14.0%	11.0%	11.0%	13.0%	14.2%	7.7%	14.2%	9.0%	12.6%	10.0%	5.0%
SatMD	10.0%	17.0%	8.0%	8.0%	9.0%	10.7%	11.6%	10.7%	12.0%	10.6%	12.0%	0.0%
	(2)	(3) (20)	(4)	(4)	(2)	(3) (20)	(5)	(2)	(6)	(8)	(9)	(12)
Modal Splits:	All Periods	AM/PM/SAT MD	All Periods	All Periods	All Periods	AM/PM/SAT MD	All Periods	All Periods	All Periods	All Periods	All Periods	AM/MD/SAT PM
Auto	5.0%	45.3% 2.0%	30.7%	16.3%	30.1%	45.3% 2.0%	30.0%	85.0%	100.0%	51.0%	4.0%	15.0% 56.3%
Taxi	1.0%	0.4% 3.0%	0.9%	0.4%	12.3%	0.4% 3.0%	5.0%	5.0%	0.0%	2.0%	3.0%	0.0% 0.0%
Subway/Railroad	3.0%	26.9% 6.0%	54.3%	58.4%	18.8%	26.9% 6.0%	15.0%	1.0%	0.0%	28.0%	5.0%	3.3% 12.4%
Bus	6.0%	15.4% 6.0%	8.9%	17.9%	5.5%	15.4% 6.0%	15.0%	1.0%	0.0%	7.0%	5.0%	1.7% 6.4%
School Bus	0.0%	0.0% 0.0%	0.0%	0.0%	0.0%	0.0% 0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0% 0.0%
Walk/Other	85.0%	12.0% 83.0%	5.2%	7.1%	33.3%	12.0% 83.0%	35.0%	8.0%	0.0%	12.0%	83.0%	25.0% 25.0%
	100.0%	100.0% 100%	100.0%	100.0%	100.0%	100.0% 100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0% 100.0%
	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(6)	(8)	(9,11)	(12)
In/Out Splits:	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM	50% 50%	96.0% 4.0%	15.0% 85.0%	15.0% 85.0%	41% 59%	88% 12%	94% 6%	65% 35%	67% 33%	88% 12%	45% 55%	100% 0%
MD	50% 50%	39.0% 61.0%	50.0% 50.0%	50.0% 50.0%	68% 32%	50% 50%	65% 35%	50% 50%	50% 50%	50% 50%	46% 54%	0% 0%
PM	50% 50%	5.0% 95.0%	70.0% 30.0%	70.0% 30.0%	59% 41%	12% 88%	65% 35%	50% 50%	15% 85%	12% 88%	47% 53%	0% 100%
Sat MD	55% 45%	60.0% 40.0%	50.0% 50.0%	50.0% 50.0%	56% 44%	47% 53%	63% 37%	50% 50%	50% 50%	50% 50%	46% 54%	0% 0%
	(2)	(2,3)	(2,4,19)	(2,4,19)	(2)	(2)	(5)	(2)	(6)	(8)	(9,11)	(12)
Vehicle Occupancy:	2.00	1.12	AM/PM MD/SMD 1.065 1.49	AM/PM MD/SMD 1.064 1.49	1.60	1.20	2.2	1.30	1.30	1.30	1.65	1.30
Auto	2.00	1.20	1.30 1.30	1.30 1.30	1.40	1.20	2.3	1.30	1.50	1.30	1.40	1.30
Taxi												35.00
School Bus												
Truck Trip Generation:	(1)	(1)	(1)	(1)	(21)	(2)	(5)	(2)	(6)	(8)	(9,11)	(15)
Weekday	0.35	0.32	0.06	0.06	0.06	0.67	3.60	0.89	0.15	0.67	0.35	0.03
Saturday	0.04	0.01	0.02	0.02	0.01	0.67	3.60	0.89	0.15	0.67	0.04	0.03
	per 1,000 sf	per 1,000 sf	per DU	per DU	per room	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per Student
	(1)	(1)	(1)	(1)	(21)	(2)	(5)	(2)	(6)	(8)	(9,11)	(15)
AM	8.0%	10.0%	12.0%	12.0%	12.0%	14.0%	6.0%	14.0%	9.6%	14.0%	10.0%	9.6%
MD	11.0%	11.0%	9.0%	9.0%	9.0%	9.0%	6.0%	9.0%	11.0%	9.0%	8.0%	11.0%
PM	2.0%	2.0%	2.0%	2.0%	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%	5.0%	1.0%
Sat MD	11.0%	11.0%	9.0%	9.0%	9.0%	0.0%	0.0%	0.0%	11.0%	0.0%	10.0%	0.0%
	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM/MD/PM	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%

This table has been revised for the FEIS.

TABLE 3: Transportation Planning Factors (continued)

Land Use:	Pre-K (Staff) (23)	Pre-K (Parent) (13,14,23)	Day Care Center	Community Center	House of Worship	Medical Office	PS/IS School (Grade K-4 Students)	PS/IS School (Grade 5-7 Students)	PS/IS School (Grade 8)	PS/IS School (Staff)	PS/IS School (Parents) (13,14)
Size/Units:	24 Staff	46 Parents	-28,302 gsf	223,318 gsf	7,873 gsf	91,981 gsf	463 Students	318 Students	101 Students	82 Staff	122 Parents
Trip Generation:	(12)	(12)	(15)	(1)	(16)	(17)	(12)	(12)	(12)	(12)	(12)
Weekday	2	4	33	44.7	19.18	127	2	2	2	2	4
Saturday	0	0	2	26.1	21.83	127	0	0	0	0	0
	per Staff	per Student	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per Student	per Student	per Student	per Staff	per Student
Temporal Distribution:	(12), (22)	(12)	(15)	(1)	(16)	(17)	(12)	(12)	(12)	(12)	(12)
AM	50.0%	50.0%	16.0%	4.0%	7.9%	4.0%	50.0%	50.0%	50.0%	50.0%	50.0%
MD	0.0%	0.0%	5.0%	9.0%	4.0%	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PM	5.0%	5.0%	19.0%	5.0%	7.2%	12.0%	5.0%	5.0%	5.0%	50.0%	5.0%
SatMD	0.0%	0.0%	12.0%	9.0%	15.8%	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	(12)	(12)	(18)	(16)	(18)	(17)	(12)	(12)	(12)	(12)	(12)
Modal Splits:	All Periods	All Periods	All Periods	All Periods	All Periods	All Periods	AM/MD/SAT PM	AM/MD/SAT PM	All Periods	All Periods	All Periods
Auto	42.0%	0.0%	5.0%	5.0%	5.0%	30%	15.0% 56.3%	15.0% 30.0%	15.0%	42.0%	0.0%
Taxi	0.0%	0.0%	1.0%	1.0%	1.0%	2%	0.0% 0.0%	0.0% 0.0%	0.0%	0.0%	0.0%
Subway/Railroad	39.0%	0.0%	3.0%	3.0%	3.0%	33%	3.3% 12.4%	6.7% 13.4%	40.0%	39.0%	0.0%
Bus	19.0%	0.0%	6.0%	6.0%	6.0%	18%	1.7% 6.4%	3.3% 6.6%	20.0%	19.0%	0.0%
School Bus	0.0%	0.0%	0.0%	0.0%	0.0%	0%	55.0% 0.0%	25.0% 0.0%	0.0%	0.0%	0.0%
Walk/Other	0.0%	100.0%	85.0%	85.0%	85.0%	17%	25.0% 25.0%	50.0% 50.0%	25.0%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100%	100.0% 100.0%	100.0% 100.0%	100.0%	100.0%	100.0%
In/Out Splits:	(12)	(12)	(15)	(16)	(16)	(17)	(12)	(12)	(12)	(12)	(12)
	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM	100% 0%	50% 50%	53% 47%	61% 39%	54% 46%	89% 11%	100% 0%	100% 0%	100% 0%	100% 0%	50% 50%
MD	0% 0%	0% 0%	50% 50%	55% 45%	50% 50%	51% 49%	0% 0%	0% 0%	0% 0%	0% 0%	0% 0%
PM	0% 100%	50% 50%	47% 53%	29% 71%	52% 48%	48% 52%	0% 100%	0% 100%	0% 100%	0% 100%	50% 50%
Sat MD	0% 0%	0% 0%	47% 53%	49% 51%	71% 29%	41% 59%	0% 0%	0% 0%	0% 0%	0% 0%	0% 0%
Vehicle Occupancy:	(12)		(15)	(16)	(16)	(17)	(12)	(12)	(12)	(12)	
Auto	1.20	N/A	1.65	1.65	1.65	1.50 2.60	1.30	1.30	1.30	1.20	N/A
Taxi	1.20	N/A	1.40	1.30	1.40	1.50 2.60	1.30	1.30	1.30	1.20	N/A
School Bus							35.00	35.00	35.00		
Truck Trip Generation:			(15)	(16)	(16)	(16)	(15)	(15)	(15)		
Weekday	N/A	N/A	0.07	0.29	0.29	0.29	0.03	0.03	0.03	N/A	N/A
Saturday	N/A	N/A	0.00	0.29	0.29	0.29	0.03	0.03	0.03	N/A	N/A
	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per 1,000 sf	per Student	per Student	per Student		
			(15)	(16)	(16)	(16)	(15)	(15)	(15)		
AM	N/A	N/A	9.6%	9.6%	9.6%	3.0%	9.6%	9.6%	9.6%	N/A	N/A
MD	N/A	N/A	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	N/A	N/A
PM	N/A	N/A	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	N/A	N/A
Sat MD	N/A	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	N/A	N/A
	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
AM/MD/PM	N/A N/A	N/A N/A	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	50.0% 50.0%	N/A N/A	N/A N/A

This table has been revised for the FEIS.

TABLE 3: Transportation Planning Factors (continued)

<p>Notes:</p> <p>(1) Based on data from <i>City Environmental Quality Review (CEQR) Technical Manual</i>, 2014.</p> <p>(2) Based on data from <i>Broadway Triangle FEIS</i>, 2009.</p> <p>(3) Based on AASHTO CTPP Reverse Journey to Work 5-Year data for tracts 365.02, 367, 908, 1144, 1146, 1150, 1152, 1166, 1168, 1170, 1172.01, 1174, 1178, 1184, 1192, 1194, 1196 and 1198.</p> <p>(4) Based on ACS-PUMA data 2008-2012 Journey to Work 5-Year data for PUMA 2007.</p> <p>(5) Based on data from <i>Brooklyn Bridge Park Project FEIS</i>, 2005.</p> <p>(6) Based on data from <i>West 57th Street Rezoning FEIS</i>, 2001.</p> <p>(7) Based on data from <i>ITE Trip Generation Handbook, 9th Edition</i>, Land Use Code 150 (Warehousing); Person Trip Rate=ITE Trip Rate x 1.3/0.95.</p> <p>(8) Based on data from <i>Greenpoint-Williamsburg Rezoning FSEIS</i>, 2005.</p> <p>(9) Based on data from <i>The Food Retail Expansion to Support Health (FRESH) Food Store Program</i>, 2009.</p> <p>(10) Assumes a 32% increase in peak hour trips on Saturday; based on ratio between weekday and Saturday rates for supermarket use provided by the <i>CEQR Technical Manual</i>, 2014.</p> <p>(11) Assumes for Saturday the same temporal distribution, modal split, directional split, and vehicle occupancy as the weekday midday.</p> <p>(12) Based on data from <i>Brownsville Ascend Charter School Assessment</i>, 2011.</p> <p>(13) Assumes a student to parent ratio of 1 to 0.7 based on data from a November 2012 survey conducted at PS 35 in Queens.</p> <p>(14) Assumes 205 students attend the Pre-K only school, 72 attend the PS/IS school, and a 5% absentee rate. Parents are assumed for students in grade 5 and lower.</p> <p>(15) Based on data from <i>No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS</i>, 2004.</p> <p>(16) Based on data from <i>Jamaica Plan Rezoning FGEIS</i>, 2007.</p> <p>(17) Based on data provided by NYCDOT.</p> <p>(18) Community Center use modal splits applied to Day Care Center and House of Worship uses.</p> <p>(19) Midday and Saturday vehicle occupancy determined by applying a multiplier (1.4) to the AM/PM rate.</p> <p>(20) Based on data provided by NYCDCP.</p> <p>(21) Based on data from the <i>2006 Atlantic Yards Arena and Redevelopment FEIS</i>.</p> <p>(22) PM temporal distribution for staff is assumed to be the same as for the students.</p> <p>(23) Includes students from the proposed Pre-K facilities on Site 24 and Site 66.</p>
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This table has been revised for the FEIS.

recent environmental reviews, 2009-2013 American Community Survey (ACS) journey-to-work data, data provided by the New York City departments of Transportation (DOT) and City Planning (DCP), and data from other standard professional references. Factors are shown for the weekday AM and PM peak hours (typical peak periods for commuter travel demand) and the weekday midday and Saturday midday peak hours (typical peak periods for retail demand).

Retail

The trip generation rates and temporal distributions for local retail uses were based on data from the 2014 *CEQR Technical Manual*. The modal and directional in/out splits and vehicle occupancy rates were based on data from the 2009 *Broadway Triangle FEIS*. Truck trip generation rates and temporal distributions were based on data from the *CEQR Technical Manual*. For the purposes of the travel demand forecast, and to reflect the large scale of the rezoning area, it was assumed that 70 percent of all local retail trips would be linked trips, consistent with the rate assumed in the 2007 *Jamaica Plan FEIS*. Factors for the FRESH supermarket use were derived from data from *The Food Retail Expansion to Support Health (FRESH) Food Store Program* (2009). A 25 percent linked-trip credit was assumed for the FRESH supermarket use.

Non-Retail Commercial Uses

Non-retail commercial land uses on the projected development sites in the No-Action and/or With-Action condition include office, restaurant, hotel, and auto-related uses (auto repair and auto sales). As shown in **Table 3**, the factors used to forecast travel demand from these uses were developed from a variety of sources, including the 2014 *CEQR Technical Manual*, the 2009 *Broadway Triangle FEIS*, the 2005 *Brooklyn Bridge Park Project FEIS*, the 2001 *West 57th Street Rezoning FEIS*, data provided by DCP, and AASHTO CTPP reverse journey-to-work data for workers in census tracts in the study area (Brooklyn Census Tracts 365.02, 367, 908, 1144, 1146, 1150, 1152, 1166, 1168, 1170, 1172.01, 1174, 1178, 1184, 1192, 1194, 1196, and 1198). A 25 percent linked-trip credit was assumed for the restaurant use.

Community Facility

Table 4 shows the specific types of community facility uses that would be developed on each of the projected development sites under the RWCDs in the No-Action and With-Action conditions. These would include medical office, Pre-K school, PS/IS school, day care center, community center, and religious uses. As shown in **Table 3**, the factors used to forecast travel demand from these land uses were developed from a variety of sources, including the 2014 *CEQR Technical Manual*, the 2007 *Jamaica Plan Rezoning FGEIS*, the 2004 *No. 7 Subway Extension – Hudson Yards Rezoning and Development Program FGEIS*, the 2011 *Brownsville Ascend Charter School Assessment*, survey data from P.S. 35 in Queens, and data provided by DOT.

**TABLE 4:
Net Change in Community Facility Uses on Projected Development Sites Under the RWCDs**

Site	Medical Office	Pre-K School	PS/IS School	Day Care Center	Community Center	House of Worship	Total
1						-24,967	-24,967
8	+1,788						+1,788
14	+22,118						+22,118
16	-23,138						-23,138
24		+30,000		-28,302		+30,000	+31,698
29					-9,812		-9,812
43	+35,440						+35,440
46					+21,981		+21,981
52						-1,600	-1,600
66			+133,000		+53,134		+186,134
67	+36,480				+141,455		+177,935
72	+19,294						+19,294
79						-2,520	-2,520
81					+16,560	+6,960	+23,520
Total	+91,981	+30,000	+133,000	-28,302	+233,318	+7,873	+457,870

Light Industrial/Warehouse

The trip generation rates, temporal distributions, directional in/out splits, and vehicle occupancies for light manufacturing uses were based on data from the 2009 *Broadway Triangle FEIS*, and the modal splits were based on AASHTO CTPP reverse journey-to-work data for workers in study area census tracts and on data provided by DCP. Truck trip generation rates and temporal distributions for light industrial uses were based on data from the 2009 *Broadway Triangle FEIS*. Travel demand factors for the warehouse uses were based on data from *ITE Trip Generation Handbook, 9th Edition*, and the 2005 *Greenpoint-Williamsburg Rezoning FSEIS*.

Residential

The residential travel demand forecasts were based on person trip and truck trip generation rates and temporal distributions cited in the 2014 *CEQR Technical Manual*. The directional in/out splits were based on data from the 2009 *Broadway Triangle FEIS*. As outlined in **Appendix A**, national, regional, and local data indicate a direct correlation between auto usage (e.g., auto mode share) and income (refer to Table 8 of the USDOT-FHA’s 2009 *National Household Travel Survey* and Figure 18 of the DCP 2009 *Residential Parking Study*). As presented in **Table 1**, it is anticipated that a significant portion (3,538 dwelling units) of the With-Action residential development under the RWCDs would be rental units designated as affordable under the IHP, and are therefore expected to have modal split and vehicle occupancy patterns reflecting lower auto ownership rates. Weekday AM and PM peak hour modal splits and vehicle

occupancies for affordable residential uses were derived from 2008-2012 5-year American community Survey (ACS) journey-to-work data for PUMA² 4007 which encompasses a significant portion of the rezoning area. Weekday AM and PM modal splits and vehicle occupancy patterns for market-rate residential uses were similarly derived from ACS data and were assumed for the With-Action market-rate residential uses under the RWCDs. As none of the No-Action residential development would be designated affordable through the IHP under the RWCDs, the modal splits and vehicle occupancies for market-rate residential uses were also assumed for the projected residential development in the future without the Proposed Actions.

It should be noted that ACS vehicle occupancy data reflect the average vehicle occupancy for personal auto trips to and from work, and do not present the complete picture of average vehicle occupancy for other purposes (e.g., shopping, errands, social and recreational activities, school trips, etc.). In general, vehicle occupancy rates for non-work-related trips have been found to be higher than vehicle occupancy rates for work-related trips. Both national data from USDOT-FHA's *Summary of Travel Trends: 2009 National Household Travel Survey* and regional data from the *Regional Travel-Household Interview Survey* prepared for the New York Metropolitan Transportation Council (NYMTC) and the North Jersey Transportation Planning Authority (NJTPA) indicate that average vehicle occupancy rates for all auto trips are over 1.4 times the average vehicle occupancy rates for auto trips to and from work. (Refer to Table 16 of the USDOT-FHA's 2009 *National Household Travel Survey* and pages 20 and 21 of NYMTC/NJTPA 2000 *Regional Travel – Household Interview Survey* provided in **Appendix A**). As such, the weekday AM/PM peak hour vehicle occupancy rates derived from the ACS data were adjusted by a factor of 1.4 for the weekday midday and Saturday midday peak hours to reflect the predominance of non-work-related trips during these periods. While not all AM and PM peak hour trips are work-related, the lower vehicle occupancy rates for trips to and from work were conservatively applied to all auto trips in these latter peak hours.

Although residential-based trips in the weekday midday and Saturday midday peak hours would likely be more local in nature than in the commuter peak hours (and therefore have a higher walk share, for example), the modal splits based on the ACS journey-to-work data were conservatively assumed for all periods.

TRIP GENERATION

The net incremental change in person and vehicle trips expected to result from the Proposed Actions by the 2030 analysis year was derived based on the net change in land uses shown in **Table 1** and the transportation planning factors shown in **Table 3**. **Table 5** shows an estimate of the net incremental change in peak hour person trips and vehicle trips, (versus the No-Action condition) that would occur in 2030 with implementation of the Proposed Actions. As shown in **Table 5**, under the RWCDs, the

² Public Use Microdata Area.

TABLE 5: RWCDs Travel Demand Forecast

Land Use: Size/Units:	Local Retail 681,436 gsf		Office 132,695 gsf		Residential (Market Rate) 2,954 Dus		Residential (Affordable) 3,538 Dus		Hotel -418 rooms		Light Industrial -27,035 gsf		Restaurant 51,400 gsf		Auto Repair -118,365 gsf	
Peak Hour Trips:																
AM	1,272		286		2,402		2,872		-318		-54		70		-314	
MD	7,976		356		1,206		1,444		-556		-44		916		-264	
PM	4,208		332		2,640		3,158		-512		-58		514		-336	
Sat MD	4,916		86		2,284		2,732		-360		-8		622		-254	
Person Trips:																
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	31	31	123	6	110	626	71	398	-39	-56	-20	-3	20	1	-178	-96
Taxi	4	4	1	0	1	18	0	9	-16	-23	0	0	4	0	-11	-4
Subway/Railroad	17	17	73	3	195	1,113	252	1,429	-25	-36	-12	-3	9	0	0	0
Bus	41	41	43	2	32	182	78	435	-8	-10	-7	-2	9	0	0	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	543	543	34	1	20	105	29	171	-43	-62	-6	-1	26	1	-16	-9
Total	636	636	274	12	358	2,044	430	2,442	-131	-187	-45	-9	68	2	-205	-109
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	199	199	3	6	187	187	116	116	-113	-53	1	1	181	96	-113	-113
Taxi	42	42	5	7	3	3	1	1	-47	-22	-1	-1	30	17	-8	-8
Subway/Railroad	122	122	8	15	327	327	427	427	-71	-34	0	0	89	47	0	0
Bus	240	240	8	15	55	55	129	129	-22	-10	-1	-1	89	47	0	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	3,385	3,385	112	177	31	31	49	49	-125	-59	-21	-21	209	111	-11	-11
Total	3,988	3,988	136	220	603	603	722	722	-378	-178	-22	-22	598	318	-132	-132
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	106	106	8	143	569	242	360	153	-91	-64	-3	-23	99	54	-147	-147
Taxi	22	22	0	1	14	5	8	2	-38	-26	0	0	17	10	-8	-8
Subway/Railroad	64	64	6	84	1,008	432	1,293	554	-57	-39	-2	-14	51	27	0	0
Bus	126	126	2	47	164	70	397	169	-17	-12	-1	-8	51	27	0	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	1,786	1,786	2	39	96	40	156	66	-99	-69	-1	-6	115	63	-13	-13
Total	2,104	2,104	18	314	1,851	789	2,214	944	-302	-210	-7	-51	333	181	-168	-168
Sat MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	133	109	21	16	350	350	222	222	-61	-48	-2	-2	118	69	-108	-108
Taxi	27	22	0	0	9	9	3	3	-25	-19	0	0	20	11	-8	-8
Subway/Railroad	82	66	13	9	623	623	802	802	-39	-29	-2	-2	60	34	0	0
Bus	162	133	9	6	101	101	242	242	-12	-9	-1	-1	60	34	0	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	2,301	1,881	7	5	59	59	97	97	-65	-53	1	1	135	81	-11	-11
Total	2,705	2,211	50	36	1,142	1,142	1,366	1,366	-202	-158	-4	-4	393	229	-127	-127
Vehicle Trips :																
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	19	19	109	6	105	589	69	374	-25	-35	-17	-4	9	0	-139	-74
Taxi	4	4	1	0	1	17	0	8	-12	-16	0	0	1	0	-11	-4
Taxi Balanced	8	8	1	1	18	18	8	8	-28	-28	0	0	1	1	-15	-15
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	8	8	2	2	10	10	11	11	-1	-1	-1	-1	6	6	-8	-8
Total	35	35	112	9	133	617	88	393	-54	-64	-18	-5	16	7	-162	-97
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	104	104	3	6	126	126	78	78	-70	-34	1	1	82	44	-88	-88
Taxi	25	25	5	6	3	3	1	1	-34	-15	-1	-1	13	8	-8	-8
Taxi Balanced	50	50	11	11	6	6	2	2	-49	-49	-2	-2	21	21	-16	-16
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	14	14	2	2	8	8	9	9	0	0	-1	-1	6	6	-3	-3
Total	168	168	16	19	140	140	89	89	-119	-83	-2	-2	109	71	-107	-107
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	57	57	8	127	535	231	338	144	-57	-39	-4	-19	45	24	-112	-112
Taxi	15	15	0	1	13	5	7	2	-26	-18	0	0	8	5	-8	-8
Taxi Balanced	30	30	1	1	18	18	9	9	-44	-44	0	0	13	13	-16	-16
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	1	1	0	0	1	1	1	1	0	0	0	0	1	1	0	0
Total	88	88	9	128	554	250	348	154	-101	-83	-4	-19	59	38	-128	-128
Sat MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	70	59	19	14	233	233	149	149	-39	-31	-2	-2	53	30	-83	-83
Taxi	18	15	0	0	8	8	3	3	-17	-14	0	0	10	4	-8	-8
Taxi Balanced	33	33	0	0	16	16	6	6	-31	-31	0	0	14	14	-16	-16
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	0	0	0	0	1	1	2	2	0	0	0	0	0	0	0	0
Total	103	92	19	14	250	250	157	157	-70	-62	-2	-2	67	44	-99	-99

This table has been revised for the FEIS.

TABLE 5: RWCDs Travel Demand Forecast (continued)

Land Use: Size/Units:	Auto Dealership -10,000 gsf		Warehouse -73,170 gsf		FRESH Supermarket 20,000 gsf		Pre-K (Student) 263 students		Pre-K (Staff) 24 staff		Pre-K (Parent) 46 parents		Day-Care Center -28,302 gsf		Community Center 223,318 gsf	
Peak Hour Trips:																
AM	-4		-46		94		264		24		92		-150		400	
MD	-4		-44		370		0		0		0		-48		902	
PM	-4		-50		308		28		4		12		-178		502	
Sat MD	-4		-18		488		0		0		0		-8		528	
Person Trips:																
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-3	-1	-22	-4	2	2	39	0	11	0	0	0	-4	-4	13	8
Taxi	0	0	0	0	1	2	0	0	0	0	0	0	-1	-1	2	1
Subway/Railroad	0	0	-11	-2	2	3	8	0	9	0	0	0	-2	-2	7	4
Bus	0	0	-2	0	2	3	4	0	4	0	0	0	-5	-4	15	10
School Bus	0	0	0	0	0	0	147	0	0	0	0	0	0	0	0	0
Walk/Other	0	0	-5	0	35	42	66	0	0	0	46	46	-67	-60	208	132
Total	-3	-1	-40	-6	42	52	264	0	24	0	46	46	-79	-71	245	155
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-2	-2	-12	-12	7	8	0	0	0	0	0	0	-1	-1	25	21
Taxi	0	0	0	0	5	6	0	0	0	0	0	0	0	0	4	4
Subway/Railroad	0	0	-6	-6	9	10	0	0	0	0	0	0	-1	-1	15	13
Bus	0	0	-2	-2	9	10	0	0	0	0	0	0	-1	-1	30	24
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	0	0	-2	-2	141	165	0	0	0	0	0	0	-21	-21	422	344
Total	-2	-2	-22	-22	171	199	0	0	0	0	0	0	-24	-24	496	406
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-1	-3	-4	-24	6	7	0	16	0	2	0	0	-4	-5	7	17
Taxi	0	0	0	0	4	5	0	0	0	0	0	0	-1	-1	1	3
Subway/Railroad	0	0	-2	-12	7	8	0	3	0	2	0	0	-3	-3	4	11
Bus	0	0	0	-3	7	8	0	2	0	0	0	0	-5	-6	9	22
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	0	0	0	-5	120	136	0	7	0	0	6	6	-71	-79	123	305
Total	-1	-3	-6	-44	144	164	0	28	0	4	6	6	-84	-94	144	358
Sat MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-2	-2	-6	-6	9	11	0	0	0	0	0	0	0	0	13	14
Taxi	0	0	0	0	7	8	0	0	0	0	0	0	0	0	2	2
Subway/Railroad	0	0	-3	-3	11	13	0	0	0	0	0	0	0	0	8	8
Bus	0	0	0	0	11	13	0	0	0	0	0	0	0	0	15	16
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	0	0	0	0	186	219	0	0	0	0	0	0	-4	-4	221	229
Total	-2	-2	-9	-9	224	264	0	0	0	0	0	0	-4	-4	259	269
Vehicle Trips:																
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	-2	-1	-17	-4	1	1	30	30	10	0	0	0	-2	-2	9	5
Taxi	0	0	0	0	1	1	0	0	0	0	0	0	-1	-1	2	1
Taxi Balanced	0	0	0	0	2	2	0	0	0	0	0	0	-2	-2	3	3
School Bus	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0
Truck	0	0	-3	-3	0	0	0	0	0	0	0	0	0	0	3	3
Total	-2	-1	-20	-7	3	3	36	36	10	0	0	0	-4	-4	15	11
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	-2	-2	-10	-10	4	5	0	0	0	0	0	0	-1	-1	15	13
Taxi	0	0	0	0	4	4	0	0	0	0	0	0	0	0	3	3
Taxi Balanced	0	0	0	0	8	8	0	0	0	0	0	0	0	0	6	6
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	0	0	-2	-2	0	0	0	0	0	0	0	0	0	0	3	3
Total	-2	-2	-12	-12	12	13	0	0	0	0	0	0	-1	-1	24	22
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	-1	-2	-4	-19	4	4	12	12	0	2	0	0	-2	-3	5	11
Taxi	0	0	0	0	3	4	0	0	0	0	0	0	-1	-1	1	2
Taxi Balanced	0	0	0	0	7	7	0	0	0	0	0	0	-2	-2	3	3
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	-1	-2	-4	-19	11	11	12	12	0	2	0	0	-4	-5	8	14
Sat MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto (Total)	-2	-2	-6	-6	5	7	0	0	0	0	0	0	0	0	9	9
Taxi	0	0	0	0	5	6	0	0	0	0	0	0	0	0	2	2
Taxi Balanced	0	0	0	0	11	11	0	0	0	0	0	0	0	0	4	4
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	-2	-2	-6	-6	16	18	0	0	0	0	0	0	0	0	13	13

This table has been revised for the FEIS.

TABLE 5: RWCDs Travel Demand Forecast (continued)

Land Use: Size/Units:	House of Worship 7,873 gsf	Medical Office 91,981 gsf	PS/IS School Grades K-4 (Student) 463 students	PS/IS School Grades 5-7 (Student) 318 students	PS/IS School Grade 8 (Student) 101 students	PS/IS School (Staff) 82 staff	PS/IS School (Parent) 122 parents	Total
Peak Hour Trips:								
AM	12	470	464	318	102	82	244	8,582
MD	6	1,286	0	0	0	0	0	13,502
PM	10	1,404	48	32	12	82	26	12,182
Sat MD	26	1,286	0	0	0	0	0	12,316
Person Trips:								
AM	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto	0 0	126 15	70 0	48 0	15 0	34 0	0 0	447 923
Taxi	0 0	8 1	0 0	0 0	0 0	0 0	0 0	-7 7
Subway/Railroad	0 0	139 17	15 0	21 0	41 0	32 0	0 0	770 2,543
Bus	0 0	75 10	8 0	10 0	20 0	16 0	0 0	335 667
School Bus	0 0	0 0	255 0	80 0	0 0	0 0	0 0	482 0
Walk/Other	8 4	71 8	116 0	159 0	26 0	0 0	122 122	1,372 1,043
Total	8 4	419 51	464 0	318 0	102 0	82 0	122 122	3,399 5,183
MD	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto	0 0	195 189	0 0	0 0	0 0	0 0	0 0	673 642
Taxi	0 0	13 13	0 0	0 0	0 0	0 0	0 0	47 62
Subway/Railroad	0 0	216 208	0 0	0 0	0 0	0 0	0 0	1,135 1,128
Bus	0 0	119 113	0 0	0 0	0 0	0 0	0 0	653 619
School Bus	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Walk/Other	3 3	112 108	0 0	0 0	0 0	0 0	0 0	4,284 4,259
Total	3 3	655 631	0 0	0 0	0 0	0 0	0 0	6,792 6,710
PM	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto	0 0	202 219	0 27	0 10	0 2	0 34	0 0	1,107 766
Taxi	0 0	14 15	0 0	0 0	0 0	0 0	0 0	33 28
Subway/Railroad	0 0	223 240	0 6	0 4	0 5	0 32	0 0	2,592 1,404
Bus	0 0	121 132	0 3	0 2	0 2	0 16	0 0	854 597
School Bus	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Walk/Other	7 3	114 124	0 12	0 16	0 3	0 0	13 13	2,354 2,447
Total	7 3	674 730	0 48	0 32	0 12	0 82	13 13	6,940 5,242
Sat MD	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto	2 1	158 227	0 0	0 0	0 0	0 0	0 0	847 853
Taxi	0 0	10 15	0 0	0 0	0 0	0 0	0 0	45 43
Subway/Railroad	0 0	174 250	0 0	0 0	0 0	0 0	0 0	1,729 1,771
Bus	1 0	96 137	0 0	0 0	0 0	0 0	0 0	684 672
School Bus	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Walk/Other	16 6	89 130	0 0	0 0	0 0	0 0	0 0	3,032 2,640
Total	19 7	527 759	0 0	0 0	0 0	0 0	0 0	6,337 5,979
Vehicle Trips :								
AM	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto (Total)	0 0	85 10	54 54	37 37	12 12	23 0	0 0	370 1,017
Taxi	0 0	5 1	0 0	0 0	0 0	0 0	0 0	-9 11
Taxi Balanced	0 0	6 6	0 0	0 0	0 0	0 0	0 0	2 2
School Bus	0 0	0 0	8 8	3 3	0 0	0 0	0 0	17 17
Truck	0 0	0 0	1 1	0 0	0 0	0 0	0 0	28 28
Total	0 0	91 16	63 63	40 40	12 12	23 0	0 0	417 1,064
MD	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto (Total)	0 0	131 127	0 0	0 0	0 0	0 0	0 0	373 369
Taxi	0 0	8 8	0 0	0 0	0 0	0 0	0 0	19 34
Taxi Balanced	0 0	16 16	0 0	0 0	0 0	0 0	0 0	53 53
School Bus	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Truck	0 0	2 2	1 1	1 1	0 0	0 0	0 0	40 40
Total	0 0	149 145	1 1	1 1	0 0	0 0	0 0	466 462
PM	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto (Total)	0 0	134 146	21 21	8 8	2 2	0 23	0 0	989 618
Taxi	0 0	9 10	0 0	0 0	0 0	0 0	0 0	21 17
Taxi Balanced	0 0	19 19	0 0	0 0	0 0	0 0	0 0	38 38
School Bus	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Truck	0 0	0 0	0 0	0 0	0 0	0 0	0 0	4 4
Total	0 0	153 165	21 21	8 8	2 2	0 23	0 0	1,031 660
Sat MD	In Out	In Out	In Out	In Out	In Out	In Out	In Out	In Out
Auto (Total)	1 0	61 87	0 0	0 0	0 0	0 0	0 0	468 464
Taxi	0 0	4 5	0 0	0 0	0 0	0 0	0 0	25 21
Taxi Balanced	0 0	9 9	0 0	0 0	0 0	0 0	0 0	46 46
School Bus	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Truck	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 3
Total	1 0	70 96	0 0	0 0	0 0	0 0	0 0	517 513

70% linked-trip credit applied to local retail use.
 25% linked-trip credit applied to restaurant and FRESH (supermarket) uses.
 Pre-K and PS/IS student absentee rate assumed to be 5%

This table has been revised for the FEIS.

Proposed Actions would generate a net increase of approximately 8,582 person trips in the weekday AM peak hour, 13,502 in the weekday midday, 12,182 in the weekday PM peak hour, and 12,316 in the Saturday midday peak hour. Peak hour vehicle trips (including auto, truck, and taxi trips balanced to reflect that some taxis arrive or depart empty) would increase by a net total of approximately 1,481, 928, 1,691, and 1,030 (in and out combined) in the weekday AM, midday, and PM, and Saturday midday peak hours, respectively. Peak hour subway trips would increase by a net total of approximately 3,313, 2,263, 3,996 and 3,500 during these periods, respectively, while bus trips would increase by approximately 1,002, 1,272, 1,451 and 1,356, respectively. Lastly, walk-only trips would increase by 2,415, 8,843, 4,801 and 5,672 trips during the weekday AM, midday, and PM, and Saturday midday peak hours, respectively.

The Proposed Actions are not expected to generate substantial numbers of trips by the Long Island Rail Road (LIRR). As the LIRR's East New York station is located more than ½-mile from the majority of projected development sites (and therefore not within a convenient walking distance), any commuter rail trips generated by the Proposed Actions would likely start or end on another mode of transit (i.e., subway and bus) and are assumed to be reflected in the forecast for these modes.

Table 6 shows the net incremental change in peak hour vehicle trips (auto, taxi, and truck) that would be generated by each development cluster and outlier site during the weekday AM, midday and PM and Saturday midday peak hours.³ As shown in **Table 6**, clusters 4 and 5 would generate the greatest number of new vehicle trips in all peak hours. Cluster 4 would account for approximately ten to 22 percent of the total vehicle trips generated by the Proposed Actions, and Cluster 5 would account for approximately 52 to 63 percent. Under the RWCDs, development of Cluster 2 and sites 12, 40 and 68 would result in net decreases in vehicle trips during one or more peak hours due to anticipated changes in land uses (e.g., from auto-related and warehouse uses to residential and retail uses).

ANALYSIS PERIODS

Based on *CEQR Technical Manual* guidelines, a quantified traffic analysis is typically required if a proposed action would result in more than 50 vehicle trip ends in a peak hour. As shown in **Table 5**, the Proposed Actions are expected to result in more than 50 total vehicle trips during the weekday AM and PM peak hours (which are typical peak periods for commuter travel demand) and the weekday midday and Saturday midday peak hours (which are typical peak periods for retail demand). All of these periods are therefore included in the quantified analysis of traffic conditions. Based on existing traffic volumes in the study area as reflected in automatic traffic recorder (ATR) count data, the weekday 7:30-8:30 AM, 1-2 PM and 5-6 PM peak hours were selected for analysis along with the Saturday 1-2 PM midday peak hour.

³ Detailed demand forecasts for each of the projected development site clusters and the four outlier sites are provided in Tables 1 through 14 in **Appendix B**.

TABLE 6: RWCDs Net Incremental Vehicle Trips by Cluster

Cluster/Site	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday
1	107	126	181	125
2	189	-16	116	45
3	56	6	63	37
4	148	203	266	186
5	852	581	901	538
6	9	6	10	7
7	29	12	31	21
8	17	28	32	25
9	27	14	30	19
10	51	50	69	61
Site 1	22	8	28	12
Site 2	8	8	12	17
Site 12	-13	-4	-11	-10
<u>Site 40</u>	<u>-8</u>	<u>-90</u>	<u>-36</u>	<u>-51</u>
Site 68	-7	-4	-1	-2
Total	<u>1,481</u>	<u>928</u>	<u>1,691</u>	<u>1,030</u>

Transit (both subway and bus) analyses generally examine conditions during the weekday AM and PM commuter peak periods, as it is during these times that overall transit demand (and the potential for significant adverse impacts) is typically greatest. Based on existing pedestrian volumes at area subway stations, the peak hours selected for the analysis of subway station conditions are 7:15-8:15 AM and 5-6 PM.

According to *CEQR Technical Manual* guidelines, a quantified analysis of pedestrian conditions is typically required if a proposed action would result in 200 or more peak hour pedestrian trips. As shown in **Table 5**, the net increase in pedestrian trips resulting from the Proposed Actions would exceed the 200-trip *CEQR Technical Manual* analysis threshold during the weekday AM and PM commuter peak hours and the weekday midday and Saturday midday peak hours for retail demand. Based on existing peak pedestrian volumes along major corridors in the study area, the peak hours selected for analysis include the weekday 7:30-8:30 AM, 1-2 PM and 5-6 PM periods. As project increment pedestrian trips during the Saturday midday would generally have assignment patterns similar to those of the weekday midday but with lower overall volumes, significant adverse pedestrian impacts over and above those identified for the weekday midday are considered unlikely. The Saturday midday peak hour is therefore not analyzed for pedestrians.

TRAFFIC STUDY AREA

Rezoning Area Street Network

Primary East-West Corridors

As shown in **Figure 1**, the rezoning area street network is an irregular grid system. The primary streets providing access to the rezoning area include Atlantic, East New York, Jamaica, Pennsylvania and Pitkin avenues, North Conduit Boulevard, South Conduit Boulevard, Broadway, Eastern Parkway Extension, Fulton Street and the Jackie Robinson Parkway. **Atlantic Avenue**, the primary arterial within the rezoning area, runs east-west connecting downtown Brooklyn to the west with Jamaica, Queens and JFK International Airport (via Conduit Boulevard) to the east. Within most of the rezoning area, Atlantic Avenue has a width of 120 feet and operates with three moving lanes and a curbside lane in each direction. It is also a designated through truck route. The north and south grid street approaches to Atlantic Avenue align to the west of Warwick Street but do not align to the east of Warwick Street. The presence of a raised center median limits north-south through movements across Atlantic Avenue.

