Springfield Gardens/JFK Transportation Study



FINAL REPORT



December 2016

Springfield Gardens/JFK Transportation Study

PTDT15D00.G02

The preparation of this report has been financed through the U.S. Department of Transportation's Federal Transit Administration and Federal Highway Administration. This document is disseminated under the sponsorship of the New York Metropolitan Transportation Council in the interest of information exchange. The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Transit Administration or the State of New York. This report does not constitute a standard, specification or regulation.

This report (Springfield Gardens/JFK Transportation Study) was funded through the New York Metropolitan Transportation Council SFY (2015) Unified Planning Work Program project (Springfield Gardens/JFK Transportation StudyPTDT15D00.G02), which was funded through matching grants from the Federal Transit Administration and from the Federal Highway Administration.

Prepared by:

New York City Department of Transportation Polly Trottenberg, Commissioner Margaret Forgione, Chief Operations Officer Ryan Russo, Deputy Commissioner Charles Ukegbu, Assistant Commissioner Nicole Garcia, Queens Borough Commissioner Naim Rasheed, Senior Project Director Michael Griffith, Director of Traffic Study Milorad Ubiparip, Project Manager Carren Simpson, Highway Transportation Specialist Joe Li, Highway Transportation Specialist Harvey Lareau, City Planner

		<u>P</u>	Page
EXEC	UTI	IVE SUMMARY	i
1.0	INT	RODUCTION	. 1-1
	1.1	Study Area	. 1-2
	1.2	Goals and Objectives	. 1-4
2.0	DEN	MOGRAPHICS	. 2-1
	2.1	Introduction	. 2-1
	2.2	Population Trends	. 2-2
	2.3	Household Characteristics	. 2-3
	2.4	Median Household Income	. 2-3
	2.5	Vehicle Ownership	. 2-4
	2.6	Journey to Work by Mode	. 2-5
3.0	ZON	NING AND LAND USE	. 3-1
3	.1	Zoning	. 3-1
3	.2	Land Use	. 3-3
4.0	TRA	AFFIC AND TRANSPORTATION	. 4-1
	4.1	Introduction	. 4-1
	4.2	Street Network System	. 4-2
	4.3	Traffic Data Collection	. 4-4
	4.4	Network Traffic Volumes	. 4-7
	4.5	Street Capacity and Level of Service (LOS) Analysis	4-10
	4.6	Existing Traffic Conditions	4-12
	4.7	Future Traffic Conditions	4-17
	4.8	Existing Travel Speed	4-24
	4.9	Future Travel Speed	4-28
	4.1(0 Trucks and Goods Movement	4-32

TABLE OF CONTENTS

5.0	PEC	DESTRIAN AND BICYCLE
	5.1	Introduction
	5.2.	Existing Pedestrian Volumes5-1
	5.3	Pedestrian LOS Analysis – Existing Conditions 5-2
	5.4	Pedestrian LOS Analysis – Future Conditions 5-5
	5.5	Bicycle Network
6.0	CRA	ASHES AND SAFETY
	6.1	Introduction
	6.2	Summary of Crashes (2011-2013)
	6.3	Vision Zero Action Plan
7.0	PAF	RKING
	7.1	Introduction
	7.2	On-Street Parking
	7.3	Off-Street Parking
	7.4	Future Parking Conditions7-14
8.0	PUE	BLIC TRANSPORTATION
	8.1	Introduction
		Bus Network
	8.3	Bus Ridership (2013)
9.0	REC	COMMENDATIONS
10.	PUE	BLIC PARTICIPATION

LIST OF TABLES

<u>Tabl</u>	e Page
2-1	Population Trends2-3
2-2	Household Size2-3
2-3	Median Household Income2-3
2-4	Vehicle Ownership/Households2-4
2-5	Journey to Work by Mode2-5
4-1	Level of Service (LOS) Criteria for Signalized Intersections4-11
4-2	Traffic Capacity (LOS) Analysis for Signalized Intersections (Existing Conditions)4-13
4-3	Traffic Capacity (LOS) Analysis for Signalized Intersections (Future Conditions)4-21
4-4	Existing Average Travel Speed (AM Peak)4-25
4-5	Existing Average Travel Speed (PM Peak)4-26
4-6	Future Average Travel Speed (AM Peak)4-29
4-7	Future Average Travel Speed (PM Peak)4-30
4-8	Traffic and Truck Volumes (AM & PM Peak Hours)4-39
5-1	Existing Pedestrian LOS5-4
5-2	Future Pedestrian LOS5-6
6-1	Crash Summary (2011-2013)6-2
6-2	Summary of Fatalities (2011-2013)6-3
6-3	Crashes per Corridor6-4
7-1	On-Street Parking Facilities (Capacity and Utilization)7-5
7-2	Off-Street Parking Facilities (Capacity and Utilization)7-10
8-1	Average Frequency of NYCT/NICE Bus Services8-4
8-2	Bus Ridership (2013)8-5

<u>Exhib</u>	pit/Figure	Page
1-1	Study Area in Regional Setting	1-2
1-2	Study Area Boundaries	1-3
2-1	Census Tracts and Zip Codes	2-2
3-1	Existing Zoning Districts	3-2
3-2	Land Use	3-4
4-1	Major Arterials	4-1
4-2	Traffic Data Collection Plan	4-6
4-3	Existing Traffic Volumes - AM Peak	4-8
4-4	Existing Traffic Volumes - PM Peak	4-9
4-5	Intersections with LOS D, E, and F (AM Peak)	4-15
4-6	Intersections with LOS D, E, and F (PM Peak)	4-16
4-7	Future Traffic Volumes - AM Peak	4-18
4-8	Future Traffic Volumes - PM Peak	4-19
4-9	Future Condition: Intersections with LOS D, E, and F (AM Peak)	4-22
4-10	Future Condition: Intersections with LOS D, E, and F (PM Peak)	4-23
4-11	Average Travel Speeds - AM Peak	4-25
4-12	Average Travel Speeds - PM Peak	4-26
4-13	Existing Condition – Average Travel Speeds - AM Peak	4-27
4-14	Existing Condition – Average Travel Speeds - PM Peak	4-27
4-15	Future Average Travel Speeds - AM Peak	4-29
4-16	Future Average Travel Speeds - PM Peak	4-30
4-17	Future Condition – Average Travel Speeds - AM Peak	4-31
4-18	Future Condition – Average Travel Speeds - PM Peak	4-31
4-19	Major Regional Truck Trip Generators	4-33
4-20	Truck Routes	4-34
4-21	Regional and Local Truck Traffic	4-38
4-22	Truck Traffic - AM Peak	4-40