Paralleling Atlantic Avenue three blocks to the south is **Pitkin Avenue**, an 80-foot-wide two-way street that typically operates with one moving lane plus a curbside lane in each direction. Paralleling Atlantic Avenue one block to the north is **Fulton Street**, a 70-foot-wide east-west street that operates one-way eastbound within the rezoning area. Subway trains on New York City Transit's (NYCT's) Jamaica Line operate on an elevated structure above the roadway to the east of Alabama Avenue. To the north of Fulton Street is **Jamaica Avenue**, an approximately 40-foot-wide two-way arterial that operates in a northeasterly direction from an intersection with East New York Avenue, Fulton Street and Broadway to the city-line at Bellerose, Queens where it becomes Jericho Turnpike. **Broadway** is an approximately 40-foot-wide street that continues in a northwesterly direction from Jamaica Avenue to Williamsburg, Brooklyn. Broadway operates one-way westbound from Fulton Street to Truxton Street/Van Sinderen Avenue and two-way from that point west. The elevated structure of NYCT's Jamaica subway line is located along the length of Broadway from the Williamsburg Bridge to Jamaica Avenue.

Approaching the study area from the southwest is **East New York Avenue** which runs from Jamaica Avenue to the Prospect-Lefferts Gardens neighborhood. In proximity to the rezoning area it varies in width from 30 feet to 95 feet, and typically operates two-way except for a two-block segment between Sackman Street and Pacific/Junius streets which operates one-way eastbound. East New York Avenue crosses beneath Atlantic Avenue in an underpass from Pacific/Junius streets to Williams Avenue and Fulton Street. The **Eastern Parkway Extension**, which also approaches the study area from the southwest, runs from Bushwick Avenue at the west end of the rezoning area to Grand Army Plaza. It is a two-way, 70-foot-wide roadway with a raised center median separating the eastbound and westbound travelways.

At the eastern end of the rezoning area are westbound **North Conduit Boulevard** and eastbound **South Conduit Boulevard** (North Conduit Avenue and South Conduit Avenue in Queens) which are separated by a wide planted median and connect Atlantic Avenue with the Belt Parkway. Liberty and Glenmore

avenues are two additional east-west streets that parallel Atlantic Avenue on the south and provide primarily local access in the vicinity of the rezoning area. **Liberty Avenue** is a 35-foot-wide two-way street, while **Glenmore Avenue** is 30 feet in width and operates one-way westbound.

Primary North-South Corridors

As shown in **Figure 1**, **Pennsylvania Avenue** is the primary north-south corridor in the vicinity of the rezoning area. It is a 60-foot wide heavily trafficked two-way thoroughfare and a designated local truck route, and connects the Jackie Robinson Parkway to the north with Linden Boulevard and the Belt (Shore) Parkway to the south. The **Jackie Robinson Parkway** extends approximately five miles from Jamaica and Pennsylvania avenues to the Kew Gardens Interchange in Kew Gardens, Queens, where it meets the Grand Central Parkway and the Van Wyck Expressway (I-678). In addition to the terminus at Jamaica/Pennsylvania avenues, other interchanges in proximity to the study area include Exit 2 at Vermont Place and Exit 3 at Cypress Hills Street. Other north-south corridors in the vicinity of the rezoning area are typically narrow, one-directional streets.

Other Transportation Infrastructure

The western portion of the rezoning area is characterized by an irregular and complex street pattern and a substantial amount of railroad and rail transit infrastructure. Many of the primary streets serving the rezoning area intersect at this location (known as Broadway Junction), including Atlantic, Jamaica and East New York avenues, Fulton Street, Broadway, and the Jackie Robinson Parkway. The Atlantic Avenue mainline runs above grade on a viaduct for ten blocks from the Eastern Parkway Extension to Georgia Avenue, and East New York Avenue crosses beneath this viaduct in an underpass from Pacific/Junius streets to Williams Avenue and Fulton Street. Between these two roadway structures is the Long Island Rail Road's East New York station served by trains operating to and from Atlantic Terminal in Downtown Brooklyn. NYC Transit's Atlantic Avenue subway station on the Canarsie Line is located on an elevated structure located directly above this roadway/rail crossing. Lastly, beneath these multiple layers of transportation infrastructure lies a tunnel for the LIRR's freight-only Bay Ridge Branch which is currently operated by the New York and Atlantic Railway. A portal for this tunnel is located just west of the intersection of East New York and Van Sinderen avenues.

Traffic Assignment and Analysis Locations

The assignments of auto and taxi trips to the street network in proximity to the rezoning area are based on the locations of each projected development site cluster and outlier and the anticipated origins and destinations of vehicle trips associated with the different uses projected for each site under the RWCDs (e.g., commercial, residential, etc.). The origins/destinations of residential and non-retail commercial trips used for the assignments are based upon 2009-2013 ACS journey-to-work and reverse journey-to-work data, respectively. Retail trip origins/destinations are based on population density in proximity to the rezoning area. **Table 7** shows the directional distributions of auto and taxi trips by land use based on the origin/destination data. Using these distributions, auto and taxi trips were first assigned to various

TABLE 7: Directional Distributions of Auto/Taxi Trips by Land Use

Land Use	Brooklyn								Manhattan	Bronx	Queens	Long Island	Staten Island/N.J.	Upstate/ Connecticut
	E	SE	S	SW	W	NW	N	NE						
Non-Retail Commercial ¹	0.0%	0.0%	13.2%	17.6%	4.0%	4.3%	1.0%	0.6%	1.1%	3.0%	31.3%	13.4%	10.3%	0.2%
Residential/Hotel	1.5%	0.7%	15.3%	8.8%	14.1%	7.0%	2.5%	2.4%	10.7%	1.8%	24.1%	9.7%	1.0%	0.4%
Local Retail/Community Uses ²	----	30.0%	----	31.0%	----	13.0%	----	26.0%	----	----	----	----	----	----
Notes:														
¹ Includes office, light industrial, and warehouse uses.														
² Includes local retail, restaurant, auto repair/dealership, supermarket, Pre-K, day-care, community center, house of worship and medical office uses.														

portals on the periphery of the rezoning area and from there via the most direct route to trip nodes located within each cluster or in proximity to an outlier development site. Truck trips en route to and from each cluster/outlier site were assigned to designated through and local truck routes and then to the most direct paths to and from trip nodes. The majority of truck trips were assigned to the through truck route along Atlantic Avenue as this corridor connects the rezoning area to both the Brooklyn-Queens expressway (I-278) to the west and the Van Wyck Expressway (I-678) to the east. Other truck routes in proximity to the rezoning area to which trips were assigned include Broadway, Pennsylvania Avenue, North Conduit Boulevard and South Conduit Boulevard.

As discussed above, projected development associated with the Proposed Actions would result in a net incremental increase of 1,481 vehicle trips during the weekday AM peak hour, 928 during the midday peak hour, 1,691 during the PM peak hour and 1,030 during the Saturday midday peak hour. As these traffic volumes would exceed 50 trips in each peak hour (the *CEQR Technical Manual* Level 1 screening threshold for a detailed analysis), a preliminary assignment of net increment traffic volumes was prepared to help identify individual intersections that would potentially exceed 50 trips per hour (a Level 2 screening assessment). This preliminary assignment focused on the weekday AM and PM peak hours as they are the periods of highest overall demand. In consultation with DCP and DOT, representative intersections most likely to be used by concentrations of action-generated vehicles traveling to and from the projected development sites were then selected for detailed analysis based on the preliminary assignments. Existing bottleneck locations and prevailing travel patterns in the study area were also taken into consideration. **Figure 2** shows the locations of the 74 intersections (58 signalized and 16 unsignalized) that were selected for detailed analysis. Of these, 60 are located in proximity to projected development sites and are included within a primary study area, and 14 more distant intersections located along key access corridors are included within a secondary study extending up to ½-mile from the primary study area. (Given the density of the street grid, traffic is expected to become less concentrated—and therefore less likely to result in significant traffic impacts—with increasing distance from the rezoning area.) As the rezoning area extends for over two miles in an east-west direction, the traffic study area includes many intersections along the primary east-west corridors providing access to projected development sites such as Fulton Street (10 intersections), Atlantic Avenue (18 intersections), Liberty Avenue (17 intersections) and Pitkin Avenue (11 intersections). There are a total of seven analyzed intersections along Pennsylvania Avenue, the primary north-south corridor serving the rezoning area.

Figures 3 through 6 show the assignment of net incremental peak hour vehicle trips from the Proposed Actions' RWCDs at analyzed intersections within the primary and secondary traffic study areas.

TRANSIT

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a proposed action is projected to result in fewer than 200 peak hour rail or bus transit riders. If a proposed



East New York Rezoning TPF Memo

This figure has been updated for the FEIS.

Figure 2

Traffic Study Area and Analyzed Intersections

AM Peak Hour Project Increment Traffic Volumes



This figure has been updated for the FEIS.

AM Peak Hour Project Increment Traffic Volumes



This figure has been updated for the FEIS.



This figure has been updated for the FEIS.

Midday Peak Hour Project Increment Traffic Volumes



This figure has been updated for the FEIS.

Midday Peak Hour Project Increment Traffic Volumes



This figure has been updated for the FEIS.

Saturday Midday Peak Hour Project Increment Traffic Volumes



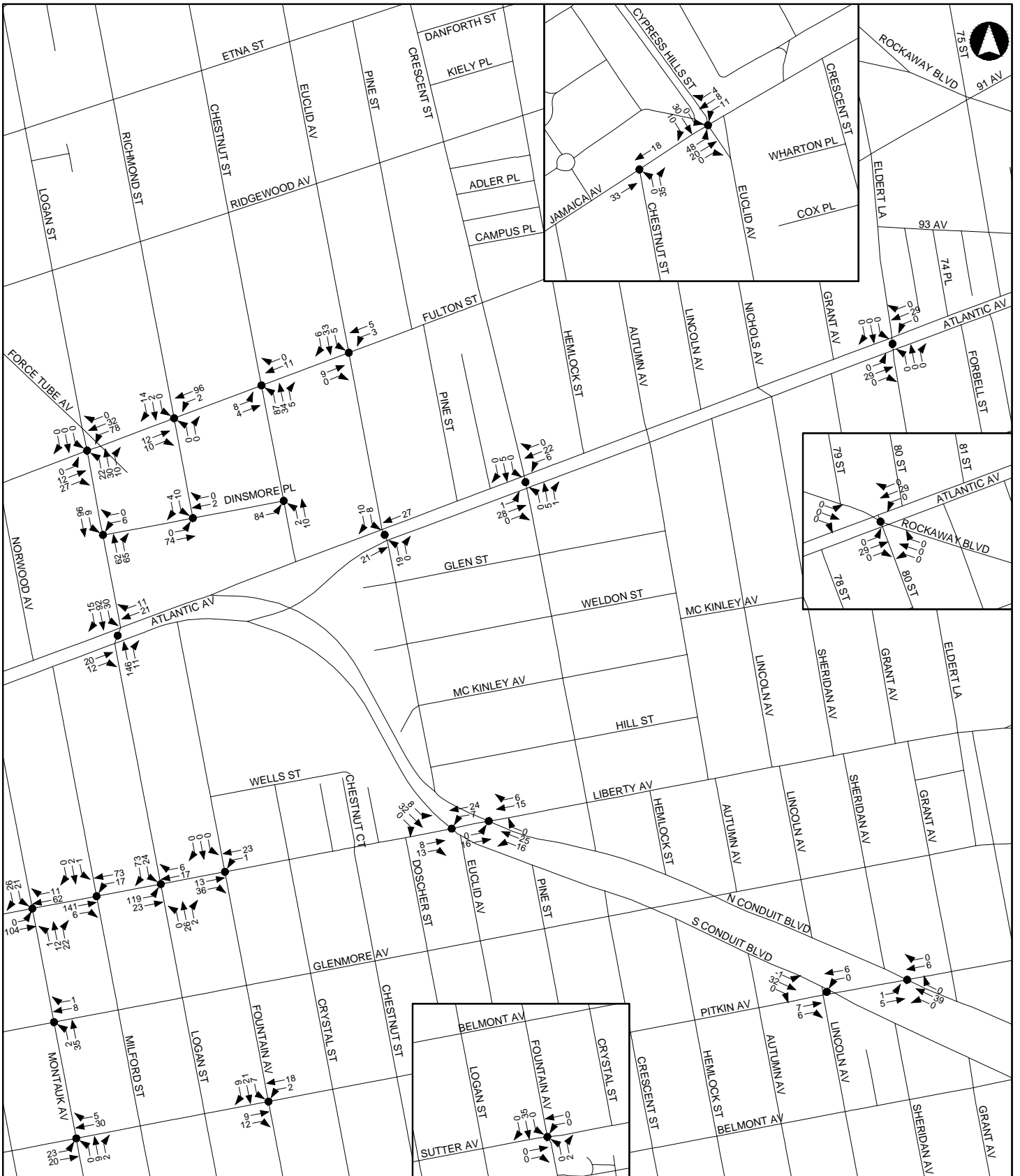
This figure has been updated for the FEIS.

Saturday Midday Peak Hour Project Increment Traffic Volumes



This figure has been updated for the FEIS.

Saturday Middy Peak Hour Project Increment Traffic Volumes



This figure has been updated for the FEIS.

action would result in 50 or more bus passengers being assigned to a single bus line (in one direction), or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus or subway analysis would be warranted.

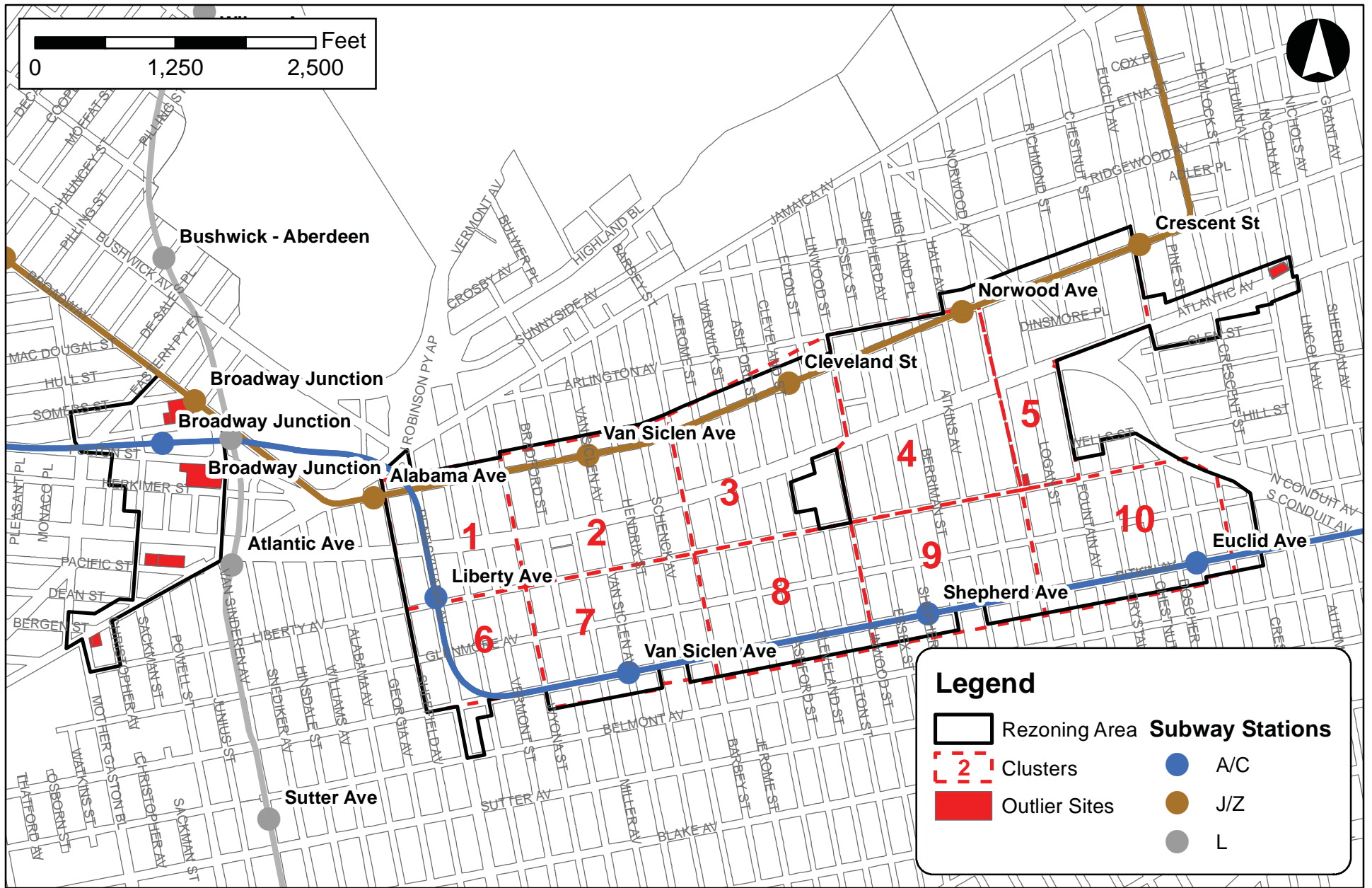
Subway Analysis

Subway Stations

There are a total of thirteen NYCT subway stations within, or in close proximity to, the rezoning area. These stations are presented in **Figure 7** and **Table 8**, along with the subway routes serving each facility. As shown in **Figure 7**, J and Z subway trains operating on the Jamaica Line serve six elevated stations above Broadway and Fulton Street in proximity to the northern portion of the rezoning area, including Broadway Junction, Alabama Avenue, Van Siclen Avenue, Cleveland Street, Norwood Avenue and Crescent Street. The below-ground Broadway Junction, Liberty Avenue, Van Siclen Avenue, Shepherd Avenue and Euclid Avenue stations on the Fulton Street Line are served by A and/or C trains and are generally located in proximity to the western and southern portions of the rezoning area beneath Fulton Street, Pennsylvania Avenue, and Pitkin Avenue. Lastly, L trains operating on the Canarsie Line serve two elevated stations above Van Sinderen Avenue at the western end of the rezoning area – Broadway Junction and Atlantic Avenue. As the Broadway Junction stations on the three subway lines serving the rezoning area are interconnected, they will be considered as a single station complex.

TABLE 8: RWCDS Net Incremental Peak Hour Subway Trips by Station

Subway Station	AM Peak Hour Trips			PM Peak Hour Trips		
	Into Project	Out of Project	Total	Into Project	Out of Project	Total
Project Summary						
Peak Hour Project-Generated Trips:	<u>3,399</u>	<u>5,183</u>	<u>8,582</u>	<u>6,940</u>	<u>5,242</u>	<u>12,182</u>
Peak Hour Project-Generated Subway Trips:	<u>770</u>	<u>2,543</u>	<u>3,313</u>	<u>2,592</u>	<u>1,404</u>	<u>3,996</u>
Subway Station Summary						
Broadway Junction (A/C/L/J/Z)	<u>19</u>	<u>113</u>	<u>132</u>	<u>92</u>	<u>40</u>	<u>132</u>
Alabama Avenue (J/Z)	37	108	145	131	77	208
Van Siclen Avenue (J/Z)	33	136	169	102	51	153
Cleveland Street (J)	40	188	228	180	90	270
Norwood Avenue (J/Z)	241	418	659	462	310	772
Crescent Street (J/Z)	140	448	588	490	278	768
Atlantic Avenue (L)	11	70	81	61	27	88
Liberty Avenue (C)	37	134	171	153	81	234
Van Siclen Avenue (C)	53	256	309	212	95	307
Shepherd Avenue (C)	102	395	497	425	226	651
Euclid Avenue (A/C)	57	277	334	284	129	413
Total	<u>770</u>	<u>2,543</u>	<u>3,313</u>	<u>2,592</u>	<u>1,404</u>	<u>3,996</u>



East New York Rezoning TPF Memo
 This figure has been updated for the FEIS.

Figure 7
Rezoning Area Subway Stations

Subway Assignment and Analyzed Stations

As shown in **Table 5**, under the RWCDs, the Proposed Actions would generate a net increment of approximately 3,313 and 3,996 subway trips during the weekday AM and PM commuter peak hours, respectively. Trips from each development cluster or outlier site were assigned to the individual stations serving the rezoning area based on proximity to projected development sites and distribution data provided by NYCT. **Table 8** shows the estimated net incremental subway trips generated by the Proposed Actions during the weekday AM and PM peak hours at each of the subway stations serving the rezoning area. As shown in **Table 8**, the highest number of peak hour subway trips are expected to occur at the Norwood Avenue (J/Z) station on the Jamaica Line which would experience approximately 659 incremental trips (in + out combined) in the AM peak hour and 772 in the PM peak hour. The highest number of trips on the Fulton Street Line would occur at the Shepherd Avenue (C) station which would experience an estimated 497 incremental trips in the AM peak hour and 651 in the PM.

The analysis of subway station conditions focuses on a total of eight subway stations at which incremental demand from the Proposed Actions would exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or both peak hours. As shown in **Table 8**, these subway stations include:

- Alabama Avenue (J/Z)
- Cleveland Street (J)
- Norwood Avenue (J/Z)
- Crescent Street (J/Z)
- Liberty Avenue (C)
- Van Siclen Avenue (C)
- Shepherd Avenue (C)
- Euclid Avenue (A/C)

For each of these facilities, key circulation elements (e.g., street stairs and fare arrays) expected to be used by concentrations of new demand from the Proposed Actions are analyzed.

Subway Line Haul

As discussed above, the rezoning area is served by a total of five NYCT subway routes, including the A, C, J, L, and Z lines. As the Proposed Actions are expected to generate 200 or more new subway trips in one direction on one or more of these routes, an analysis of subway line haul conditions is included in the EIS. The analysis uses existing maximum load point subway service and ridership data provided by NYCT to assess existing, future No-Action, and future With-Action conditions at the peak load points of the respective subway lines during the weekday AM and PM peak hours.

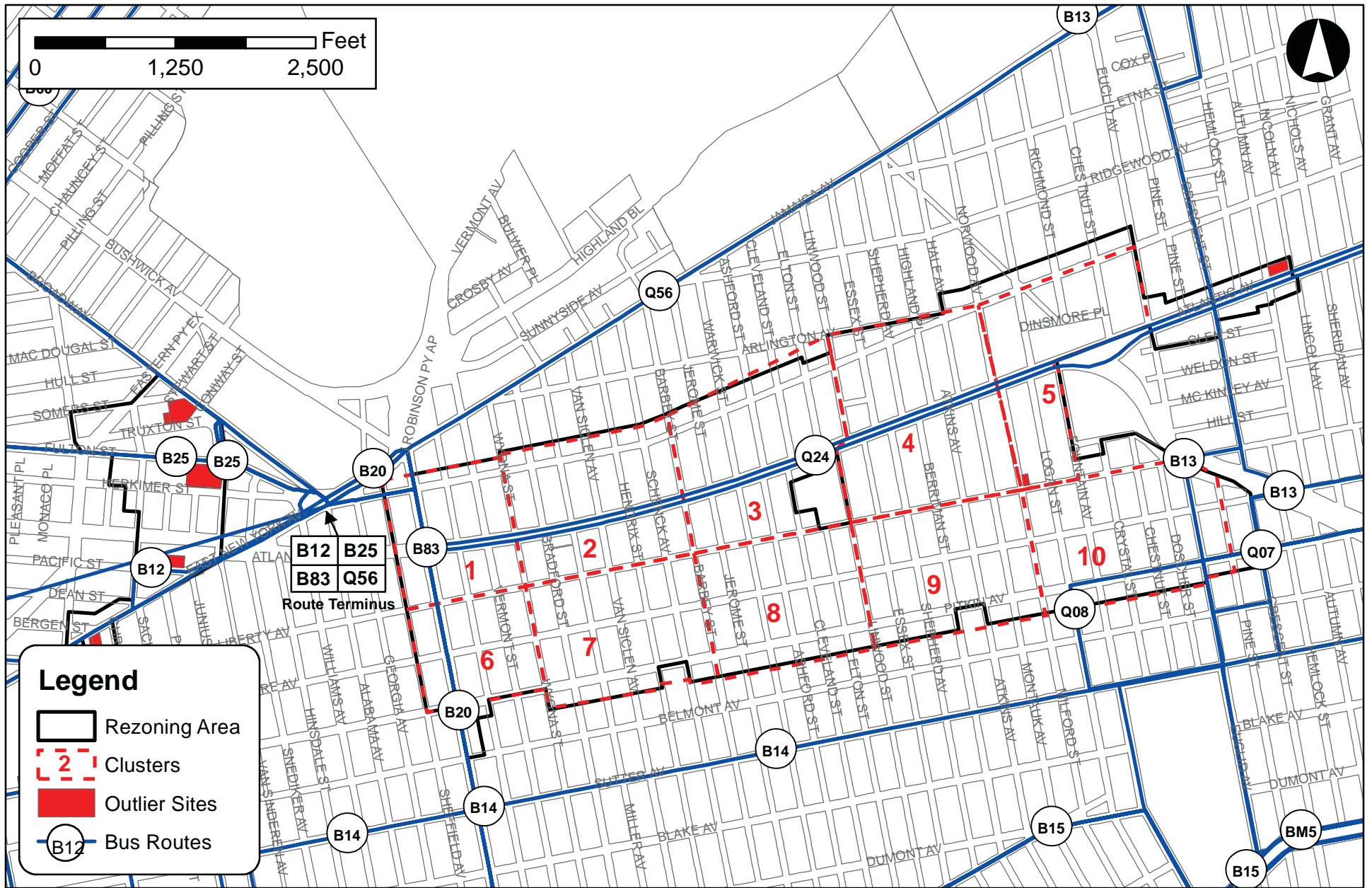
Bus Analysis

Bus Routes

As shown in **Figure 8**, the proposed rezoning area is served by a total of approximately ten MTA local bus routes; eight operated by NYCT and two operated by MTA Bus. The NYCT bus routes serving the rezoning area include the B12, which runs along East New York Avenue in the rezoning area and connects to Prospect-Lefferts Gardens/Prospect Park (to the west); the B13, which runs along Crescent Street and Euclid Avenue in the rezoning area and connects to Bushwick (to the north) and Spring Creek (to the south); the B14 which runs along Sutter Avenue to the south of the rezoning area en route between Crown Heights and the Brooklyn General Mail Facility; the B20, which runs along Broadway and Pennsylvania Avenue in the rezoning area and connects to Ridgewood, Queens (to the north) and Spring Creek (to the south); the B25, which runs along Fulton Street in the rezoning area and connects to Fulton Landing (to the northwest); the B83, which runs along Jamaica and Pennsylvania avenues in the rezoning area and connects to Spring Creek (to the south); the Q24, which runs along Broadway and Atlantic avenues in the rezoning area and connects to Jamaica, Queens (to the east) and Bushwick (to the north); and the Q56, which runs along Broadway and Jamaica Avenue in the rezoning area and connects to Jamaica, Queens (to the east). The two MTA Bus local routes serving the rezoning area include the Q7, which runs along Pitkin Avenue through the rezoning area to a terminus at Euclid Avenue and connects to JFK International Airport to the southeast; and the Q8, which runs along Logan Street and Pitkin and Euclid avenues in the rezoning area and connects to Jamaica, Queens (to the northeast) and Spring Creek (to the south). The B12, B25, B83 and Q56 routes all terminate in the vicinity of the Broadway Junction subway station complex facilitating subway-bus transfers.

Bus Assignment and Analyzed Routes

As shown in **Table 5**, projected development sites are expected to generate a net total of approximately 1,002 and 1,451 incremental trips by bus during the weekday AM and PM peak hours, respectively. These local bus trips were assigned to each route based on proximity to individual projected development sites or clusters and current ridership patterns. **Table 9** shows the anticipated numbers of new riders expected on each local bus route in the AM and PM peak hours. According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a proposed action is projected to result in fewer than 50 peak hour trips being assigned to a single bus route (in one direction), as this level of new demand is considered unlikely to result in significant adverse impacts. As shown in **Table 9**, a total of three local bus routes are expected to experience 50 or more new trips in one direction in at least one peak hour and are therefore analyzed in the EIS – the B13 and Q24 routes operated by NYCT and the Q8 route operated by MTA Bus.



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This figure has been updated for the FEIS.

Figure 8

Rezoning Area Bus Routes

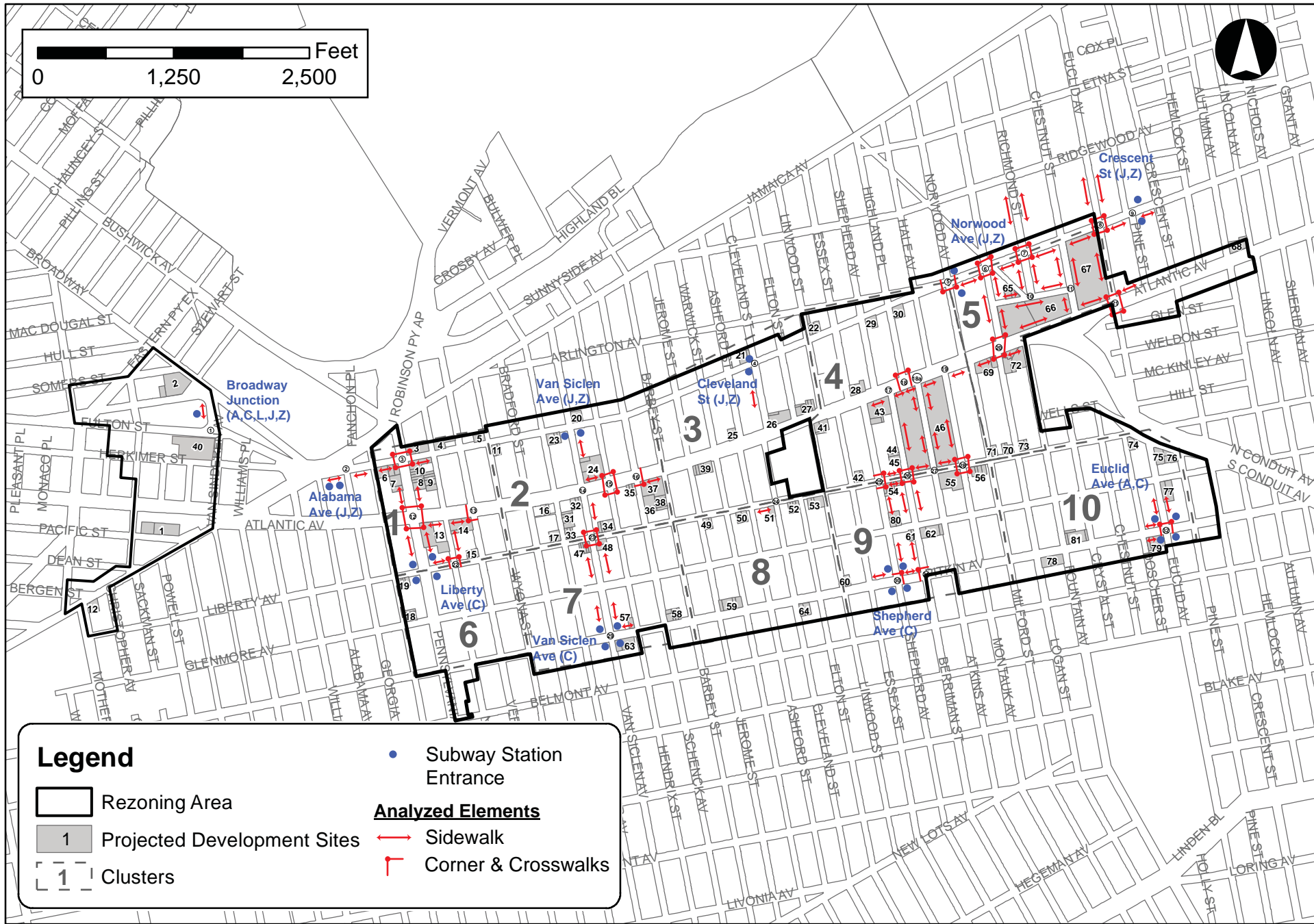
TABLE 9: RWCDS Net Incremental Subway Trips by Station

Route	Direction	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
B12	EB	<u>6</u>	0	<u>6</u>	<u>22</u>	0	<u>22</u>
	WB	0	<u>19</u>	<u>19</u>	0	<u>13</u>	<u>13</u>
B13	NB	39	57	96	38	30	68
	SB	<u>32</u>	35	67	85	67	152
B14	EB	1	9	10	17	8	25
	WB	2	14	16	12	5	17
B20	NB	<u>6</u>	10	<u>16</u>	12	7	19
	SB	3	<u>10</u>	<u>13</u>	15	<u>13</u>	<u>28</u>
B25	EB	<u>2</u>	<u>1</u>	<u>3</u>	<u>5</u>	0	<u>5</u>
	WB	0	<u>3</u>	<u>3</u>	0	<u>3</u>	<u>3</u>
B83	NB	<u>16</u>	0	<u>16</u>	43	0	43
	SB	0	<u>37</u>	<u>37</u>	0	<u>29</u>	<u>29</u>
Q7	EB	0	17	17	0	4	4
	WB	1	0	1	10	0	10
Q8	EB	18	47	65	29	18	47
	WB	8	20	28	59	37	96
Q24	EB	110	211	<u>321</u>	231	166	397
	WB	78	149	<u>227</u>	240	172	412
Q56	EB	0	<u>28</u>	<u>28</u>	0	25	25
	WB	<u>13</u>	0	<u>13</u>	36	0	36
Total		<u>335</u>	<u>667</u>	<u>1,002</u>	<u>854</u>	<u>597</u>	<u>1,451</u>
Notes:							
Bold - denotes greater than 50 incremental trips per direction.							

PEDESTRIANS

Under *CEQR Technical Manual* guidelines, detailed pedestrian analyses are generally warranted if a proposed action is projected to result in 200 or more new peak hour pedestrians at any sidewalk, corner reservoir area or crosswalk. As shown in **Table 5**, the Proposed Actions are expected to generate approximately 2,415 walk-only trips in the weekday AM peak hour, 8,543 in the midday peak hour, 4,801 in the PM peak hour, and 5,672 in the Saturday midday peak hour. Persons en route to and from subway station entrances and bus stops would add approximately 4,350, 3,535, 5,447 and 4,856 additional pedestrian trips to rezoning area sidewalks and crosswalks during these same periods, respectively. In the weekday AM and PM peak hours, new pedestrian trips would be most concentrated on sidewalks and crosswalks adjacent to projected development sites as well as along corridors connecting these sites to area subway station entrances. In the midday periods, pedestrian trips would tend to be more dispersed, as people travel throughout the area for lunch, shopping and/or errands.

The analysis of pedestrian conditions focuses on representative pedestrian elements where new trips generated by projected developments are expected to be most concentrated. These elements—sidewalks, corner areas and crosswalks—are primarily located in the vicinity of major projected development sites and corridors connecting these sites to area subway station entrances and bus routes. As shown in **Figure 9**, they include a total of 79 sidewalks, 58 corner reservoir areas, and 67 crosswalks



East New York Rezoning TPF Memo
 This figure has been updated for the FEIS.

Figure 9
Pedestrian Analysis Locations

primarily located along the Atlantic Avenue, Berriman Street, Euclid Avenue, Fulton Street, Liberty Avenue, Pennsylvania Avenue, Richmond Street, Shepherd Avenue and Van Siclen Avenue corridors.

PARKING

Parking demand from commercial and retail uses typically peaks in the weekday midday period and declines during the afternoon and evening. By contrast, residential demand typically peaks during the overnight period.

It is anticipated that the on-site required accessory parking may not be sufficient to accommodate the overall incremental demand that would be generated by the Proposed Actions. As such, detailed existing on-street and off-street parking inventories for the weekday midday and overnight periods are provided in the EIS to document the existing supply and demand during each period. The parking analyses document changes in the parking supply and utilization in the rezoning area and within a ¼-mile radius of the rezoning area under both No-Action and With-Action conditions. Given the large size of the parking study area, localized parking conditions during the weekday midday and overnight periods are also assessed for a sub-area encompassing a ¼-mile radius around the three largest projected development sites (sites 46, 66 and 67).

The forecast of parking demand generated by the affordable residential component of the Proposed Actions' RWCDs is based on 2008-2012 5-year ACS data on average vehicles per household for affordable units in PUMA 4007 which encompasses a significant portion of the rezoning area. Parking demand from the market rate residential component is similarly derived from ACS data. Parking demands from all other uses are derived from the forecasts of daily auto trips from these uses. Estimates of future parking utilization account for net reductions in demand associated with No-Action land uses displaced from projected development sites under the RWCDs. As none of the No-Action residential development would be designated affordable through the IHP under the RWCDs, the auto ownership rate for market-rate residential uses is assumed for the projected residential development in the future without the Proposed Actions.

The forecast of new parking supply under the RWCDs is based on the number of accessory parking spaces that would be provided on projected development sites in both the No-Action and With-Action conditions. As currently contemplated, no accessory parking would be required for affordable units developed in the With-Action condition. The forecast of future supply also accounts for accessory parking spaces associated with the With-Action commercial uses, which have lower commercial demand in the overnight hours.

APPENDIX A

REFERENCE MATERIAL

- (1) 2009 National Household Travel Study**
- (2) 2009 DCP Residential Parking Study**
- (3) 2000 Regional Travel Household Interview Survey**
- (4) 2013 ACS Data - Study Area Auto Share by Household Income**



SUMMARY OF TRAVEL TRENDS

2009 National Household Travel Survey



U. S. Department of Transportation
Federal Highway Administration



Table 8 shows the trends in person trips per household by household income. Since 1990, the NHTS sample has only included households with telephones, so care should be taken in interpreting results that might be affected by telephone ownership (which is correlated with family income). For example, the data could underestimate trips made by low-income households.

The data series clearly shows that more income is related to more travel, but the increase in person trips levels off at the highest income levels. Across the data series the highest income households make about two and one-half times as many person trips as the lowest income households.

Between the 2001 and 2009 NHTS, significant declines in personal travel were noted for all income groups except the lowest, with the largest declines in the middle-income households earning \$40,000 to \$60,000 a year.

Table 8. Annual Person Trips per Household by Household Income
1983, 1990, and 1995 NPTS, and 2001 and 2009 NHTS.

Income	1983	1990	1995	2001	2009	95% CI
ALL	2,628	3,262	3,828	3,581	3,466	31.8
< \$10,000	1,407	2,098	2,137	2,046	2,100	156.3
\$10 to \$20,000	1,927	2,412	2,790	2,542	2,435	101.9
\$20 to \$30,000	2,376	3,008	3,522	3,065	2,854	121.4
\$30 to \$40,000	2,739	3,431	3,980	3,535	3,171	114.0
\$40 to \$50,000	3,037	3,791	4,298	3,905	3,321	135.7
\$50 to \$60,000	3,284	4,138	4,539	4,348	3,748	139.9
\$60 to \$70,000	3,485	4,458	4,726	4,545	4,178	208.2
\$70 to \$80,000	3,635	4,659	4,855	4,867	4,350	172.7
\$80,000+	3,602	4,570	4,829	4,934	4,815	87.5
Unreported		2,536	3,424	2,431	2,263	135.1

Note:

- Incomes for 1983, 1990, adjusted 1990, and 1995 have been adjusted to 2001 dollars.
- All tables reporting totals could include some unreported characteristics.
- 1990 person and vehicle trips were adjusted to account for survey collection method changes (see 2001 Summary of Travel Trends Appendix 2).
- NPTS is Nationwide Personal Travel Survey. CI is Confidence Interval.



The trend of declining vehicle occupancy may have started to reverse, as overall occupancy shows an increase in 2001 and 2009. In 2009, the rise in occupancy was the result of a significant rise in vehicle occupancy for social and recreational travel – changes in occupancy for other purposes were not noteworthy. The calculated occupancy in this table is miles-weighted, using the reported number of people on the trip and the length of the trip together.

Table 16. Average Vehicle Occupancy for Selected Trip Purpose 1977, 1983, 1990, and 1995 NPTS, and 2001 and 2009 NHTS (Person Miles per Vehicle Mile).

Trip Purpose	1977	1983	1990	1995	2001	2009	95% CI
To or From Work	1.3	1.29	1.14	1.14	1.14	1.13	0.01
Shopping	2.1	1.79	1.71	1.74	1.79	1.78	0.05
Other Family/Personal Errands	2	1.81	1.84	1.78	1.83	1.84	0.04
Social and Recreational	2.4	2.12	2.08	2.04	2.03	2.20	0.06
All Purposes	1.9	1.75	1.64	1.59	1.63	1.67	0.03

Note:

- All purposes includes other trip purposes not shown, such as trips to school, church, and work-related business.
- “Other Family/Personal Errands” includes personal business and medical/dental. Please see Appendix A - Glossary for definition.
- NPTS is Nationwide Personal Transportation Survey. CI is Confidence Interval.



The traditional correlation between high population density and the percent of households with fewer or no vehicles is shown in the NHTS data series. Almost thirty percent of the households in areas with a population density greater than 10,000 persons per square mile did not own a vehicle in 2009, a proportion that has remained steady since 1995.

On the other hand, almost seventy percent of the households in the least densely-populated areas owned two or more vehicles, a proportion that has also remained about the same since 1995. Note that many more households in the U.S. are in lower density areas--for example 45 percent of all U.S. households are located in areas with less than 2,000 persons per square mile.

Table 18. Distribution of Households by Household Vehicle Availability and Population Density 1990 and 1995 NPTS and 2001 and 2009 NHTS.

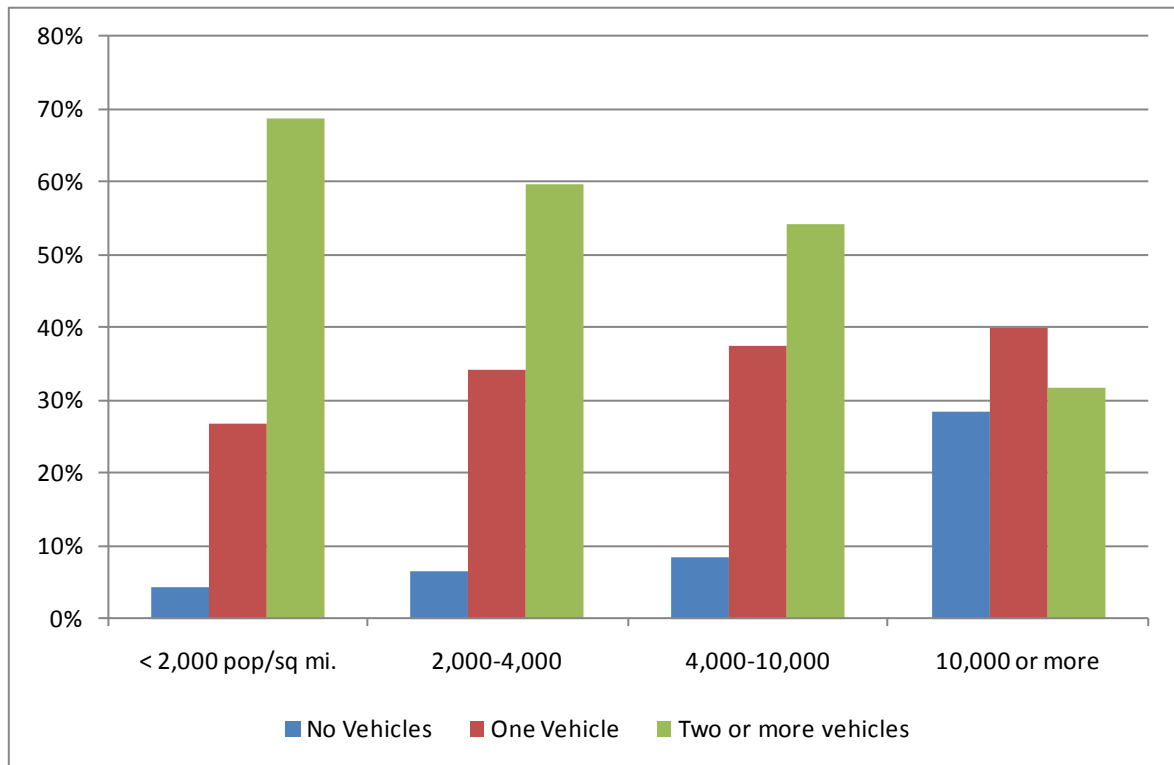
Household Vehicle Availability	Population Density (Persons per Square Mile)									
	Less than 2,000					2,000 to 4,000				
	1990	1995	2001	2009	95% CI	1990	1995	2001	2009	95% CI
ALL	100%	100%	100%	100%	0.00	100%	100%	100%	100%	0.00
No Vehicle	6.10%	3.60%	3.77%	4.38%	0.41	7.60%	5.84%	5.76%	6.39%	0.84
One Vehicle	30.40%	26.64%	25.76%	26.78%	0.76	33.40%	33.31%	32.80%	34.07%	1.47
Two or More Vehicles	63.50%	69.76%	70.47%	68.84%	0.89	59.00%	60.84%	61.44%	59.54%	1.66
Household Vehicle Availability	4,000 to 10,000					10,000 or more				
	1990	1995	2001	2009	95% CI	1990	1995	2001	2009	95% CI
	ALL	100%	100%	100%	100%	0.00	100%	100%	100%	100%
No Vehicle	10.90%	7.72%	8.08%	8.43%	0.73	35.10%	27.41%	26.33%	28.44%	1.40
One Vehicle	38.20%	37.16%	36.30%	37.49%	1.36	40.00%	41.78%	40.28%	39.89%	1.68
Two or More Vehicles	50.90%	55.13%	55.63%	54.08%	1.34	24.90%	30.81%	33.39%	31.67%	1.55

Note:

- CI is Confidence Interval.



Figure 8. Percent of Households by Vehicle Ownership and Population Density
2009 NHTS.



Residential Parking Study:

**Automobile Ownership
Rates and Off-Street
Parking Requirements in
Portions of New York City:
Manhattan CDs 9-12, the
Bronx, Queens and Brooklyn**

March 2009



New York City Department of City Planning

**Table 5:
Average Cars per Housing Units by Housing Type, New Housing**

Building Type	Average Cars per Unit	Total New Units	Total New Buildings
One- and Two-Family	1.33	9,498	5,463
Three- and Four-Family	0.79	6,024	1,886
Multifamily (5 or more)	0.44	16,209	644
Grand Total	0.77	31,731	7,993

Standard Series Vehicle Registrations in Force, 2005 compiled by DCP; NYC Department of Buildings, New Residential Building Permits, compiled by DCP

By isolating building type categories, one can see the impact of housing density on auto ownership. Though this breakdown disregards other factors that influence car ownership, such as income, family type and housing tenure (whether a household is occupied by renters or owners), it offers insight into the number of cars generated by a new development. One- and two-family buildings show the greatest auto generation with an average of 1.33 cars per household, while the typical multi family (five or more units) building generates a third as many cars with an average of 0.44 cars per household. The relationship between car ownership and density of housing (units per building), therefore, is inversely related, with the number of cars per household increasing as housing density decreases.

d. Location & Building Type

Having identified the strong impacts of both location and building type on auto ownership, ownership data were further parsed in order to demonstrate the combined impacts of these two factors. Table 6, below, displays typical auto generation for buildings based on building type and location – in this case, proximity to the Manhattan central business district. Within each area, the average registrations per household are displayed according to one of nine categories determined by a combination of building type and location categories. This table shows that within each category the number of registrations per household increases as building size decreases, and that, holding building type constant, the registrations per household increase as one moves further from the Manhattan CBD. Therefore, auto ownership per household unit can be observed to increase with distance to the CBD and decrease as the number of units in a building increases. This analysis suggests that a more accurate depiction of auto ownership trends looks at both housing type and location together rather than in isolation. It also reveals a wide variation in auto ownership rates within the three typologies depending on the location of the building, underscoring the importance of considering both factors when trying to understand patterns of auto ownership in New York City. For instance, a family living in a two-family building in downtown Brooklyn, an inner ring location, would be more likely to own a car than a family living in an apartment building in the same neighborhood, but less likely to own a car than a family living in a two-family building in Bay Ridge, an outer ring Brooklyn neighborhood.

Table 8 below shows the dispersal of family households with children and nonfamily households within the three rings and by building type. Approximately 45 percent of families with children in the study areas lived in one- and two- family homes in the middle and outer rings. By contrast, 49 percent of nonfamily households lived in multifamily housing in the inner and middle rings. What this reveals is that families select housing of a type and in locations where car ownership is highest, while nonfamily households tend to select apartment buildings closer to the core where car ownership is lower.

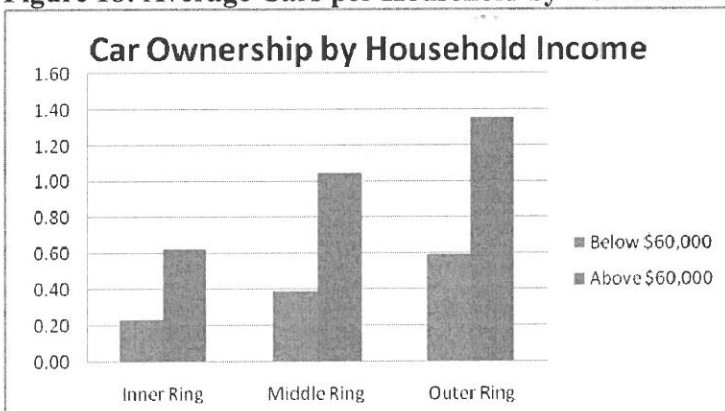
Table 8: Determinants of Car Ownership: Family Status

FAMILY HOUSEHOLD WITH CHILDREN, PERCENT OF TOTAL			
	1- & 2-FAMILY	3- & 4-FAMILY	MULTIFAMILY
INNER	3.32%	2.46%	10.50%
MIDDLE	18.36%	7.07%	15.88%
OUTER	26.65%	4.43%	11.32%

NONFAMILY HOUSEHOLD WITHOUT CHILDREN, PERCENT OF TOTAL			
	1- AND 2-FAMILY	3- AND 4-FAMILY	MULTIFAMILY
INNER	2.11%	2.67%	21.71%
MIDDLE	8.52%	5.62%	27.34%
OUTER	10.10%	2.31%	19.63%

Figure 18, below, breaks down car ownership within the three rings by median income, and shows that, regardless of distance from Manhattan, households with incomes greater than \$60,000 are more likely to own cars than households in their same ring with lower incomes (the \$60,000 threshold approximates the U.S. Department of Housing and Urban Development “low income” definition, which establishes eligibility for many publicly-assisted housing programs). Car ownership also increases steadily as households move further from the Manhattan core, regardless of income. The data indicate that in all areas, but particularly as one approaches the edges of the city, car ownership is widely preferred by households that achieve a measure of discretionary income.

Figure 18: Average Cars per Household by Household Income



Source: ACS 2006



RT-HIS
**Regional Travel -
Household Interview Survey**

**EXECUTIVE SUMMARY
GENERAL FINAL REPORT**

*Prepared for the New York Metropolitan Transportation Council (NYMTC)
and the North Jersey Transportation Planning Authority (NJTPA)*



*prepared by:
Parsons Brinckerhoff Quade & Douglas, Inc.
in association with
Cambridge Systematics, Inc.
NuStats International*

February 2000

**EXECUTIVE SUMMARY:
GENERAL FINAL REPORT**
for the
**RT-HIS: REGIONAL TRAVEL -
HOUSEHOLD INTERVIEW SURVEY**

Prepared for the
New York Metropolitan Transportation Council
and the
North Jersey Transportation Planning Authority, Inc.

February 2000

NYMTC Transportation Models and Data Initiative: Task 12.6
NJTPA Regional Household Interview Survey: NJTPA Component

PRIME CONSULTANT: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.
ONE PENN PLAZA
NEW YORK, NEW YORK 10119

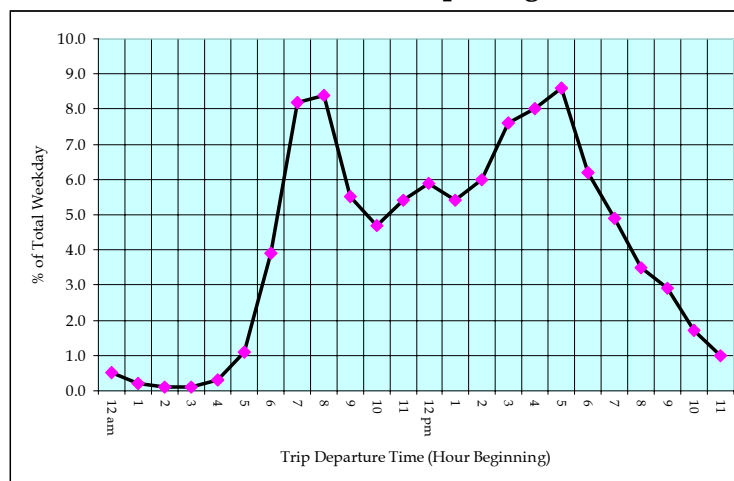
TASK SUPPORT: NUSTATS INTERNATIONAL
3006 Bee Caves Road, Suite A-300
Austin, TX 78746

This study is funded by a matching grant from the Federal Highway Administration, under NYSDOT PIN PT 1923.895, FHWA Grant PL100T (03) and NJDOT Agreement 93-TC-NJI-CO48, FHWA Agreement PL 0850011025, and Federal Transit Administration Grant PL NJ80X01000.

Focus on Auto Trips

- The two peak travel times for auto trips made by area residents peak in the morning between 8 and 9 am, and in the afternoon between 5 and 6 pm.

Diurnal Distribution - Hour of Departing - Auto Weekday Trips

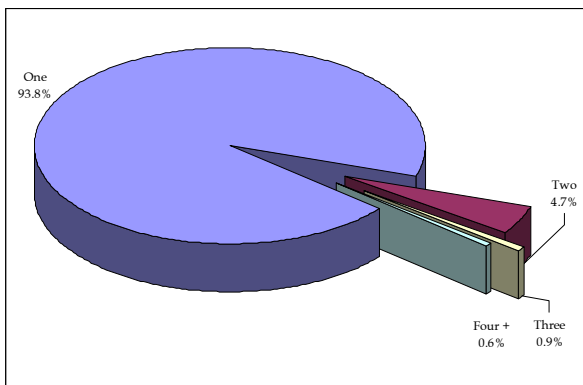


- The average auto vehicle trip is 8.7 miles long, and takes 21.0 minutes to complete at an average travel speed of 23.3 miles per hour.
- Auto trips in New York City are shorter (7.7 miles), but slower (16.4 mph) and take longer in time (27.5 minutes).
- About one-quarter (29.3%) of auto trips in the region are in the 1-3 mile range, about one-fifth (19.0%), in the 5-10 mile range, and one-tenth (9.6%) between 3 and 5 miles in length.
- New York City accounts for about 15% (4.0% Manhattan; 11.1% other NYC) of regional Vehicle Miles of Travel (VMT) by accounted for by area residents' automobiles.
- Trips from Long Island account for about 18% of VMT.
- The three counties of Middlesex, Morris, and Somerset in New Jersey represent about 13% of the total of auto VMT in the region.
- About 21% is associated with relatively long trips – 30 to 60 miles in length.
- Vehicle occupancy rates are reasonably uniform across the region, with most counties fairly close to the regional average of 1.40 persons per car for weekday travel.
- Vehicle occupancy rates are lower than average for trips in the longer trips in the 10 to 60 mile range (1.29 to 1.23). They are highest (1.52) for the very shortest trips under a mile and for the longest trips over 60 miles in length.
- For work travel, vehicle occupancy across the region is close to the average of 1.10.

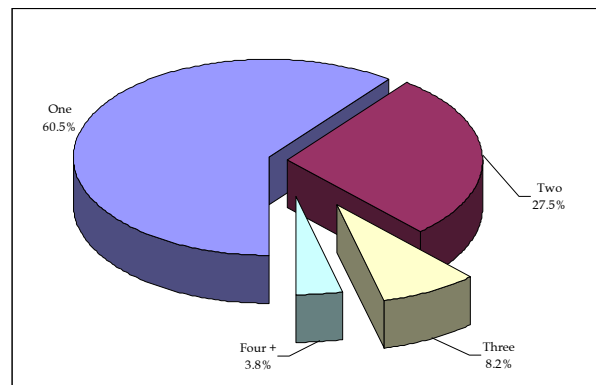
- Similarly, there is not a great deal of variation for non-work travel from the regional average of 1.57 persons per vehicle.
- About three-quarters (72.5%) of weekday auto trips are made as single occupant, or driver only trips; about one in five (19.2%) with a single passenger, and only 8.3% representing "HOV" auto trips with 3 or more occupants.
- Single Occupant Vehicle (SOV) auto trip shares generally increase with trip distance, and are the highest for work travel in the region at 93.7%.

Distribution of Auto Trips - by Number of Occupants

Work Trips



Other (non-Work) Trips



S0802: MEANS OF TRANSPORTATION TO WORK BY SELECTED
5-year ACS 2009-2013

	Tract 365.02				Tract 908				Tract 1144				Tract 1146				Tract 1150				Tract 1152			
	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl.)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)
EARNINGS IN THE PAST 12 MO. (IN 2013 INFLATION-ADJ \$\$\$) FOR WORKERS																								
Workers 16 years and over with earnings	393	136	0	216	1,337	45	0	1,222	822	102	28	625	1,018	308	41	616	933	336	21	493	876	267	24	543
Ratio of Workers to Mode		0.35	0.00	0.55		0.03	0.00	0.91		0.12	0.03	0.76		0.30	0.04	0.61		0.36	0.02	0.53		0.30	0.03	0.62
\$1 to \$9,999 or less	1.3%	0.0%	-	0.0%	29.6%	0.0%	-	31.6%	18.4%	39.2%	0.0%	13.1%	18.1%	10.7%	0.0%	24.5%	10.1%	2.1%	100.0%	8.3%	9.6%	0.0%	0.0%	13.4%
\$10,000 to \$14,999	7.1%	0.0%	-	13.0%	8.5%	35.6%	-	7.9%	12.2%	4.9%	17.9%	14.4%	12.0%	6.8%	61.0%	8.9%	13.3%	13.1%	0.0%	16.2%	5.6%	0.0%	0.0%	9.0%
\$15,000 to \$24,999	8.7%	5.1%	-	12.5%	23.1%	0.0%	-	23.6%	22.3%	0.0%	64.3%	23.0%	19.8%	26.6%	4.9%	17.4%	21.0%	14.9%	0.0%	23.1%	23.7%	20.6%	0.0%	27.3%
\$25,000 to \$34,999	8.9%	5.1%	-	9.7%	4.2%	0.0%	-	3.8%	20.9%	25.5%	0.0%	22.6%	8.1%	4.5%	0.0%	10.4%	11.5%	21.1%	0.0%	7.3%	18.6%	31.5%	41.7%	12.7%
\$35,000 to \$49,999	23.7%	30.9%	-	23.6%	15.3%	40.0%	-	13.3%	16.2%	24.5%	0.0%	17.3%	24.8%	26.0%	34.1%	23.4%	20.0%	17.6%	0.0%	22.1%	19.4%	16.1%	58.3%	20.8%
\$50,000 to \$64,999	26.2%	28.7%	-	23.1%	2.5%	0.0%	-	2.7%	4.4%	0.0%	17.9%	5.0%	4.9%	9.7%	0.0%	3.2%	14.3%	21.7%	0.0%	10.8%	10.3%	8.6%	0.0%	9.8%
\$65,000 to \$74,999	6.1%	11.0%	-	4.2%	0.0%	0.0%	-	0.0%	1.7%	0.0%	0.0%	2.2%	4.5%	4.2%	0.0%	5.4%	1.5%	0.0%	0.0%	2.8%	5.7%	14.6%	0.0%	2.0%
\$75,000 or more	18.1%	19.1%	-	13.9%	16.9%	24.4%	-	17.1%	4.0%	5.9%	0.0%	2.4%	7.9%	11.4%	0.0%	6.8%	8.4%	9.5%	0.0%	9.3%	7.1%	8.6%	0.0%	5.0%
Median earnings (dollars)	\$50,091	\$51,765	-	\$37,162	\$18,790	\$40,903	-	\$18,560	\$22,242	\$26,000	\$21,250	\$24,125	\$25,074	\$37,917	\$12,050	\$24,457	\$30,307	\$32,318	-	\$26,797	\$31,571	\$34,542	-	\$27,629
POVERTY STATUS IN THE PAST 12 MONTHS																								
Workers 16 years and over for whom poverty status is determined	393	136	0	216	1,337	45	0	1,222	822	102	28	625	1,018	308	41	616	933	336	21	493	876	267	24	543
Below 100 percent of the poverty level	4.8%	0.0%	-	6.5%	21.5%	20.0%	-	20.4%	24.0%	44.1%	17.9%	15.5%	14.4%	13.3%	4.9%	13.5%	12.1%	7.4%	100.0%	5.3%	5.5%	0.0%	0.0%	8.8%
100 to 149 percent of the poverty level	5.3%	0.0%	-	9.7%	12.7%	15.6%	-	13.3%	14.5%	14.7%	0.0%	16.6%	10.9%	10.7%	61.0%	8.6%	12.2%	4.8%	0.0%	19.9%	16.0%	19.9%	0.0%	14.0%
At or above 150 percent of the poverty level	89.8%	100.0%	-	83.8%	65.7%	64.4%	-	66.3%	61.6%	41.2%	82.1%	67.8%	74.7%	76.0%	34.1%	77.9%	75.7%	87.8%	0.0%	74.8%	78.5%	80.1%	100.0%	77.2%

S0802: MEANS OF TRANSPORTATION TO WORK BY SELECTED
5-year ACS 2009-2013

	Tract 1166				Tract 1168				Tract 1170				Tract 1172.01				Tract 1174				Census Tract 1178				
	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl.)	Total	VEH- Alone	VEH- Carpool	Transit (excl.)	Total	VEH- Alone	VEH- Carpool	Transit (excl.)	Total	VEH- Alone	VEH- Carpool	Transit (excl.)	
EARNINGS IN THE PAST 12 MO. (IN 2013 INFLATION-ADJ \$\$\$) FOR WORKERS																									
Workers 16 years and over with earnings	799	146	10	570	747	75	16	621	718	73	67	487	1,131	217	23	720	1,834	370	36	1,241	471	78	18	358	
Ratio of Workers to Mode		0.18	0.01	0.71		0.10	0.02	0.83		0.10	0.09	0.68		0.19	0.02	0.64		0.20	0.02	0.68		0.17	0.04	0.76	
\$1 to \$9,999 or less	8.3%	0.0%	0.0%	8.9%	2.5%	0.0%	0.0%	3.1%	10.2%	35.6%	0.0%	6.8%	12.6%	7.8%	0.0%	10.3%	9.3%	5.4%	33.3%	7.5%	17.6%	11.5%	0.0%	20.7%	
\$10,000 to \$14,999	8.5%	0.0%	0.0%	10.0%	21.7%	30.7%	0.0%	22.4%	11.0%	0.0%	58.2%	8.2%	10.1%	6.5%	0.0%	10.8%	10.8%	0.0%	0.0%	12.7%	3.8%	0.0%	0.0%	5.0%	
\$15,000 to \$24,999	19.9%	8.2%	0.0%	21.2%	37.1%	0.0%	0.0%	39.0%	43.0%	46.6%	41.8%	47.4%	21.0%	17.1%	0.0%	24.4%	34.0%	29.5%	0.0%	35.2%	20.0%	14.1%	5.6%	22.1%	
\$25,000 to \$34,999	13.6%	9.6%	0.0%	15.1%	9.4%	9.3%	100.0%	7.6%	10.2%	17.8%	0.0%	6.6%	18.2%	20.7%	0.0%	19.6%	9.8%	12.7%	0.0%	8.9%	13.4%	0.0%	0.0%	13.7%	
\$35,000 to \$49,999	27.4%	42.5%	0.0%	27.5%	10.7%	30.7%	0.0%	9.2%	18.7%	0.0%	0.0%	20.7%	27.1%	22.1%	100.0%	25.3%	14.9%	13.5%	66.7%	16.0%	9.6%	12.8%	0.0%	9.8%	
\$50,000 to \$64,999	7.6%	11.6%	100.0%	4.7%	12.7%	12.0%	0.0%	13.8%	0.8%	0.0%	0.0%	1.2%	4.4%	14.3%	0.0%	2.6%	7.5%	3.5%	0.0%	10.1%	21.4%	61.5%	0.0%	14.8%	
\$65,000 to \$74,999	5.5%	13.0%	0.0%	3.5%	1.7%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	1.2%	6.0%	0.0%	0.1%	5.0%	14.6%	0.0%	3.1%	11.3%	0.0%	94.4%	10.1%	
\$75,000 or more	9.1%	15.1%	0.0%	8.9%	4.1%	17.3%	0.0%	2.9%	6.1%	0.0%	0.0%	9.0%	5.4%	5.5%	0.0%	6.8%	8.6%	20.8%	0.0%	6.5%	3.0%	0.0%	0.0%	3.9%	
Median earnings (dollars)	\$34,811	\$43,558	-	\$32,727	\$21,898	\$47,847	-	\$21,670	\$18,575	\$16,750	\$13,281	\$18,666	\$26,970	\$31,696	-	\$26,096	\$23,041	\$41,500	\$41,250	\$19,087	\$32,554	\$50,938	-	\$27,222	
POVERTY STATUS IN THE PAST 12 MONTHS																									
Workers 16 years and over for whom poverty status is determined	799	146	10	570	747	75	16	621	718	73	67	487	1,131	217	23	720	1,834	370	36	1,241	471	78	18	358	
Below 100 percent of the poverty level	14.5%	12.3%	0.0%	13.3%	19.4%	0.0%	0.0%	23.3%	15.7%	35.6%	46.3%	11.5%	7.3%	4.6%	0.0%	6.4%	11.5%	5.1%	0.0%	11.4%	16.6%	14.1%	0.0%	17.9%	
100 to 149 percent of the poverty level	12.5%	11.6%	0.0%	12.5%	9.0%	30.7%	0.0%	5.6%	15.7%	0.0%	11.9%	21.6%	12.0%	0.0%	0.0%	13.2%	11.0%	6.5%	33.3%	10.6%	4.7%	0.0%	0.0%	6.1%	
At or above 150 percent of the poverty level	73.0%	76.0%	100.0%	74.2%	71.6%	69.3%	100.0%	71.0%	68.5%	64.4%	41.8%	66.9%	80.7%	95.4%	100.0%	80.4%	77.6%	88.4%	66.7%	77.9%	78.8%	85.9%	100.0%	76.0%	

S0802: MEANS OF TRANSPORTATION TO WORK BY SELECTED
5-year ACS 2009-2013

	Tract 1184				Tract 1186				Tract 1192				Tract 1196				Tract 1198			
	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)	Total	VEH- Alone	VEH- Carpool	Transit (excl. cab)
EARNINGS IN THE PAST 12 MO. (IN 2013 INFLATION-ADJ \$\$\$) FOR WORKERS																				
Workers 16 years and over with earnings	2,008	535	86	1,120	1,108	279	46	725	1,043	256	13	726	1,794	316	90	1,279	875	140	34	625
Ratio of Workers to Mode		0.27	0.04	0.56		0.25	0.04	0.65		0.25	0.01	0.70		0.18	0.05	0.71		0.16	0.04	0.71
\$1 to \$9,999 or less	11.9%	7.7%	11.6%	8.9%	7.3%	1.1%	0.0%	10.8%	7.8%	0.0%	53.8%	10.2%	11.6%	8.5%	0.0%	12.2%	12.5%	9.3%	0.0%	15.0%
\$10,000 to \$14,999	8.6%	17.9%	0.0%	6.0%	8.8%	3.2%	71.7%	7.6%	12.4%	2.0%	0.0%	16.3%	7.7%	4.1%	11.1%	7.6%	13.4%	2.9%	29.4%	13.4%
\$15,000 to \$24,999	27.6%	22.6%	18.6%	33.5%	24.0%	8.2%	0.0%	30.1%	25.5%	51.6%	0.0%	18.0%	23.8%	24.7%	33.3%	23.5%	19.2%	10.0%	32.4%	15.7%
\$25,000 to \$34,999	17.1%	7.9%	52.3%	21.9%	17.9%	34.8%	28.3%	12.1%	14.0%	7.4%	46.2%	13.4%	15.6%	13.6%	0.0%	18.5%	6.3%	12.1%	0.0%	4.5%
\$35,000 to \$49,999	14.8%	16.3%	0.0%	15.6%	18.4%	14.0%	0.0%	22.8%	15.4%	8.2%	0.0%	18.3%	18.3%	25.3%	7.8%	15.8%	15.1%	0.0%	0.0%	21.1%
\$50,000 to \$64,999	12.7%	20.6%	17.4%	7.1%	10.6%	20.4%	0.0%	5.7%	14.1%	22.7%	0.0%	11.2%	10.6%	0.0%	36.7%	12.3%	16.1%	9.3%	0.0%	20.5%
\$65,000 to \$74,999	3.2%	0.0%	0.0%	4.0%	3.8%	0.0%	0.0%	5.8%	2.7%	0.4%	0.0%	3.7%	6.5%	17.4%	0.0%	4.8%	5.6%	4.3%	38.2%	4.8%
\$75,000 or more	4.0%	7.1%	0.0%	2.9%	9.3%	18.3%	0.0%	5.2%	8.1%	7.8%	0.0%	9.0%	6.0%	6.3%	11.1%	5.4%	11.9%	52.1%	0.0%	5.0%
Median earnings (dollars)	\$25,492	\$25,742	\$26,635	\$25,352	\$32,308	\$47,614	\$12,396	\$25,871	\$29,676	\$24,643	-	\$30,735	\$29,430	\$32,188	\$41,786	\$28,813	\$31,726	\$80,188	\$21,591	\$39,861
POVERTY STATUS IN THE PAST 12 MONTHS																				
Workers 16 years and over for whom poverty status is determined	2,008	535	86	1,120	1,108	279	46	725	1,043	256	13	726	1,794	316	90	1,279	875	140	34	625
Below 100 percent of the poverty level	11.0%	6.4%	0.0%	9.7%	8.1%	1.1%	52.2%	8.7%	11.3%	12.1%	0.0%	12.0%	8.1%	7.3%	0.0%	6.8%	11.2%	0.0%	0.0%	15.7%
100 to 149 percent of the poverty level	11.3%	10.7%	0.0%	11.5%	10.6%	6.5%	0.0%	13.7%	11.4%	13.3%	0.0%	11.3%	20.9%	21.2%	22.2%	22.5%	18.6%	0.0%	0.0%	19.5%
At or above 150 percent of the poverty level	77.7%	83.0%	100.0%	78.8%	81.3%	92.5%	47.8%	77.7%	77.3%	74.6%	100.0%	76.7%	71.0%	71.5%	77.8%	70.7%	70.2%	100.0%	100.0%	64.8%

APPENDIX B
TRANSPORTATION CLUSTERS - DETAILED TRIP
GENERATION TABLES

TABLE E-1
Existing Intersection Level of Service Analysis

Signalized Intersection	Existing AM Peak Hour					Existing Midday Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Atlantic Avenue & Rockaway Avenue	EB	L	0.32	27.4	C	EB	L	0.36	23.0	C	EB	L	0.27	21.3	C	EB	L	0.34	23.0	C
	EB	TR	0.60	28.1	C	EB	TR	0.86	36.4	D	EB	TR	0.87	37.6	D	EB	TR	0.74	31.5	C
	WB	L	0.77	37.3	D	WB	L	0.91	61.6	E *	WB	L	1.03	106.6	F *	WB	L	0.98	88.5	F *
	WB	TR	1.02	60.0	E *	WB	TR	0.98	50.7	D *	WB	TR	0.81	33.9	C	WB	TR	0.81	33.8	C
	NB	LTR	1.05	94.2	F *	NB	LTR	0.89	45.8	D	NB	LTR	1.03	89.4	F *	NB	LTR	1.04	95.3	F *
	SB	LTR	0.90	71.7	E *	SB	LTR	0.98	71.8	E *	SB	LTR	1.04	103.7	F *	SB	LTR	1.05	104.2	F *
Atlantic Avenue & Eastern Parkway	EB	TR	0.54	22.1	C	EB	TR	0.52	16.7	B	EB	TR	0.76	27.3	C	EB	TR	0.65	18.6	B
	WB-Main	T	0.90	36.4	D *	WB-Main	T	0.74	21.5	C	WB-Main	T	0.79	29.5	C	WB-Main	T	0.83	24.7	C
	WB-Service	T	0.85	37.1	D	WB-Service	T	0.36	15.4	B	WB-Service	T	0.45	21.6	C	WB-Service	T	0.38	15.7	B
	WB-Service	R	0.14	17.1	B	WB-Service	R	0.08	12.5	B	WB-Service	R	0.14	17.1	B	WB-Service	R	0.10	12.6	B
	NB	T	0.54	29.1	C	NB	T	0.51	23.7	C	NB	T	0.55	28.1	C	NB	T	0.51	23.7	C
	NB	R	0.64	34.5	C	NB	R	0.63	29.3	C	NB	R	0.81	43.6	D	NB	R	0.65	29.5	C
	SB	LTR	0.79	36.4	D	SB	LTR	0.92	44.5	D *	SB	LTR	1.05	79.7	E *	SB	LTR	0.96	51.7	D *
Atlantic Avenue & Georgia Avenue	EB-Main	T	0.59	14.1	B	EB-Main	T	0.55	13.4	B	EB-Main	T	0.60	14.3	B	EB-Main	T	0.53	13.7	B
	EB-Service	T	0.25	10.1	B	EB-Service	T	0.31	10.7	B	EB-Service	T	0.52	13.5	B	EB-Service	T	0.38	12.2	B
	WB	TR	0.65	14.7	B	WB	TR	0.50	12.4	B	WB	TR	0.53	12.8	B	WB	TR	0.57	14.0	B
	NB	LTR	1.05	100.3	F *	NB	LTR	0.96	78.6	E *	NB	LTR	1.03	93.3	F *	NB	LTR	0.69	33.1	C
Atlantic Avenue & Pennsylvania Avenue	EB	L	0.26	36.5	D	EB	L	0.41	38.8	D	EB	L	0.32	41.2	D	EB	L	0.27	28.9	C
	EB	TR	0.77	27.2	C	EB	TR	0.95	48.8	D *	EB	T	1.05	73.4	E *	EB	TR	0.98	46.3	D *
	WB	TR	0.95	47.2	D *	WB	TR	0.83	41.9	D	EB	R	0.19	22.3	C	WB	TR	0.98	52.4	D *
	NB	L	1.05	107.1	F *	NB	L	1.05	118.0	F *	WB	TR	1.01	70.2	E *	NB	L	1.02	79.9	E *
	NB	TR	1.05	88.8	F *	NB	TR	1.05	83.9	F *	NB	L	1.05	104.9	F *	NB	TR	0.86	37.5	D
	SB	L	0.80	79.1	E *	SB	L	1.00	107.8	F *	NB	TR	0.65	34.5	C	SB	L	1.01	98.7	F *
	SB	TR	1.05	88.5	F *	SB	TR	0.75	37.8	D	SB	L	0.76	38.7	D	SB	TR	0.83	35.3	D
											SB	TR	0.87	44.8	D					
Atlantic Avenue & Miller Avenue	EB	TR	0.38	11.0	B	EB	TR	0.44	11.7	B	EB	TR	0.63	14.5	B	EB	TR	0.51	11.1	B
	WB	LT	0.50	12.5	B	WB	LT	0.53	13.0	B	WB	LT	0.63	14.8	B	WB	LT	0.60	12.4	B
	SB	LTR	0.85	59.4	E *	SB	LTR	0.63	44.2	D	SB	LTR	0.96	76.4	E *	SB	LTR	0.57	32.3	C
Atlantic Avenue & Hendrix Street	EB	TR	0.44	11.7	B	EB	TR	0.47	12.1	B	EB	TR	0.66	15.1	B	EB	TR	0.61	17.4	B
	WB	LT	0.69	16.3	B	WB	LT	0.66	15.4	B	WB	LT	0.75	18.0	B	WB	LT	0.80	22.9	C
	SB	LTR	0.79	54.7	D	SB	LTR	0.30	35.6	D	SB	LTR	0.71	48.7	D	SB	LTR	0.29	20.3	C
Atlantic Avenue & Schenck Avenue	EB	LT	0.50	12.5	B	EB	LT	0.52	12.8	B	EB	LT	0.77	18.0	B	EB	LT	0.52	11.2	B
	WB	TR	0.54	13.0	B	WB	TR	0.50	12.4	B	WB	TR	0.48	12.1	B	WB	TR	0.52	11.1	B
	NB	LTR	0.76	51.4	D	NB	LTR	0.50	39.8	D	NB	LTR	0.66	45.1	D	NB	LTR	0.52	30.8	C
Atlantic Avenue & Warwick Street	EB	TR	0.56	21.3	C	EB	TR	0.55	17.8	B	EB	TR	0.85	25.9	C	EB	TR	0.72	22.0	C
	WB	DefL	0.49	31.8	C	WB	DefL	0.48	27.2	C	WB	DefL	0.62	54.6	D	WB	DefL	0.51	33.3	C
	WB	T	0.67	16.0	B	WB	T	0.62	12.8	B	WB	T	0.63	13.0	B	WB	T	0.76	16.1	B
	SB	LTR	0.77	53.0	D	SB	LTR	0.42	41.3	D	SB	LTR	0.88	68.4	E *	SB	LTR	0.34	27.3	C
Atlantic Avenue & Elton Street	EB	LT	0.61	14.5	B	EB	LT	0.55	13.3	B	EB	LT	0.98	37.4	D *	EB	LT	0.68	16.1	B
	WB	TR	0.61	14.1	B	WB	TR	0.46	11.9	B	WB	TR	0.54	13.1	B	WB	TR	0.60	14.4	B
Atlantic Avenue & Highland Place	EB	LT	0.54	13.2	B	EB	LT	0.61	17.1	B	EB	LT	0.84	21.1	C	EB	LT	0.69	14.9	B
	WB	TR	0.54	13.0	B	WB	TR	0.49	14.7	B	WB	TR	0.51	12.6	B	WB	TR	0.55	12.0	B
	SB	LR	0.81	53.0	D	SB	LR	0.60	38.2	D	SB	LR	1.01	83.2	F *	SB	LR	0.78	38.4	D
Atlantic Avenue & Logan Street	EB	LTR	0.68	24.2	C	EB	LTR	0.84	29.8	C	EB	LTR	1.05	64.0	E *	EB	LTR	1.05	61.8	E *
	WB	LTR	1.05	55.6	E *	WB	LTR	0.72	16.7	B	WB	DefL	0.52	34.2	C	WB	LTR	1.05	55.9	E *
	NB	LTR	0.94	75.7	E *	NB	LTR	1.05	107.3	F *	WB	TR	0.90	25.6	C *	NB	LTR	0.96	63.8	E *
	SB	LTR	1.05	111.3	F *	SB	LTR	1.05	111.5	F *	NB	LTR	0.96	79.7	E *	SB	LTR	0.88	50.7	D
										SB	LTR	1.05	107.9	F *						
Atlantic Avenue & Euclid Avenue	EB	T	0.18	9.2	A	EB	T	0.21	9.5	A	EB	T	0.27	10.0	A	EB	T	0.26	13.2	B
	WB	T	0.32	10.4	B	WB	T	0.22	9.6	A	WB	T	0.30	10.2	B	WB	T	0.36	14.2	B
	NB	LR	0.31	35.6	D	NB	LR	0.30	35.6	D	NB	LR	0.33	36.0	D	NB	LR	0.24	19.5	B
	SB	L	0.45	38.7	D	SB	L	0.37	36.8	D	SB	L	0.65	44.8	D	SB	L	0.32	20.5	C
	SB	R	0.15	32.9	C	SB	R	0.17	33.3	C	SB	R	0.29	35.3	D	SB	R	0.10	17.8	B
Atlantic Avenue & Crescent Street	EB	LTR	0.35	17.1	B	EB	LTR	0.48	24.8	C	EB	LTR	0.51	19.3	B	EB	LTR	0.47	17.9	B
	WB	LTR	0.55	13.4	B	WB	DefL	0.34	16.6	B	WB	DefL	0.46	15.3	B	WB	DefL	0.54	14.4	B
	NB	LTR	0.75	50.0	D	WB	TR	0.42	16.5	B	WB	TR	0.40	11.4	B	WB	TR	0.48	11.1	B
	SB	LTR	0.56	44.4	D	NB	LTR	0.42	30.6	C	NB	LTR	0.54	40.7	D	NB	LTR	0.55	31.6	C
					SB	LTR	0.39	30.8	C	SB	LTR	1.05	113.6	F *	SB	LTR	0.72	43.0	D	
Atlantic Avenue & Eldert Lane	EB	LTR	0.26	9.9	A	EB	LTR	0.34	10.7	B	EB	LTR	0.47	12.1	B	EB	LTR	0.42	14.9	B
	WB	LTR	0.47	12.2	B	WB	LTR	0.30	10.3	B	WB	LTR	0.43	11.7	B	WB	LTR	0.53	16.4	B
	NB	LTR	0.60	45.3	D	NB	LTR	0.51	41.4	D	NB	LTR	0.63	47.1	D	NB	LTR	0.42	23.1	C
	SB	LTR	0.62	46.7	D	SB	LTR	0.34	36.9	D	SB	LTR	0.75	55.1	E *	SB	LTR	0.42	22.9	C
Atlantic Avenue & Rockaway Boulevard	EB	L	0.39	26.1	C	EB	L	0.29	22.9	C	EB	L	0.22	17.5	B	EB	L	0.27	23.0	C
	EB	TR	0.84	33.8	C	EB	TR	1.05	70.4	E *	EB	TR	0.91	36.2	D *	EB	TR	0.98	50.9	D *
	WB	L	0.63	29.3	C	WB	L	0.78	44.6	D	WB	L	1.05	105.5	F *	WB	L	1.05	96.2	F *
	WB	TR	0.65	18.2	B	WB	TR	0.44	16.1	B	WB	TR	0.45	13.0	B	WB	TR	0.56	17.7	B
	NB	L	0.86	69.8	E *	NB	L	0.39	22.7	C	NB	L	0.95	105.7	F *	NB	L	0.51	26.2	C
	NB	TR	1.05	102.1	F *	NB	TR	0.33	20.7	C	NB	TR	0.94	78.1	E *	NB	TR	0.50	23.7	C
	SB	LTR	1.05	101.6	F *	SB	LTR	0.48	23.7	C	SB	L	0.56	47.7	D	SB	LTR	0.70	31.6	C
											SB	TR	0.89	63.8	E *					
Broadway & Rockaway Avenue	EB	LTR	0.60	21.2	C	EB	LTR	0.58	17.5	B	EB	LTR	0.60	21.5	C	EB	LTR	0.55	16.2	B
	WB	LTR	0.78	28.6	C	WB	LTR	0.68	20.0	B	WB	LTR	0.85	33.2	C	WB	LTR	0.85	29.1	C
	NB	LTR	0.69	42.1	D	NB	LTR	0.38	24.5	C	NB	LTR	0.47	32.6	C	NB	LTR	0.40	24.7	C
	SB	LTR	0.63	38.9	D	SB	LTR	0.64	33.3	C	SB	LTR	0.82	55.7	E *	SB	LTR	0.72	37.2	D
Broadway & Eastern Parkway	EB	L	0.68	75.7	E *	EB	L	0.29	28.8	C	EB	L	0.29	37.4	D	EB	L	0.27	27.7	C
	EB	TR	0.82	59.7	E *	EB	TR	0.80	48.0	D	EB	TR	1.01	94.2	F *	EB	TR	0.86	53.2	D
	WB	LT	0.98	79.3	E *	WB	LT	0.60	34.6	C	WB	LT	0.71	48.7	D	WB	LT	0.45	30.4	C
	WB	R	0.01	31.0	C	WB	R	0.09	24.7	C	WB	R	0.01	31.0	C	WB	R	0.03	23.8	C
	NB	DefL	0.80	51.5	D	NB	LTR	0.66	23.2	C	NB	LTR	0.89	39.9	D	NB	LTR	0.62	22.	