LIST OF EXHIBITS

4-23	Truck Traffic - PM Peak4-40
5-1	Existing Pedestrian Volumes5-2
5-2	Pedestrian LOS Criteria5-3
5-3	Future Pedestrian Volume5-5
5-4	Bicycle Network5-7
6-1	Crash/Safety Issues
6-2	Total Crashes/Injuries per Corridor6-5
6-3	Total Crashes/Injuries by Year6-5
6-4	Pedestrian and Bicycle Crashes6-6
6-5	Crashes by Collision Type and Driving Condition
7-1	On-Street Parking Regulations
7-2	On-Street Parking - Surveyed Locations7-3
7-3	On-Street Parking Utilization7-7
7-4	Off-Street Parking Facilities
8-1	Bus Routes
8-2	Bus Ridership
9-1	Major Traffic and Transportation Issues9-1
9-2	Locations for Proposed Improvements9-2
9-3	Rockaway Blvd and Guy R. Brewer Blvd – Existing Condition
9-4	Rockaway Blvd and Guy R. Brewer Blvd – Proposed Improvements
9-5	Rockaway Blvd and Farmers Blvd – Existing Condition9-7
9-6	Rockaway Blvd and Farmers Blvd – Proposed Improvements
9-7	Farmers Blvd and 147 Avenue – Existing Condition9-9
9-8	Farmers Blvd and 147 Avenues – Proposed Improvements9-10
9-9	Belt Parkway Exit Ramp and N. Conduit Avenue - Existing Condition
9-10	Belt Parkway Exit Ramp and N. Conduit Avenue - Proposed Improvements9-12
9-11	Springfield Blvd b/w S. Conduit and 144 Avenues - Proposed Improvements9-13
9-12	Springfield Blvd b/w 144 and 143 Avenues – Proposal9-15
9-13	Springfield Blvd b/w 145 Road and S. Conduit Avenue – Proposal

9-14	147 Avenue b/w Guy R. Brewer and Springfield Blvds (Existing/Proposed)9)-18
9-15	S. Conduit Ave b/w 155 th /156 th Streets – Existing/Proposed Street Directions	-21
9-16	S. Conduit Avenue b/w 155 th and 156 th Streets – Existing Condition/Proposal9	1-22
9-17	Street Resurfacing and Sewer System Upgrade9	-24
9-18	Existing Truck Routes9	1-26
9-19	Proposed Truck Routes9	1-26
9-20	Locations for Regulations/Signs Enhancement9	1-29

EXECUTIVE SUMMARY

S-1 Introduction

The Springfield Gardens/JFK Transportation Study was conducted by New York City Department of Transportation (NYCDOT) in response to growing traffic congestion and community concerns related to traffic circulation, trucks, parking, safety and general quality of life issues. The study area is adjacent to JFK International Airport in Queens Community Board 13 that includes the southern portion of Springfield Gardens. The study area is bounded by North Conduit Avenue to the north, Rockaway Boulevard/Nassau Expressway to the south and west, and Springfield Boulevard to the east.

The study examined 2014 existing, 2024 future conditions and made recommendations to address issues that were identified by the community as well as based on data collection, analyses and field observations.

S-2 Demographic Analysis

The study area population in 2010 was 8,858, a 4% increase from the 2000 population of 8,494. The approximately 2,328 households with a 3.33 average household size remained relatively constant; while median household income (\$59,229) grew by 37% between 2000 and 2010. Forty-three percent of households owned one vehicle, 31% owned two or more vehicles, while 26% owned no vehicles in 2010, representing little change from 2000. For journey to work drove alone/carpooling share was 49%, a 4% decrease from 2000. Public Transit share increased from 42.3% to 44%. Walk and work from home were about 3% mode share. This trend points to more reliance on public transit in the future. See Table 2-5.

S-3 Zoning and Land Use

The area's two types of zoning districts residential (R3-2, R3A, and R3-1) and manufacturing (M1-1) each represents about 50% of the study area. The residential is north of 147th Avenue between Rockaway Boulevard and Springfield Boulevard, while the manufacturing area is south of 147th Avenue and west of Rockaway Boulevard, between South Conduit Avenue and Nassau Expressway. Commercial activities are concentrated mainly along Rockaway Boulevard, Farmers Boulevard and Guy R. Brewer Boulevard.

S-4 Traffic and Transportation

In the study area the highest traffic volumes were observed along the North and South Conduit Avenues, Rockaway Boulevard and Nassau Expressway. The existing conditions level of service (LOS) analysis for 16 locations reveal that most intersections operate at an acceptable LOS. Six intersections had one or more lane groups with LOS E or F during one or more peak periods. A slight deterioration in the LOS is expected under future conditions. The three designated truck routes end at the boundary of the study area, thus trucks use non-designated truck routes to access the industrial area. Truck traffic has been of great concern to the residential community.

S-5 Pedestrian and Bicycle Analyses

From a pedestrian and bicycle activities point of view very little was observed. For pedestrians, most crosswalks operated at a satisfactory level of service (LOS A). There is one recently created protected bicycle path along 147th Avenue and Springfield Boulevard which this study recommends be extended east to Brookville Park.