Signalized Intersection	Existing AM Peak Hour					Existing Midday Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Bushwick Avenue & Eastern Parkway	EB	LTR	0.50	10.7	B	EB	LTR	0.38	6.0	A	EB	LTR	0.72	14.5	B	EB	LTR	0.37	5.9	A
	WB	L	0.97	49.1	D *	WB	L	0.71	16.9	B	WB	L	1.05	87.6	F *	WB	L	0.70	16.6	B
	WB	TR	1.03	61.1	E *	WB	TR	0.77	20.3	C	WB	TR	0.63	19.5	B	WB	TR	0.83	22.8	C
	NB	R	0.59	44.0	D	NB	R	1.05	89.2	F *	NB	R	1.00	80.1	F *	NB	R	1.05	88.8	F *
	SB	R	0.21	63.3	E *	SB	R	0.15	43.3	D	SB	R	0.19	61.5	E *	SB	R	0.13	42.7	D
Fulton Street & Van Sinderen Avenue	EB	TR	0.18	19.8	B	EB	TR	0.18	15.8	B	EB	TR	0.30	21.6	C	EB	TR	0.26	16.7	B
	WB	LT	0.44	24.1	C	WB	LT	0.30	17.4	B	WB	LT	0.40	23.7	C	WB	LT	0.36	18.3	B
	NB	LR	0.51	30.0	C	NB	LR	0.20	16.8	B	NB	LR	0.24	21.6	C	NB	LR	0.16	16.0	B
	SB	LTR	0.34	22.2	C	SB	LTR	0.40	18.7	B	SB	LTR	0.41	23.3	C	SB	LTR	0.39	18.3	B
Fulton Street & Pennsylvania Avenue	EB	L	0.03	23.8	C	EB	L	0.08	29.8	C	EB	L	0.42	30.0	C	EB	L	0.06	26.4	C
	EB	TR	0.34	27.7	C	EB	TR	0.43	34.7	C	EB	TR	0.64	33.5	C	EB	TR	0.59	33.8	C
	NB	TR	0.99	60.2	E *	NB	TR	0.91	41.1	D *	NB	TR	0.92	47.7	D *	NB	TR	0.76	21.8	C
	SB	L	0.35	43.5	D	SB	L	0.42	39.9	D	SB	L	0.87	73.1	E *	SB	L	0.47	28.4	C
	SB	T	0.53	18.9	B	SB	T	0.43	13.1	B	SB	T	0.87	32.7	C	SB	T	0.40	8.2	A
Fulton Street & Miller Avenue	EB	TR	0.61	17.6	B	EB	TR	0.63	18.3	B	EB	TR	0.87	30.2	C	EB	TR	0.66	18.9	B
	SB	LT	0.65	31.0	C	SB	LT	0.32	23.2	C	SB	LT	0.68	32.0	C	SB	LT	0.39	24.4	C
Fulton Street & Highland Place	EB	TR	0.58	13.3	B	EB	TR	0.49	11.7	B	EB	TR	0.81	21.7	C	EB	TR	0.88	27.4	C
	NB	R	0.20	16.0	B	NB	R	0.16	15.6	B	NB	R	0.21	16.1	B	NB	R	0.21	16.2	B
	SB	LT	0.59	22.2	C	SB	LT	0.63	23.3	C	SB	LT	0.74	27.2	C	SB	LT	0.63	23.1	C
Fulton Street & Logan Street	EB	LTR	0.33	11.5	B	EB	LTR	0.39	12.3	B	EB	LTR	0.60	16.2	B	EB	LTR	0.55	15.0	B
	WB	LTR	0.70	20.7	C	WB	LTR	0.49	14.5	B	WB	LTR	0.57	16.4	B	WB	LTR	0.57	16.1	B
	NB	LTR	0.77	26.0	C	NB	LTR	0.46	17.0	B	NB	LTR	0.60	19.6	B	NB	LTR	0.54	18.3	B
	SB	LTR	0.25	14.2	B	SB	LTR	0.24	14.0	B	SB	LTR	0.22	13.8	B	SB	LTR	0.22	13.8	B
Fulton Street & Richmond Street	EB	TR	0.23	8.7	A	EB	TR	0.28	9.2	A	EB	TR	0.37	10.1	B	EB	TR	0.32	9.5	A
	WB	LT	0.32	9.5	A	WB	LT	0.21	8.5	A	WB	LT	0.25	8.8	A	WB	LT	0.26	9.0	A
	NB	LR	0.12	15.4	B	NB	LR	0.09	15.0	B	NB	LR	0.09	15.0	B	NB	LR	0.07	14.8	B
	SB	LTR	0.38	18.4	B	SB	LTR	0.20	15.9	B	SB	LTR	0.44	19.2	B	SB	LTR	0.28	16.8	B
Fulton Street & Euclid Avenue	EB	TR	0.27	9.0	A	EB	TR	0.34	9.9	A	EB	TR	0.44	10.9	B	EB	TR	0.42	10.7	B
	WB	LT	0.26	9.0	A	WB	LT	0.22	8.6	A	WB	LT	0.25	8.9	A	WB	LT	0.29	9.2	A
	SB	LTR	0.85	35.4	D	SB	LTR	0.46	19.2	B	SB	LTR	0.75	27.7	C	SB	LTR	0.63	22.9	C
Glenmore Avenue & Pennsylvania Avenue	EB	LR	0.22	34.1	C	EB	LR	0.32	36.3	D	EB	LR	0.19	33.6	C	EB	LR	0.31	27.6	C
	WB	LR	1.05	102.6	F *	WB	LR	0.38	37.1	D	WB	LR	0.41	37.9	D	WB	LR	0.12	24.9	C
	NB	T	0.49	12.6	B	NB	T	0.52	13.0	B	NB	T	0.49	12.6	B	NB	T	0.51	10.9	B
	SB	T	0.47	12.3	B	SB	T	0.49	12.7	B	SB	T	0.51	12.8	B	SB	T	0.50	10.7	B
Bushwick/Jamaica Avenue & Penn./Jackie Robinson Pkwy	EB-Bushwick	R	0.70	47.9	D	EB-Bushwick	R	0.79	51.1	D	EB-Bushwick	R	1.01	81.5	F *	EB-Bushwick	R	0.75	38.1	D
	EB-Jamaica	L	0.17	40.1	D	EB-Jamaica	L	0.24	43.0	D	EB-Jamaica	L	0.17	39.1	D	EB-Jamaica	L	0.19	32.0	C
	EB-Jamaica	TR	1.02	87.2	F *	EB-Jamaica	TR	1.04	94.2	F *	EB-Jamaica	TR	1.05	95.3	F *	EB-Jamaica	TR	1.04	82.1	F *
	WB	L	1.06	135.8	F *	WB	L	1.05	127.7	F *	WB	L	1.04	129.6	F *	WB	L	1.01	109.2	F *
	WB	T	1.03	126.6	F *	WB	T	1.05	126.4	F *	WB	T	1.04	129.6	F *	WB	T	1.05	120.4	F *
	NB	L	1.05	106.0	F *	NB	L	1.00	93.3	F *	NB	L	0.81	59.8	E *	NB	L	0.87	55.0	E *
	NB	TR	0.51	17.1	B	NB	TR	0.50	17.9	B	NB	TR	0.53	17.8	B	NB	TR	0.46	13.9	B
	SB	TR	1.04	83.8	F *	SB	TR	0.89	59.4	E *	SB	TR	1.02	83.7	F *	SB	TR	0.86	47.5	D
	SB	T	0.75	45.3	D	SB	T	0.66	45.2	D	SB	T	0.70	45.7	D	SB	T	0.77	40.9	D
	Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.04	69.5	E *	EB	LTR	1.03	70.0	E *	EB	LTR	0.85	32.1	C	EB	LTR	1.05	70.9
WB		LTR	0.51	16.2	B	WB	LTR	0.56	17.0	B	WB	LTR	0.65	19.2	B	WB	LTR	0.59	17.8	B
NB		L	0.34	14.6	B	NB	L	0.19	12.3	B	NB	L	0.40	17.1	B	NB	L	0.22	12.6	B
NB		TR	0.76	22.2	C	NB	TR	0.43	14.2	B	NB	TR	0.52	15.6	B	NB	TR	0.43	14.3	B
SB		L	0.54	24.5	C	SB	L	0.39	15.1	B	SB	L	1.05	80.1	F *	SB	L	0.42	15.9	B
Jamaica Avenue & Chestnut Street	EB	T	0.51	12.0	B	EB	T	0.51	12.0	B	EB	T	0.61	13.6	B	EB	T	0.54	12.2	B
	WB	T	0.49	11.5	B	WB	T	0.34	9.7	A	WB	T	0.56	12.7	B	WB	T	0.50	11.6	B
Jamaica Avenue & Euclid Av/Cypress Hill Street	NB	LR	0.66	25.0	C	NB	LR	0.31	17.2	B	NB	LR	0.33	17.5	B	NB	LR	0.30	17.1	B
	EB	LTR	1.05	64.3	E *	EB	LTR	0.90	32.6	C *	EB	LTR	1.04	60.4	E *	EB	LTR	0.98	46.4	D *
	WB	LT	0.29	7.6	A	WB	LT	0.21	7.9	A	WB	LT	0.32	8.9	A	WB	LT	0.36	9.3	A
	WB	R	0.52	1.4	A	WB	R	0.27	0.5	A	WB	R	0.29	0.5	A	WB	R	0.32	0.6	A
Liberty Avenue & Pennsylvania Avenue	SB	LT	0.55	19.8	B	SB	LT	0.54	19.6	B	SB	LT	0.76	24.5	C	SB	LT	0.56	19.9	B
	EB	LTR	0.41	38.4	D	EB	LTR	0.67	49.2	D	EB	LTR	0.89	66.0	E *	EB	LTR	0.46	31.3	C
	WB	LTR	0.78	54.4	D	WB	LTR	0.81	57.9	E *	WB	LTR	0.84	62.4	E *	WB	LTR	0.82	49.1	D
	NB	LTR	0.92	32.2	C *	NB	LTR	0.75	19.0	B	NB	LTR	0.74	18.7	B	NB	LTR	0.73	15.3	B
	SB	L	0.10	9.6	A	SB	L	0.11	9.6	A	SB	L	0.16	10.4	B	SB	L	0.09	8.2	A
Liberty Avenue & New Jersey Avenue	SB	TR	0.49	12.6	B	SB	TR	0.51	12.9	B	SB	TR	0.51	12.9	B	SB	TR	0.49	10.7	B
	EB	TR	0.20	11.0	B	EB	TR	0.23	11.3	B	EB	TR	0.43	13.9	B	EB	TR	0.17	8.4	A
	WB	LT	0.38	13.3	B	WB	LT	0.30	12.2	B	WB	LT	0.39	13.5	B	WB	LT	0.35	10.2	B
Liberty Avenue & Miller Avenue	SB	LTR	0.07	29.6	C	SB	LTR	0.10	30.0	C	SB	LTR	0.08	29.7	C	SB	LTR	0.08	23.6	C
	EB	TR	0.24	11.4	B	EB	TR	0.17	10.7	B	EB	TR	0.33	12.5	B	EB	TR	0.19	8.6	A
	WB	LT	0.53	15.9	B	WB	LT	0.27	11.8	B	WB	LT	0.29	11.9	B	WB	LT	0.31	9.7	A
Liberty Avenue & Hendrix Street	SB	LTR	0.62	41.2	D	SB	LTR	0.45	36.4	D	SB	LTR	0.68	43.5	D	SB	LTR	0.44	29.1	C
	EB	TR	0.18	8.4	A	EB	TR	0.20	8.5	A	EB	TR	0.32	9.7	A	EB	TR	0.17	8.2	A
	WB	LT	0.45	11.5	B	WB	LT	0.21	8.6	A	WB	LT	0.23	8.8	A	WB	LT	0.22	8.7	A
Liberty Avenue & Schenck Avenue	SB	LTR	0.74	53.6	D	SB	LTR	0.59	46.2	D	SB	LTR	0.72	52.2	D	SB	LTR	0.77	56.0	E *
	EB	LT	0.24	9.0	A	EB	LT	0.22	8.8	A	EB	LT	0.38	10.6	B	EB	LT	0.21	8.7	A
	WB	TR	0.53	13.0	B	WB	TR	0.26	9.1	A	WB	TR	0.30	9.6	A	WB	TR	0.30	9.5	A
Liberty Avenue & Warwick Street	NB	LTR	0.64	47.1	D	NB	LTR	0.45	40.8	D	NB	LTR	0.59	45.0	D	NB	LTR	0.37	39.1	D
	EB	TR	0.15	10.5	B	EB	TR	0.19	10.9	B	EB	TR	0.38	13.2	B	EB	TR	0.17	8.4	A
	WB	LT	0.58	17.1	B	WB	LT	0.23	11.3	B	WB	LT	0.25	11.5	B	WB	LT	0.25	9.2	A
Liberty Avenue & Linwood Street	SB	LTR	0.89	64.0	E *	SB	LTR	0.56	40.2	D	SB	LTR	0.82	54.8	D	SB	LTR	0.64	35.7	D
	EB	TR	0.19	10.3	B	EB	TR	0.16	10.1	B	EB	TR	0.33	11.8	B	EB	TR	0.18	8.4	A
	WB	LT	0.54	15.6	B	WB	LT	0.22	10.8	B	WB	LT	0.28	11.5	B	WB	LT	0.23	8.9	A
Liberty Avenue & Linwood Street	SB	LTR	0.34	35.1	D	SB	LTR	0.13	31.2	C	SB	LTR	0.20	32.4	C	SB	LTR	0.14	24.5	C

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Signalized Intersection	Existing AM Peak Hour					Existing Midday Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
	Approach	Lane	V/C	Delay (sec/veh)	LOS	Approach	Lane	V/C	Delay (sec/veh)	LOS	Approach	Lane	V/C	Delay (sec/veh)	LOS	Approach	Lane	V/C	Delay (sec/veh)	LOS
Liberty Avenue & Shepherd Avenue	EB	TR	0.24	11.0	B	EB	TR	0.26	11.2	B	EB	TR	0.53	15.2	B	EB	TR	0.29	9.5	A
	WB	LT	0.60	17.1	B	WB	LT	0.23	10.9	B	WB	LT	0.27	11.3	B	WB	LT	0.25	9.2	A
	SB	LTR	0.31	34.2	C	SB	LTR	0.14	31.4	C	SB	LTR	0.40	36.3	D	SB	LTR	0.17	24.8	C
Liberty Avenue & Montauk Avenue	EB	LT	0.24	11.4	B	EB	LT	0.21	11.2	B	EB	LT	0.46	14.4	B	EB	LT	0.22	8.8	A
	WB	TR	0.67	19.5	B	WB	TR	0.25	11.6	B	WB	TR	0.29	12.0	B	WB	TR	0.25	9.2	A
	NB	LTR	0.21	31.8	C	NB	LTR	0.14	30.6	C	NB	LTR	0.22	32.0	C	NB	LTR	0.21	25.2	C
	SB	LR	0.23	32.4	C	SB	LR	0.16	31.2	C	SB	LR	0.24	32.8	C	SB	LR	0.30	27.4	C
Liberty Avenue & Milford Street	EB	TR	0.28	12.4	B	EB	TR	0.24	11.9	B	EB	TR	0.51	16.0	B	EB	TR	0.29	10.0	A
	WB	LT	0.73	22.9	C	WB	LT	0.41	14.4	B	WB	LT	0.52	17.0	B	WB	LT	0.41	11.8	B
	SB	LTR	0.18	30.5	C	SB	LTR	0.19	30.6	C	SB	LTR	0.15	30.1	C	SB	LTR	0.23	24.8	C
Liberty Avenue & Logan Street	EB	LT	0.29	9.5	A	EB	LT	0.27	9.3	A	EB	LT	0.44	11.5	B	EB	LT	0.36	13.0	B
	WB	TR	0.52	12.7	B	WB	TR	0.19	8.5	A	WB	TR	0.26	9.1	A	WB	TR	0.28	11.9	B
	NB	LTR	0.69	49.3	D	NB	LTR	0.68	49.3	D	NB	LTR	0.75	52.9	D	NB	LTR	0.49	26.3	C
	SB	LR	1.05	118.4	F *	SB	LR	0.77	62.1	E *	SB	LR	1.05	122.7	F *	SB	LR	0.53	28.9	C
Liberty Avenue & Fountain Avenue	EB	TR	0.31	9.7	A	EB	TR	0.27	9.3	A	EB	TR	0.48	12.0	B	EB	TR	0.37	13.0	B
	WB	LT	0.60	14.6	B	WB	LT	0.24	8.9	A	WB	LT	0.34	10.2	B	WB	LT	0.34	12.7	B
	SB	LTR	0.53	43.9	D	SB	LTR	0.32	38.1	D	SB	LTR	0.49	42.4	D	SB	LTR	0.35	23.9	C
Liberty Avenue & South Conduit Boulevard	EB	TR	0.34	23.7	C	EB	TR	0.45	35.8	D	EB	T	0.36	34.1	C	EB	TR	0.45	24.9	C
	WB	L	0.99	82.8	F *	WB	L	1.05	118.9	F *	EB	R	0.62	42.0	D	WB	L	1.05	101.2	F *
	WB	T	0.75	35.5	D	WB	T	0.51	37.7	D	WB	L	0.68	48.8	D	WB	T	0.64	32.4	C
	SB	L	0.03	16.3	B	SB	L	0.05	9.6	A	WB	T	0.77	53.0	D	SB	L	0.04	9.6	A
	SB	TR	0.44	20.9	C	SB	TR	0.34	11.9	B	SB	L	0.02	9.4	A	SB	TR	0.45	12.9	B
Liberty Avenue & North Conduit Boulevard	EB	LT	0.37	34.7	C	EB	LT	0.38	34.6	C	EB	LT	0.37	34.1	C	EB	LT	0.31	22.7	C
	WB	T	1.01	83.4	F *	WB	TR	0.84	54.4	D	WB	TR	1.05	101.3	F *	WB	TR	1.05	88.9	F *
	WB	R	0.20	31.6	C	NB	L	0.13	10.2	B	NB	L	0.10	10.0	B	NB	L	0.18	10.7	B
	NB	L	0.35	12.6	B	NB	TR	0.36	12.1	B	NB	TR	0.40	12.5	B	NB	TR	0.40	12.4	B
	NB	TR	0.52	14.1	B															
Livonia Avenue & Pennsylvania Avenue	EB	LTR	0.86	72.0	E *	EB	LTR	0.45	39.5	D	EB	LTR	0.56	42.7	D	EB	LTR	0.39	29.5	C
	WB	LTR	1.05	100.8	F *	WB	LTR	0.39	37.9	D	WB	LTR	0.65	47.1	D	WB	LTR	0.53	32.9	C
	NB	LTR	0.77	19.4	B	NB	LTR	0.62	15.0	B	NB	LTR	0.52	13.2	B	NB	LTR	0.55	11.6	B
	SB	LTR	0.61	14.9	B	SB	LTR	0.58	14.4	B	SB	LTR	0.64	15.5	B	SB	LTR	0.63	13.0	B
Pitkin Avenue & Mother Gaston Boulevard	EB	LTR	0.82	37.3	D	EB	LTR	0.62	25.5	C	EB	LTR	0.65	26.4	C	EB	LTR	0.69	28.2	C
	WB	LTR	0.87	42.0	D	WB	LTR	0.63	26.2	C	WB	LTR	0.55	23.5	C	WB	LTR	0.61	25.2	C
	NB	L	0.31	26.7	C	NB	L	0.22	24.4	C	NB	L	0.23	24.8	C	NB	L	0.34	26.8	C
	NB	TR	0.43	27.8	C	NB	TR	0.39	26.9	C	NB	TR	0.35	26.2	C	NB	TR	0.36	26.3	C
	SB	L	0.09	22.4	C	SB	L	0.09	22.3	C	SB	L	0.13	22.9	C	SB	L	0.10	22.5	C
SB	TR	0.33	25.7	C	SB	TR	0.33	25.7	C	SB	TR	0.38	26.7	C	SB	TR	0.30	25.2	C	
Pitkin Avenue & Pennsylvania Avenue	EB	L	0.33	39.9	D	EB	LTR	0.99	85.8	F *	EB	L	0.29	37.5	D	EB	LTR	0.68	38.3	D
	EB	TR	1.04	97.7	F *	WB	LTR	0.33	35.2	D	EB	TR	0.86	61.3	E *	WB	LTR	0.88	53.1	D
	WB	LTR	0.72	45.6	D	NB	LTR	0.66	16.2	B	WB	LTR	0.50	38.2	D	NB	LTR	0.86	22.0	C
	NB	LTR	0.74	18.4	B	SB	LTR	0.92	33.0	C *	NB	LTR	0.86	25.6	C	SB	LTR	0.66	13.5	B
SB	LTR	0.92	31.5	C *						SB	LTR	0.92	32.4	C *						
Pitkin Avenue & Hendrix Street	EB	TR	0.31	9.3	A	EB	TR	0.30	9.2	A	EB	TR	0.49	11.3	B	EB	TR	0.35	9.6	A
	WB	LT	0.54	12.1	B	WB	LT	0.34	9.6	A	WB	LT	0.41	10.3	B	WB	LT	0.40	10.2	B
	SB	LTR	0.53	21.5	C	SB	LTR	0.33	17.7	B	SB	LTR	0.53	21.4	C	SB	LTR	0.43	19.1	B
Pitkin Avenue & Warwick Street	EB	TR	0.32	9.3	A	EB	TR	0.30	9.2	A	EB	TR	0.49	11.3	B	EB	TR	0.34	9.4	A
	WB	LT	0.59	12.9	B	WB	LT	0.26	8.8	A	WB	LT	0.40	10.1	B	WB	LT	0.40	10.1	B
	SB	LTR	0.37	18.3	B	SB	LTR	0.34	17.8	B	SB	LTR	0.47	20.0	C	SB	LTR	0.31	17.3	B
Pitkin Avenue & Shepherd Avenue	EB	TR	0.36	9.7	A	EB	TR	0.31	9.3	A	EB	TR	0.55	12.1	B	EB	TR	0.30	9.1	A
	WB	LT	0.55	12.1	B	WB	LT	0.29	9.1	A	WB	LT	0.40	10.3	B	WB	LT	0.35	9.6	A
	SB	LTR	0.31	17.2	B	SB	LTR	0.19	15.8	B	SB	LTR	0.25	16.4	B	SB	LTR	0.21	15.9	B
Pitkin Avenue & Berriman Street	EB	LT	0.39	10.2	B	EB	LT	0.36	9.8	A	EB	LT	0.51	11.6	B	EB	LT	0.29	9.1	A
	WB	TR	0.53	11.8	B	WB	TR	0.31	9.3	A	WB	TR	0.37	9.8	A	WB	TR	0.34	9.5	A
	NB	LTR	0.50	20.0	B	NB	LTR	0.41	18.5	B	NB	LTR	0.41	18.3	B	NB	LTR	0.24	16.2	B
Pitkin Avenue & Montauk Avenue	EB	LT	0.34	9.6	A	EB	LT	0.31	9.2	A	EB	LT	0.52	11.8	B	EB	LT	0.31	9.2	A
	WB	TR	0.61	13.2	B	WB	TR	0.28	9.0	A	WB	TR	0.42	10.3	B	WB	TR	0.35	9.5	A
	NB	LTR	0.20	15.9	B	NB	LTR	0.19	15.8	B	NB	LTR	0.22	16.1	B	NB	LTR	0.22	16.0	B
Pitkin Avenue & Fountain Avenue	EB	TR	0.38	10.1	B	EB	TR	0.31	9.3	A	EB	TR	0.54	12.2	B	EB	TR	0.36	9.7	A
	WB	LT	0.66	14.7	B	WB	LT	0.32	9.3	A	WB	LT	0.54	12.4	B	WB	LT	0.38	10.0	B
	SB	LTR	0.47	19.8	B	SB	LTR	0.31	17.2	B	SB	LTR	0.46	19.4	B	SB	LTR	0.46	19.3	B
Pitkin Avenue & South Conduit Boulevard	EB	TR	0.67	38.4	D	EB	TR	0.60	35.4	D	EB	T	0.43	30.3	C	EB	TR	0.74	38.1	D
	WB	L	0.83	60.9	E *	WB	L	0.41	32.4	C	EB	R	0.84	51.4	D	WB	L	1.05	112.7	F *
	WB	T	0.77	41.5	D	WB	T	0.45	30.5	C	WB	L	0.62	39.3	D	WB	T	0.60	31.0	C
	SB	L	0.03	12.9	B	SB	L	0.06	13.1	B	WB	T	0.54	32.5	C	SB	L	0.03	8.2	A
	SB	TR	0.47	17.5	B	SB	TR	0.45	17.2	B	SB	L	0.03	12.9	B	SB	TR	0.45	11.4	B
SB	TR	0.62	20.0	B						SB	TR	0.62	20.0	B						
Pitkin Avenue & North Conduit Boulevard	EB	L	0.60	50.7	D	EB	L	0.21	32.6	C	EB	L	0.39	38.0	D	EB	L	0.28	22.6	C
	EB	T	0.28	32.8	C	EB	T	0.26	32.5	C	EB	T	0.39	34.9	C	EB	T	0.22	20.4	C
	WB	TR	0.55	36.9	D	WB	TR	0.35	33.2	C	WB	TR	0.45	34.7	C	WB	TR	0.37	21.8	C
	NB	L	0.33	12.4	B	NB	L	0.13	10.3	B	NB	L	0.14	10.3	B	NB	L	0.19	11.8	B
	NB	TR	0.64	16.2	B	NB	TR	0.36	12.1	B	NB	TR	0.32	11.7	B	NB	TR	0.44	13.9	B
Sutter Avenue & Pennsylvania Avenue	EB	LTR	0.72	50.8	D	EB	LTR	0.53	42.3	D	EB	LTR	0.54	42.1	D	EB	LTR	0.53	32.6	C
	WB	LTR	1.05	103.0	F *	WB	LTR	0.64	46.2	D	WB	LTR	0.79	55.1	E *	WB	LTR	0.72	40.8	D
	NB	TR	0.60	14.5	B	NB	TR	0.54	13.5	B	NB	TR	0.46	12.1	B	NB	TR	0.55	11.4	B
	SB	LTR	0.59	14.4	B	SB	LTR	0.58	14.2	B	SB	LTR	0.69	16.7	B	SB	LTR	0.60	12.4	B
Sutter Avenue & Fountain Avenue	EB	TR	0.28	14.3	B	EB	TR	0.30	11.7	B	EB	TR	0.31	14.7	B	EB	TR	0.28	14.2	B
	WB	LT	0.75	26.4	C	WB	LT	0.40	13.0	B	WB	LT	0.66	22.8	C	WB	LT	0.48	17.5	B
	NB	L	0.48	37.5	D	NB	L	0.44	28.6	C	NB	L	0.74	53.1	D	NB	L	0.59	41.4	D
	NB	R	0.74	45.8	D	NB	R	0.57	30.9	C	NB	R	0.75	46.8	D	NB	R	0.60	38.5	D

Unsignalized Intersection	Lane Group	Existing AM Peak Hour			Existing MD Peak Hour			Existing PM Peak Hour			Existing SAT Peak Hour		
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Arlington Avenue & Jamaica Avenue (Two-Way Stop Controlled)	NB-LR	0.33	12.9	B	0.36	13.9	B	0.51	18.2	C	0.58	22	C
Atlantic Avenue & Ashford Street (Two-Way Stop Controlled)	NB-R	0.12	11.7	B	0.10	11.8	B	0.17	15.2	C	0.12	12.1	B
Atlantic Avenue & Atkins Avenue (Two-Way Stop Controlled)	NB-R	0.01	9.9	A	0.01	9.2	A	0.01	9.7	A	0.01	9.6	A
Atlantic Avenue & Montauk Avenue (Two-Way Stop Controlled)	NB-R	0.08	10.5	B	0.06	9.5	A	0.1	10.9	B	0.12	10.8	B
Broadway & Truxton Street (Two-Way Stop Controlled)	EB_R	0.03	9.7	A	0.05	9.9	A	0.06	9.9	A	0.06	9.5	A
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	SB-LT WB-LR	0.01 0.1	9.3 16.2	A C	0.01 0.08	8.1 13.3	A B	0.01 0.16	8.4 15.4	A C	0.01 0.09	8.0 14.3	A B
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	SB-LR EB-LT	0.04 0.01	9.0 7.5	A A	0.04 0.02	9.0 7.3	A A	0.07 0.01	9.0 7.3	A A	0.04 0.01	8.6 7.3	A A
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	NB-LT EB-L	0.01 0.04	7.4 10.3	A B	0.01 0.06	7.2 10.2	A B	0.02 0.08	7.3 9.9	A A	0.01 0.04	7.3 9.5	A A
Fulton Street & New Jersey Avenue (Two-Way Stop Controlled)	SB-LT	0.12	13.1	B	0.10	13.1	B	0.26	20.0	C	0.13	12.8	B
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB - LT NB - TR	0.07 0.94	8.3 86.9	A F *	0.05 0.32	7.8 17.9	A C	0.07 0.83	8.3 73.9	A F *	0.06 0.48	8.0 26.7	A D
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	NB-LTR EB-LT	0.94 0.06	77.9 8.9	F * A	0.40 0.03	18.6 8.0	C A	0.73 0.05	48.9 9.2	E * A	0.44 0.05	24.8 9.0	C A
Glenmore Avenue & Miller Avenue (All-Way Stop Controlled)	SB-TR WB-LT	- -	11.8 30.5	B D	- -	8.4 8.7	A A	- -	10.2 10.3	B B	- -	8.8 8.8	A A
Glenmore Avenue & Montauk Avenue (Two-Way Stop Controlled)	NB-LT	0.18	12.4	B	0.11	10.0	B	0.17	11.1	B	0.13	10.2	B
Liberty Avenue & Elton Street (Two-Way Stop Controlled)	NB-LR	0.11	11.8	B	0.05	9.9	A	0.11	12.0	B	0.09	10.2	B
Liberty Avenue & Essex Street (Two-Way Stop Controlled)	NB-LTR EB-LT	0.21 0.02	20.5 9.6	C A	0.13 0.01	13.0 8.0	B A	0.17 0.04	19.4 8.7	C A	0.12 0.01	12.5 7.9	B A
Liberty Avenue & Atkins Avenue (Two-Way Stop Controlled)	SB-LTR EB-LTR	0.01 0.01	13.0 8.8	B A	0.04 0.00	12.6 7.7	B A	0.05 0.00	21.5 8.0	C A	0.00 0.00	0.0 7.8	A A
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	WB-LTR NB-LTR EB-LT	0.14 0.27 0.02	9.1 21.4 8.7	A C A	0.06 0.13 0.01	7.9 13 7.8	A B A	0.09 0.36 0.02	8.9 24 8.1	A C A	0.05 0.17 0.01	7.8 14.9 7.9	A B A

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right

* - Denotes a congested movement

TABLE E-2
No-Action Intersection Level of Service Analysis

Signalized Intersection	No-Action AM Peak Hour					No-Action Midday Peak Hour					No-Action PM Peak Hour					No-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Atlantic Avenue & Rockaway Avenue	EB	L	0.34	29.5	C	EB	L	0.38	24.0	C	EB	L	0.29	22.5	C	EB	L	0.35	24.2	C
	EB	TR	0.65	29.1	C	EB	TR	0.92	41.7	D *	EB	TR	0.94	43.3	D *	EB	TR	0.79	33.2	C
	WB	L	0.87	52.1	D	WB	L	0.98	91.2	F *	WB	L	1.14	140.4	F *	WB	L	1.10	127.8	F *
	WB	TR	1.08	81.6	F *	WB	TR	1.04	67.2	E *	WB	TR	0.86	36.3	D	WB	TR	0.85	36.1	D
	NB	LTR	1.12	118.0	F *	NB	LTR	0.95	55.5	E *	NB	LTR	1.17	138.2	F *	NB	LTR	1.11	117.3	F *
	SB	LTR	0.96	84.2	F *	SB	LTR	1.04	87.9	F *	SB	LTR	1.12	130.6	F *	SB	LTR	1.11	123.3	F *
Atlantic Avenue & Eastern Parkway	EB	TR	0.63	26.1	C	EB	TR	0.77	29.7	C	EB	TR	0.87	34.9	C	EB	TR	0.95	41.4	D *
	WB-Main	T	1.03	64.2	E *	WB-Main	T	1.11	89.8	F *	WB-Main	T	0.92	41.0	D *	WB-Main	T	1.22	137.3	F *
	WB-Service	T	0.94	51.5	D *	WB-Service	T	0.53	26.3	C	WB-Service	T	0.52	25.4	C	WB-Service	T	0.55	26.7	C
	WB-Service	R	0.16	19.5	B	WB-Service	R	0.12	20.0	B	WB-Service	R	0.16	19.5	B	WB-Service	R	0.14	20.3	C
	NB	T	0.71	40.4	D	NB	T	0.57	26.3	C	NB	T	0.73	39.5	D	NB	T	0.58	26.2	C
	NB	R	0.87	58.8	E *	NB	R	0.72	34.7	C	NB	R	1.09	111.9	F *	NB	R	0.73	34.9	C
	SB	LTR	1.10	101.8	F *	SB	LTR	1.10	94.0	F *	SB	LTR	1.56	298.5	F *	SB	LTR	1.15	114.4	F *
Atlantic Avenue & Georgia Avenue	EB-Main	T	0.63	14.9	B	EB-Main	T	0.59	14.1	B	EB-Main	T	0.64	15.2	B	EB-Main	T	0.57	14.3	B
	EB-Service	T	0.28	10.4	B	EB-Service	T	0.34	11.0	B	EB-Service	T	0.57	14.4	B	EB-Service	T	0.42	12.7	B
	WB	TR	0.69	15.8	B	WB	TR	0.55	13.2	B	WB	TR	0.58	13.6	B	WB	TR	0.63	14.8	B
	NB	LTR	1.14	130.6	F *	NB	LTR	1.06	105.3	F *	NB	LTR	1.12	124.5	F *	NB	LTR	0.75	35.9	D
Atlantic Avenue & Pennsylvania Avenue	EB	L	0.80	70.0	E *	EB	L	1.01	113.6	F *	EB	L	1.26	194.5	F *	EB	L	0.87	63.0	E *
	EB	LTR	0.81	28.7	C	EB	LTR	1.02	62.9	E *	EB	LTR	1.24	148.3	F *	EB	LTR	0.88	31.8	C
	WB	TR	1.02	62.7	E *	WB	TR	0.92	49.2	D *	EB	R	0.21	22.6	C	WB	TR	1.07	79.6	E *
	NB	L	1.12	126.3	F *	NB	L	1.27	198.5	F *	WB	TR	1.12	108.1	F *	NB	L	1.15	125.3	F *
	NB	TR	1.37	217.9	F *	NB	TR	1.33	197.0	F *	NB	L	1.16	150.3	F *	NB	TR	1.22	139.9	F *
	SB	L	0.94	147.1	F *	SB	L	1.23	187.5	F *	NB	TR	0.97	61.1	E *	SB	L	1.11	116.8	F *
	SB	TR	1.15	123.0	F *	SB	TR	0.82	41.5	D	SB	L	0.94	84.5	F *	SB	TR	0.92	43.2	D *
											SB	TR	0.98	59.4	E *					
Atlantic Avenue & Miller Avenue	EB	TR	0.42	11.5	B	EB	TR	0.48	12.2	B	EB	TR	0.69	15.6	B	EB	TR	0.55	11.6	B
	WB	LT	0.67	15.6	B	WB	LT	0.75	18.0	B	WB	DefL	1.76	412.7	F *	WB	LT	0.79	17.2	B
	SB	LTR	1.22	161.0	F *	SB	LTR	0.83	56.3	E *	WB	T	0.68	16.1	B	SB	LTR	0.78	41.7	D
											WB	LT		51.4	D					
										SB	LTR	1.34	212.3	F *						
Atlantic Avenue & Hendrix Street	EB	TR	0.49	12.3	B	EB	TR	0.52	12.8	B	EB	TR	0.73	16.8	B	EB	TR	0.66	18.4	B
	WB	T	0.56	13.3	B	WB	T	0.52	12.8	B	WB	T	0.52	12.7	B	WB	T	0.62	17.6	B
	SB	R	0.16	33.3	C	SB	R	0.04	31.4	C	SB	R	0.08	32.0	C	SB	R	0.06	17.4	B
Atlantic Avenue & Schenck Avenue	EB	LT	0.53	13.9	B	EB	LT	0.57	14.5	B	EB	LT	0.83	21.2	C	EB	LT	0.61	15.1	B
	WB	TR	0.52	13.7	B	WB	TR	0.49	13.3	B	WB	TR	0.46	12.8	B	WB	TR	0.53	14.0	B
	NB	LTR	1.51	286.6	F *	NB	LTR	1.10	122.6	F *	NB	LTR	1.26	183.1	F *	NB	LTR	1.07	96.1	F *
Atlantic Avenue & Warwick Street	EB	TR	0.61	23.4	C	EB	TR	0.62	21.5	C	EB	TR	0.94	36.1	D *	EB	TR	0.85	28.9	C
	WB	L	0.81	58.4	E *	WB	L	0.80	57.5	E *	WB	L	0.99	105.7	F *	WB	L	0.76	48.4	D
	WB	T	0.62	15.8	B	WB	T	0.59	14.3	B	WB	T	0.62	14.7	B	WB	T	0.71	17.1	B
	SB	LTR	1.39	237.2	F *	SB	LTR	0.68	53.3	D	SB	LTR	1.46	268.5	F *	SB	LTR	0.60	35.7	D
Atlantic Avenue & Elton Street	EB	L	0.56	30.5	C	EB	L	0.30	13.6	B	EB	L	0.66	36.5	D	EB	L	0.49	25.2	C
	EB	T	0.47	12.1	B	EB	T	0.47	12.1	B	EB	T	0.76	17.4	B	EB	T	0.59	14.2	B
	WB	TR	0.60	13.9	B	WB	TR	0.46	11.9	B	WB	TR	0.54	13.0	B	WB	TR	0.59	14.2	B
Atlantic Avenue & Highland Place	EB	L	0.67	43.7	D	EB	L	0.73	46.8	D	EB	L	0.76	53.0	D	EB	L	1.39	250.5	F *
	EB	T	0.44	12.6	B	EB	T	0.67	19.6	B	EB	T	0.93	29.3	C *	EB	T	0.81	21.6	C
	WB	TR	0.59	14.7	B	WB	TR	0.53	16.4	B	WB	TR	0.56	14.3	B	WB	TR	0.63	16.0	B
	SB	LR	1.02	93.8	F *	SB	LR	0.74	47.6	D	SB	LR	1.19	149.6	F *	SB	LR	0.90	51.4	D *
Atlantic Avenue & Logan Street	EB	TR	0.65	23.1	C	EB	TR	0.66	22.7	C	EB	TR	0.90	31.6	C *	EB	TR	0.85	28.6	C
	WB	TR	0.95	36.3	D *	WB	TR	0.64	22.2	C	WB	TR	0.85	29.7	C	WB	TR	0.99	45.7	D *
	NB	TR	0.53	29.8	C	NB	TR	0.58	31.1	C	NB	TR	0.53	29.8	C	NB	TR	0.45	16.8	B
	SB	LTR	0.91	61.8	E *	SB	LTR	1.01	87.6	F *	SB	LTR	0.99	79.5	E *	SB	LTR	0.84	37.0	D
Atlantic Avenue & Euclid Avenue	EB	T	0.20	10.2	B	EB	T	0.24	10.5	B	EB	T	0.31	11.1	B	EB	T	0.30	15.3	B
	WB	T	0.32	11.3	B	WB	T	0.22	10.4	B	WB	T	0.30	11.1	B	WB	T	0.38	16.1	B
	NB	LR	0.40	41.5	D	NB	LR	0.41	42.1	D	NB	LR	0.44	42.8	D	NB	LR	0.30	23.2	C
	SB	L	0.57	46.4	D	SB	L	0.47	43.2	D	SB	L	0.83	61.7	E *	SB	L	0.38	24.2	C
	SB	R	0.19	37.3	D	SB	R	0.26	38.9	D	SB	R	0.40	42.0	D	SB	R	0.14	21.0	C
Atlantic Avenue & Crescent Street	EB	LTR	0.38	17.5	B	EB	LTR	0.52	25.5	C	EB	LTR	0.55	20.0	B	EB	LTR	0.51	18.5	B
	WB	DefL	0.59	16.4	B	WB	DefL	0.59	22.8	C	WB	DefL	0.90	45.0	D *	WB	DefL	0.81	27.6	C
	WB	TR	0.51	13.0	B	WB	TR	0.40	16.3	B	WB	TR	0.38	11.2	B	WB	TR	0.48	11.0	B
	NB	LTR	0.79	52.8	D	NB	LTR	0.44	31.2	C	NB	LTR	0.57	41.6	D	NB	LTR	0.58	32.3	C
	SB	LTR	0.61	46.9	D	SB	LTR	0.42	31.5	C	SB	LTR	1.15	146.5	F *	SB	LTR	0.79	48.8	D
Atlantic Avenue & Eldert Lane	EB	LTR	0.29	12.0	B	EB	LTR	0.39	13.0	B	EB	LTR	0.53	15.0	B	EB	LTR	0.49	18.2	B
	WB	LTR	0.54	15.1	B	WB	LTR	0.34	12.5	B	WB	LTR	0.49	14.6	B	WB	LTR	0.63	20.8	C
	NB	LTR	0.72	55.6	E *	NB	LTR	0.60	47.6	D	NB	LTR	0.75	59.0	E *	NB	LTR	0.49	26.8	C
	SB	LTR	0.75	58.4	E *	SB	LTR	0.41	40.8	D	SB	LTR	0.90	77.3	E *	SB	LTR	0.48	26.5	C
Atlantic Avenue & Rockaway Boulevard	EB	L	0.46	29.9	C	EB	L	0.32	23.8	C	EB	L	0.24	18.0	B	EB	L	0.30	24.0	C
	EB	TR	0.87	35.8	D	EB	TR	1.10	85.1	F *	EB	TR	0.93	38.2	D *	EB	TR	1.00	56.5	E *
	WB	L	0.69	34.8	C	WB	L	0.82	50.1	D	WB	L	1.14	137.9	F *	WB	L	1.11	114.2	F *
	WB	TR	0.69	19.3	B	WB	TR	0.48	16.6	B	WB	TR	0.66	17.5	B	WB	TR	0.76	23.4	C
	NB	L	0.94	85.1	F *	NB	L	0.42	23.3	C	NB	L	1.13	163.6	F *	NB	L	0.55	27.6	C
	NB	TR	1.11	121.5	F *	NB	TR	0.34	20.9	C	NB	TR	0.98	88.8	F *	NB	TR	0.77	36.4	D
	SB	LTR	1.16	142.4	F *	SB	LTR	0.52	24.7	C	SB	L	0.62	52.2	D	SB	LTR	0.77	36.3	D
										SB	TR	0.94	71.9	E *						
Broadway & Rockaway Avenue	EB	LTR	0.65	22.8	C	EB	LTR	0.65	19.6	B	EB	LTR	0.68	24.1	C	EB	LTR	0.60	17.6	B
	WB	LTR	0.85	34.1	C	WB	LTR	0.74	24.2	C	WB	LTR	0.92	40.7	D *	WB	LTR	0.91	36.7	D *
	NB	LTR	0.75	45.8	D	NB	LTR	0.40	22.8	C	NB	LTR	0.50	33.2	C	NB	LTR	0.43	25.0	C
	SB	LTR	0.67	40.7	D	SB	LTR	0.68	35.2	D	SB	LTR	0.89	65.2	E *	SB	LTR	0.77	41.1	D
Broadway & Eastern Parkway	EB	L	0.98	154.2	F *	EB	L	0.34	30.3	C	EB	L	0.36	40.5	D	EB	L	0.31	28.6	C
	EB	TR	0.91	70.7	E *	EB	TR	0.91	62.4	E *	EB	TR	1.12	128.1	F *	EB	TR	0.95	68.4	E *
	WB																			

Signalized Intersection	No-Action AM Peak Hour					No-Action Midday Peak Hour					No-Action PM Peak Hour					No-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Bushwick Avenue & Eastern Parkway	EB	LTR	0.55	11.5	B	EB	LTR	0.40	6.2	A	EB	LTR	0.77	15.8	B	EB	LTR	0.41	6.3	A
	WB	L	1.05	71.3	E *	WB	L	0.77	21.5	C	WB	L	1.14	120.4	F *	WB	L	0.76	21.2	C
	WB	TR	1.09	80.3	F *	WB	TR	0.82	22.6	C	WB	TR	0.68	20.7	C	WB	TR	0.87	26.4	C
	NB	R	0.62	44.8	D	NB	R	1.11	107.5	F *	NB	R	1.05	95.2	F *	NB	R	1.10	106.4	F *
	SB	R	0.25	65.2	E *	SB	R	0.17	44.1	D	SB	R	0.23	63.0	E *	SB	R	0.16	43.4	D
Fulton Street & Van Sinderen Avenue	EB	TR	0.21	20.7	C	EB	TR	0.26	20.6	C	EB	TR	0.34	22.8	C	EB	TR	0.35	21.9	C
	WB	LT	0.48	25.7	C	WB	LT	0.50	25.4	C	WB	LT	0.49	26.4	C	WB	LT	0.54	26.4	C
	NB	LR	0.78	65.9	E *	NB	LR	0.35	30.9	C	NB	LR	0.38	38.6	D	NB	LR	0.27	28.0	C
	SB	LTR	0.49	38.6	D	SB	LTR	0.60	34.0	C	SB	LTR	0.62	42.4	D	SB	LTR	0.58	32.8	C
	SB-Bus Only	LTR	0.18	48.9	D	SB-Bus Only	LTR	0.15	33.1	C	SB-Bus Only	LTR	0.20	49.2	D	SB-Bus Only	LTR	0.12	32.8	C
Fulton Street & Pennsylvania Avenue	EB	L	0.03	23.8	C	EB	L	0.09	30.0	C	EB	L	0.45	30.7	C	EB	L	0.07	26.6	C
	EB	TR	0.40	28.6	C	EB	TR	0.52	36.4	D	EB	TR	0.72	36.0	D	EB	TR	0.69	36.6	D
	NB	TR	1.11	99.2	F *	NB	TR	1.01	58.7	E *	NB	TR	1.08	87.9	F *	NB	TR	0.85	25.9	C
	SB	L	0.41	46.8	D	SB	L	0.52	47.5	D	SB	L	0.97	92.6	F *	SB	L	0.58	36.2	D
	SB	T	0.58	19.7	B	SB	T	0.46	13.6	B	SB	T	0.96	45.1	D *	SB	T	0.44	8.6	A
Fulton Street & Miller Avenue	EB	TR	0.62	17.9	B	EB	TR	0.70	20.4	C	EB	TR	0.94	40.1	D *	EB	TR	0.72	21.1	C
	SB	LT	0.92	51.1	D *	SB	LT	0.45	25.6	C	SB	LT	0.96	58.0	E *	SB	LT	0.54	27.7	C
Fulton Street & Highland Place	EB	TR	0.62	14.3	B	EB	TR	0.55	12.7	B	EB	TR	0.87	26.4	C	EB	TR	0.96	37.6	D *
	NB	R	0.24	16.5	B	NB	R	0.29	17.2	B	NB	R	0.31	17.3	B	NB	R	0.33	17.7	B
	SB	LT	0.63	23.5	C	SB	LT	0.67	24.6	C	SB	LT	0.81	31.4	C	SB	LT	0.68	24.7	C
Fulton Street & Logan Street	EB	LTR	0.39	12.4	B	EB	LTR	0.57	15.7	B	EB	LTR	0.75	21.7	C	EB	LTR	0.72	20.1	C
	WB	LTR	0.80	26.5	C	WB	LTR	0.56	16.2	B	WB	LTR	0.69	20.5	C	WB	LTR	0.65	18.9	B
	NB	LTR	0.96	46.6	D *	NB	LTR	0.57	19.9	B	NB	LTR	0.76	25.6	C	NB	LTR	0.71	23.6	C
	SB	LTR	0.28	14.4	B	SB	LTR	0.28	14.5	B	SB	LTR	0.24	14.0	B	SB	LTR	0.24	13.9	B
Fulton Street & Richmond Street	EB	TR	0.25	8.8	A	EB	TR	0.31	9.4	A	EB	TR	0.40	10.4	B	EB	TR	0.35	9.8	A
	WB	LT	0.35	10.0	A	WB	LT	0.23	8.7	A	WB	LT	0.29	9.2	A	WB	LT	0.28	9.1	A
	NB	LR	0.13	15.7	B	NB	LR	0.11	15.2	B	NB	LR	0.10	15.2	B	NB	LR	0.09	15.0	B
	SB	LTR	0.42	19.1	B	SB	LTR	0.23	16.3	B	SB	LTR	0.48	20.2	C	SB	LTR	0.31	17.2	B
Fulton Street & Euclid Avenue	EB	TR	0.29	9.2	A	EB	TR	0.37	10.2	B	EB	TR	0.47	11.4	B	EB	TR	0.45	11.1	B
	WB	LT	0.28	9.1	A	WB	LT	0.24	8.8	A	WB	LT	0.28	9.1	A	WB	LT	0.31	9.4	A
	SB	LTR	0.93	46.3	D *	SB	LTR	0.49	20.0	B	SB	LTR	0.81	31.8	C	SB	LTR	0.69	25.0	C
Glenmore Avenue & Pennsylvania Avenue	EB	LR	0.23	34.3	C	EB	LR	0.34	36.7	D	EB	LR	0.20	33.9	C	EB	LR	0.33	27.9	C
	WB	LR	1.14	133.8	F *	WB	LR	0.41	37.9	D	WB	LR	0.48	39.6	D	WB	LR	0.15	25.3	C
	NB	T	0.54	13.4	B	NB	T	0.56	13.7	B	NB	T	0.53	13.2	B	NB	T	0.55	11.4	B
	SB	T	0.51	12.8	B	SB	T	0.53	13.3	B	SB	T	0.56	13.7	B	SB	T	0.54	11.3	B
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	EB-Bushwick	R	0.75	50.1	D	EB-Bushwick	R	0.85	55.2	E *	EB-Bushwick	R	1.08	103.6	F *	EB-Bushwick	R	0.80	40.8	D
	EB-Jamaica	L	0.18	40.3	D	EB-Jamaica	L	0.26	43.3	D	EB-Jamaica	L	0.17	39.3	D	EB-Jamaica	L	0.20	32.1	C
	EB-Jamaica	TR	1.11	112.4	F *	EB-Jamaica	TR	1.12	114.5	F *	EB-Jamaica	TR	1.13	116.7	F *	EB-Jamaica	TR	1.12	104.3	F *
	WB	L	1.11	152.8	F *	WB	L	1.13	153.2	F *	WB	L	1.21	187.5	F *	WB	L	1.09	133.2	F *
	WB	T	1.11	150.9	F *	WB	T	1.14	154.3	F *	WB	T	1.23	194.1	F *	WB	T	1.13	146.6	F *
	NB	L	1.16	142.9	F *	NB	L	1.08	117.2	F *	NB	L	0.89	69.1	E *	NB	L	0.94	66.7	E *
	NB	TR	0.56	17.9	B	NB	TR	0.54	18.6	B	NB	TR	0.61	19.3	B	NB	TR	0.50	14.5	B
	SB	TR	1.11	107.1	F *	SB	TR	0.96	70.5	E *	SB	TR	1.11	113.0	F *	SB	TR	0.93	55.3	E *
	SB	T	0.82	48.9	D	SB	T	0.73	47.4	D	SB	T	0.80	49.9	D	SB	T	0.85	46.2	D
	Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.12	98.2	F *	EB	LTR	1.12	101.4	F *	EB	LTR	0.94	44.8	D *	EB	LTR	1.14	101.6
WB		LTR	0.54	16.8	B	WB	LTR	0.59	17.9	B	WB	LTR	0.69	20.6	C	WB	LTR	0.64	18.9	B
NB		L	0.38	15.5	B	NB	L	0.22	12.7	B	NB	L	0.48	20.6	C	NB	L	0.24	13.0	B
NB		TR	0.80	24.2	C	NB	TR	0.45	14.5	B	NB	TR	0.54	16.0	B	NB	TR	0.46	14.6	B
SB		L	0.64	32.1	C	SB	L	0.42	15.9	B	SB	L	1.16	120.1	F *	SB	L	0.46	16.9	B
Jamaica Avenue & Chestnut Street	EB	T	0.57	13.1	B	EB	T	0.55	12.7	B	EB	T	0.68	15.2	B	EB	T	0.59	13.1	B
	WB	T	0.52	12.1	B	WB	T	0.37	10.0	A	WB	T	0.60	13.5	B	WB	T	0.53	12.2	B
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.18	111.9	F *	EB	LTR	1.00	51.2	D *	EB	LTR	1.20	118.8	F *	EB	LTR	1.10	81.6	F *
	WB	LT	0.31	7.8	A	WB	LT	0.23	8.1	A	WB	LT	0.35	9.2	A	WB	LT	0.40	9.8	A
	WB	R	0.55	1.5	A	WB	R	0.28	0.5	A	WB	R	0.31	0.5	A	WB	R	0.34	0.6	A
	SB	LT	0.59	20.5	C	SB	LT	0.57	20.0	B	SB	LT	0.81	26.3	C	SB	LT	0.59	20.4	C
Liberty Avenue & Pennsylvania Avenue	EB	LTR	0.48	40.7	D	EB	LTR	0.75	55.8	E *	EB	LTR	0.97	82.3	F *	EB	LTR	0.55	34.3	C
	WB	LTR	0.91	70.5	E *	WB	LTR	0.96	82.5	F *	WB	LTR	1.04	104.5	F *	WB	LTR	0.94	66.7	E *
	NB	L	0.45	17.1	B	NB	L	0.29	13.9	B	NB	L	0.37	16.8	B	NB	L	0.32	12.8	B
	NB	TR	0.74	24.3	C	NB	TR	0.73	24.1	C	NB	TR	0.67	22.0	C	NB	TR	0.77	22.7	C
	SB	L	0.09	12.4	B	SB	L	0.11	11.9	B	SB	L	0.16	12.3	B	SB	L	0.09	10.7	B
Liberty Avenue & New Jersey Avenue	EB	TR	0.22	11.2	B	EB	TR	0.25	11.6	B	EB	TR	0.46	14.5	B	EB	TR	0.19	8.5	A
	WB	LT	0.44	14.3	B	WB	LT	0.34	12.7	B	WB	LT	0.45	14.4	B	WB	LT	0.39	10.7	B
	SB	LTR	0.08	29.8	C	SB	LTR	0.12	30.4	C	SB	LTR	0.19	31.4	C	SB	LTR	0.11	23.9	C
Liberty Avenue & Miller Avenue	EB	TR	0.27	11.7	B	EB	TR	0.19	10.9	B	EB	TR	0.37	13.0	B	EB	TR	0.21	8.7	A
	WB	LT	0.56	16.5	B	WB	LT	0.27	11.8	B	WB	LT	0.30	12.1	B	WB	LT	0.31	9.8	A
	SB	LTR	0.93	66.7	E *	SB	LTR	0.76	48.5	D	SB	LTR	1.04	94.4	F *	SB	LTR	0.73	38.9	D
Liberty Avenue & Hendrix Street	EB	TR	0.24	8.9	A	EB	TR	0.24	8.9	A	EB	TR	0.37	10.3	B	EB	TR	0.20	8.5	A
	WB	LT	0.60	14.6	B	WB	LT	0.28	9.4	A	WB	LT	0.32	9.7	A	WB	LT	0.28	9.4	A
	SB	LTR	0.13	34.9	C	SB	LTR	0.21	36.3	D	SB	LTR	0.13	34.9	C	SB	LTR	0.32	38.3	D
Liberty Avenue & Schenck Avenue	EB	LT	0.27	9.5	A	EB	LT	0.27	9.4	A	EB	LT	0.45	11.6	B	EB	LT	0.25	9.1	A
	WB	TR	0.89	29.9	C	WB	TR	0.52	12.9	B	WB	TR	0.59	14.1	B	WB	TR	0.56	13.6	B
	NB	TR	0.68	49.1	D	NB	TR	0.49	42.0	D	NB	TR	0.64	46.7	D	NB	TR	0.41	40.0	D
Liberty Avenue & Warwick Street	EB	TR	0.16	10.6	B	EB	TR	0.21	11.1	B	EB	TR	0.40	13.5	B	EB	TR	0.18	8.5	A
	WB	LT	0.85	29.1	C	WB	LT	0.42	13.8	B	WB	LT	0.45	14.3	B	WB	LT	0.46	11.7	B
	SB	LTR	1.38	227.7	F *	SB	LTR	0.84	57.2	E *	SB	LTR	1.25	173.3	F *	SB	LTR	0.97	69.8	E *
Liberty Avenue & Linwood Street	EB	TR	0.21	10.5	B	EB	TR	0.18	10.3	B	EB	TR	0.37	12.3	B	EB	TR	0.20	8.6	A
	WB	LT	0.78	23.9	C	WB	LT	0.41	13.1	B	WB	LT	0.50	14.7	B	WB	LT	0.44	11.4	B
	SB	LTR	0.36	35.6	D	SB	LTR	0.14</												

Signalized Intersection	No-Action AM Peak Hour					No-Action Midday Peak Hour					No-Action PM Peak Hour					No-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Liberty Avenue & Shepherd Avenue	EB	TR	0.27	11.3	B	EB	TR	0.30	11.7	B	EB	TR	0.59	16.6	B	EB	TR	0.33	9.9	A
	WB	LT	0.84	28.1	C	WB	LT	0.43	13.5	B	WB	LT	0.47	14.3	B	WB	LT	0.46	11.7	B
	SB	LTR	0.35	35.2	D	SB	LTR	0.18	31.9	C	SB	LTR	0.49	38.6	D	SB	LTR	0.20	25.3	C
Liberty Avenue & Montauk Avenue	EB	LT	0.27	11.8	B	EB	LT	0.26	11.6	B	EB	LT	0.52	15.5	B	EB	LT	0.26	9.2	A
	WB	TR	0.74	22.2	C	WB	TR	0.32	12.4	B	WB	TR	0.36	13.0	B	WB	TR	0.34	10.1	B
	NB	LTR	0.25	32.4	C	NB	LTR	0.18	31.3	C	NB	LTR	0.29	33.2	C	NB	LTR	0.26	26.0	C
	SB	LR	0.45	37.8	D	SB	LR	0.25	32.9	C	SB	LR	0.37	35.8	D	SB	LR	0.44	31.0	C
Liberty Avenue & Milford Street	EB	TR	0.35	13.3	B	EB	TR	0.30	12.7	B	EB	TR	0.59	17.8	B	EB	TR	0.35	10.7	B
	WB	LT	0.82	27.5	C	WB	LT	0.50	16.2	B	WB	LT	0.70	23.2	C	WB	LT	0.52	13.6	B
	SB	LTR	0.19	30.6	C	SB	LTR	0.20	30.8	C	SB	LTR	0.16	30.2	C	SB	LTR	0.24	25.0	C
Liberty Avenue & Logan Street	EB	LT	0.42	11.7	B	EB	LT	0.35	10.3	B	EB	LT	0.54	13.3	B	EB	LT	0.46	14.7	B
	WB	TR	0.61	14.6	B	WB	TR	0.24	8.9	A	WB	TR	0.32	9.8	A	WB	TR	0.33	12.5	B
	NB	LTR	0.77	54.1	D	NB	LTR	0.74	52.8	D	NB	LTR	0.82	58.0	E *	NB	LTR	0.55	27.7	C
	SB	LR	0.52	45.4	D	SB	LR	0.40	41.5	D	SB	LR	0.57	48.9	D	SB	LR	0.35	24.6	C
Liberty Avenue & Fountain Avenue	EB	TR	0.24	9.0	A	EB	TR	0.24	8.9	A	EB	TR	0.46	11.5	B	EB	TR	0.34	12.6	B
	WB	LT	0.80	22.5	C	WB	LT	0.37	10.6	B	WB	LT	0.61	16.0	B	WB	LT	0.51	15.7	B
	SB	LTR	0.56	44.8	D	SB	LTR	0.34	38.6	D	SB	LTR	0.52	43.2	D	SB	LTR	0.37	24.2	C
Liberty Avenue & South Conduit Boulevard	EB	TR	0.36	24.1	C	EB	TR	0.50	36.8	D	EB	T	0.38	34.7	C	EB	TR	0.48	25.6	C
	WB	L	1.09	111.3	F *	WB	L	1.21	173.8	F *	EB	R	0.68	44.5	D	WB	L	1.19	152.7	F *
	WB	T	0.94	54.9	D *	WB	T	0.70	44.5	D	WB	L	0.75	54.5	D	WB	T	0.87	48.9	D
	SB	L	0.03	16.3	B	SB	L	0.05	9.6	A	WB	T	1.12	125.7	F *	SB	L	0.04	9.6	A
	SB	TR	0.47	21.3	C	SB	TR	0.36	12.1	B	SB	L	0.02	9.4	A	SB	TR	0.48	13.2	B
	SB	TR	0.58	15.1	B															
Liberty Avenue & North Conduit Boulevard	EB	LT	0.47	37.9	D	EB	LT	0.48	37.4	D	EB	LT	0.49	37.3	D	EB	LT	0.35	23.4	C
	WB	T	1.25	168.0	F *	WB	TR	1.04	94.4	F *	WB	TR	1.36	220.0	F *	WB	TR	1.30	182.2	F *
	WB	R	0.20	31.7	C	NB	L	0.14	10.3	B	NB	L	0.11	10.1	B	NB	L	0.20	10.9	B
	NB	L	0.39	13.1	B	NB	TR	0.38	12.4	B	NB	TR	0.42	12.8	B	NB	TR	0.43	12.7	B
	NB	TR	0.70	17.8	B															
Livonia Avenue & Pennsylvania Avenue	EB	LTR	1.09	127.7	F *	EB	LTR	0.54	42.2	D	EB	LTR	0.67	47.2	D	EB	LTR	0.48	31.7	C
	WB	LTR	1.08	107.0	F *	WB	LTR	0.43	38.8	D	WB	LTR	0.70	48.9	D	WB	LTR	0.57	34.2	C
	NB	LTR	0.89	27.7	C	NB	LTR	0.69	16.8	B	NB	LTR	0.64	16.1	B	NB	LTR	0.63	13.0	B
	SB	LTR	0.69	18.0	B	SB	LTR	0.64	15.6	B	SB	LTR	0.73	18.3	B	SB	LTR	0.70	14.4	B
Pitkin Avenue & Mother Gaston Boulevard	EB	LTR	0.89	46.0	D	EB	LTR	0.66	27.1	C	EB	LTR	0.70	28.2	C	EB	LTR	0.74	30.7	C
	WB	LTR	0.95	55.7	E *	WB	LTR	0.68	28.2	C	WB	LTR	0.61	25.5	C	WB	LTR	0.66	26.9	C
	NB	L	0.34	27.4	C	NB	L	0.24	24.8	C	NB	L	0.25	25.2	C	NB	L	0.36	27.5	C
	NB	TR	0.46	28.3	C	NB	TR	0.41	27.3	C	NB	TR	0.37	26.5	C	NB	TR	0.38	26.7	C
	SB	L	0.10	22.5	C	SB	L	0.09	22.4	C	SB	L	0.14	23.1	C	SB	L	0.12	22.7	C
	SB	TR	0.34	26.0	C	SB	TR	0.34	26.0	C	SB	TR	0.41	27.1	C	SB	TR	0.32	25.5	C
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	1.63	339.6	F *	EB	LTR	1.13	132.1	F *	EB	LTR	1.40	242.2	F *	EB	LTR	0.80	47.2	D
	WB	LTR	1.35	216.1	F *	WB	LTR	0.78	54.1	D	WB	LTR	1.09	115.3	F *	WB	LTR	1.15	126.4	F *
	NB	LTR	0.83	23.0	C	NB	LTR	0.76	19.5	B	NB	LTR	1.03	55.7	E *	NB	LTR	1.00	42.5	D *
	SB	LTR	1.05	63.7	E *	SB	LTR	1.05	62.8	E *	SB	LTR	1.09	75.5	E *	SB	LTR	0.73	15.3	B
Pitkin Avenue & Hendrix Street	EB	TR	0.41	10.7	B	EB	TR	0.41	10.6	B	EB	TR	0.66	15.1	B	EB	TR	0.47	11.3	B
	WB	LT	0.71	17.1	B	WB	LT	0.45	11.1	B	WB	LT	0.54	12.6	B	WB	LT	0.53	12.4	B
	SB	LTR	0.33	17.8	B	SB	LTR	0.19	15.9	B	SB	LTR	0.25	16.6	B	SB	LTR	0.24	16.5	B
Pitkin Avenue & Warwick Street	EB	TR	0.43	10.8	B	EB	TR	0.40	10.5	B	EB	TR	0.66	15.1	B	EB	TR	0.44	10.9	B
	WB	LT	0.78	20.0	C	WB	LT	0.36	10.0	A	WB	LT	0.53	12.2	B	WB	LT	0.53	12.3	B
	SB	LTR	0.51	21.1	C	SB	LTR	0.44	19.5	B	SB	LTR	0.64	24.7	C	SB	LTR	0.44	19.3	B
Pitkin Avenue & Shepherd Avenue	EB	TR	0.48	11.5	B	EB	TR	0.41	10.7	B	EB	TR	0.73	17.4	B	EB	TR	0.40	10.3	B
	WB	LT	0.72	17.3	B	WB	LT	0.39	10.3	B	WB	LT	0.54	12.7	B	WB	LT	0.47	11.3	B
	SB	LTR	0.34	17.6	B	SB	LTR	0.22	16.0	B	SB	LTR	0.28	16.8	B	SB	LTR	0.22	16.1	B
Pitkin Avenue & Berriman Street	EB	LT	0.53	12.5	B	EB	LT	0.48	11.8	B	EB	LT	0.69	15.9	B	EB	LT	0.32	9.3	A
	WB	TR	0.70	16.5	B	WB	TR	0.42	10.6	B	WB	TR	0.49	11.6	B	WB	TR	0.45	11.0	B
	NB	LTR	0.53	20.6	C	NB	LTR	0.44	18.9	B	NB	LTR	0.44	18.8	B	NB	LTR	0.26	16.5	B
Pitkin Avenue & Montauk Avenue	EB	LT	0.46	11.3	B	EB	LT	0.41	10.6	B	EB	LT	0.71	16.8	B	EB	LT	0.41	10.6	B
	WB	TR	0.77	19.0	B	WB	TR	0.38	10.2	B	WB	TR	0.56	12.8	B	WB	TR	0.46	11.1	B
	NB	LTR	0.23	16.2	B	NB	LTR	0.21	16.0	B	NB	LTR	0.25	16.4	B	NB	LTR	0.24	16.3	B
Pitkin Avenue & Fountain Avenue	EB	TR	0.51	12.2	B	EB	TR	0.41	10.6	B	EB	TR	0.72	17.5	B	EB	TR	0.47	11.4	B
	WB	LT	0.87	26.5	C	WB	LT	0.42	10.7	B	WB	LT	0.72	17.6	B	WB	LT	0.50	12.0	B
	SB	LTR	0.50	20.3	C	SB	LTR	0.35	17.7	B	SB	LTR	0.51	20.5	C	SB	LTR	0.49	19.8	B
Pitkin Avenue & South Conduit Boulevard	EB	TR	0.71	40.5	D	EB	TR	0.64	36.8	D	EB	T	0.46	31.0	C	EB	TR	0.79	41.4	D
	WB	L	0.91	76.2	E *	WB	L	0.45	34.2	C	EB	R	0.90	58.7	E *	WB	L	1.20	163.4	F *
	WB	T	0.82	44.7	D	WB	T	0.48	31.2	C	WB	L	0.68	42.9	D	WB	T	0.64	32.1	C
	SB	L	0.04	12.9	B	SB	L	0.06	13.2	B	WB	T	0.57	33.6	C	SB	L	0.03	8.2	A
	SB	TR	0.50	18.0	B	SB	TR	0.48	17.6	B	SB	L	0.03	12.9	B	SB	TR	0.48	11.7	B
	SB	TR	0.66	20.9	C															
Pitkin Avenue & North Conduit Boulevard	EB	L	0.67	56.8	E *	EB	L	0.24	33.2	C	EB	L	0.39	38.6	D	EB	L	0.31	23.3	C
	EB	T	0.29	33.0	C	EB	T	0.29	32.9	C	EB	T	0.42	35.5	D	EB	T	0.24	20.6	C
	WB	TR	0.58	37.7	D	WB	TR	0.37	35.6	C	WB	TR	0.47	35.2	D	WB	TR	0.40	22.1	C
	NB	L	0.35	12.6	B	NB	L	0.14	10.3	B	NB	L	0.15	10.4	B	NB	L	0.20	11.9	B
	NB	TR	0.84	22.6	C	NB	TR	0.38	12.4	B	NB	TR	0.34	11.9	B	NB	TR	0.47	14.2	B
Sutter Avenue & Pennsylvania Avenue	EB	LTR	0.81	58.7	E *	EB	LTR	0.59	45.0	D	EB	LTR	0.60	44.0	D	EB	LTR	0.58	34.5	C
	WB	LTR	1.14	133.8	F *	WB	LTR	0.69	48.7	D	WB	LTR	0.86	61.8	E *	WB	LTR	0.77	44.2	D
	NB	TR	0.66	15.7	B	NB	TR	0.59	14.4	B	NB	TR	0.50	12.8	B	NB	TR	0.59	12.0	B
	SB	LTR	0.65	15.7	B	SB	LTR	0.63	15.3	B	SB	LTR	0.78	19.5	B	SB	LTR	0.66	13.5	B
Sutter Avenue & Fountain Avenue	EB	TR	0.29	14.5	B	EB	TR	0.32	11.9	B	EB	TR	0.33	15.0	B	EB	TR	0.29	14.4	B
	WB	LT	0.79	29.3	C	WB	LT	0.43	13.4	B	WB	LT	0.70	24.5	C	WB	LT	0.51	18.2	B
	NB	L	0.53	40.3	D	NB	L	0.48	30.2	C	NB	L	0.85	67.7	E *	NB	L	0.65	45.2	D
	NB	R	0.78	49.0	D	NB	R	0.60	32.1	C										

Unsignalized Intersection	Lane Group	No-Action AM Peak Hour			No-Action MD Peak Hour			No-Action Peak Hour			No-Action SAT Peak Hour		
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Arlington Avenue & Jamaica Avenue (Two-Way Stop Controlled)	NB-LR	0.36	13.4	B	0.40	14.8	B	0.57	19.9	C	0.65	25.6	D
Atlantic Avenue & Ashford Street (Two-Way Stop Controlled)	NB-R	0.13	12.2	B	0.11	12.3	B	0.20	16.4	C	0.13	12.6	B
Atlantic Avenue & Atkins Avenue (Two-Way Stop Controlled)	NB-R	0.01	10.9	B	0.02	11.4	B	0.01	11.6	B	0.01	13.1	B
Atlantic Avenue & Montauk Avenue (Two-Way Stop Controlled)	NB-R	0.11	11.5	B	0.11	13.2	B	0.10	10.2	B	0.18	13.8	B
Broadway & Truxton Street (Two-Way Stop Controlled)	SB-R	0.17	9.5	A	0.19	9.8	A	0.23	9.8	A	0.21	9.7	A
	EB-R	0.04	10.6	B	0.05	10.2	B	0.07	10.6	B	0.07	10.2	B
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	SB-LT	0.01	10.0	B	0.02	9.0	A	0.01	9.3	A	0.01	8.9	A
	WB-LR	0.19	22.7	C	0.15	19.5	C	0.27	23.3	C	0.16	22.8	C
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	SB-LR	0.05	9.1	A	0.05	9.5	A	0.08	9.4	A	0.04	9.1	A
	EB-LT	0.01	7.5	A	0.02	7.3	A	0.01	7.3	A	0.01	7.3	A
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	NB-LT	0.02	7.4	A	0.02	7.4	A	0.02	7.4	A	0.01	7.5	A
	EB-L	0.07	10.9	B	0.09	11.2	B	0.10	10.6	B	0.05	10.2	B
Fulton Street & New Jersey Avenue (Two-Way Stop Controlled)	SB-LT	0.15	14.4	B	0.12	14.3	B	0.37	27.4	D	0.16	14.1	B
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB - LT	0.07	8.4	A	0.06	7.8	A	0.07	8.4	A	0.06	8.0	A
	NB - TR	1.10	135.6	F *	0.38	19.6	C	0.99	112.8	F *	0.57	31.6	D
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	NB-LTR	1.04	104.1	F *	0.56	27.9	D	1.05	123.3	F *	0.57	34.9	D
	EB-LT	0.06	9.1	A	0.04	8.3	A	0.06	9.4	A	0.05	9.1	A
Glenmore Avenue & Miller Avenue (All-Way Stop Controlled)	SB-TR	-	14.9	B	-	9.0	A	-	12.9	B	-	9.7	A
	WB-LT	-	52.6	F *	-	9.1	A	-	11.5	B	-	9.3	A
Glenmore Avenue & Montauk Avenue (Two-Way Stop Controlled)	NB-LT	0.22	13.0	B	0.13	10.3	B	0.22	11.7	B	0.16	10.5	B
Liberty Avenue & Elton Street (Two-Way Stop Controlled)	NB-LR	0.15	13.6	B	0.06	10.7	B	0.14	13.7	B	0.12	11.2	B
Liberty Avenue & Essex Street (Two-Way Stop Controlled)	NB-LTR	0.33	30.1	D	0.17	15.3	C	0.27	27.4	D	0.16	14.7	B
	EB-LT	0.02	10.7	B	0.01	8.4	A	0.05	9.4	A	0.01	8.4	A
Liberty Avenue & Atkins Avenue (Two-Way Stop Controlled)	SB-LTR	0.08	15.8	C	0.07	16.1	C	0.11	26.8	D	0.02	11.7	B
	EB-LTR	0.01	9.4	A	0.00	8.3	A	0.01	8.8	A	0.00	8.4	A
	WB-LTR	0.20	10.1	B	0.08	8.5	A	0.13	9.9	A	0.08	8.4	A
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	NB-LTR	0.32	25.0	C	0.15	13.9	B	0.45	29.9	D	0.20	16.1	C
	EB-LT	0.03	8.8	A	0.02	7.8	A	0.02	8.2	A	0.01	8.0	A