S-6 Crash and Safety Analysis

The crash analysis, which focused on 195 locations for the most recent three years, identified two intersections (Rockaway and Guy R. Brewer Boulevards; and Rockaway and Farmers Boulevards) as "High Crash Locations". During the period 717 reportable crashes occurred, involving 903 injuries to driver or vehicle passengers, 32 injuries involved pedestrians and 16 cyclists.

ii

S-7 Parking Analysis

There are more than 170 off-street parking facilities in the study area providing approximately 4,000 parking spaces. The average midday peak hour utilization is 75%. There are approximately 1,700 on-street parking spaces with 77% average utilization during all peak hours.

S-8 Public Transportation

The study area is well served with public transportation that includes six local buses (Q3, Q6, Q111/114, Q113, and Q77) and commuter vans traversing the area. There are no subway or commuter rail stations in the area.

S-9 Issues and Recommendations

The recommendations are based on traffic/transportation analyses and public outreach efforts that identified many issues:

Issues:

• High levels of peak hour congestion along North and South Conduit Avenues, Rockaway Boulevard, and Nassau Expressway.

- Deteriorated pavement condition and flooding in some areas.
- Truck traffic on residential streets.
- Missing parking regulations and other signs.
- Pedestrian safety near schools,
- Challenges for senior/student crossings on 147th Avenue, Rockaway and Springfield

Boulevards.

- Environmental impacts on neighborhood caused by trucks (air-pollution, noise).
- Lack of enforcement.

Recommendations:

• Repave and re-stripe roadways, extend turning lanes, and signal timing changes (example add left turn phases).

- Install new crosswalks, pedestrian signals, and pavement markings.
- Install All-way Stop signs.
- Designate more "Local" truck routes.
- Street directional changes.
- Install appropriate and missing signs, and
- Stepped up enforcement.

Recently implemented improvements:

• Complete reconstruction of Springfield Boulevard from South Conduit Avenue to 147th

Avenue.

- Complete reconstruction of 147th Avenue from 225th Street to 184th Street.
- Created JFK Airport/Travel Plaza with 50 parking spaces for trucks.

S-10 Public Participation

The public participation process included three Technical Advisory Committee (TAC) meetings and four public meetings. See appendix for notes of meetings.

1.0 INTRODUCTION

The Springfield Gardens/JFK Transportation Study was conducted in response to growing traffic congestion and requests from the community to address issues related to traffic circulation, truck traffic, parking and safety. The study area is located in southeast Queens, close to Nassau County and adjacent to JFK International Airport. See Figure 1-1. The area is directly impacted by JFK air cargo activity and several major regional shopping centers. JFK Air Cargo industry is a significant driver of New York City's economy. It is the largest international gateway for freight transport. There were approximately 4,000 truck trips traveling to/from JFK Airport and the Springfield Gardens area over a three-month period as other studies using GPS records have cited. Twenty five thousand different commodities (about 1.4 million tons of freight) are shipped to/from JFK Airport by the largest national/international carriers using the surrounding regional transportation facilities such as the Van Wyck and Nassau Expressways, Long Island Expressway, North and South Conduit Avenues/Sunrise Highway. These facilities provide regional and local access to the Airport and the study area. Springfield Gardens reportedly has the highest concentration of warehousing facilities near JFK in M1-1 District zoned for industrial use. The industrial/warehouse uses attract significant truck traffic observed on the surrounding street network contributing to congestion and safety issues which are major concerns for the community.

The study seeks to address traffic and transportation problems in the area and develop recommendations to reduce congestion, improve traffic circulation, manage truck/freight traffic, and enhance safety for all street users while providing a better quality of life for residents.



Figure 1-1: Study Area in Regional Setting

1.1 Study Area

The triangular study area, in Queens's Community District 13, is bounded by North Conduit Avenue to the north, Nassau Expressway/Rockaway Boulevard/JFK International Airport to the south and west, and Springfield Boulevard to the east. It is home to many industrial uses and other significant trip generating facilities such as a Department of Motor Vehicles, the International Air Cargo facility, MTA Bus Depot, the FAA building and many hotels. These uses attract significant traffic (vehicle trips) contributing to congestion and traffic circulation problems during the various peak hours on the main arterials (North Conduit Avenue, Nassau Expressway, Rockaway Boulevard, Guy Brewer Boulevard and Farmers Boulevard). See Figure 1- 2.



Figure 1-2: Study Area Boundaries

1.2 Goals and Objectives

The goal of the study is to relieve traffic congestion and reduce the impact of truck activity on the community while enhancing safety.

The main objectives are:

- To assess the existing and future traffic conditions;
- To develop recommendations to address community concerns and enhance the quality of life of residents and visitors; and
- To coordinate various transportation and planning initiatives in the study area.

The study organization and process is illustrated in the following chart/figure.



2.0 DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

2.1 Introduction

The demographic analysis of the study area examined population change and socioeconomic characteristics such as household size, income, car ownership and journey to work by mode to identify trends and help determine future travel needs. The analysis relied on data from New York Metropolitan Transportation Council (NYMTC), New York City Department of City Planning (NYCDCP) and data compiled by the United States Department of Commerce – Bureau of Census. Data for 2000 and 2010 were used and projections were made for 2020. To better assess the population dynamics of the study area, comparisons were made with the Borough of Queens and New York City, where applicable.

The approximately 1.1 square mile area consists of three Census tracts (#306, #320, and #664). The part of Census tract #664 which is in the study area and Census tract #306 which is outside of the study area are undeveloped. Thus the analysis does not include tract #664.

Because of the small size of the study area, American Community Survey (ACS), which requires a larger sample size for an acceptable margin of error, data associated with Zip code 11434 was used to represent median household income, vehicle ownership and journey to work. Figure 2-1 shows the Census tracts and Zip codes.



Figure 2-1: Census Tracts and Zip Codes

2.2 Population Trends

The study area population in 2010 was 8,858 representing a 4% increase from 2000 (8,494) with a population density of 8,052 persons/sq. mile. This is far less than Queens 20,420 persons/sq. mile. The 2020 population was projected to be 9,313, relying on NYCDCP population projections for Queens. See Table 2-1.