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right

* - Denotes a congested movement

TABLE E-3
With-Action Intersection Level of Service Analysis

Signalized Intersection	With-Action AM Peak Hour					With-Action Midday Peak Hour					With-Action PM Peak Hour					With-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Atlantic Avenue & Rockaway Avenue	EB	L	0.34	29.6	C	EB	L	0.38	24.3	C	EB	L	0.29	23.0	C	EB	L	0.35	24.7	C
	EB	TR	0.67	29.6	C	EB	TR	0.96	46.9	D *	EB	TR	0.99	51.9	D *	EB	TR	0.81	34.2	C
	WB	L	0.89	57.2	E *	WB	L	0.98	89.7	F	WB	L	1.14	140.9	F	WB	L	1.10	128.1	F
	WB	TR	1.14	103.9	F *	WB	TR	1.08	79.2	E *	WB	TR	0.88	37.8	D	WB	TR	0.88	37.6	D
	NB	LTR	1.12	118.0	F	NB	LTR	0.95	55.5	E	NB	LTR	1.17	138.2	F	NB	LTR	1.11	117.3	F
SB	LTR	0.96	84.2	F	SB	LTR	1.04	87.9	F	SB	LTR	1.12	130.6	F	SB	LTR	1.11	123.3	F	
Atlantic Avenue & Eastern Parkway	EB	TR	0.64	26.5	C	EB	TR	0.81	30.9	C	EB	TR	0.92	38.6	D	EB	TR	0.98	46.7	D *
	WB-Main	T	1.11	91.0	F *	WB-Main	T	1.15	106.5	F *	WB-Main	T	0.95	45.5	D	WB-Main	T	1.26	154.9	F *
	WB-Service	T	0.94	50.9	D	WB-Service	T	0.52	26.2	C	WB-Service	T	0.51	25.3	C	WB-Service	T	0.55	26.7	C
	WB-Service	R	0.16	19.5	B	WB-Service	R	0.12	20.0	B	WB-Service	R	0.16	19.5	B	WB-Service	R	0.14	20.3	C
	NB	T	0.71	40.5	D	NB	T	0.57	26.2	C	NB	T	0.73	39.5	D	NB	T	0.57	26.1	C
NB	R	0.89	61.2	E	NB	R	0.77	37.2	D	NB	R	1.20	150.4	F *	NB	R	0.78	37.6	D	
SB	LTR	1.11	103.4	F	SB	LTR	1.10	92.4	F	SB	LTR	1.55	296.8	F	SB	LTR	1.15	112.0	F	
Atlantic Avenue & Georgia Avenue	EB-Main	T	0.65	15.3	B	EB-Main	T	0.62	14.8	B	EB-Main	T	0.71	16.8	B	EB-Main	T	0.61	14.9	B
	EB-Service	T	0.30	10.5	B	EB-Service	T	0.37	11.4	B	EB-Service	T	0.61	15.3	B	EB-Service	T	0.44	13.0	B
	WB	TR	0.75	17.2	B	WB	TR	0.57	13.5	B	WB	TR	0.61	14.0	B	WB	TR	0.65	15.2	B
	NB	LTR	1.19	150.4	F *	NB	LTR	1.10	118.1	F *	NB	LTR	1.17	143.4	F *	NB	LTR	0.78	38.1	D
Atlantic Avenue & Pennsylvania Avenue	EB	L	0.84	72.7	E	EB	L	1.23	188.7	F *	EB	L	1.35	231.9	F *	EB	L	0.93	73.5	E *
	EB	LTR	0.84	30.5	C	EB	LTR	1.25	154.6	F *	EB	LTR	1.34	193.4	F *	EB	LTR	0.93	36.9	D
	WB	TR	1.15	109.1	F *	WB	TR	1.00	62.4	E *	EB	R	0.22	22.9	C	WB	TR	1.18	120.2	F *
	NB	L	1.12	124.0	F	NB	L	1.25	192.0	F	WB	TR	1.23	152.9	F *	NB	L	1.15	127.8	F
	NB	TR	1.44	248.6	F *	NB	TR	1.44	245.3	F *	NB	L	1.16	149.0	F	NB	TR	1.31	179.7	F *
	SB	L	1.07	215.9	F *	SB	L	1.53	290.4	F *	NB	TR	1.10	99.0	F *	SB	L	1.23	161.4	F *
SB	TR	1.16	129.8	F *	SB	TR	0.98	63.2	E *	SB	L	1.26	175.4	F *	SB	TR	0.93	44.8	D	
Atlantic Avenue & Miller Avenue	EB	TR	0.44	11.7	B	EB	TR	0.53	12.8	B	EB	TR	0.76	17.5	B	EB	TR	0.59	12.1	B
	WB	LT	0.84	22.1	C	WB	DefL	1.05	114.4	F	WB	DefL	3.18	1046.0	F *	WB	DefL	1.18	156.0	F
	SB	LTR	1.32	203.1	F *	WB	T	0.72	17.1	B	WB	T	0.72	17.0	B	WB	T	0.77	16.6	B
						WB	LT		26.4	C	SB	LTR	1.44	252.4	F *	WB	LT		29.1	C
					SB	LTR	0.83	56.5	E						SB	LTR	0.82	45.2	D	
Atlantic Avenue & Hendrix Street	EB	TR	0.52	12.7	B	EB	TR	0.57	13.5	B	EB	TR	0.81	19.1	B	EB	TR	0.71	19.4	B
	WB	T	0.62	14.2	B	WB	T	0.54	13.0	B	WB	T	0.56	13.3	B	WB	T	0.65	18.1	B
	SB	R	0.22	34.5	C	SB	R	0.02	31.1	C	SB	R	0.12	32.7	C	SB	R	0.07	17.6	B
Atlantic Avenue & Schenck Avenue	EB	LT	0.56	14.4	B	EB	LT	0.62	15.5	B	EB	LT	0.91	26.2	C	EB	LT	0.65	15.9	B
	WB	TR	0.56	14.3	B	WB	TR	0.51	13.5	B	WB	TR	0.49	13.2	B	WB	TR	0.56	14.3	B
	NB	LTR	1.74	390.2	F *	NB	LTR	1.18	152.7	F *	NB	LTR	1.56	308.7	F *	NB	LTR	1.20	146.5	F *
Atlantic Avenue & Warwick Street	EB	TR	0.64	24.1	C	EB	TR	0.68	22.8	C	EB	TR	1.05	61.3	E *	EB	TR	0.91	32.8	C
	WB	L	0.87	68.7	E *	WB	L	0.88	72.3	E *	WB	L	1.02	114.9	F *	WB	L	0.77	49.7	D
	WB	T	0.68	17.3	B	WB	T	0.63	15.1	B	WB	T	0.66	15.6	B	WB	T	0.75	18.0	B
	SB	LTR	1.45	265.7	F *	SB	LTR	0.70	54.5	D	SB	LTR	1.54	302.8	F *	SB	LTR	0.63	36.8	D
Atlantic Avenue & Elton Street	EB	L	0.79	63.5	E *	EB	L	0.34	14.8	B	EB	L	0.93	85.5	F *	EB	L	0.64	38.1	D
	EB	T	0.50	12.5	B	EB	T	0.52	12.7	B	EB	T	1.07	61.3	E *	EB	T	0.62	14.8	B
	WB	TR	0.64	14.7	B	WB	TR	0.48	12.2	B	WB	TR	0.58	13.6	B	WB	TR	0.61	14.6	B
Atlantic Avenue & Highland Place	EB	L	0.92	96.3	F *	EB	L	0.93	85.6	F *	EB	L	0.93	92.9	F *	EB	L	1.59	336.3	F *
	EB	T	0.59	15.1	B	EB	T	0.75	22.2	C	EB	T	1.04	54.0	D *	EB	T	0.84	23.2	C
	WB	TR	0.63	15.4	B	WB	TR	0.56	16.8	B	WB	TR	0.59	14.8	B	WB	TR	0.66	16.4	B
	SB	LR	1.05	103.0	F *	SB	LR	0.77	49.6	D	SB	LR	1.40	237.9	F *	SB	LR	0.96	62.8	E *
Atlantic Avenue & Logan Street	EB	TR	0.67	23.7	C	EB	TR	0.68	23.3	C	EB	TR	0.93	34.5	C	EB	TR	0.87	30.0	C
	WB	TR	0.98	42.8	D	WB	TR	0.66	22.8	C	WB	TR	0.89	32.3	C	WB	TR	1.03	55.9	E *
	NB	TR	0.84	44.3	D	NB	TR	0.90	52.7	D *	NB	TR	0.91	51.5	D *	NB	TR	0.70	22.8	C
	SB	LTR	2.06	526.5	F *	SB	LTR	2.05	522.2	F *	SB	LTR	2.36	658.5	F *	SB	LTR	1.51	268.4	F *
Atlantic Avenue & Euclid Avenue	EB	T	0.21	10.3	B	EB	T	0.24	10.6	B	EB	T	0.31	11.2	B	EB	T	0.31	15.4	B
	WB	T	0.34	11.5	B	WB	T	0.23	10.5	B	WB	T	0.31	11.2	B	WB	T	0.40	16.2	B
	NB	LR	0.56	47.1	D	NB	LR	0.64	52.3	D *	NB	LR	0.69	54.7	D *	NB	LR	0.43	26.0	C
	SB	L	0.67	50.7	D	SB	L	0.60	48.3	D *	SB	L	1.01	95.5	F *	SB	L	0.47	26.4	C
	SB	R	0.26	39.1	D	SB	R	0.40	43.6	D	SB	R	0.66	54.3	D *	SB	R	0.22	22.5	C
Atlantic Avenue & Crescent Street	EB	LTR	0.41	17.8	B	EB	LTR	0.54	25.9	C	EB	LTR	0.57	20.3	C	EB	LTR	0.53	18.7	B
	WB	DefL	0.62	17.7	B	WB	DefL	0.64	24.8	C	WB	DefL	0.98	96.4	F *	WB	DefL	0.85	32.1	C
	WB	TR	0.55	13.5	B	WB	TR	0.42	16.6	B	WB	TR	0.40	11.4	B	WB	TR	0.49	11.2	B
	NB	LTR	0.82	55.3	E	NB	LTR	0.45	31.4	C	NB	LTR	0.57	41.7	D	NB	LTR	0.59	32.7	C
	SB	LTR	0.62	47.8	D	SB	LTR	0.42	31.6	C	SB	LTR	1.20	164.0	F *	SB	LTR	0.81	51.3	D
Atlantic Avenue & Eldert Lane	EB	LTR	0.32	12.2	B	EB	LTR	0.40	13.2	B	EB	LTR	0.55	15.2	B	EB	LTR	0.51	18.4	B
	WB	LTR	0.56	15.4	B	WB	LTR	0.36	12.7	B	WB	LTR	0.53	15.1	B	WB	LTR	0.66	21.3	C
	NB	LTR	0.72	55.6	E	NB	LTR	0.60	47.6	D	NB	LTR	0.75	59.0	E	NB	LTR	0.49	26.8	C
	SB	LTR	0.75	58.4	E	SB	LTR	0.41	40.8	D	SB	LTR	0.90	77.3	E	SB	LTR	0.48	26.5	C
Atlantic Avenue & Rockaway Boulevard	EB	L	0.48	31.4	C	EB	L	0.34	24.1	C	EB	L	0.26	18.3	B	EB	L	0.32	24.8	C
	EB	TR	0.91	39.5	D	EB	TR	1.13	97.5	F *	EB	TR	0.95	41.9	D	EB	TR	1.03	63.8	E *
	WB	L	0.74	40.8	D	WB	L	0.82	50.4	D	WB	L	1.19	159.4	F *	WB	L	1.11	114.4	F
	WB	TR	0.71	19.7	B	WB	TR	0.51	17.0	B	WB	TR	0.73	19.6	B	WB	TR	0.79	24.6	C
	NB	L	0.94	85.1	F	NB	L	0.42	23.3	C	NB	L	1.13	163.6	F	NB	L	0.55	27.6	C
	NB	TR	1.11	121.5	F	NB	TR	0.34	20.9	C	NB	TR	0.98	88.8	F	NB	TR	0.77	36.4	D
SB	LTR	1.16	142.4	F	SB	LTR	0.52	24.7	C	SB	L	0.62	52.2	D	SB	LTR	0.77	36.3	D	
										SB	TR	0.94	71.9	E						
Broadway & Rockaway Avenue	EB	LTR	0.69	24.2	C	EB	LTR	0.70	21.2	C	EB	LTR	0.80	30.4	C	EB	LTR	0.66	19.1	B
	WB	LTR	1.00	57.8	E *	WB	LTR	0.77	24.1	C	WB	LTR	0.97	49.6	D *	WB	LTR	0.97	46.9	D *
	NB	LTR	0.75	45.8	D	NB	LTR	0.40	24.8	C	NB	LTR	0.50	33.2	C	NB	LTR	0.43	25.0	C
	SB	LTR	0.67	40.7	D	SB	LTR	0.68	35.2	D	SB	LTR	0.89	65.2	E	SB	LTR	0.77	41.1	D
Broadway & Eastern Parkway	EB	L	0.98	154.2	F	EB	L	0.40	33.1	C	EB	L	0.46	47.1	D *	EB	L	0.35	30.3	C
	EB	TR	0.98	85.2	F *	EB	TR	0.99	79.6	E *	EB	TR	1.35	219.5	F *	EB	TR	1.06	97.2	F *
	WB	LT	1.58	318.2	F *	WB	LT	0.84	50.7	D *										

Signalized Intersection	With-Action AM Peak Hour					With-Action Midday Peak Hour					With-Action PM Peak Hour					With-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Bushwick Avenue & Eastern Parkway	EB	LTR	0.56	11.6	B	EB	LTR	0.41	6.3	A	EB	LTR	0.79	16.5	B	EB	LTR	0.43	6.4	A
	WB	L	1.05	73.4	E	WB	L	0.78	22.6	C	WB	L	1.16	127.9	F *	WB	L	0.77	22.3	C
	WB	TR	1.12	92.2	F *	WB	TR	0.84	23.9	C	WB	TR	0.70	21.5	C	WB	TR	0.90	28.5	C
	NB	R	0.62	44.8	D	NB	R	1.11	107.5	F	NB	R	1.05	95.2	F	NB	R	1.10	106.4	F
	SB	R	0.25	65.2	E	SB	R	0.17	44.1	D	SB	R	0.23	63.0	E	SB	R	0.16	43.4	D
Fulton Street & Van Sinderen Avenue	EB	TR	0.22	20.9	C	EB	TR	0.25	20.4	C	EB	TR	0.37	23.4	C	EB	TR	0.37	22.1	C
	WB	LT	0.52	26.7	C	WB	LT	0.40	23.1	C	WB	LT	0.47	26.0	C	WB	LT	0.50	25.3	C
	NB	LR	0.74	60.9	E	NB	LR	0.27	28.7	C	NB	LR	0.31	36.1	D	NB	LR	0.22	26.9	C
	SB	LTR	0.64	44.2	D	SB	LTR	0.75	42.1	D	SB	LTR	0.79	50.8	D *	SB	LTR	0.76	41.0	D
	SB- Bus Only	LTR	0.18	48.9	D	SB- Bus Only	LTR	0.15	33.1	C	SB- Bus Only	LTR	0.19	49.1	D	SB- Bus Only	LTR	0.12	32.8	C
Fulton Street & Pennsylvania Avenue	EB	L	0.03	23.9	C	EB	L	0.10	30.1	C	EB	L	0.46	31.0	C	EB	L	0.07	26.6	C
	EB	TR	0.48	30.2	C	EB	TR	0.60	38.5	D	EB	TR	0.86	43.3	D	EB	TR	0.82	43.6	D
	NB	TR	1.18	127.6	F *	NB	TR	1.05	72.4	E *	NB	TR	1.17	120.7	F *	NB	TR	0.90	29.3	C
	SB	L	0.49	47.0	D	SB	L	0.60	51.6	D	SB	L	1.21	170.2	F *	SB	L	0.69	43.5	D
	SB	T	0.58	19.8	B	SB	T	0.62	16.9	B	SB	T	0.98	49.0	D	SB	T	0.44	8.6	A
Fulton Street & Miller Avenue	EB	TR	0.74	22.2	C	EB	TR	0.78	23.9	C	EB	TR	1.14	99.2	F *	EB	TR	0.82	26.5	C
	SB	LT	0.96	58.9	E *	SB	LT	0.43	25.1	C	SB	LT	0.95	56.5	E	SB	LT	0.54	27.6	C
Fulton Street & Highland Place	EB	TR	0.74	18.2	B	EB	TR	0.61	13.8	B	EB	TR	0.98	42.8	D	EB	TR	1.02	52.2	D *
	NB	R	0.26	16.8	B	NB	R	0.33	17.8	B	NB	R	0.32	17.5	B	NB	R	0.34	17.8	B
	SB	LT	0.65	24.0	C	SB	LT	0.69	25.2	C	SB	LT	0.89	38.8	D	SB	LT	0.72	26.3	C
Fulton Street & Logan Street	EB	LTR	0.58	16.1	B	EB	LTR	0.70	20.2	C	EB	LTR	0.95	42.8	D	EB	LTR	0.84	27.9	C
	WB	LTR	1.26	149.5	F *	WB	LTR	1.06	78.1	E *	WB	LTR	1.50	256.8	F *	WB	LTR	1.13	103.0	F *
	NB	LTR	1.19	122.8	F *	NB	LTR	0.71	24.8	C	NB	LTR	0.90	38.4	D	NB	LTR	0.85	33.0	C
	SB	LTR	0.28	14.5	B	SB	LTR	0.29	14.6	B	SB	LTR	0.24	14.1	B	SB	LTR	0.24	14.0	B
Fulton Street & Richmond Street	EB	TR	0.35	9.9	A	EB	TR	0.35	9.9	A	EB	TR	0.47	11.3	B	EB	TR	0.38	10.2	B
	WB	LT	0.59	13.7	B	WB	LT	0.39	10.4	B	WB	LT	0.53	12.5	B	WB	LT	0.44	10.9	B
	NB	LR	0.17	16.5	B	NB	LR	0.11	15.3	B	NB	LR	0.14	15.9	B	NB	LR	0.10	15.1	B
	SB	LTR	0.58	22.8	C	SB	LTR	0.29	17.2	B	SB	LTR	0.59	23.2	C	SB	LTR	0.37	18.2	B
Fulton Street & Euclid Avenue	EB	TR	0.32	9.6	A	EB	TR	0.40	10.6	B	EB	TR	0.51	12.1	B	EB	TR	0.47	11.4	B
	WB	LT	0.28	9.2	A	WB	LT	0.26	9.1	A	WB	LT	0.30	9.5	A	WB	LT	0.33	9.7	A
	SB	LTR	1.03	69.5	E *	SB	LTR	0.60	22.5	C	SB	LTR	1.04	72.2	E *	SB	LTR	0.83	33.3	C
Glenmore Avenue & Pennsylvania Avenue	EB	LR	0.23	34.3	C	EB	LR	0.34	36.7	D	EB	LR	0.20	33.9	C	EB	LR	0.33	27.9	C
	WB	LR	1.36	221.3	F *	WB	LR	0.51	40.5	D	WB	LR	0.64	45.0	D	WB	LR	0.28	27.1	C
	NB	T	0.56	13.6	B	NB	T	0.57	13.9	B	NB	T	0.57	13.8	B	NB	T	0.57	11.6	B
	SB	T	0.52	13.0	B	SB	T	0.53	13.3	B	SB	T	0.56	13.7	B	SB	T	0.55	11.3	B
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	EB-Bushwick	R	0.77	51.2	D	EB-Bushwick	R	0.89	59.5	E *	EB-Bushwick	R	1.15	130.1	F *	EB-Bushwick	R	0.83	43.2	D
	EB-Jamaica	L	0.19	40.3	D	EB-Jamaica	L	0.26	43.3	D	EB-Jamaica	L	0.17	39.3	D	EB-Jamaica	L	0.20	32.1	C
	EB-Jamaica	TR	1.14	121.6	F *	EB-Jamaica	TR	1.11	110.4	F	EB-Jamaica	TR	1.13	115.7	F	EB-Jamaica	TR	1.12	102.7	F
	WB	L	1.36	246.1	F *	WB	L	1.20	176.6	F *	WB	L	1.34	238.5	F *	WB	L	1.19	166.9	F *
	WB	T	1.35	241.5	F *	WB	T	1.20	177.3	F *	WB	T	1.35	238.9	F *	WB	T	1.23	174.7	F *
	NB	L	1.22	166.2	F *	NB	L	1.13	132.3	F *	NB	L	0.95	79.6	E *	NB	L	0.98	76.1	E *
	NB	TR	0.61	19.0	B	NB	TR	0.55	18.8	B	NB	TR	0.62	19.6	B	NB	TR	0.52	14.7	B
	SB	TR	1.11	106.7	F	SB	TR	0.94	66.4	E	SB	TR	1.11	113.0	F	SB	TR	0.92	54.5	D
	SB	T	0.85	50.4	D	SB	T	0.73	47.7	D	SB	T	0.86	53.7	D	SB	T	0.88	48.4	D
	Jamaica Avenue & Highland P/Force Tube Ave.	EB	LTR	1.20	128.2	F *	EB	LTR	1.15	109.2	F *	EB	LTR	0.99	56.4	E *	EB	LTR	1.18	116.6
WB		LTR	0.54	16.8	B	WB	LTR	0.60	17.9	B	WB	LTR	0.70	21.2	C	WB	LTR	0.64	19.1	B
NB		L	0.42	16.3	B	NB	L	0.23	12.9	B	NB	L	0.64	31.2	C	NB	L	0.26	13.4	B
NB		TR	0.80	24.3	C	NB	TR	0.45	14.5	B	NB	TR	0.54	16.0	B	NB	TR	0.46	14.6	B
SB		L	0.65	32.5	C	SB	L	0.42	15.9	B	SB	L	1.16	120.1	F	SB	L	0.46	16.9	B
SB		TR	0.54	16.1	B	SB	TR	0.49	15.2	B	SB	TR	1.25	145.9	F *	SB	TR	0.51	15.5	B
Jamaica Avenue & Chestnut Street	EB	T	0.68	15.6	B	EB	T	0.57	13.1	B	EB	T	0.72	16.4	B	EB	T	0.62	13.9	B
	WB	T	0.53	12.1	B	WB	T	0.39	10.2	B	WB	T	0.66	14.9	B	WB	T	0.56	12.6	B
	NB	LR	0.90	42.8	D	NB	LR	0.40	18.5	B	NB	LR	0.50	20.4	C	NB	LR	0.41	18.7	B
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.53	262.5	F *	EB	LTR	1.13	92.3	F *	EB	LTR	1.46	229.7	F *	EB	LTR	1.29	157.8	F *
	WB	LT	0.34	8.2	A	WB	LT	0.29	8.7	A	WB	LT	0.44	10.4	B	WB	LT	0.45	10.6	B
	WB	R	0.56	1.6	A	WB	R	0.28	0.5	A	WB	R	0.31	0.6	A	WB	R	0.34	0.6	A
	SB	LT	0.61	20.9	C	SB	LT	0.58	20.3	C	SB	LT	0.88	30.4	C	SB	LT	0.62	20.9	C
Liberty Avenue & Pennsylvania Avenue	EB	LTR	0.54	42.6	D	EB	LTR	0.86	68.4	E *	EB	LTR	1.04	101.4	F *	EB	LTR	0.61	36.7	D
	WB	LTR	1.05	103.5	F *	WB	LTR	1.22	167.0	F *	WB	LTR	1.34	217.2	F *	WB	LTR	1.12	116.8	F *
	NB	L	0.45	17.3	B	NB	L	0.30	13.9	B	NB	L	0.40	17.8	B	NB	L	0.33	13.1	B
	NB	TR	0.76	25.2	C	NB	TR	0.75	24.7	C	NB	TR	0.71	23.3	C	NB	TR	0.79	23.6	C
	SB	L	0.11	13.0	B	SB	L	0.11	12.2	B	SB	L	0.18	13.3	B	SB	L	0.10	11.1	B
SB	TR	0.63	20.9	C	SB	TR	0.64	21.3	C	SB	TR	0.67	21.9	C	SB	TR	0.67	20.0	B	
Liberty Avenue & New Jersey Avenue	EB	TR	0.26	11.6	B	EB	TR	0.28	12.0	B	EB	TR	0.51	15.5	B	EB	TR	0.22	8.8	A
	WB	LT	0.48	14.9	B	WB	LT	0.41	13.8	B	WB	LT	0.54	16.5	B	WB	LT	0.44	11.4	B
	SB	LTR	0.19	31.4	C	SB	LTR	0.25	32.4	C	SB	LTR	0.31	33.6	C	SB	LTR	0.22	25.5	C
Liberty Avenue & Miller Avenue	EB	TR	0.32	12.4	B	EB	TR	0.24	11.4	B	EB	TR	0.44	14.1	B	EB	TR	0.25	9.1	A
	WB	LT	0.63	18.5	B	WB	LT	0.35	12.7	B	WB	LT	0.38	13.2	B	WB	LT	0.37	10.5	B
	SB	LTR	1.20	151.8	F *	SB	LTR	0.83	54.2	D *	SB	LTR	1.20	148.2	F *	SB	LTR	0.85	47.7	D *
Liberty Avenue & Hendrix Street	EB	TR	0.32	9.8	A	EB	TR	0.28	9.3	A	EB	TR	0.45	11.4	B	EB	TR	0.25	9.0	A
	WB	LT	0.73	19.0	B	WB	LT	0.38	10.6	B	WB	LT	0.44	11.5	B	WB	LT	0.37	10.4	B
	SB	LTR	0.15	35.4	D	SB	LTR	0.21	36.4	D	SB	LTR	0.14	35.1	D	SB	LTR	0.33	38.5	D
Liberty Avenue & Schenck Avenue	EB	LT	0.53	14.7	B	EB	LT	0.32	10.0	A	EB	LT	0.56	13.9	B	EB	LT	0.32	10.0	A
	WB	TR	1.02	55.8	E *	WB	TR	0.61	14.8	B	WB	TR	0.69	16.9	B	WB	TR	0.65	15.7	B
	NB	LTR	0.79	55.9	E *	NB	LTR	0.53	43.0	D	NB	LTR	0.69	49.2	D	NB	LTR	0.46	41.2	D
Liberty Avenue & Warwick Street	EB	TR	0.21	11.1	B	EB	TR	0.26	11.6	B	EB	TR	0.48	14.8	B	EB	TR	0.23	8.9	A
	WB	LT	1.04	65.2	E *	WB	LT	0.54	16.1	B	WB	LT	0.61	17.9	B	WB	LT	0.58	13.8	B
	SB	LTR	1.47	269.1	F *	SB	LTR	0.87	60.8	E	SB	LTR	1.33	204.3	F *	SB				

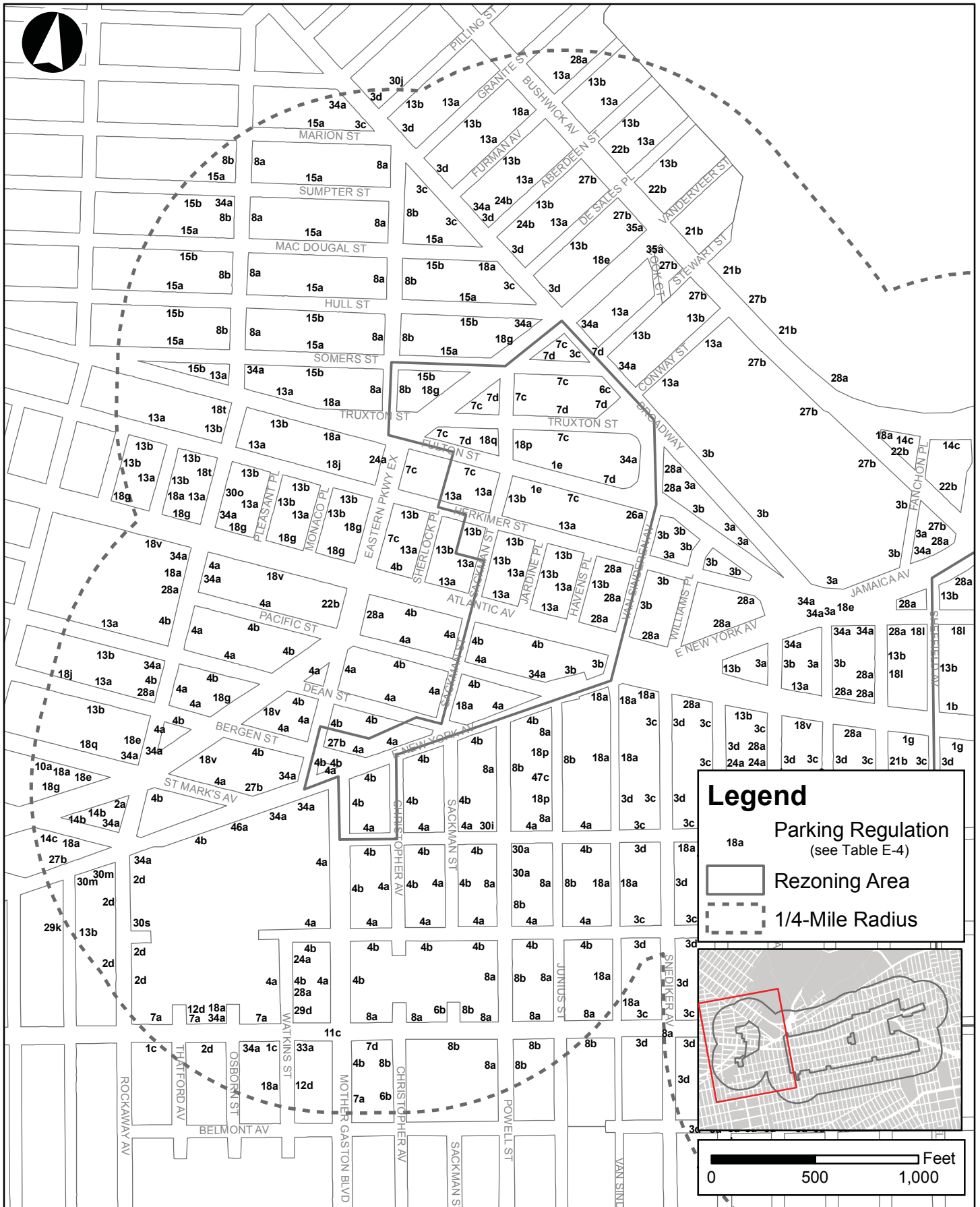
Signalized Intersection	With-Action AM Peak Hour					With-Action Midday Peak Hour					With-Action PM Peak Hour					With-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Liberty Avenue & Shepherd Avenue	EB	TR	0.35	12.3	B	EB	TR	0.42	13.4	B	EB	TR	0.77	23.1	C	EB	TR	0.42	11.1	B
	WB	LT	0.98	49.4	D *	WB	LT	0.56	16.1	B	WB	LT	0.67	19.1	B	WB	LT	0.58	13.8	B
	SB	LTR	0.64	44.9	D	SB	LTR	0.37	35.7	D	SB	LTR	0.77	51.7	D *	SB	LTR	0.42	29.3	C
Liberty Avenue & Montauk Avenue	EB	LT	0.40	13.6	B	EB	LT	0.41	13.7	B	EB	LT	0.74	22.3	C	EB	LT	0.39	10.7	B
	WB	TR	0.86	30.0	C	WB	TR	0.44	14.2	B	WB	TR	0.51	15.5	B	WB	TR	0.44	11.3	B
	NB	LTR	0.36	34.6	C	NB	LTR	0.35	34.6	C	NB	LTR	0.51	38.6	D	NB	LTR	0.42	29.3	C
Liberty Avenue & Milford Street	EB	TR	0.54	16.7	B	EB	TR	0.52	16.3	B	EB	TR	0.90	34.6	C	EB	TR	0.56	13.9	B
	WB	LT	1.03	65.0	E *	WB	LT	0.77	26.3	C	WB	LT	1.23	144.5	F *	WB	LT	0.76	21.8	C
	SB	LTR	0.20	30.8	C	SB	LTR	0.21	30.9	C	SB	LTR	0.18	30.4	C	SB	LTR	0.25	25.1	C
Liberty Avenue & Logan Street	EB	LT	0.99	60.2	E *	EB	LT	0.74	21.1	C	EB	LT	1.15	104.8	F *	EB	LT	0.95	48.6	D *
	WB	TR	0.63	15.1	B	WB	TR	0.28	9.3	A	WB	TR	0.37	10.4	B	WB	TR	0.36	12.9	B
	NB	LTR	0.83	59.2	E *	NB	LTR	0.80	57.6	E	NB	LTR	0.92	71.0	E *	NB	LTR	0.60	29.0	C
Liberty Avenue & Fountain Avenue	EB	TR	0.33	10.0	A	EB	TR	0.31	9.6	A	EB	TR	0.56	13.5	B	EB	TR	0.42	13.7	B
	WB	LT	0.84	25.3	C	WB	LT	0.42	11.3	B	WB	LT	0.71	19.9	B	WB	LT	0.57	17.0	B
	SB	LTR	0.56	44.8	D	SB	LTR	0.34	38.6	D	SB	LTR	0.52	43.2	D	SB	LTR	0.37	24.2	C
Liberty Avenue & South Conduit Boulevard	EB	TR	0.41	25.0	C	EB	TR	0.54	37.9	D	EB	T	0.39	34.9	C	EB	TR	0.52	26.4	C
	WB	L	1.16	137.0	F *	WB	L	1.33	223.4	F *	EB	R	0.74	48.1	D	WB	L	1.31	199.8	F *
	WB	T	0.96	59.0	E	WB	T	0.78	49.0	D	WB	L	0.82	62.6	E *	WB	T	0.93	58.8	E *
Liberty Avenue & North Conduit Boulevard	SB	L	0.03	16.3	B	SB	L	0.06	9.7	A	WB	T	1.25	174.9	F *	SB	L	0.05	9.7	A
	SB	TR	0.49	21.8	C	SB	TR	0.37	12.3	B	SB	L	0.03	9.5	A	SB	TR	0.49	13.4	B
	SB	TR	0.41	25.0	C	SB	TR	0.54	37.9	D	SB	TR	0.60	15.4	B	SB	TR	0.49	13.4	B
Liberty Avenue & North Conduit Boulevard	EB	LT	0.51	38.9	D	EB	LT	0.57	40.5	D	EB	LT	0.56	39.3	D	EB	LT	0.39	24.1	C
	WB	T	1.25	168.0	F *	WB	TR	1.12	119.2	F *	WB	TR	1.45	259.6	F *	WB	TR	1.37	211.6	F *
	WB	R	0.21	31.8	C	NB	L	0.16	10.5	B	NB	L	0.14	10.4	B	NB	L	0.21	11.1	B
Livonia Avenue & Pennsylvania Avenue	NB	L	0.40	13.3	B	NB	TR	0.39	12.5	B	NB	TR	0.44	13.0	B	NB	TR	0.44	12.8	B
	NB	TR	0.72	18.4	B	EB	LTR	1.09	127.7	F	EB	LTR	0.67	47.2	D	EB	LTR	0.48	31.7	C
	EB	LTR	1.09	127.7	F	WB	LTR	1.08	107.0	F	WB	LTR	0.70	48.9	D	WB	LTR	0.57	34.2	C
Pitkin Avenue & Mother Gaston Boulevard	NB	LTR	0.95	35.1	D	NB	LTR	0.70	17.2	B	NB	LTR	0.71	18.0	B	NB	LTR	0.66	13.6	B
	SB	LTR	0.76	20.2	C	SB	LTR	0.66	16.0	B	SB	LTR	0.77	19.7	B	SB	LTR	0.72	15.1	B
	EB	LTR	0.95	57.8	E *	EB	LTR	0.69	28.2	C	EB	LTR	0.74	30.3	C	EB	LTR	0.77	32.5	C
Pitkin Avenue & Pennsylvania Avenue	WB	LTR	1.10	96.0	F *	WB	LTR	0.75	31.4	C	WB	LTR	0.71	29.0	C	WB	LTR	0.73	29.9	C
	NB	L	0.34	27.4	C	NB	L	0.24	24.8	C	NB	L	0.25	25.2	C	NB	L	0.36	27.5	C
	NB	TR	0.46	28.3	C	NB	TR	0.41	27.3	C	NB	TR	0.37	26.5	C	NB	TR	0.38	26.7	C
Pitkin Avenue & Hendrix Street	SB	L	0.10	22.5	C	SB	L	0.09	22.4	C	SB	L	0.14	23.1	C	SB	L	0.12	22.7	C
	SB	TR	0.34	26.0	C	SB	TR	0.34	26.0	C	SB	TR	0.41	27.1	C	SB	TR	0.32	25.5	C
	EB	LTR	1.73	384.6	F *	EB	LTR	1.21	161.3	F *	EB	LTR	1.48	274.4	F *	EB	LTR	0.86	54.0	D *
Pitkin Avenue & Warwick Street	WB	LTR	2.39	679.2	F *	WB	LTR	1.01	94.7	F *	WB	LTR	1.54	300.4	F *	WB	LTR	1.45	249.5	F *
	NB	LTR	0.89	27.2	C	NB	LTR	0.77	19.5	B	NB	LTR	1.14	94.2	F *	NB	LTR	1.04	55.6	E *
	SB	LTR	1.17	106.6	F *	SB	LTR	1.10	81.2	F *	SB	LTR	1.20	119.1	F *	SB	LTR	0.77	16.8	B
Pitkin Avenue & Shephard Avenue	EB	TR	0.46	11.3	B	EB	TR	0.47	11.4	B	EB	TR	0.75	18.2	B	EB	TR	0.52	12.2	B
	WB	LT	0.78	20.3	C	WB	LT	0.49	11.8	B	WB	LT	0.59	13.5	B	WB	LT	0.58	13.3	B
	SB	LTR	0.47	20.4	C	SB	LTR	0.24	16.5	B	SB	LTR	0.32	17.7	B	SB	LTR	0.30	17.3	B
Pitkin Avenue & Berriman Street	EB	TR	0.47	11.4	B	EB	TR	0.46	11.4	B	EB	TR	0.77	19.3	B	EB	TR	0.50	11.7	B
	WB	LT	0.87	26.4	C	WB	LT	0.41	10.6	B	WB	LT	0.58	13.3	B	WB	LT	0.59	13.5	B
	SB	LTR	0.63	24.6	C	SB	LTR	0.49	20.7	C	SB	LTR	0.70	27.1	C	SB	LTR	0.49	20.4	C
Pitkin Avenue & Montauk Avenue	EB	TR	0.52	12.3	B	EB	TR	0.48	11.5	B	EB	TR	0.83	22.6	C	EB	TR	0.45	11.0	B
	WB	LT	0.80	20.8	C	WB	LT	0.44	11.0	B	WB	LT	0.59	13.8	B	WB	LT	0.52	12.0	B
	SB	LTR	0.41	18.8	B	SB	LTR	0.27	16.6	B	SB	LTR	0.33	17.5	B	SB	LTR	0.27	16.6	B
Pitkin Avenue & Fountain Avenue	EB	LT	0.60	14.2	B	EB	LT	0.57	13.4	B	EB	LT	0.80	20.6	C	EB	LT	0.38	9.9	A
	WB	TR	0.77	19.4	B	WB	TR	0.47	11.4	B	WB	TR	0.54	12.6	B	WB	TR	0.51	11.9	B
	NB	LTR	0.54	20.9	C	NB	LTR	0.46	19.3	B	NB	LTR	0.48	19.5	B	NB	LTR	0.29	16.7	B
Pitkin Avenue & South Conduit Boulevard	EB	LT	0.53	12.6	B	EB	LT	0.51	12.2	B	EB	LT	0.88	28.1	C	EB	LT	0.51	12.1	B
	WB	TR	0.83	22.7	C	WB	TR	0.43	10.9	B	WB	TR	0.62	14.0	B	WB	TR	0.51	11.8	B
	NB	LTR	0.23	16.3	B	NB	LTR	0.24	16.3	B	NB	LTR	0.31	17.1	B	NB	LTR	0.27	16.6	B
Sutter Avenue & Pennsylvania Avenue	EB	TR	0.58	13.8	B	EB	TR	0.44	11.1	B	EB	TR	0.77	19.5	B	EB	TR	0.51	11.9	B
	WB	LT	0.91	32.0	C	WB	LT	0.44	11.1	B	WB	LT	0.76	19.5	B	WB	LT	0.53	12.6	B
	SB	LTR	0.66	24.6	C	SB	LTR	0.44	19.1	B	SB	LTR	0.59	22.4	C	SB	LTR	0.57	21.6	C
Sutter Avenue & Fountain Avenue	EB	TR	0.74	42.0	D	EB	TR	0.68	38.8	D	EB	T	0.48	31.5	C	EB	TR	0.83	44.5	D
	WB	L	0.94	82.2	F *	WB	L	0.48	35.5	D	EB	R	0.90	59.4	E	WB	L	1.26	187.9	F *
	WB	T	0.81	44.2	D	WB	T	0.50	31.6	C	WB	L	0.70	44.4	D	WB	T	0.65	32.5	C
Pitkin Avenue & North Conduit Boulevard	SB	L	0.04	12.9	B	SB	L	0.06	13.2	B	WB	T	0.60	34.3	C	SB	L	0.03	8.2	A
	SB	TR	0.53	18.5	B	SB	TR	0.49	17.8	B	SB	L	0.03	12.9	B	SB	TR	0.49	11.8	B
	SB	TR	0.53	18.5	B	SB	TR	0.49	17.8	B	SB	TR	0.68	21.3	C	SB	TR	0.49	11.8	B
Sutter Avenue & Pennsylvania Avenue	EB	L	0.66	55.8	E	EB	L	0.26	33.8	C	EB	L	0.43	40.0	D	EB	L	0.31	23.5	C
	EB	T	0.29	33.0	C	EB	T	0.31	33.3	C	EB	T	0.43	35.8	D	EB	T	0.25	20.7	C
	WB	TR	0.58	37.6	D	WB	TR	0.38	33.7	C	WB	TR	0.49	35.5	D	WB	TR	0.40	22.1	C
Sutter Avenue & Fountain Avenue	NB	L	0.35	12.6	B	NB	L	0.14	10.3	B	NB	L	0.15	10.4	B	NB	L	0.20	11.9	B
	NB	TR	0.86	23.4	C	NB	TR	0.40	12.5	B	NB	TR	0.37	12.2	B	NB	TR	0.49	14.4	B
	NB	TR	0.86	23.4	C	NB	TR	0.40	12.5	B	NB	TR	0.37	12.2	B	NB	TR	0.49	14.4	B
Sutter Avenue & Fountain Avenue	EB	LTR	0.81	59.0	E	EB	LTR	0.63	46.9	D	EB	LTR	0.60	44.3	D	EB	LTR	0.62	35.9	D
	WB	LTR	1.16	140.2	F *	WB	LTR	0.72	50.4	D	WB	LTR	0.88	64.9	E	WB	LTR	0.79	45.9	D
	NB	TR	0.68	16.2	B	NB	TR	0.61	14.6	B	NB	TR	0.55	13.6	B	NB	TR	0.61	12.4	B
Sutter Avenue & Fountain Avenue	SB	LTR	0.72	17.6	B	SB	LTR	0.65	15.7	B	SB	LTR	0.82	21.3	C	SB	LTR	0.69	14.0	B
	EB	TR	0.29	14.5	B	EB	TR	0.32	11.9	B	EB	TR	0.33	15.0	B	EB	TR	0.29	14.4	B
	WB	LT	0.79	29.3	C	WB	LT	0.43	13.4	B	WB	LT	0.70	24.5	C	WB	LT	0.51	18.2	B
Sutter Avenue & Fountain Avenue	NB	L	0.63	47.7	D *	NB	L	0.51	31.6	C	NB	L	0.95	90.2	F *	NB	L	0.70	49.7	D
	NB	R	0.78	48.6	D	NB	R	0.61	32.2	C	NB	R	0.80	51.2	D	NB	R	0.64	40.2	D
	SB	LTR	0.76	44.																

Unsignalized Intersection	Lane Group	With-Action AM Peak Hour			With-Action MD Peak Hour			With-Action PM Peak Hour			With-Action SAT Peak Hour		
		V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS	V/C Ratio	Delay (sec/veh)	LOS
Arlington Avenue & Jamaica Avenue (Two-Way Stop Controlled)	NB-LR	0.54	16.7	C	0.47	16.2	C	0.73	27.5	D	0.77	33.8	D *
Atlantic Avenue & Ashford Street (Two-Way Stop Controlled)	NB-R	0.17	12.8	B	0.13	12.9	B	0.27	18.8	C	0.17	13.3	B
Atlantic Avenue & Atkins Avenue (Two-Way Stop Controlled)	NB-R	0.02	15.8	C	0.10	34.7	D	0.04	33.1	D	0.08	58.7	F
Atlantic Avenue & Montauk Avenue (Two-Way Stop Controlled)	NB-R	0.16	14.6	B	0.35	35.4	E	0.31	24.0	C	0.58	52.2	F
Broadway & Truxton Street (Two-Way Stop Controlled)	SB-R EB-R	0.21 0.04	9.8 10.9	A B	0.22 0.05	9.9 10.4	A B	0.32 0.07	10.4 11.3	B B	0.25 0.07	10.0 10.6	B B
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	SB-LT WB-LR	0.07 9.5	19.8 4440.0	C F *	0.06 0.71	13.5 171.7	B F *	0.09 4.35	16.6 1812.0	C F *	0.04 0.96	13.4 253.9	B F *
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	SB-LR EB-LT	0.51 0.02	24.2 8.7	C A	0.11 0.02	12.5 7.8	B A	0.23 0.01	14.7 8.2	B A	0.09 0.01	11.6 7.8	B A
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	NB-LT EB-L	0.06 0.54	7.9 23.6	A C	0.02 0.33	7.7 15.8	A C	0.03 0.52	7.6 18.9	A C	0.02 0.24	7.7 13.3	A B
Fulton Street & New Jersey Avenue (Two-Way Stop Controlled)	SB-LT	0.18	17.3	C	0.17	18.3	C	0.79	96.8	F	0.23	19.0	C
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB - LT NB - TR	0.07 1.50	8.4 294.2	A F *	0.06 0.42	7.8 21.5	A C	0.07 1.24	8.4 200.8	A F *	0.06 0.67	8.0 41.3	A E *
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	NB-LTR EB-LT	2.30 0.06	628.3 9.1	F *	1.58 0.06	322.7 8.4	F *	2.99 0.08	956.7 9.5	F *	1.87 0.06	461.8 9.2	F *
Glenmore Avenue & Miller Avenue (All-Way Stop Controlled)	SB-TR WB-LT	- -	19.4 96.2	C F *	- -	9.4 9.6	A A	- -	15.5 12.9	C B	- -	10.4 9.9	B A
Glenmore Avenue & Montauk Avenue (Two-Way Stop Controlled)	NB-LT	0.25	13.5	B	0.21	10.9	B	0.36	13.5	B	0.23	11.1	B
Liberty Avenue & Elton Street (Two-Way Stop Controlled)	NB-LR	0.18	14.9	B	0.10	11.2	B	0.25	16.3	C	0.16	12.2	B
Liberty Avenue & Essex Street (Two-Way Stop Controlled)	NB-LTR EB-LT	0.46 0.03	45.5 11.4	E B	0.27 0.02	20.3 8.8	C A	0.61 0.05	67.3 10.2	F B	0.23 0.01	18.5 8.7	C A
Liberty Avenue & Atkins Avenue (Two-Way Stop Controlled)	SB-LTR EB-LTR WB-LTR	0.20 0.01 0.33	25.6 10.8 13.8	D B B	0.43 0.01 0.17	67.9 11.8 11.5	F B B	0.84 0.03 0.28	212.1 12.6 15.0	F B C	0.14 0.01 0.17	26.0 10.9 11.8	D B B
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	NB-LTR EB-LT	0.41 0.04	31.8 9.1	D *	0.21 0.03	15.7 8.0	C A	0.65 0.04	49.6 8.4	E *	0.26 0.02	18.6 8.1	C A

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

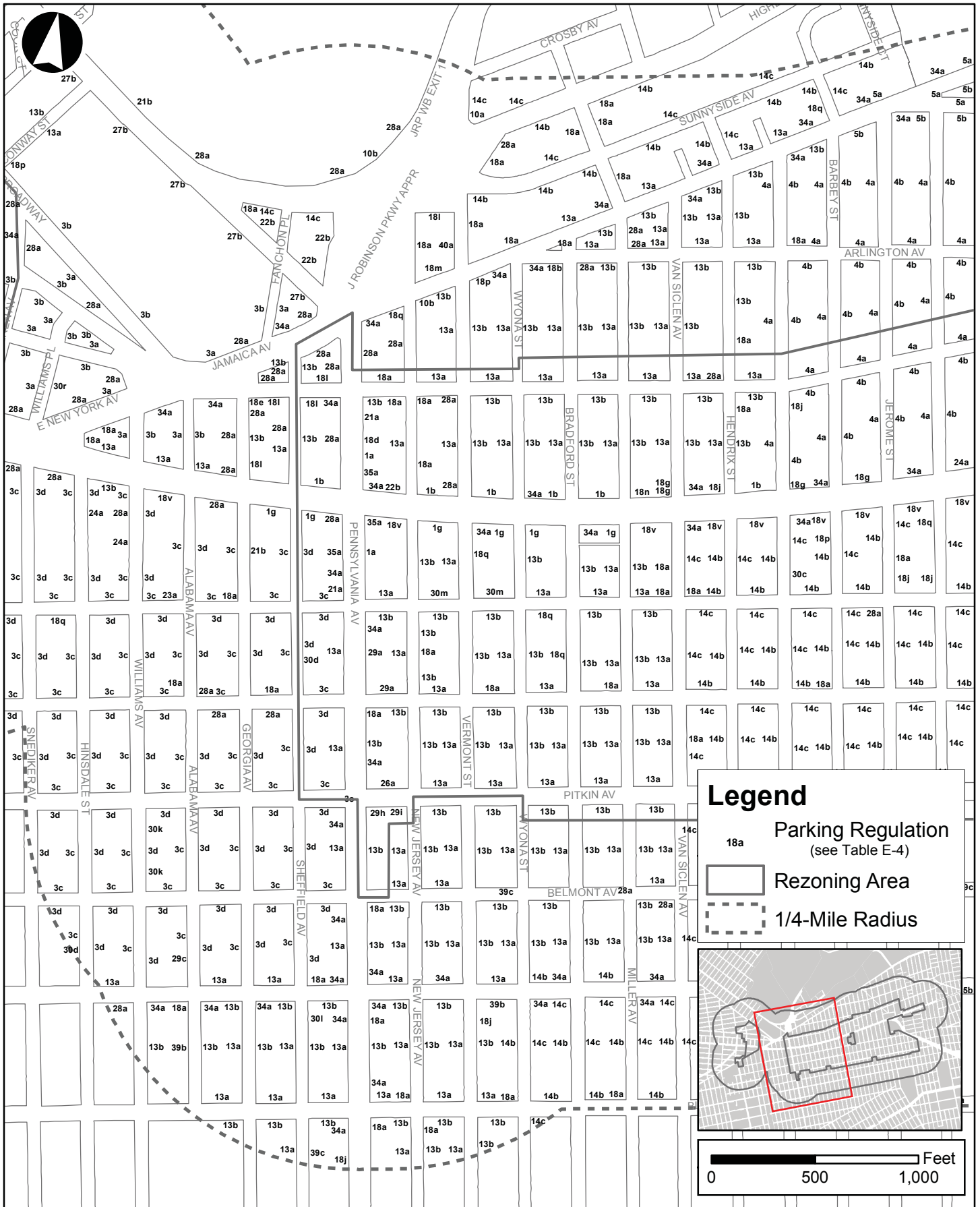
L-Left, T-Through, R-Right

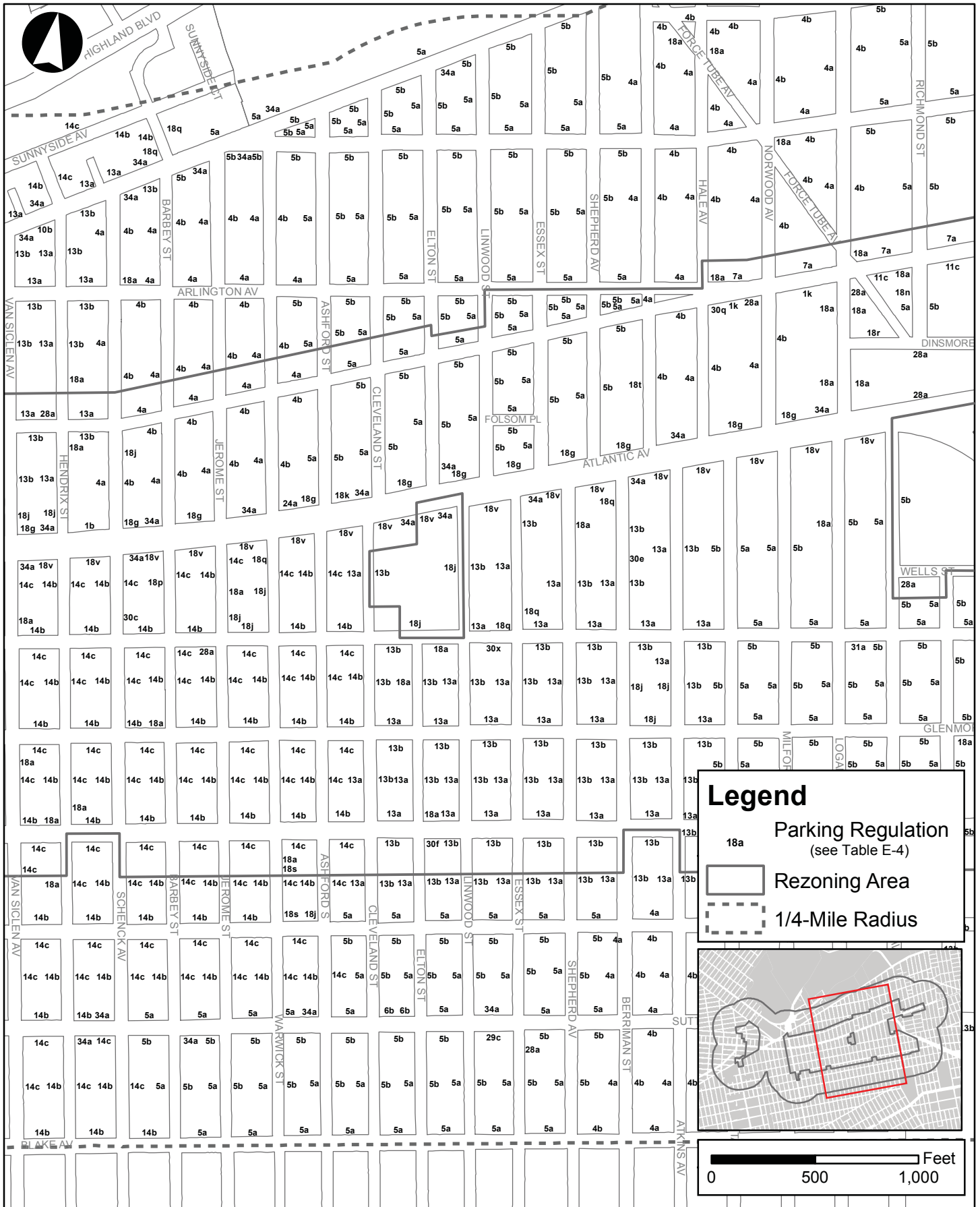
* - Denotes significant adverse impact

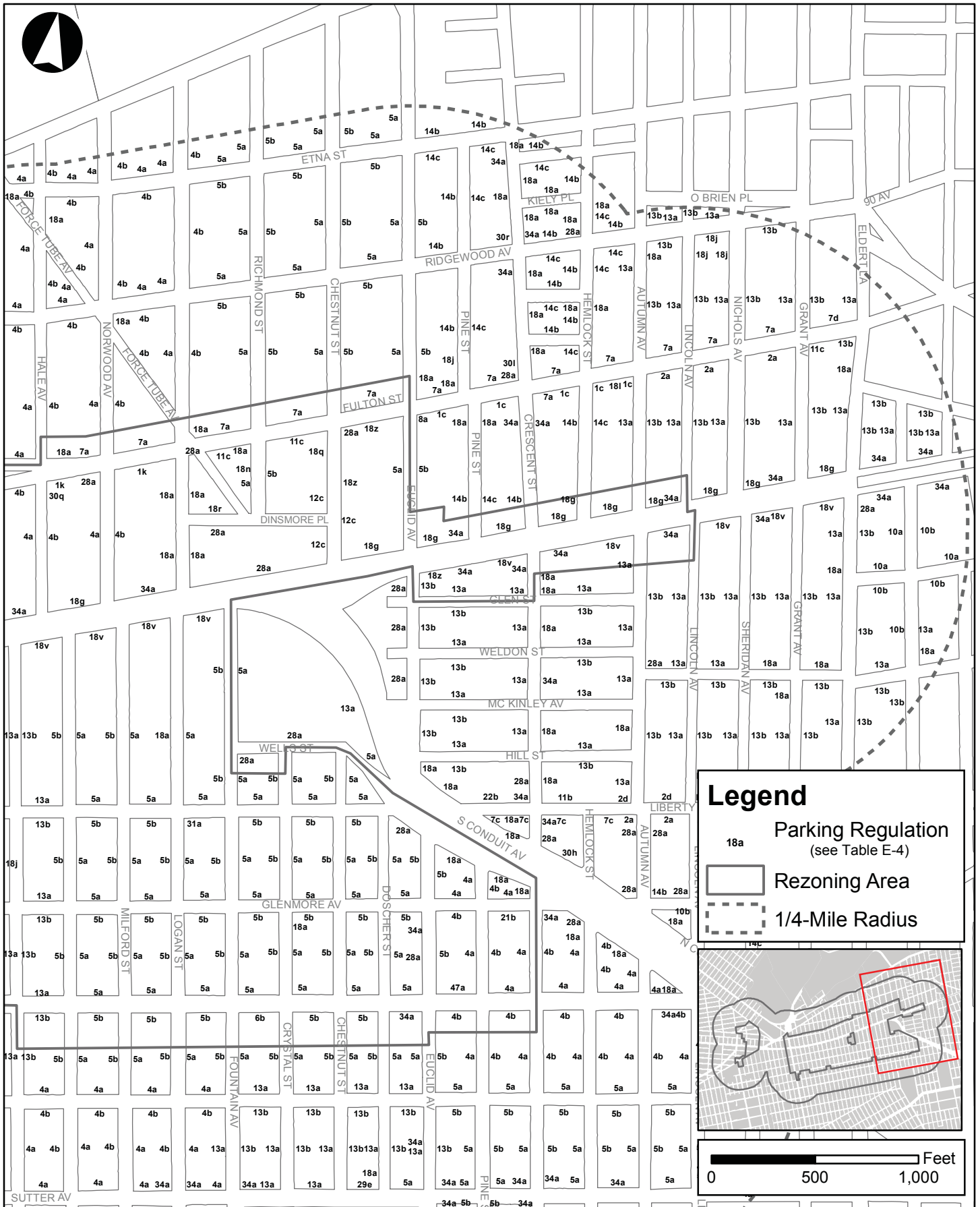


East New York Rezoning Proposal

Figure E-1a
Study Area On-Street Parking Regulations







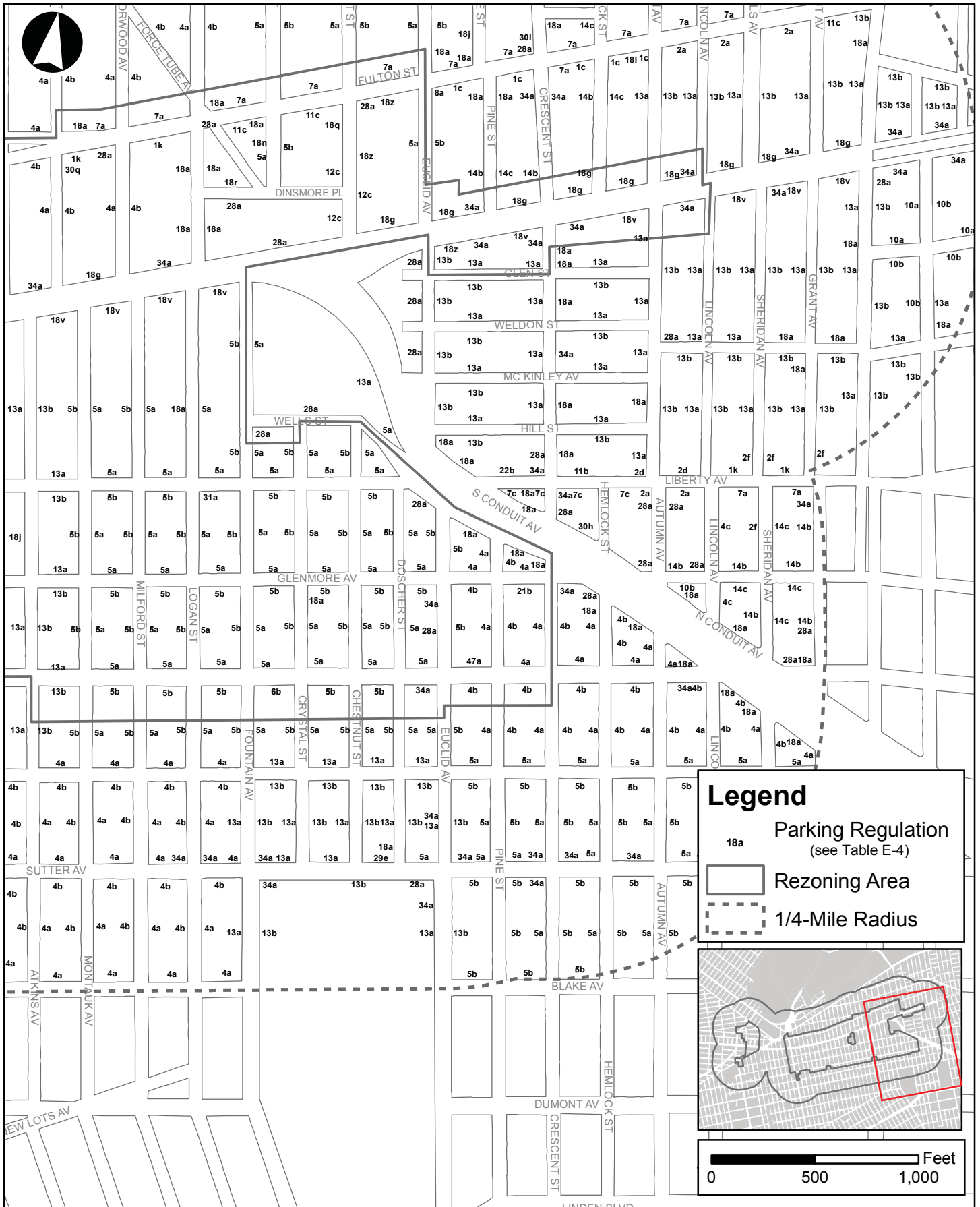


TABLE E-4**Parking Regulation Code Definitions**

Map Ref.	Parking Regulations
1a	1 HOUR PARKING 10AM-4PM EXCEPT SUNDAY
1b	1 HOUR PARKING 10AM-7PM EXCEPT SUNDAY
1c	1 HOUR PARKING 8:30AM-7PM EXCEPT SUNDAY
1d	1 HOUR PARKING 8AM-7PM EXCEPT SUNDAY
1e	1 HOUR PARKING 8AM-7PM MON THRU FRI
1f	1 HOUR PARKING 9AM-10PM EXCEPT SUNDAY
1g	1 HOUR PARKING 9AM-4PM EXCEPT SUNDAY
1h	1 HOUR PARKING 9AM-7PM EXCEPT SUNDAY
1i	1 HR MUNI-METER PARKING 4PM-7PM MON THRU FRI 8:30AM-7PM SATURDAY
1j	1 HR MUNI-METER PARKING 4PM-7PM MON THRU FRI 8AM-7PM SATURDAY
1k	1 HR MUNI-METER PARKING 8:30AM-7PM EXCEPT SUNDAY
1l	1 HR MUNI-METER PARKING 8AM-7PM EXCEPT SUNDAY
2a	2 HOUR PARKING 8:30AM-7PM EXCEPT SUNDAY
2b	2 HOUR PARKING 8AM-7PM EXCEPT SUNDAY
2c	2 HOUR PARKING 9AM-7PM EXCEPT SUNDAY
2d	2 HR MUNI-METER PARKING 8:30AM-7PM EXCEPT SUNDAY
2e	2 HR MUNI-METER PARKING 8AM-7PM EXCEPT SUNDAY
2f	2 HR MUNI-METER PARKING 9AM-7PM EXCEPT SUNDAY
3a	NO PARKING MIDNIGHT TO 3AM MON & THURS (STREET CLEANING) (NIGHT REGULATION)
3b	NO PARKING MIDNIGHT TO 3AM TUES & FRI (STREET CLEANING) (NIGHT REGULATION)
3c	NO PARKING 3AM-6AM MON & THURS (STREET CLEANING) (NIGHT REGULATION)
3d	NO PARKING 3AM-6AM TUES & FRI (STREET CLEANING) (NIGHT REGULATION)
4a	NO PARKING 11:30AM TO 1PM MON & THURS (STREET CLEANING)
4b	NO PARKING 11:30AM TO 1PM TUES & FRI (STREET CLEANING)
5a	NO PARKING 11AM TO 12:30PM MON & THURS (STREET CLEANING)
5b	NO PARKING 11AM TO 12:30PM TUES & FRI (STREET CLEANING)
6a	NO PARKING 11AM-2PM MON & FRI (STREET CLEANING)
6b	NO PARKING 11AM-2PM MON & THURS (STREET CLEANING)
6c	NO PARKING 11AM-2PM TUES & FRI (STREET CLEANING) (TOW AWAY ZONE)
7a	NO PARKING 7:30AM-8AM EXCEPT SUN (STREET CLEANING)
7b	NO PARKING 7:30AM-8AM MON TUES THURS FRI (STREET CLEANING)
7c	NO PARKING 7:30AM-8AM TUES & FRI (STREET CLEANING)
7d	NO PARKING 7:30AM-8AM MON & THURS (STREET CLEANING)
8a	NO PARKING 8:30AM-10AM MON & THURS (STREET CLEANING)
8b	NO PARKING 8:30AM-10AM TUES & FRI (STREET CLEANING)
9a	NO PARKING 8:30AM-9AM EXCEPT SUN (STREET CLEANING)
10a	NO PARKING 8AM-11AM MON & THURS (STREET CLEANING)
10b	NO PARKING 8AM-11AM TUES & FRI (STREET CLEANING)
11a	NO PARKING 8AM-8:30AM EXCEPT SUN (STREET CLEANING)
11b	NO PARKING 8AM-8:30AM MON & THURS (STREET CLEANING)
11c	NO PARKING 8AM-8:30AM TUES & FRI (STREET CLEANING)
12a	NO PARKING 8AM-9AM EXCEPT SUNDAY (STREET CLEANING)
12b	NO PARKING 8AM-9AM MON & THURS (STREET CLEANING)
12c	NO PARKING 8AM-9AM SATURDAY (STREET CLEANING)
12d	NO PARKING 8AM-9AM TUES & FRI (STREET CLEANING)
13a	NO PARKING 8AM-9:30AM MON & THURS (STREET CLEANING)
13b	NO PARKING 8AM-9:30AM TUES & FRI (STREET CLEANING)
13c	NO PARKING 8AM-9:30AM TUES (STREET CLEANING)

TABLE E-4 (continued)**Parking Regulation Code Definitions**

Map Ref.	Parking Regulations
14a	NO PARKING 9AM-10:30AM FRI (STREET CLEANING)
14b	NO PARKING 9AM-10:30AM MON & THUR (STREET CLEANING)
14c	NO PARKING 9AM-10:30AM TUES & FRI (STREET CLEANING)
15a	NO PARKING 9:30AM-11AM MON & THURS (STREET CLEANING)
15b	NO PARKING 9:30AM-11AM TUES & FRI (STREET CLEANING)
17a	NO PARKING NOON TO 1:30PM MON & THURS (STREET CLEANING)
17b	NO PARKING NOON TO 1:30PM TUES & FRI (STREET CLEANING)
17c	NO PARKING NOON TO 1:30PM WED & FRI (STREET CLEANING)
18a	NO PARKING ANYTIME
18b	NO PARKING EXCEPT SUNDAY
18c	NO PARKING 6AM-6PM MON THRU FRI
18d	NO PARKING 6AM-MIDNIGHT EXCEPT SUNDAY (AMBULETTE)
18e	NO PARKING 7AM-10AM 4-7PM MON THRU FRI
18f	NO PARKING 7AM-10AM EXCEPT SUNDAY
18g	NO PARKING 7AM-10AM MON THRU FRI
18h	NO PARKING 7AM-3PM MON & THURS
18i	NO PARKING 7AM-4PM MON THRU FRI
18j	NO PARKING 7AM-4PM SCHOOL DAYS (EXCEPT DEPARTMENT OF EDUCATION)
18k	NO PARKING 7AM-6PM MON THRU FRI
18l	NO PARKING 7AM-7PM EXCEPT SUNDAY (TOW AWAY ZONE)
18m	NO PARKING 7AM-7PM INCLUDING SUNDAY
18n	NO PARKING 7AM-7PM MON THRU FRI
18o	NO PARKING 8AM-4PM MON THRU FRI
18p	NO PARKING 8AM-6PM EXCEPT SUNDAY
18q	NO PARKING 8AM-6PM MON THRU FRI
18r	NO PARKING 8AM-6PM MON WED FRI
18s	NO PARKING 8AM-6PM SCHOOL DAYS
18t	NO PARKING 8AM-7PM EXCEPT SUNDAY
18u	NO PARKING 8AM-MIDNIGHT EXCEPT SUNDAY
18v	NO PARKING 4PM-7PM MON THRU FRI
18z	NO PARKING TRUCK WAITING LINE
19b	NO STANDING 5AM-6PM MON THRU FRI
19c	NO STANDING 6AM-6PM MON THRU FRI
19d	NO STANDING 8AM-1PM MON THRU FRI (EXCEPT SCHOOL BUSES)
19e	NO STANDING 8AM-6PM EXCEPT SUNDAY
20a	NO STANDING 7AM-8AM EXCEPT SUNDAY
21a	NO STANDING 7AM-10AM 4-7PM EXCEPT SUNDAY
21b	NO STANDING 7AM-10AM 4-7PM MON THRU FRI
22a	NO STANDING 7AM-10AM EXCEPT SUNDAY
22b	NO STANDING 7AM-10AM MON THRU FRI
23a	NO STANDING 7AM-1PM EXCEPT SUNDAY
24a	NO STANDING 7AM-4PM SCHOOL DAYS
24b	NO STANDING 7AM-4PM SCHOOL DAYS (EXCEPT MIU VEHICLES)
24d	NO STANDING 7AM-5PM SCHOOL DAYS
24e	NO STANDING 7AM-6PM SCHOOL DAYS

TABLE E-4 (continued)**Parking Regulation Code Definitions**

Map Ref.	Parking Regulations
26a	NO STANDING 7AM-7PM MON THRU FRI
27a	NO STANDING 4PM-7PM EXCEPT SUNDAY
27b	NO STANDING 4PM-7PM MON THRU FRI
28a	NO STANDING ANYTIME
29a	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES
29b	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (TRANSIT POLICE)
29c	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (POLICE DEPARTMENT)
29d	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (FIRE DEPARTMENT)
29e	NO STANDING 7AM-5PM EXCEPT SUNDAY EXCEPT AUTHORIZED VEHICLES (US MAIL)
29f	NO STANDING 7AM-7PM MON THRU FRI EXCEPT AUTHORIZED VEHICLES (HPD)
29g	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (FIRE DEPARTMENT &
29h	NO STANDING EXCEPT AUTHORIZED VEHICLES 8AM-6PM MON THRU FRI (AMBULANCE)
29i	NO STANDING EXCEPT AUTHORIZED VEHICLES 8AM-6PM MON THRU FRI (H H C)
29j	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (POST OFFICE)
29k	NO STANDING ANYTIME EXCEPT AUTHORIZED VEHICLES (ACS/DYFJ (ADMINISTRATION FOR CHILDREN'S SERVICES / DIVISION OF YOUTH & FAMILY JUSTICE)
30a	NO STANDING ANYTIME EXCEPT TRUCKS LOADING & UNLOADING
30c	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 6AM-6PM EXCEPT SUNDAY
30d	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 6AM-6PM MON THRU FRI
30e	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 6AM-7PM MON THRU FRI
30f	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-10AM EXCEPT SUNDAY
30g	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-1PM EXCEPT SUNDAY
30h	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-1PM MON THRU FRI
30i	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-4PM MON THRU FRI
30j	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-6PM EXCEPT SUNDAY
30k	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-6PM MON THRU FRI
30l	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-7PM EXCEPT SUNDAY
30m	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 7AM-7PM MON THRU FRI
30o	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 8AM-4PM EXCEPT SUNDAY
30p	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 8AM-4PM MON THRU FRI
30q	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 8AM-6PM EXCEPT SUNDAY
30r	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 8AM-6PM MON THRU FRI
30s	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 8AM-6PM TUES THURS SAT
30x	NO STANDING EXCEPT TRUCKS LOADING & UNLOADING 2AM-4PM MON THRU FRI
34a	NO STANDING (BUS STOP)
35a	NO STOPPING ANYTIME
46a	ANGLE PARKING ONLY

**TABLE E-5
RWCDs Parking Demand**

Site	No-Action								With-Action							
	Weekday Midday				Overnight				Weekday Midday				Overnight			
	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)
1	1	113	0		0	113		0	20	85	0		55	85		0
2	45	0	45		52	0		52	55	43	12		73	43		30
3	42	0		42	43	0		43	35	20		15	31	20		11
4									7	0		7	14	0		14
5									7	0		7	11	0		11
6									7	0	7		14	0		14
7									17	0	17		15	0		15
8									26	30		0	28	30		0
9	1	26		0	2	26		0	10	16		0	24	16		8
10									7	0		7	21	0		21
11	2	9		0	5	9		0	6	12		0	8	12		0
12									7	19		0	14	19		0
13	49	0		49	0	0		0	72	104		0	0	104		0
14									51	72		0	59	72		0
15	12	0		12	0	0		0	13	0		13	8	0		8
16	31	0		31	0	0		0	7	0		7	18	0		18
17									5	7		0	11	7		4
18									5	0		5	18	0		18
19									6	0		6	17	0		17
20	4	0		4	7	0		7	5	16		0	11	16		0
21									8	16		0	13	16		0
22	3	9		0	5	9		0	11	20		0	15	20		0
23	3	0		3	8	0		8	7	19		0	14	19		0
24									41	82		0	93	82		11
25									6	17		0	19	17		2
26									38	55		0	58	55		3
27	9	0		9	2	0		2	20	35		0	49	35		14
28									13	26		0	35	26		9
29									6	16		0	11	16		0
30									4	16		0	11	16		0
31									5	9		0	13	9		4
32									7	20		0	26	20		6
33	1	0		1	1	0		1	4	7		0	11	7		4
34	4	5		0	1	5		0	22	10		12	16	10		6
35									5	16		0	21	16		5
36									3	0		3	7	0		7
37									101	0		101	10	0		10
38									5	9		0	14	9		5
39									18	31		0	43	31		12
40	126	180	0	0	79	180	0	0	81	112	0	0	76	112	0	0

TABLE E-5 (continued)
RWCDS Parking Demand

Site	No-Action								With-Action												
	Weekday Midday				Overnight				Weekday Midday				Overnight								
	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)	Total Demand	Accessory Parking Spaces	Net Demand (Public Lot)	Net Demand (On-Street)					
41	8	0		8	0	0		0	12	26		0	35	26		9					
42									4	11		0	8	11		0					
43									87	72		15	50	72		0					
44	5	0		5	3	0		3	4	0		4	7	0		7					
45									4	0		4	7	0		7					
46	82	357		0	219	357		0	111	274		0	347	274		73					
47									4	9		0	14	9		5					
48									4	9		0	14	9		5					
49									5	11		0	8	11		0					
50									3	14		0	11	14		0					
51	3	0		3	3	0		3	4	6		0	7	6		1					
52									2	15		0	11	15		0					
53									9	22		0	17	22		0					
54									8	22		0	18	22		0					
55									17	53		0	38	53		0					
56									5	18		0	14	18		0					
57									2	0		2	7	0		7					
58	0	0		0	6	0		6	6	21		0	19	21		0					
59	5	7		0	5	7		0	14	34		0	34	34		0					
60									2	0		2	7	0		7					
61	2	0		2	3	0		3	3	0		3	7	0		7					
62									10	18		0	29	18		11					
63									10	27		0	25	27		0					
64									6	19		0	17	19		0					
65									4	10		0	16	10		6					
66	80	81		0	0	81		0	210	144		66	302	144		158					
67	6	326		0	0	326		0	386	241		145	444	241		203					
68									7	33		0	26	33		0					
69									39	43		0	52	43		9					
70	1	0		1	5	0		5	6	13		0	10	13		0					
71	1	0		1	3	0		3	3	6		0	7	6		1					
72	11	16		0	0	16		0	55	123		0	80	123		0					
73									4	11		0	8	11		0					
74									4	10		0	8	10		0					
75									4	13		0	21	13		8					
76									5	0		5	22	0		22					
77	4	0		4	14	0		14	13	23		0	39	23		16					
78									6	33		0	26	33		0					
79									32	38		0	45	38		7					
80									5	12		0	19	12		7					
81									9	42		0	27	42		0					
All	541	1,129		51	169	466		1,129	0	150		1,901	2,416	36		429	2,908	2,416		0	863
	Total Net Demand:		220		Total Net Demand:		150		Total Net Demand:		465		Total Net Demand:		863						
Sub-Area	208	789		2	24	240		789	0	16		821	882	0		218	1,303	882		0	472
	Total Net Demand:		26		Total Net Demand:		16		Total Net Demand:		218		Total Net Demand:		472						

Notes:

Sub-area includes projected development sites within 1/4-mile of sites 46, 66 and 67.

Net Public Parking Demand = excess demand assigned to off-street public parking facilities or on-street spaces; negative values rounded to zero.

Parking supply totals conservatively assume that accessory parking requirements would be waived for every site where the number of required spaces would fall below the minimum number specified under zoning.

Projected development site unchanged in the No-Action condition.

Revised 11/20/2015 (Site 40 added).

Mitigation Intersection Level Of Service Summary

	Weekday AM Peak Hour No-Action					Weekday AM Peak Hour With-Action					Weekday AM Peak Hour Mitigation					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Pitkin Avenue & Mother Gaston Boulevard	EB	LTR	0.89	46.0	D	EB	LTR	0.95	57.8	E *	EB	LTR	0.91	48.0	D	
	WB	LTR	0.95	55.7	E	WB	LTR	1.10	96.0	F *	WB	LTR	1.06	80.2	F *	
	NB	L	0.34	27.4	C	NB	L	0.34	27.4	C	NB	L	0.36	29.3	C	
	NB	TR	0.46	28.3	C	NB	TR	0.46	28.3	C	NB	TR	0.48	30.1	C	
	SB	L	0.10	22.5	C	SB	L	0.10	22.5	C	SB	L	0.11	23.9	C	
	SB	TR	0.34	26.0	C	SB	TR	0.34	26.0	C	SB	TR	0.36	27.6	C	
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	1.63	339.6	F	EB	LTR	1.73	384.6	F *	EB	LTR	1.60	324.0	F	
	WB	LTR	1.35	216.1	F	WB	LTR	2.39	679.2	F *	WB	LTR	2.16	576.1	F *	
											NB	L	0.23	13.2	B	
	NB	LTR	0.83	23.0	C	NB	LTR	0.89	27.2	C	NB	TR	0.72	18.7	B	
											NB	LTR		18.5	B	
											SB	L	0.73	39.8	D	
Pitkin Avenue & South Conduit Boulevard	EB	TR	0.71	40.5	D	EB	TR	0.74	42.0	D	EB	TR	0.73	40.3	D	
	WB	L	0.91	76.2	E	WB	L	0.94	82.2	F *	WB	L	0.90	73.0	E	
	WB	T	0.82	44.7	D	WB	T	0.81	44.2	D	WB	T	0.79	42.2	D	
	SB	L	0.04	12.9	B	SB	L	0.04	12.9	B	SB	L	0.04	13.4	B	
	SB	TR	0.50	18.0	B	SB	TR	0.53	18.5	B	SB	TR	0.54	19.2	B	
	Sutter Avenue & Pennsylvania Avenue	EB	LTR	0.81	58.7	E	EB	LTR	0.81	59.0	E	EB	LTR	0.78	54.7	D
WB		LTR	1.14	133.8	F	WB	LTR	1.16	140.2	F *	WB	LTR	1.12	125.5	F	
NB		TR	0.66	15.7	B	NB	TR	0.68	16.2	B	NB	TR	0.69	16.9	B	
SB		LTR	0.65	15.7	B	SB	LTR	0.72	17.6	B	SB	LTR	0.73	18.4	B	
Sutter Avenue & Fountain Avenue		EB	TR	0.29	14.5	B	EB	TR	0.29	14.5	B	EB	TR	0.30	15.0	B
		WB	LT	0.79	29.3	C	WB	LT	0.79	29.3	C	WB	LT	0.81	31.2	C
	NB	L	0.53	40.3	D	NB	L	0.63	47.7	D *	NB	L	0.60	44.8	D	
	NB	R	0.78	49.0	D	NB	R	0.78	48.6	D	NB	R	0.75	46.1	D	
	SB	LTR	0.60	36.9	D	SB	LTR	0.76	44.2	D	SB	LTR	0.74	42.3	D	
Unsignalized Intersection																
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.19	22.7	C	WB	LR	9.50	4440.0	F *	NB	TR	0.88	29.3	C	
	SB	LT	0.01	10.0	B	SB	LT	0.07	19.8	C	SB	LT	0.47	13.6	B	
(Signalized)																
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	EB	LT	0.01	7.5	A	EB	LT	0.02	8.7	A	EB	LT	0.01	8.4	A	
	SB	LR	0.05	9.1	A	SB	LR	0.51	24.2	C	SB	L	0.38	20.5	C	
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	EB	L	0.07	10.9	B	EB	L	0.54	23.6	C	EB	L	0.54	22.3	C	
	NB	LT	0.02	7.4	A	NB	LT	0.06	7.9	A	-	-	-	-	-	
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB	LT	0.07	8.4	A	EB	LT	0.07	8.4	A	EB	LT	0.07	8.4	A	
											NB	T	1.23	191.6	F	
											NB	R	0.19	17.0	C	
	NB	TR	1.10	135.6	F	NB	TR	1.50	294.2	F *	NB	TR		149.4	F *	
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	EB	LT	0.06	9.1	A	EB	LT	0.06	9.1	A	EB	LT	0.46	16.4	B	
	NB	LTR	1.04	104.1	F	NB	LTR	2.30	628.3	F *	WB	TR	0.57	18.2	B	
											NB	LTR	1.15	102.6	F	
(Signalized)																
Glenmore Avenue & Miller Avenue (All-Way Stop Controlled)	WB	LT	-	52.59	F	WB	LT	-	96.16	F *	WB	LT	-	96.2	F *	
	SB	TR	-	14.91	B	SB	TR	-	19.38	A	SB	TR	-	19.4	B	
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	EB	LT	0.03	8.8	A	EB	LT	0.04	9.1	A	EB	LT	0.04	9.1	A	
											NB	L	0.06	24.2	C	
											NB	TR	0.36	29.9	D	
										NB	LTR		29.1	D		

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes significant adverse impact