Census Year	Study Area	% Change	Queens	% Change	NYC	% Change
2000	8,494		2,229,379		8,008,278	
2010	8,858	4%	2,230,722	0%	8,175,133	2%
*2020	9,313	5%	2,350,200	5%	8,692,564	6%

Table 2-1: Population Trends

*projected

2.3 Household Characteristics

In 2010 there were approximately 2,328 households in the study area with an average household size of 3.33 that is larger than that of Queens and NYC. The household size has remained relatively constant, a trend that is likely to continue. See Table 2-2.

Table 2-2: Household Size

Census Year	Study Area	% Change	Queens	% Change	NYC	% Change
2000	3.30		2.81		2.59	
2010	3.33	1%	2.82	0%	2.57	0%
*2020	3.33	0%	2.82	0%	2.57	0%

*projected

2.4 Median Household Income

The 2010 median household income was \$59,229 which was higher than Queens and NYC.

It grew by 37%, faster than Queens (33%) and NYC (34%). See Table 2-3.

Census Year	**St	udy Area	% Change	Queens		Queens % Change		NYC	% Change		
2000	\$	43,133		\$	42,439		\$	38,293			
2010	\$	59,229	37%	\$	56,406	33%	\$	51,270	34%		
*2020	\$	81,144	37%	\$	75,020	33%	\$	68,702	34%		

Table 2-3: Median Household Income

*projected, **Zip Code 11434

2.5 Vehicle Ownership

Vehicle ownership in the study area as shown in Table 2-4 shows that 43% of households own one vehicle, 31% own two or more vehicles, while 26% had no vehicles in 2010. Households with at least two vehicles increased by 7% from 2000 to 2010.

Table 2-4: Vehicles Ownership/Households											
# of Vehicles	**Stud	y Area	Que	eens	NYC						
	2000	Total	% of Total	Total	% of Total	Total	% of Total				
Total Households		19,967		782,664		3,021,588					
No vehicle available		6,419	32%	295,049	38%	1,682,946	56%				
1 vehicle available		8,868	44%	321,337	41%	955,165	32%				
2 vehicles available		3,734	19%	132,217	17%	305,267	10%				
3 vehicles available		946	5%	34,061	4%	78,210	3%				
	2010	Total	% of Total	Total	% of Total	Total	% of Total				
Total Households		20,120		773,130		3,049,978					
No vehicle available		5,270	26%	283,440	37%	1,679,025	55%				
1 vehicle available		8,610	43%	311,198	40%	955,187	31%				
2 vehicles available		5,025	25%	137,354	18%	325,755	11%				
3+ vehicles available		1,215	6%	41,138	5%	90,011	3%				
	*2020	Total	% of Total	Total	% of Total	Total	% of Total				
Total Households		21,126		839,782		3,304,528					
No vehicle available		4,648	22%	298,207	36%	1,774,532	54%				
1 vehicle available		9,295	44%	327,515	39%	991,358	30%				
2 vehicles available		5,915	28%	159,559	19%	429,589	13%				
3+ vehicles available		1,268	6%	54,502	6%	109,049	3%				

Table 2-4: Vehicles Ownership/Households

* Projected, ** Zip Code 11434

2.6 Journey to Work by Mode

The 2010 journey to work (car, truck, or van) data showed that drove alone/carpooled share was 49%, 4% less than in 2000, wherein carpooling declined and drove alone increased from 41% to 44%. This is higher than Queens (39%) and NYC (28%). Public Transit share was 44% compared to Queens 51% and NYC 55%. The study area high bus share and low subway share is seen when compared to Queens and NYC. Walk and work from home both represented approximately 3% of the mode share. Table 2-5 shows Journey to Work by Mode.

	**	Study Are	ea		Queens			NYC	
Journey to Work - Mode	2000	2010	*2020	2000	2010	*2020	2000	2010	*2020
Workers 16 and over	22,806	26,608	27,938	931,709	1,035,828	1,151,582	3,192,070	3,658,527	4,193,147
Car, truck, or van	52.6%	49.0%	48.0%	44.5%	39.1%	37.0%	32.9%	28.0%	28.0%
Drove alone	41.0%	43.7%	45.0%	34.3%	32.1%	31.0%	24.9%	22.8%	23.0%
Carpooled	11.6%	5.3%	3.0%	10.2%	7.0%	6.0%	8.0%	5.2%	5.0%
Public transportation	42.3%	44.1%	44.4%	47.4%	51.3%	52.8%	52.8%	55.4%	54.9%
Bus or trolley bus	19.9%	18.0%	17.0%	10.2%	11.8%	12.5%	11.6%	12.4%	10.9%
Subway or elevated	18.6%	21.8%	22.0%	34.3%	37.0%	37.0%	37.6%	40.9%	42.0%
Railroad	3.0%	4.3%	4.9%	2.2%	2.5%	2.7%	1.6%	1.8%	2.0%
Ferryboat	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.2%	20.0%
Taxicab	0.7%	0.4%	0.5%	0.7%	0.4%	60.0%	1.7%	1.1%	1.0%
Motorcycle	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	10.0%
Bicycle	0.1%	0.0%	0.4%	0.3%	0.4%	1.0%	0.5%	0.7%	1.5%
Walked	3.0%	3.3%	3.4%	5.7%	5.8%	5.7%	10.4%	10.3%	10.0%
Other means	0.2%	0.3%	0.2%	0.4%	0.5%	0.5%	0.5%	0.5%	50.0%
Worked at home	1.8%	3.0%	3.5%	1.8%	2.5%	3.0%	2.9%	3.9%	4.0%

Table 2-5: Journey to Work by Mode

*projected, **Zip Code 11434

3.0 ZONING AND LAND USE

3.1 Zoning

There are three basic zoning districts in New York City - residential (R), Commercial (C), and Manufacturing (M), as outlined in the NYCDCP Zoning Handbook. Since each land use has different trip generating characteristics a detailed physical survey was done.