	Weekday Midday Peak Hour No-Action					Weekday Midday Peak Hour With-Action					Weekday Midday Peak Hour Mitigation				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Fulton Street & Richmond Street	EB	TR	0.31	9.4	A	EB	TR	0.35	9.9	A	EB	TR	0.36	10.0	A
	WB	LT	0.23	8.7	A	WB	LT	0.39	10.4	B	WB	LT	0.41	10.6	B
	NB	LR	0.11	15.2	B	NB	LR	0.11	15.3	B	NB	LR	0.05	14.5	B
	SB	LTR	0.23	16.3	B	SB	LTR	0.29	17.2	B	SB	LTR	0.30	17.4	B
Fulton Street & Euclid Avenue	EB	TR	0.37	10.2	B	EB	TR	0.40	10.6	B	EB	TR	0.42	10.9	B
	WB	LT	0.24	8.8	A	WB	LT	0.26	9.1	A	WB	LT	0.52	9.1	A
	SB	LTR	0.49	20.0	B	SB	LTR	0.60	22.5	C	SB	LTR	0.60	22.5	C
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	EB-Bushwick	R	0.85	55.2	E	EB-Bushwick	R	0.89	59.5	E *	EB-Bushwick	R	0.89	59.5	E *
	EB-Jamaica	L	0.26	43.3	D	EB-Jamaica	L	0.26	43.3	D	EB-Jamaica	L	0.26	43.3	D
	EB-Jamaica	TR	1.12	114.5	F	EB-Jamaica	TR	1.11	110.4	F	EB-Jamaica	TR	1.11	110.4	F
	WB	L	1.13	153.2	F	WB	L	1.20	176.6	F *	WB	L	1.20	176.6	F *
	WB	T	1.14	154.3	F	WB	T	1.20	177.3	F *	WB	T	1.20	177.3	F *
	NB	L	1.08	117.2	F	NB	L	1.13	132.3	F *	NB	L	1.13	132.3	F *
	NB	TR	0.54	18.6	B	NB	TR	0.55	18.8	B	NB	TR	0.55	18.8	B
	SB	TR	0.96	70.5	E	SB	TR	0.94	66.4	E	SB	TR	0.94	66.4	E
	SB	T	0.73	47.4	D	SB	T	0.73	47.7	D	SB	T	0.73	47.7	D
Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.12	101.4	F	EB	LTR	1.15	109.2	F *	EB	LTR	1.09	86.8	F
	WB	LTR	0.59	17.9	B	WB	LTR	0.60	17.9	B	WB	LTR	0.57	16.6	B
	NB	L	0.22	12.7	B	NB	L	0.23	12.9	B	NB	L	0.25	13.8	B
	NB	TR	0.45	14.5	B	NB	TR	0.45	14.5	B	NB	TR	0.47	15.5	B
	SB	L	0.42	15.9	B	SB	L	0.42	15.9	B	SB	L	0.44	17.2	B
	SB	TR	0.48	15.0	B	SB	TR	0.49	15.2	B	SB	TR	0.51	16.3	B
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.00	51.2	D	EB	LTR	1.13	92.3	F *	EB	LTR	0.87	26.1	C
	WB	LT	0.23	8.1	A	WB	LT	0.29	8.7	A	WB	LT	0.29	8.7	A
	WB	R	0.28	0.5	A	WB	R	0.28	0.5	A	WB	R	0.28	0.5	A
	SB	LT	0.57	20.0	B	SB	LT	0.58	20.3	C	SB	LT	0.58	20.3	C
Liberty Avenue & Pennsylvania Avenue	EB	LTR	0.75	55.8	E	EB	LTR	0.86	68.4	E *	EB	LTR	0.79	57.3	E
	WB	LTR	0.96	82.5	F	WB	LTR	1.22	167.0	F *	WB	LTR	0.94	71.0	E
	NB	L	0.29	13.9	B	NB	L	0.30	13.9	B	NB	L	0.31	15.2	B
	NB	TR	0.73	24.1	C	NB	TR	0.75	24.7	C	NB	TR	0.77	26.8	C
	SB	L	0.11	11.9	B	SB	L	0.11	12.2	B	SB	L	0.12	13.3	B
	SB	TR	0.64	21.4	C	SB	TR	0.64	21.3	C	SB	TR	0.66	23.0	C
Liberty Avenue & Miller Avenue	EB	TR	0.19	10.9	B	EB	TR	0.24	11.4	B	EB	TR	0.24	11.9	B
	WB	LT	0.27	11.8	B	WB	LT	0.35	12.7	B	WB	LT	0.35	13.3	B
	SB	LTR	0.76	48.5	D	SB	LTR	0.83	54.2	D *	SB	LTR	0.81	51.4	D
Liberty Avenue & Montauk Avenue	EB	LT	0.26	11.6	B	EB	LT	0.41	13.7	B	EB	LT	0.41	13.7	B
	WB	TR	0.32	12.4	B	WB	TR	0.44	14.2	B	WB	TR	0.44	14.2	B
	NB	LTR	0.18	31.3	C	NB	LTR	0.35	34.6	C	NB	LTR	0.35	34.6	C
	SB	LR	0.25	32.9	C	SB	LR	0.59	45.6	D *	SB	LR	0.46	38.7	D
Liberty Avenue & Logan Street	EB	LT	0.35	10.3	B	EB	LT	0.74	21.1	C	EB	LT	0.74	21.1	C
	WB	TR	0.24	8.9	A	WB	TR	0.28	9.3	A	WB	TR	0.28	9.3	A
	NB	LTR	0.74	52.8	D	NB	LTR	0.80	57.6	E	NB	LTR	0.80	57.6	E
	SB	L	0.29	40.5	D	SB	L	0.29	40.5	D	SB	L	0.29	40.5	D
	SB	R	0.51	42.9	D	SB	R	0.51	42.9	D	SB	R	0.51	42.9	D
	SB	LR	0.40	41.5	D	SB	LR	0.93	84.4	F *	SB	LR	0.42	42.4	D
Liberty Avenue & South Conduit Boulevard	EB	TR	0.50	36.8	D	EB	TR	0.54	37.9	D	EB	TR	0.51	35.7	D
	WB	L	1.21	173.8	F	WB	L	1.33	223.4	F *	WB	L	1.19	165.6	F
	WB	T	0.70	44.5	D	WB	T	0.78	49.0	D	WB	T	0.74	44.8	D
	SB	L	0.05	9.6	A	SB	L	0.06	9.7	A	SB	L	0.07	10.6	B
	SB	TR	0.36	12.1	B	SB	TR	0.37	12.3	B	SB	TR	0.38	13.3	B
Liberty Avenue & North Conduit Boulevard	EB	LT	0.48	37.4	D	EB	LT	0.57	40.5	D	EB	LT	0.47	34.8	C
	WB	TR	1.04	94.4	F	WB	TR	1.12	119.2	F *	WB	TR	1.03	88.7	F
	NB	L	0.14	10.3	B	NB	L	0.16	10.5	B	NB	L	0.17	11.9	B
	NB	TR	0.38	12.4	B	NB	TR	0.39	12.5	B	NB	TR	0.41	14.1	B
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	1.13	132.1	F	EB	LTR	1.21	161.3	F *	EB	LTR	1.12	125.8	F
	WB	LTR	0.78	54.1	D	WB	LTR	1.01	94.7	F *	WB	LTR	0.93	71.7	E *
	NB	L	0.21	12.2	B	NB	L	0.21	12.2	B	NB	L	0.21	12.2	B
	NB	TR	0.62	16.0	B	NB	TR	0.62	16.0	B	NB	TR	0.62	16.0	B
	NB	LTR	0.76	19.5	B	NB	LTR	0.77	19.5	B	NB	LTR	0.76	19.5	B
	SB	L	0.73	37.5	D	SB	L	0.73	37.5	D	SB	L	0.73	37.5	D
	SB	TR	0.59	15.4	B	SB	TR	0.59	15.4	B	SB	TR	0.59	15.4	B
	SB	LTR	1.05	62.8	E	SB	LTR	1.10	81.2	F *	SB	LTR	1.05	62.8	E
Unsignalized Intersection															
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.15	19.5	C	WB	LR	0.71	171.7	F *	NB	TR	0.52	14.9	B
	SB	LT	0.02	9.0	A	SB	LT	0.06	13.5	B	SB	LT	0.48	13.7	B
	(Signalized)														
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	EB	LT	0.02	7.3	A	EB	LT	0.02	7.8	A	EB	LT	0.01	7.7	A
	SB	LR	0.05	9.5	A	SB	LR	0.11	12.5	B	SB	L	0.06	13.4	B
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	EB	L	0.09	11.2	B	EB	L	0.33	15.8	C	EB	L	0.34	16.2	C
	NB	LT	0.02	7.4	A	NB	LT	0.02	7.7	A	-	-	-	-	-
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB	LT	0.06	7.8	A	EB	LT	0.06	7.8	A	EB	LT	0.06	7.8	A
	NB	TR	0.38	19.6	C	NB	TR	0.42	21.5	C	NB	T	0.26	21.5	C
	NB	TR	0.38	19.6	C	NB	TR	0.42	21.5	C	NB	R	0.15	12.8	B
	NB	TR	0.38	19.6	C	NB	TR	0.42	21.5	C	NB	TR	0.15	12.8	B
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	EB	LT	0.04	8.3	A	EB	LT	0.06	8.4	A	EB	LT	0.40	11.3	B
	NB	LTR	0.56	27.9	D	NB	LTR	1.58	322.7	F *	WB	TR	0.28	9.7	A
	NB	LTR	0.56	27.9	D	NB	LTR	1.58	322.7	F *	NB	LTR	0.87	39.2	D
	(Signalized)														
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	EB	LT	0.02	7.8	A	EB	LT	0.03	8.0	A	EB	LT	0.03	8.0	A
	NB	L	0.05	15.3	C	NB	L	0.05	15.3	C	NB	L	0.05	15.3	C
	NB	TR	0.16	14.8	B	NB	TR	0.16	14.8	B	NB	TR	0.16	14.8	B
	NB	LTR	0.21	15.7	C	NB	LTR	0.21	15.7	C	NB	LTR	0.21	15.7	C

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes significant adverse impact

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

	Weekday PM Peak Hour					Weekday PM Peak Hour					Weekday PM Peak Hour				
	No-Action					With-Action					Mitigation				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersection															
Atlantic Avenue & Rockaway Avenue	EB	L	0.29	22.5	C	EB	L	0.29	23.0	C	EB	L	0.29	22.4	C
	EB	TR	0.94	43.3	D	EB	TR	0.99	51.9	D *	EB	TR	0.97	47.2	D
	WB	L	1.14	140.4	F	WB	L	1.14	140.9	F	WB	L	1.14	140.9	F
	WB	TR	0.86	36.3	D	WB	TR	0.88	37.8	D	WB	TR	0.86	36.0	D
	NB	LTR	1.17	138.2	F	NB	LTR	1.17	138.2	F	NB	L	0.60	42.9	D
											NB	TR	0.84	56.5	E
											NB	LTR	1.17	51.7	D
											SB	L	0.51	47.3	D
											SB	TR	0.69	48.9	D
											SB	LTR	1.12	48.4	D
Atlantic Avenue & Eastern Parkway	EB	TR	0.87	34.9	C	EB	TR	0.92	38.6	D	EB	TR	0.92	38.6	D
	WB-Main	T	0.92	41.0	D	WB-Main	T	0.95	45.5	D	WB-Main	T	0.95	45.5	D
	WB-Service	T	0.52	25.4	C	WB-Service	T	0.51	25.3	C	WB-Service	T	0.51	25.3	C
	WB-Service	R	0.16	19.5	B	WB-Service	R	0.16	19.5	B	WB-Service	R	0.16	19.5	B
	NB	T	0.73	39.5	D	NB	T	0.73	39.5	D	NB	T	0.73	39.5	D
											NB	R	1.20	150.4	F *
											SB	LT	1.37	217.5	F
											SB	R	0.25	31.8	C
											SB	LTR	1.55	196.9	F
Atlantic Avenue & Georgia Avenue	EB-Main	T	0.64	15.2	B	EB-Main	T	0.71	16.8	B	EB-Main	T	0.73	18.5	B
	EB-Service	T	0.57	14.4	B	EB-Service	T	0.61	15.3	B	EB-Service	T	0.63	16.7	B
	WB	TR	0.58	13.6	B	WB	TR	0.61	14.0	B	WB	TR	0.62	15.3	B
	NB	LTR	1.12	124.5	F	NB	LTR	1.17	143.4	F *	NB	LTR	1.11	116.8	F
Atlantic Avenue & Pennsylvania Avenue	EB	L	1.26	194.5	F	EB	L	1.35	231.9	F *	EB	L	1.35	231.9	F *
	EB	LT	1.24	148.3	F	EB	LT	1.34	193.4	F *	EB	LT	1.34	193.4	F *
	EB	R	0.21	22.6	C	EB	R	0.22	22.9	C	EB	R	0.22	22.9	C
	WB	TR	1.12	108.1	F	WB	TR	1.23	152.9	F *	WB	TR	1.23	152.9	F *
	NB	L	1.16	150.3	F	NB	L	1.16	149.0	F	NB	L	1.16	149.0	F
	NB	TR	0.97	61.1	E	NB	TR	1.10	99.0	F *	NB	TR	1.10	99.0	F *
	SB	L	0.94	84.5	F	SB	L	1.26	175.4	F *	SB	L	1.26	175.4	F *
	SB	TR	0.98	59.4	E	SB	TR	0.99	61.8	E	SB	TR	0.99	61.8	E
Atlantic Avenue & Miller Avenue	EB	TR	0.69	15.6	B	EB	TR	0.76	17.5	B	EB	TR	0.93	35.4	D
	WB	DefL	1.76	412.7	F	WB	DefL	3.18	1046.0	F *	WB	DefL	1.37	239.9	F
	WB	T	0.68	16.1	B	WB	T	0.72	17.0	B	WB	T	0.75	19.5	B
	SB	LTR	1.34	212.3	F	SB	LTR	1.44	252.4	F *	SB	LTR	1.32	199.5	F
Atlantic Avenue & Schenck Avenue	EB	LT	0.83	21.2	C	EB	LT	0.91	26.2	C	EB	LT	0.91	26.2	C
	WB	TR	0.46	12.8	B	WB	TR	0.49	13.2	B	WB	TR	0.49	13.2	B
	NB	L	0.79	59.5	E	NB	L	0.79	59.5	E	NB	L	0.79	59.5	E
	NB	LTR	1.26	183.1	F	NB	LTR	1.56	308.7	F *	NB	LTR	1.29	203.1	F
											NB	TR	1.29	203.1	F
											SB	LTR	1.32	199.5	F
Atlantic Avenue & Warwick Street	EB	TR	0.94	36.1	D	EB	TR	1.05	61.3	E *	EB	TR	1.05	61.3	E *
	WB	L	0.99	105.7	F	WB	L	1.02	114.9	F *	WB	L	0.96	99.1	F
	WB	T	0.62	14.7	B	WB	T	0.66	15.6	B	WB	T	0.65	14.8	B
	SB	LTR	1.46	268.5	F	SB	LTR	1.54	302.8	F *	SB	LT	1.48	278.6	F
											SB	R	0.19	39.8	D
											SB	LTR	1.54	302.8	F *
Atlantic Avenue & Elton Street	EB	L	0.66	36.5	D	EB	L	0.93	85.5	F *	EB	L	0.59	27.6	C
	EB	T	0.76	17.4	B	EB	T	1.07	61.3	E *	EB	T	0.82	19.7	B
	WB	TR	0.54	13.0	B	WB	TR	0.58	13.6	B	WB	TR	0.70	23.1	C
Atlantic Avenue & Highland Place	EB	L	0.76	53.0	D	EB	L	0.93	92.9	F *	EB	L	0.53	27.1	C
	EB	T	0.93	29.3	C	EB	T	1.04	54.0	D *	EB	T	1.00	41.4	D
	WB	TR	0.56	14.3	B	WB	TR	0.59	14.8	B	WB	TR	0.71	23.9	C
	SB	LR	1.19	149.6	F	SB	LR	1.40	237.9	F *	SB	L	1.02	96.4	F
											SB	LR	1.02	108.7	F
											SB	LR	1.02	101.2	F
Atlantic Avenue & Logan Street	EB	TR	0.90	31.6	C	EB	TR	0.93	34.5	C	EB	TR	0.96	39.7	D
	WB	TR	0.85	29.7	C	WB	TR	0.89	32.3	C	WB	TR	0.96	41.9	D
	NB	TR	0.53	29.8	C	NB	TR	0.91	51.5	D *	NB	TR	0.84	40.7	D
	SB	LTR	0.99	79.5	E	SB	LTR	2.36	658.5	F *	SB	L	1.52	295.1	F
											SB	TR	0.53	26.9	C
											SB	LTR	0.99	159.5	F *
Atlantic Avenue & Euclid Avenue	EB	T	0.31	11.1	B	EB	T	0.31	11.2	B	EB	T	0.33	13.2	B
	WB	T	0.30	11.1	B	WB	T	0.31	11.2	B	WB	T	0.33	13.3	B
	NB	LR	0.44	42.8	D	NB	LR	0.69	54.7	D *	NB	LR	0.60	45.8	D
	SB	L	0.83	61.7	E	SB	L	1.01	95.5	F *	SB	L	0.79	53.1	D
											SB	R	0.57	45.6	D
Atlantic Avenue & Crescent Street	EB	LTR	0.55	20.0	B	EB	LTR	0.57	20.3	C	EB	LTR	0.60	23.4	C
	WB	DefL	0.90	45.0	D	WB	DefL	0.98	96.4	F *	WB	DefL	0.90	47.5	D
	WB	TR	0.38	11.2	B	WB	TR	0.40	11.4	B	WB	TR	0.41	12.0	B
	NB	LTR	0.57	41.6	D	NB	LTR	0.57	41.7	D	NB	LTR	0.56	40.4	D
	SB	LTR	1.15	146.5	F	SB	LTR	1.20	164.0	F *	SB	LTR	1.14	143.2	F
Atlantic Avenue & Rockaway Boulevard	EB	L	0.24	18.0	B	EB	L	0.26	18.3	B	EB	L	0.26	19.0	B
	EB	TR	0.93	38.2	D	EB	TR	0.95	41.9	D	EB	TR	0.91	36.1	D
	WB	L	1.14	137.9	F	WB	L	1.19	159.4	F *	WB	L	1.14	139.9	F
	WB	TR	0.66	17.5	B	WB	TR	0.73	19.6	B	WB	TR	0.69	18.5	B
	NB	L	1.13	163.6	F	NB	L	1.13	163.6	F	NB	L	1.13	163.6	F
	NB	TR	0.98	88.8	F	NB	TR	0.98	88.8	F	NB	TR	0.98	88.8	F
	SB	L	0.62	52.2	D	SB	L	0.62	52.2	D	SB	L	0.62	52.2	D
	SB	TR	0.94	71.9	E	SB	TR	0.94	71.9	E	SB	TR	0.94	71.9	E

	Weekday PM Peak Hour No-Action					Weekday PM Peak Hour With-Action					Weekday PM Peak Hour Mitigation				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
	Liberty Avenue & South Conduit Boulevard	EB	T	0.38	34.7	C	EB	T	0.39	34.9	C	EB	T	0.36	31.3
	EB	R	0.68	44.5	D	EB	R	0.74	48.1	D	EB	R	0.67	40.9	D
	WB	L	0.75	54.5	D	WB	L	0.82	62.6	E *	WB	L	0.72	48.0	D
	WB	T	1.12	125.7	F	WB	T	1.25	174.9	F *	WB	T	1.13	124.8	F
	SB	L	0.02	9.4	A	SB	L	0.03	9.5	A	SB	L	0.04	11.2	B
	SB	TR	0.58	15.1	B	SB	TR	0.60	15.4	B	SB	TR	0.64	18.2	B
Liberty Avenue & North Conduit Boulevard	EB	LT	0.49	37.3	D	EB	LT	0.56	39.3	D	EB	LT	0.46	34.1	C
	WB	TR	1.36	220.0	F	WB	TR	1.45	259.6	F *	WB	TR	1.35	211.2	F
	NB	L	0.11	10.1	B	NB	L	0.14	10.4	B	NB	L	0.15	11.7	B
	NB	TR	0.42	12.8	B	NB	TR	0.44	13.0	B	NB	TR	0.46	14.7	B
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	1.40	242.2	F	EB	LTR	1.48	274.4	F *	EB	LTR	1.31	199.0	F
	WB	LTR	1.09	115.3	F	WB	LTR	1.54	300.4	F *	WB	LTR	1.34	210.4	F *
											NB	L	0.49	22.1	C
											NB	TR	0.71	18.8	B
	NB	LTR	1.03	55.7	E	NB	LTR	1.14	94.2	F *	NB	LTR		19.0	B
											SB	L	0.76	46.2	D
											SB	TR	0.68	17.7	B
	SB	LTR	1.09	75.5	E	SB	LTR	1.20	119.1	F *	SB	LTR		20.2	C
Sutter Avenue & Fountain Avenue	EB	TR	0.33	15.0	B	EB	TR	0.33	15.0	B	EB	TR	0.34	16.2	B
	WB	LT	0.70	24.5	C	WB	LT	0.70	24.5	C	WB	LT	0.73	27.1	C
	NB	L	0.85	67.7	E	NB	L	0.95	90.2	F *	NB	L	0.87	70.4	E
	NB	R	0.79	50.0	D	NB	R	0.80	51.2	D	NB	R	0.76	45.9	D
	SB	LTR	0.66	39.4	D	SB	LTR	0.75	43.9	D	SB	LTR	0.72	40.4	D
Unsignalized Intersection															
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.27	23.3	C	WB	LR	4.35	1812.0	F *	NB	TR	0.86	28.5	C
	SB	LT	0.01	9.3	A	SB	LT	0.09	16.6	C	SB	LT	0.51	14.1	B
											(Signalized)				
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	EB	LT	0.01	7.3	A	EB	LT	0.01	8.2	A	EB	LT	0.01	8.0	A
	SB	LR	0.08	9.4	A	SB	LR	0.23	14.7	B	SB	LR	0.12	15.3	C
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	EB	L	0.1	10.6	B	EB	L	0.52	18.9	C	EB	L	0.54	18.9	C
	NB	LT	0.02	7.4	A	NB	LT	0.03	7.6	A	-	-	-	-	-
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB	LT	0.07	8.4	A	EB	LT	0.07	8.4	A	EB	LT	0.07	8.4	A
											NB	T	0.95	125.4	F
											NB	R	0.23	18.6	C
	NB	TR	0.99	112.8	F	NB	TR	1.24	200.8	F *	NB	TR		86.0	F
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	EB	LT	0.06	9.4	A	EB	LT	0.08	9.5	A	EB	LT	0.64	17.9	B
	NB	LTR	1.05	123.3	F	NB	LTR	2.99	956.7	F *	WB	TR	0.42	13.2	B
											NB	LTR	1.03	66.4	E
											(Signalized)				
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	EB	LT	0.02	8.2	A	EB	LT	0.04	8.4	A	EB	LT	0.04	8.4	A
											NB	L	0.14	27.3	D
											NB	TR	0.51	38.7	E
	NB	LTR	0.45	29.9	D	NB	LTR	0.65	49.6	E *	NB	LTR		36.4	E *

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes significant adverse impact

	Saturday Midday Peak Hour					Saturday Midday Peak Hour					Saturday Midday Peak Hour				
	No-Action					With-Action					Mitigation				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersection															
Atlantic Avenue & Rockaway Avenue	EB	L	0.35	24.2	C	EB	L	0.35	24.7	C	EB	L	0.35	24.7	C
	EB	TR	0.79	33.2	C	EB	TR	0.81	34.2	C	EB	TR	0.81	34.2	C
	WB	L	1.10	127.8	F	WB	L	1.10	128.1	F	WB	L	1.10	128.1	F
	WB	TR	0.85	36.1	D	WB	TR	0.88	37.6	D	WB	TR	0.88	37.6	D
	NB	LTR	1.11	117.3	F	NB	LTR	1.11	117.3	F	NB	LTR	1.11	117.3	F
SB	LTR	1.11	123.3	F	SB	LTR	1.11	123.3	F	SB	LTR	1.11	123.3	F	
Atlantic Avenue & Eastern Parkway	EB	TR	0.95	41.4	D	EB	TR	0.98	46.7	D *	EB	TR	0.95	40.7	D
	WB-Main	T	1.22	137.3	F	WB-Main	T	1.26	154.9	F *	WB-Main	T	1.23	137.9	F
	WB-Service	T	0.55	26.7	C	WB-Service	T	0.55	26.7	C	WB-Service	T	0.53	25.5	C
	WB-Service	R	0.14	20.3	C	WB-Service	R	0.14	20.3	C	WB-Service	R	0.14	19.6	B
	NB	T	0.58	26.2	C	NB	T	0.57	26.1	C	NB	T	0.59	27.2	C
NB	R	0.73	34.9	C	NB	R	0.78	37.6	D	NB	R	0.81	40.5	D	
SB	LT	0.92	46.8	D	SB	LT	0.92	46.8	D	SB	LT	0.92	46.8	D	
SB	R	0.35	24.9	C	SB	R	0.35	24.9	C	SB	R	0.35	24.9	C	
SB	LTR	0.84	59.5	E	SB	LTR	0.84	59.5	E	SB	LTR	0.84	59.5	E	
SB	LTR	0.84	55.6	E	SB	LTR	0.84	55.6	E	SB	LTR	0.84	55.6	E	
Atlantic Avenue & Pennsylvania Avenue	EB	L	0.87	63.0	E	EB	L	0.93	73.5	E *	EB	L	0.93	73.5	E *
	EB	LTR	0.88	31.8	C	EB	LTR	0.93	36.9	D	EB	LTR	0.93	36.9	D
	WB	TR	1.07	79.6	E	WB	TR	1.18	120.2	F *	WB	TR	1.18	120.2	F *
	NB	L	1.15	125.3	F	NB	L	1.15	127.8	F	NB	L	1.15	127.8	F
	NB	TR	1.22	139.9	F	NB	TR	1.31	179.7	F *	NB	TR	1.31	179.7	F *
SB	L	1.11	116.8	F	SB	L	1.23	161.4	F *	SB	L	1.23	161.4	F *	
SB	TR	0.92	43.2	D	SB	TR	0.93	44.8	D	SB	TR	0.93	44.8	D	
Atlantic Avenue & Miller Avenue	EB	TR	0.55	11.6	B	EB	TR	0.59	12.1	B	EB	TR	0.76	22.5	C
	WB	DefL	1.18	156.0	F	WB	DefL	1.18	156.0	F	WB	DefL	0.70	31.6	C
	WB	T	0.77	16.6	B	WB	T	0.77	16.6	B	WB	T	0.77	16.6	B
	WB	LT	0.79	17.2	B	WB	LT	0.79	17.2	B	WB	LT	0.79	17.2	B
	SB	LTR	0.78	41.7	D	SB	LTR	0.82	45.2	D	SB	LTR	0.82	45.2	D
Atlantic Avenue & Schenck Avenue	EB	LT	0.61	15.1	B	EB	LT	0.65	15.9	B	EB	LT	0.65	15.9	B
	WB	TR	0.53	14.0	B	WB	TR	0.56	14.3	B	WB	TR	0.56	14.3	B
	NB	L	0.83	50.3	D	NB	L	0.83	50.3	D	NB	L	0.83	50.3	D
	NB	TR	0.68	42.7	D	NB	TR	0.68	42.7	D	NB	TR	0.68	42.7	D
	NB	LTR	1.07	96.1	F	NB	LTR	1.20	146.5	F *	NB	LTR	1.20	146.5	F *
Atlantic Avenue & Elton Street	EB	L	0.49	25.2	C	EB	L	0.64	38.1	D	EB	L	0.38	18.6	B
	EB	T	0.59	14.2	B	EB	T	0.62	14.8	B	EB	T	0.62	14.8	B
	WB	TR	0.59	14.2	B	WB	TR	0.61	14.6	B	WB	TR	0.79	25.2	C
	EB	L	1.39	250.5	F	EB	L	1.59	336.3	F *	EB	L	0.67	32.4	C
	EB	T	0.81	21.6	C	EB	T	0.84	23.2	C	EB	T	0.77	18.1	B
WB	TR	0.63	16.0	B	WB	TR	0.66	16.4	B	WB	TR	0.79	24.4	C	
SB	L	0.76	44.4	D	SB	L	0.76	44.4	D	SB	L	0.76	44.4	D	
SB	LR	0.78	52.5	D	SB	LR	0.78	52.5	D	SB	LR	0.78	52.5	D	
SB	LR	0.90	51.4	D	SB	LR	0.96	62.8	E *	SB	LR	0.78	47.5	D	
Atlantic Avenue & Logan Street	EB	TR	0.85	28.6	C	EB	TR	0.87	30.0	C	EB	TR	0.85	28.1	C
	WB	TR	0.99	45.7	D	WB	TR	1.03	55.9	E *	WB	TR	1.00	47.5	D
	NB	TR	0.45	16.8	B	NB	TR	0.70	22.8	C	NB	TR	0.71	24.0	C
	SB	L	1.20	145.8	F	SB	L	1.20	145.8	F	SB	L	1.20	145.8	F
	SB	TR	0.48	18.9	B	SB	TR	0.48	18.9	B	SB	TR	0.48	18.9	B
SB	LTR	0.84	37.0	D	SB	LTR	1.51	268.4	F *	SB	LTR	0.84	37.0	D	
Atlantic Avenue & Euclid Avenue	EB	T	0.30	15.3	B	EB	T	0.31	15.4	B	EB	T	0.31	15.3	B
	WB	T	0.38	16.1	B	WB	T	0.40	16.2	B	WB	T	0.40	16.2	B
	NB	LR	0.30	23.2	C	NB	LR	0.43	26.0	C	NB	LR	0.43	26.0	C
	SB	L	0.38	24.2	C	SB	L	0.47	26.4	C	SB	L	0.49	26.7	C
	SB	R	0.14	21.0	C	SB	R	0.22	22.5	C	SB	R	0.22	22.5	C
Atlantic Avenue & Rockaway Boulevard	EB	L	0.30	24.0	C	EB	L	0.32	24.8	C	EB	L	0.30	23.6	C
	EB	TR	1.00	56.5	E	EB	TR	1.03	63.8	E *	EB	TR	1.00	54.7	D
	WB	L	1.11	114.2	F	WB	L	1.11	114.4	F	WB	L	1.11	114.4	F
	WB	TR	0.76	23.4	C	WB	TR	0.79	24.6	C	WB	TR	0.77	23.2	C
	NB	L	0.55	27.6	C	NB	L	0.55	27.6	C	NB	L	0.57	29.3	C
NB	TR	0.77	36.4	D	NB	TR	0.77	36.4	D	NB	TR	0.79	39.2	D	
NB	LTR	0.77	36.3	D	SB	LTR	0.77	36.3	D	SB	LTR	0.82	41.4	D	
Broadway & Rockaway Avenue	EB	LTR	0.60	17.6	B	EB	LTR	0.66	19.1	B	EB	LTR	0.64	18.1	B
	WB	LTR	0.91	36.7	D	WB	LTR	0.97	46.9	D *	WB	LTR	0.95	42.0	D
	NB	LTR	0.43	25.0	C	NB	LTR	0.43	25.0	C	NB	LTR	0.44	26.0	C
	SB	LTR	0.77	41.1	D	SB	LTR	0.77	41.1	D	SB	LTR	0.81	45.5	D
	EB	L	0.31	28.6	C	EB	L	0.35	30.3	C	EB	L	0.30	26.4	C
Broadway & Eastern Parkway	EB	TR	0.95	68.4	E	EB	TR	1.06	97.2	F *	EB	TR	0.95	63.4	E
	WB	LT	0.59	35.0	C	WB	LT	0.82	51.0	D *	WB	LT	0.64	34.1	C
	WB	R	0.03	23.9	C	WB	R	0.03	23.9	C	WB	R	0.03	21.7	C
	NB	LTR	0.69	24.0	C	NB	LTR	0.68	23.7	C	NB	LTR	0.75	28.3	C
	SB	LTR	0.45	18.5	B	SB	LTR	0.45	18.5	B	SB	LTR	0.49	20.9	C
NB-Hull St	LR	0.49	47.4	D	NB-Hull St	LR	0.49	47.4	D	NB-Hull St	LR	0.49	47.4	D	
Bushwick Avenue & Eastern Parkway	EB	LTR	0.41	6.3	A	EB	LTR	0.43	6.4	A	EB	LTR	0.43	6.4	A
	WB	L	0.76	21.2	C	WB	L	0.77	22.3	C	WB	L	0.77	22.3	C
	WB	TR	0.87	26.4	C	WB	TR	0.90	28.5	C	WB	TR	0.87	25.4	C
	NB	R	1.10	106.4	F	NB	R	1.10	106.4	F	NB	R	1.10	106.4	F
	SB	R	0.16	43.4	D	SB	R	0.16	43.4	D	SB	R	0.16	43.4	D
Fulton Street & Highland Place	EB	TR	0.96	37.6	D	EB	TR	1.02	52.2	D *	EB	TR	0.99	42.9	D
	NB	R	0.33	17.7	B	NB	R	0.34	17.8	B	NB	R	0.36	19.0	B
	SB	LT	0.68	24.7	C	SB	LT	0.72	26.3	C	SB	LT	0.76	29.4	C
	EB	LTR	0.72	20.1	C	EB	LTR	0.84	27.9	C	EB	LTR	0.78	22.0	C
	WB	LTR	0.65	18.9	B	WB	LTR	1.13	103.0	F *	WB	LTR	0.93	39.1	D
NB	L	0.56	24.2	C	NB	L	0.56	24.2	C	NB	L	0.56	24.2	C	
NB	TR	0.56	20.6	C	NB	TR	0.56	20.6	C	NB	TR	0.56	20.6	C	
NB	LTR	0.26	15.6	B	NB	LTR	0.26	15.6	B	NB	LTR	0.26	15.6	B	
Fulton Street & Richmond Street	EB	TR	0.35	9.8	A	EB	TR	0.38	10.2	B	EB	TR	0.37	10.1	B
	WB	LT	0.28	9.1	A	WB	LT	0.44	10.9	B	WB	LT	0.46	11.1	B
	NB	LR	0.09	15.0	B	NB	LR	0.10	15.1	B	NB	LR	0.04	14.4	B
	SB	LTR	0.31	17.2	B	SB	LTR	0.37	18.2	B	SB	LTR	0.39	18.7	B
	EB	TR	0.45	11.1	B	EB	TR	0.47	11.4	B	EB	TR	0.49	11.7	B
Fulton Street & Euclid Avenue	WB	LT	0.31	9.4	A	WB	LT	0.33	9.7	A	WB	LT	0.33	9.7	A
	SB	LTR	0.69	25.0	C	SB	LTR	0.83	33.3	C	SB	LTR	0.83	33.3	C

	Saturday Midday Peak Hour					Saturday Midday Peak Hour					Saturday Midday Peak Hour							
	No-Action					With-Action					Mitigation							
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS			
Bushwick /Jamaica Avenue & Penn. /Jackie Robinson Pkwy	EB-Bushwick	R	0.80	40.8	D	EB-Bushwick	R	0.83	43.2	D	EB-Bushwick	R	0.83	43.2	D			
	EB-Jamaica	L	0.20	32.1	C	EB-Jamaica	L	0.20	32.1	C	EB-Jamaica	L	0.20	32.1	C			
	EB-Jamaica	TR	1.12	104.3	F	EB-Jamaica	TR	1.12	102.7	F	EB-Jamaica	TR	1.12	102.7	F			
	WB	L	1.09	133.2	F	WB	L	1.19	166.9	F *	WB	L	1.19	166.9	F *			
	WB	T	1.13	146.6	F	WB	T	1.23	174.7	F *	WB	T	1.23	174.7	F *			
	NB	L	0.94	66.7	E	NB	L	0.98	76.1	E *	NB	L	0.98	76.1	E *			
	NB	TR	0.50	14.5	B	NB	TR	0.52	14.7	B	NB	TR	0.52	14.7	B			
	SB	TR	0.93	55.3	E	SB	TR	0.92	54.5	D	SB	TR	0.92	54.5	D			
	SB	T	0.85	46.2	D	SB	T	0.88	48.4	D	SB	T	0.88	48.4	D			
Jamaica Avenue & Highland Pl/Force Tube Ave.	EB	LTR	1.14	101.6	F	EB	LTR	1.18	116.6	F *	EB	LTR	1.12	92.6	F			
	WB	LTR	0.64	18.9	B	WB	LTR	0.64	19.1	B	WB	LTR	0.62	17.6	B			
	NB	L	0.24	13.0	B	NB	L	0.26	13.4	B	NB	L	0.28	14.4	B			
	NB	TR	0.46	14.6	B	NB	TR	0.46	14.6	B	NB	TR	0.48	15.6	B			
	SB	L	0.46	16.9	B	SB	L	0.46	16.9	B	SB	L	0.49	18.4	B			
	SB	TR	0.48	15.0	B	SB	TR	0.51	15.5	B	SB	TR	0.53	16.6	B			
Jamaica Avenue & Euclid Av/Cypress Hill Street	EB	LTR	1.10	81.6	F	EB	LTR	1.29	157.8	F *	EB	LTR	1.00	46.8	D			
	WB	LT	0.40	9.8	A	WB	LT	0.45	10.6	B	WB	LT	0.45	10.6	B			
	WB	R	0.34	0.6	A	WB	R	0.34	0.6	A	WB	R	0.34	0.6	A			
	SB	LT	0.59	20.4	C	SB	LT	0.62	20.9	C	SB	LT	0.62	20.9	C			
Liberty Avenue & Pennsylvania Avenue	EB	LTR	0.55	34.3	C	EB	LTR	0.61	36.7	D	EB	LTR	0.49	29.0	C			
	WB	LTR	0.94	66.7	E	WB	LTR	1.12	116.8	F *	WB	LTR	0.95	62.4	E			
	NB	L	0.32	12.8	B	NB	L	0.33	13.1	B	NB	L	0.37	16.5	B			
	NB	TR	0.77	22.7	C	NB	TR	0.79	23.6	C	NB	TR	0.87	30.7	C			
	SB	L	0.09	10.7	B	SB	L	0.10	11.1	B	SB	L	0.11	13.6	B			
	SB	TR	0.67	20.0	B	SB	TR	0.67	20.0	B	SB	TR	0.74	24.4	C			
Liberty Avenue & Miller Avenue	EB	TR	0.21	8.7	A	EB	TR	0.25	9.1	A	EB	TR	0.26	9.7	A			
	WB	LT	0.31	9.8	A	WB	LT	0.37	10.5	B	WB	LT	0.38	11.0	B			
	SB	LTR	0.73	38.9	D	SB	LTR	0.85	47.7	D *	SB	LTR	0.82	43.6	D			
Liberty Avenue & Warwick Street	EB	TR	0.18	8.5	A	EB	TR	0.23	8.9	A	EB	TR	0.23	9.4	A			
	WB	LT	0.46	11.7	B	WB	LT	0.58	13.8	B	WB	LT	0.59	14.6	B			
	SB	LTR	0.97	69.8	E	SB	LTR	1.01	80.4	F *	SB	LTR	0.98	69.9	E			
Liberty Avenue & Montauk Avenue	EB	LT	0.26	9.2	A	EB	LT	0.39	10.7	B	EB	LT	0.40	11.3	B			
	WB	TR	0.34	10.1	B	WB	TR	0.44	11.3	B	WB	TR	0.44	12.0	B			
	NB	LTR	0.26	26.0	C	NB	LTR	0.42	29.3	C	NB	LTR	0.40	28.1	C			
	SB	LR	0.44	31.0	C	SB	LR	0.96	86.1	F *	SB	LR	0.71	43.3	D			
Liberty Avenue & Logan Street	EB	LT	0.46	14.7	B	EB	LT	0.95	48.6	D *	EB	LT	0.92	42.5	D			
	WB	TR	0.33	12.5	B	WB	TR	0.36	12.9	B	WB	TR	0.36	12.3	B			
	NB	LTR	0.55	27.7	C	NB	LTR	0.60	29.0	C	NB	LTR	0.62	30.4	C			
		SB	L	0.22	23.5	C		SB	L	0.22	23.5	C		SB	L	0.22	23.5	C
	SB	R	0.37	25.1	C		SB	R	0.37	25.1	C		SB	R	0.37	25.1	C	
	SB	LR	0.35	24.6	C		SB	LR	0.67	34.9	C		SB	LR	0.49	24.3	C	
Liberty Avenue & South Conduit Boulevard	EB	TR	0.48	25.6	C	EB	TR	0.52	26.4	C	EB	TR	0.49	24.3	C			
	WB	L	1.19	152.7	F	WB	L	1.31	199.8	F *	WB	L	1.15	134.7	F			
	WB	T	0.87	48.9	D	WB	T	0.93	58.8	E *	WB	T	0.87	47.8	D			
	SB	L	0.04	9.6	A	SB	L	0.05	9.7	A	SB	L	0.05	10.7	B			
	SB	TR	0.48	13.2	B	SB	TR	0.49	13.4	B	SB	TR	0.51	14.7	B			
Liberty Avenue & North Conduit Boulevard	EB	LT	0.35	23.4	C	EB	LT	0.39	24.1	C	EB	LT	0.34	21.9	C			
	WB	TR	1.30	182.2	F	WB	TR	1.37	211.6	F *	WB	TR	1.29	174.9	F			
	NB	L	0.20	10.9	B	NB	L	0.21	11.1	B	NB	L	0.22	12.2	B			
	NB	TR	0.43	12.7	B	NB	TR	0.44	12.8	B	NB	TR	0.46	14.1	B			
Pitkin Avenue & Pennsylvania Avenue	EB	LTR	0.80	47.2	D	EB	LTR	0.86	54.0	D *	EB	LTR	0.74	39.0	D			
	WB	LTR	1.15	126.4	F	WB	LTR	1.45	249.5	F *	WB	LTR	1.23	156.3	F *			
		NB	L	0.61	26.9	C		NB	L	0.61	26.9	C		NB	L	0.61	26.9	C
		NB	TR	0.89	25.9	C		NB	TR	0.89	25.9	C		NB	TR	0.89	25.9	C
		NB	LTR	1.00	42.5	D		NB	LTR	1.04	55.6	E *		NB	LTR	1.00	42.5	D
	SB	L	0.26	12.8	B		SB	L	0.26	12.8	B		SB	L	0.26	12.8	B	
	SB	TR	0.68	15.4	B		SB	TR	0.77	16.8	B		SB	TR	0.68	15.4	B	
	SB	LTR	0.73	15.3	B		SB	LTR	0.77	16.8	B		SB	LTR	0.73	15.3	B	
Pitkin Avenue & South Conduit Boulevard	EB	TR	0.79	41.4	D	EB	TR	0.83	44.5	D	EB	TR	0.80	40.8	D			
	WB	L	1.20	163.4	F	WB	L	1.26	187.9	F *	WB	L	1.15	146.6	F			
	WB	T	0.64	32.1	C	WB	T	0.65	32.5	C	WB	T	0.63	31.0	C			
	SB	L	0.03	8.2	A	SB	L	0.03	8.2	A	SB	L	0.03	8.7	A			
	SB	TR	0.48	11.7	B	SB	TR	0.49	11.8	B	SB	TR	0.50	12.4	B			
Unsignalized Intersection																		
Arlington Avenue & Jamaica Avenue (Two-Way Stop Controlled)	NB	LR	0.65	25.6	D	NB	LR	0.77	33.8	D *	NB	LR	0.77	33.8	D *			
Dinsmore Place & Logan Street (Two-Way Stop Controlled)	WB	LR	0.16	22.8	C	WB	LR	0.96	253.9	F *	NB	TR	0.59	15.9	B			
	SB	LT	0.01	8.9	A	SB	LT	0.04	13.4	B	SB	LT	0.46	13.4	B			
Dinsmore Place & Richmond Street (Two-Way Stop Controlled)	EB	LT	0.01	7.3	A	EB	LT	0.01	7.8	A	EB	LT	0.01	7.7	A			
	SB	LR	0.04	9.1	A	SB	LR	0.09	11.6	B	SB	LR	0.04	12.7	B			
Dinsmore Place & Chestnut Street (Two-Way Stop Controlled)	EB	L	0.05	10.2	B	EB	L	0.24	13.3	B	EB	L	0.25	13.6	B			
	NB	LT	0.01	7.5	A	NB	LT	0.02	7.7	A	-	-	-	-	-			
Fulton Street & Elton Street (Two-Way Stop Controlled)	EB	LT	0.06	8.0	A	EB	LT	0.06	8.0	A	EB	LT	0.06	8.0	A			
	NB	TR	0.57	31.6	D	NB	TR	0.67	41.3	E *	NB	TR	0.45	34.3	D			
	NB	TR	0.57	31.6	D	NB	TR	0.67	41.3	E *	NB	TR	0.19	14.9	B			
	NB	TR	0.57	31.6	D	NB	TR	0.67	41.3	E *	NB	TR	0.19	14.9	B			
Fulton Street & Chestnut Street (Two-Way Stop Controlled)	EB	LT	0.05	9.1	A	EB	LT	0.06	9.2	A	EB	LT	0.48	12.3	B			
	NB	LTR	0.57	34.9	D	NB	LTR	1.87	461.8	F *	WB	TR	0.42	11.4	B			
	NB	LTR	0.57	34.9	D	NB	LTR	1.87	461.8	F *	NB	LTR	0.69	25.3	C			
Pitkin Avenue & Elton Street (Two-Way Stop Controlled)	EB	LT	0.01	8.0	A	EB	LT	0.02	8.1	A	EB	LT	0.02	8.1	A			
	NB	L	0.09	16.4	C		NB	L	0.09	16.4	C		NB	L	0.09	16.4	C	
	NB	TR	0.17	17.2	C		NB	TR	0.17	17.2	C		NB	TR	0.17	17.2	C	
	NB	LTR	0.20	16.1	C		NB	LTR	0.26	18.6	C		NB	LTR	0.20	16.9	C	

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound

L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes significant adverse impact