There are three residential districts within the study area: R3-2, R3A, and R3-1 and one manufacturing district M1-1. The study area is equally divided between the residential and manufacturing districts. The residential area is located north of 147th Avenue between Rockaway Boulevard and Springfield Boulevard, while the manufacturing area is located south of 147th Avenue west of Rockaway Boulevard, between South Conduit Avenue and Nassau Expressway. Commercial activities are concentrated mainly along Rockaway Boulevard, Farmers Boulevard and Guy R. Brewer Boulevard where food stores, restaurants, automobile/truck repair and body shops are found.

In addition to residential and manufacturing uses there are other uses related to commercial, recreational and institutional activities. The existing zoning permits manufacturing and warehousing resulting in land uses that attract significant truck trips. Figure 3-1 shows existing zoning districts.



Figure 3-1: Existing Zoning Districts

3.2 Land Use

The Study Area land uses include residential (one-two family homes/luxury condominiums), commercial retail, warehouses/international air cargo facilities, transportation, recreational, governmental offices, educational and religious institutions among others. Numerous land uses in and around the study area are major trip generators contributing to the area's traffic. JFK International Airport, which borders the study area along Nassau Expressway/Rockaway Boulevard, is one of the largest trip generators in the country attracting millions of travelers/visitors every year to the area. There are numerous air-cargo and warehousing facilities that serve various Airport needs. Numerous trucks/tractor trailers use the area roads transporting goods to and from warehouses and airport related facilities. There are also several hotels in close proximity to JFK International Airport.

The large warehouses are clustered in two areas, (1) the southeast between Rockaway Boulevard and Idlewild Park and south of 147th Avenue, and (2) the northwest between Nassau Expressway and 157th Street, south of South Conduit Avenue. Figure 3-3 shows the general land use with some specific uses such as hotels, MTA Bus Depot, FAA and DMV buildings.

Residential Uses

The residential uses are mainly single-family dwellings concentrated in the northeast section of the study area, east of Rockaway Boulevard between South Conduit Avenue and 147th Avenue. There are two newly built condominium complexes (Empire and Liberty House Luxury Apartments) adjacent to South Conduit Avenue, between Guy Brewer Boulevard and 176th Street.

3-3



Figure 3-2: Land Use

Within the residential district are community facilities such as the Birch Family Services on Farmers Blvd at 145th Avenue, the Eihab Human Services on South Conduit Avenue at 175th Street and Homes for the Homeless on 175th Street between 149th Avenue and 148th Road.





Typical one-two family residences

New Luxury Condominiums



Birch Family Services on Farmers Blvd



Eihab Human Services on S. Conduit Ave

Comercial Uses

There are commercial and mixed use establishments such as food stores, delis, restaurants, supermarkets, laundromats, banks, hotels, and gas stations.



McDonalds at Rockaway Blvd



Walgreens/retail store at Farmers/Guy Brewer Blvds

Many hotels have been constructed recently in or near the study area, presently there are twenty-four hotels concentrated along the Belt Parkway/Conduit Avenues, in the west of the study area. Six hotels (JFK Inn, Days Inn, Comfort Inn, Holiday Inn Express, Fairfield Inn and Best Western JFK Airport Hotel are in the study area), while four (Airport Motor Inn, Howard Johnson Express Inn, Sleep Inn JFK Airport, and Garden Inn & Suites) are just outside the study area, north of the Belt Parkway.



Fairview Inn NY JFK on Rockaway Blvd

Holiday Inn Express & Days Inn on 153rd Ln

Goverment Offices/Insituational Uses

The area has goverment offices and commercial establishments, eg. the US Federal Aviation Administration (FAA) building on Rockaway Boulevard with 730 parking spaces. Also the Springfield Gardens Department of Motor Vehicles (DMV) located on Rockaway Boulevard at 148th Avenue with 137 parking spaces attract many vehicle trips.



US FAA Building

Springfield Gardens - DMV

There are two public schools: Junior High School 251 located on Springfield Boulevard between South Conduit Avenue and 145th Road, and P.S. 52 located on Guy R. Brewer Boulevard between 146th Drive and 146th Terrace.



P.S. 251 on Springfield Blvd

P.S. 52 on Guy R. Brewer Blvd

Springfield High School on Springfield Boulevard, one block north of North Conduit Avenue, is outside the study area.

A NYC Department of Sanitation garage located off South Conduit Avenue between 146th Avenue and 153rd Lane with seven service bays and two parking lots for trucks and automobiles generate significant number of trips.



DSNY Facility on 146th Avenue

Transportation Related Uses

There are parking lots for air-cargo facilities, DSNY/MTA garages, school bus parking lots, NYPD Auto Pound, loading/docking stations and other layover areas in the study area.

School Bus Garages: There are two school bus parking lots, one adjucent to South Conduit Avenue at 155th Street with spaces for 300 buses and 50 cars. The other is on Eastern Road, adjacent to Rockaway Boulevard, with more than 250 parking spaces.



School bus garage at 155th Street



School bus parking lot at Eastern Road

Air Park JFK: A large Airport parking facility with more than 300 parking spaces for cars is located adjacent to South Conduit Avenue in the northwest of the study area.

MTA – *JFK Bus Depot:* The MTA Bus Depot on Rockaway Boulevard between 147th Avenue and Farmers Boulevard serves as a park for buses and layover. Most buses leave before 7:00 AM or before 4:00 PM and return after AM/PM peak hours. They are either parked inside the depot or on the local streets during off-peak hours.



MTA - JFK Bus Depot at Rockaway Blvd (b/w Farmers Blvd & 146th Ave)

NYPD Auto Pound: The NYPD Auto Pound on N. Boundary Road with Rockaway Boulevard accomodates more than 1,000 cars.



NYPD Auto Pound (b/w Rockaway Blvd & N. Boundary Road)

Truck Rental Facilities: There are three truck rental companies: "Penske" located on Rockaway Boulevard and 146th Avenue; "Budget" located on Guy Brewer Boulevard and 178th Place, and "Gabrielli Truck Sales" located in the northwestern section of the study area. Gabrieli Truck Sales as the largest facility accommodates over 100 trucks and approximately 200 cars.

Industrial/Manufacturing Uses

The industrial/manufacturing uses (warehousing or cargo distribution centers) are concentrated in two areas shown below.



Western industrial area: b/w S. Conduit Ave & Nassau Expy



Eastern industrial area: b/w Rockaway Blvd & 147th Ave

The industrial establishments in the area are the UPS Store, Dynasty Express Int. Corp., Maribel International, NAI Long Island, Express Line USA Inc., Garden Lights Corp, Pilot Freight Services, LLK Logistics, Seagis/Assoc. Global Systems, Perishable Center JFK, Amana Express, IFS/BNX Shipping Inc., Excel, Toll Global Forwarding, Aramex, Triport International Aircraft, MRZ Trucking, NMC Logistics, GSE Direct, Quick International Courier, Aramex International Courier and WorldNet International.

There are many docking stations/layovers for loading and unloading as well as parking for trucks and cars associated with the industrial uses. A variety of cargo/goods are distributed using large containers. This requires large surface areas and entrance/exits for access.



Examples of warehouses

Future Land Use

There are no known rezonings in the study area. However, there are three rezonings nearby -<u>South Jamaica</u>, <u>Brookville</u>, and the <u>Northern part of Springfield Gardens</u>. Other developments that will likely affect future traffic and truck circulation in the area are:

"JFK Airport Plaza"

To address long-term truck parking needs at JFK International Airport, the PA NY&NJ recently opened the first public truck parking facility in NYC "Airport Plaza". This facility is located at the intersection of 150th Avenue & 147th Street and has the capacity to hold fifty tractor trailer/trucks. It is located directly across the street from the recently opened "*Travel Plaza*" that features a dedicated truck fueling facility together with a 24/7 food court including a 7-Eleven, Wendy's, Max's Pizza, and Qdoba Mexican Grill. PA NY&NJ will also expend the truck parking facility to accommodate additional trucks.

The truck parking facility which offers the first 20 minutes free has incremental charges for a maximum rate of \$59.00 per 24 hours. The PA NY&NJ is currently leasing spaces on a monthly basis for \$1,100 per month. Trucks that fuel at the facility will have the ability to rent spaces at a discounted rate.

It is anticipated that the new facility will decrease truck layovers and parking on local streets and enable trucking companies to better organize and schedule shipments, increasing aircargo overall efficiency and driver's convenience.

"JFK North Development"

NYC EDC has issued an RFP for the development of the site located between Rockaway Boulevard and Nassau Expressway WB exit ramp opposite the FAA Building (see map below).



The proposed development will involve some industrial and commercial land uses serving JFK Airport. The development site will be remapped adding a few access points on Rockaway Boulevard/Nassau Expressway.

4.0 TRAFFIC AND TRANSPORTATION

4.1 Introduction

Three major regional thoroughfares (North and South Conduit Avenues, and Nassau Expressway/Rockaway Boulevard), and several other arterials (Farmers Boulevard, Guy R. Brewer Boulevard, Springfield Boulevard and 147th Avenue) transverse the study area processing significant traffic volumes. The proximity of JFK International Airport accounts for passenger and air cargo traffic on the street network. Figure 4-1 shows major arterials.



Figure 4-1: Major Arterials
4.2 Street System and Roadway Characteristics

The triangular study area can be accessed via Rockaway Boulevard, Guy R. Brewer Boulevard, Farmers Boulevard, and Springfield Boulevard from the north/south and via Belt Parkway/Conduit Avenues, JFK/Nassau Expressways or 147th Avenue from the east/west.

North-South corridors:

Rockaway Boulevard the longest northeast/southwest principal arterial in the study area provides direct access to JFK Airport and Five Towns shopping center. It crosses the North and South Conduit Avenues under the Belt Parkway into Ozone Park. It is approximately 80 feet wide with three travel lanes per direction separated by a raised median as it runs alongside the airport. No stopping or parking is permitted in this segment. Curbside parking is allowed between 157th and 159th Streets on the west curb and between 144th Avenue and Farmers Boulevard on the east curb. It is a designated through truck route and a key bus route in the study area.

Farmers and Guy R. Brewer Boulevards are north/south corridors approximately 50 feet wide with one travel lane per direction with parking on both curbs. They are also bus routes.

Springfield Boulevard is approximately 60 feet wide with two lanes and parking on both curbs. It terminates at 147th Avenue in the south, intersects North/South Conduit Avenues and provides access to the Belt Parkway. It is a local truck route north of Conduit Avenues.

East/West corridors:

The **Belt (Shore) Parkway** a regional uninterrupted flow facility has three lanes per direction. North and South Conduit Avenues are service roads to the Parkway with five exits and three entrance ramps to/from the parkway in the study area.

4-2

North and South Conduit Avenues are through truck routes with four travel lanes per direction with no parking. They connect to Atlantic Avenue and Linden Boulevard in the west and Sunrise Highway in the east.

Nassau Expressway a regional uninterrupted flow facility has three travel lanes per direction separated by a raised median. It connects to JFK/Van Wyck Expressways and merges with South Conduit Avenue.

147th Avenue a minor arterial 50 feet wide has a travel lane, a bike lane, and parking on both curbs. It connects to Rockaway Boulevard and to Francis Lewis Boulevard. It is a bus route.

4.3 Traffic Data Collection

To conduct the necessary traffic analysis various traffic and field surveys were conducted. The existing traffic conditions were determined from field surveys and data collected in Spring 2014.

ATR Counts:

Automatic Traffic Recording (ATRs) machines were placed for one week to collect 24 hours traffic counts in 15-minute intervals at the following locations:

- 1. Rockaway Blvd between South Conduit Ave and 144th Drive
- 2. Rockaway Blvd between Guy R. Brewer Blvd and 150th Drive
- 3. 147th Avenue between 142nd and 143rd Streets
- 4. Nassau Expressway between N. Hangar Road and Rockaway Boulevard
- 5. Farmers Blvd between 176th and 177th Streets
- 6. Guy R. Brewer Blvd between 146th Terrace and 146th Drive
- 7. South Conduit Avenue between Rockaway Boulevard and 150th Drive
- 8. South Conduit Avenue between Guy R. Brewer and Farmers Boulevards
- 9. South Conduit Avenue between 181st and 182nd Streets

- 10. North Conduit Avenue between Farmers and Springfield Boulevards
- 11. North Conduit Avenue between 222nd Street and Springfield Boulevard

Manual Turning Movement and Vehicle Classification Counts:

Manual turning movement and vehicle classification counts (autos, bikes, vans, trucks, and buses) were conducted for one midweek day (Tuesday or Wednesday or Thursday) during the AM 7:00-9:00, and PM 4:00-6:00 peak periods, in 15-minutes intervals at the following locations:

- 1. Rockaway Boulevard and South Conduit Avenue
- 2. Rockaway Boulevard and 144th Avenue
- 3. Rockaway Boulevard and 144th Drive
- 4. Rockaway Boulevard EB and Nassau Expressway
- 5. Rockaway Boulevard/Nassau Expressway and Farmers Boulevard
- 6. Rockaway and Guy R. Brewer Boulevards
- 7. South Conduit Avenue and Guy R. Brewer Boulevard
- 8. South Conduit Avenue and Farmers Boulevard
- 9. North Conduit Avenue and Farmers Boulevard
- 10. South Conduit Avenue and Springfield Boulevard
- 11. North Conduit Avenue and Springfield Boulevard
- 12. North Conduit Avenue and 181st Street
- 13. Guy R. Brewer and Farmers Boulevards
- 14. 147th Avenue and Farmers Boulevard
- 15. 147th Avenue and Guy R. Brewer Boulevard
- 16. 147th Avenue and Springfield Boulevard

Pedestrian Counts

Pedestrian counts were conducted, concurrently with vehicle counts, for one weekday (Tuesday or Wednesday or Thursday) during the AM 7:00-9:00 and PM 4:00-6:00 peak periods, in 15-minutes intervals at the following locations:

- 1. Rockaway Boulevard and South Conduit Avenue
- 2. Rockaway Boulevard and 144th Avenue
- 3. Rockaway Boulevard and 144th Drive
- 4. Guy R. Brewer Boulevard and 147th Avenue
- 5. Farmers Boulevard and Guy R. Brewer Boulevard
- 6. Farmers Boulevard and 147th Avenue
- 7. 147th Avenue and Springfield Boulevard
- 8. Guy R. Brewer/Rockaway Boulevards and N. Boundary Road

Travel speed and time surveys were conducted for one weekday during the AM 7:00-9:00 and PM 4:00-6:00 peak periods on four major corridors in the study area. The ATRs, travel speed, manual turning movement and pedestrian count locations are shown in Figure 4-2.



Figure 4-2: Traffic Data Collection Plan

Other relevant data needed to conduct the capacity analysis such as roadway geometry, number of lanes, signal timings, parking regulations, and bus stops were also collected.

4.4 Traffic Network Volumes

Balanced traffic network volumes were plotted on flow maps for the AM 8:00-9:00 and PM 4:30-5:30 peak hours. These were prepared using ATRs and manual turning movement counts (See Figures 4.3 and 4.4). The highest traffic volumes during the AM and PM peak periods were recorded along South and North Conduit Avenues, Nassau Expressway/Rockaway Boulevard, and Farmers, Guy R. Brewer and Springfield Boulevards, respectively.

Arterials	EB	WB	NB	SB
Artendis	AM/PM	AM/PM	AM/PM	AM/PM
North Conduit Avenue		2,450/1,500		
South Conduit Avenue	2,500/2,700			
Nassau Expressway	2,200/2,260	1,750/1,620		
Rockaway Boulevard			2,170/2,040	2,120/2,140
Farmers Boulevard			260/580	500/375
Guy R. Brewer Boulevard			380/590	510/430
Springfield Boulevard			770/570	720/690



Figure 4-3: Existing 2014 Traffic Volumes



Figure 4-4: Existing 2014 Traffic Volumes

4.5 Street Capacity and Level of Service (LOS) Analysis

The capacity of a roadway is the maximum rate of flow which may pass through a section of roadway under prevailing traffic, roadway and signalization conditions. The capacity of a roadway is determined by several factors including turning movements, signal timing, geometric design of the intersection, pedestrian movements, type of vehicle, parking conditions, and weather conditions amongst others. In determining street capacity, the HCS+/2000 Highway Capacity Manual (HCM) methodology and SYNCHRO analysis were used. The methodology requires the use of official signal timings, street geometry, and other relevant roadway and traffic information. Several field visits were conducted to observe prevailing conditions.

Traffic flow characteristics are measured in terms of the volume-to-capacity (v/c) ratios and delays. The quality of the flow is expressed in terms of LOS, which is based on an average delay experienced by a vehicle. When the v/c ratio exceeds 1.0, a facility or intersection operates at or over capacity. In this situation severe congestion occurs in traffic with stop-and-start conditions with extensive queuing and delays. Volume-to-capacity ratios of less than 0.85 are considered to be reflective of acceptable traffic conditions, with average delays of 45 seconds or less. Table 4-1 shows the LOS criteria as specified in the 2010 HCM Methodology for signalized intersections. The studied intersections were analyzed for roadway capacity, v/c ratios, vehicular delay, and LOS for the weekday AM and PM peak hours.

Level of Service (LOS)	Control Delay Per Vehicle	Description of Traffic Condition
A	≤ 10.0	Describes operations with very low control delay, up to 10 seconds per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
В	10.1 to 20.0	Describes operations with control delay greater than 10 and up to 20 sec. per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
с	20.1 to 35.0	Describes operations with control delay greater than 20 and up to 35 sec. per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35.1 to 55.0	Describes operations with control delay greater than 35 and up to 55 sec. per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1 to 80.0	Describes operations with control delay greater than 55 and up to 80 sec. per vehicle. This level of service is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	> 80	Describes operations with control delay in excess of 80 sec. per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factor to such delay levels.

Table 4-1: LOS Criteria for Signalized Intersections

Sources: Highway Capacity Manual, Transportation Research Board, National Research Council, Washington, D.C. 2010.

4.6 Existing Traffic Conditions

Table 4-2 shows the traffic capacity analysis existing conditions summary for 16 signalized intersections.

Most intersections operated at an acceptable LOS D or better during the AM and PM peak hours. However, some intersections experienced LOS E or F for some approaches or lane groups during the peak hours. The intersections or lane groups with LOS D, or worse during a particular peak hour are listed below and shown in Figures 4-5 to 4-6.

- Rockaway Boulevard and South Conduit Avenue AM and PM peaks;
- Rockaway Boulevard and 144th Avenue PM peak;
- Rockaway Boulevard EB and Nassau Expressway PM peak;
- Rockaway Blvd/Nassau Expressway and Farmers Blvd AM and PM peaks;
- Rockaway and Guy R. Brewer Boulevards AM and PM peaks;
- North Conduit Avenue and Farmers Boulevard PM peak;
- North Conduit Avenue and Springfield Boulevard AM and PM peaks;
- South Conduit Avenue and Guy R. Brewer Boulevard AM and PM peaks;
- South Conduit Avenue and Farmers Boulevard PM peak;
- South Conduit Avenue and Springfield Boulevard AM and PM peaks; and
- Guy R. Brewer Boulevard and 147th Avenue AM peak.

				AM P	EAK		РМ РЕАК			
Intersection	Approach	Movement	Volume	V/C Ratio	Avg. Delay	LOS	Volume	V/C Ratio	Avg. Delay	LOS
	NB	TR	580	0.61	41.4	D	656	0.90	51.7	D
Rockaway Blvd &		L	147	0.71	62.6	E	201	0.93	85.7	F
South Conduit Avenue	SB	T	353	0.80	52.7	D	280	0.74	50.8	D
	ED.	LT	1,537	0.80	30.0	С	2,678	1.03	59.2	E
	EB	R	264	0.41	12.5	В	227	0.31	10.1	В
	Overall				35.5	D			55.6	E
	NB	TR	563	0.28	11.9	В	454	0.45	14.3	В
Rockaway Blvd &		L	18	0.05	10.1	В	48	0.17	11.5	В
144th Avenue	SB	Т	506	0.56	16.7	В	433	0.79	26.8	С
	EB	LTR	78	0.16	30.9	С	204	0.44	35.9	D
	WB	LR	58	0.23	32.8	С	71	0.28	34.0	С
	Overall				19.1	В			23.4	С
Rockaway Blvd &	NB	LTR	625	0.38	13.0	В	500	0.50	15.1	В
144th Drive	SB	LTR	533	0.41	13.6	В	478	0.55	16.3	B
	WB	LTR	13	0.04	29.3	С	24	0.15	31.0	С
	Overall				13.4	В		·	16.3	В
			500	0.42	24.0	6	500	0.40	25.2	2
Bookowov Blud 9	SB		500 75	0.42	34.0 34.2	с С	526	0.49	35.2 39.1	D
Rockaway Blvd &	EB	R T	1,725	0.29	34.2	C C	<u> 102</u> 1,735	1.00	43.5	D
Nassau Expressway	WB	Т	1,725	0.90	39.6	D	1,735	0.97	37.7	D
	Overall	•	1,075	0.77	38.2	D	1,515	0.57	40.0	D
	NB	TR	1,722	0.61	39.2	D	1,779	0.80	24.9	C
Rockaway Blvd &	SB	Т	2,103	0.95	35.6	D	2,118	1.04	57.0	E
Farmers Blvd		R	122	0.17	14.4 49.7	B D	143	0.27	15.7 43.8	B D
	EB	LTR	<u>112</u> 305	0.71	35.8	D	<u>116</u> 513	0.04	43.8 39.1	D
		L	22	0.01	28.7	C	24	0.53	54.4	D
	WB	<u> </u>	98	0.43	32.9	Ċ	74	0.25	29.2	C
		R	111	0.46	33.3	C	107	0.43	33.2	C
	Overall				35.6	D		·	40.2	D
	ND		150	1.02	129.0	-	05	0.05	71.2	-
	NB	L TR	158 2,011	1.02 1.05	128.0 71.4	F	85 1.757	0.65	71.2 66.6	E
Rockaway Blvd &		L	2,011	0.88	78.5	E	201	0.95	88.6	F
Guy Brewer Blvd	SB	T	1,849	0.88	38.2	D	1,913	1.03	58.6	E
		R	40	0.07	17.8	В	28	0.07	17.8	В
	EB	LT	151	0.18	31.5	C	188	0.25	32.5	C
		R	63	0.19	32.4	С	97	0.34	35.4	D
	WB	L	278	0.87	63.9	E	245	0.83	58.9	E
	VV D	TR	131	0.33	34.6	С	111	0.32	34.5	С
	Overall				57.3	E			60.9	E
	NB	LT	396	0.59	30.6	С	538	0.93	54.2	D
North Conduit Avenue	SB	TR	533	0.45	26.3	C	549	0.53	27.9	C
& Farmers Blvd	WB	LTR	1,942	0.83	29.7	С	1,214	0.56	22.4	С
	Overall				29.2	С			31.2	С
	ND	17	776	1.00	70.2	E	570	0.94	62.4	E
North Conduit Avenue	NB	LT T	776 562	0.95	70.2	E	570 458	0.94	52.0	D
& Springfield Blvd	SB	R	156	0.93	63.0	E	233	0.88	77.2	E
o springheid bivu	WB	LTR	1,963	0.68	19.0	B	1,370	0.80	23.9	C
	Overall		_,: :::		40.8	D	_,5.0		41.3	D
						-				

TABLE 4-2 (Page 1 of 2) Traffic Capacity Analysis for Signalized Intersections Existing Conditions (2014)

				AM PEAK				PM PE	AK	
Intersection	Approach	Movement	Volume	V/C Ratio	Avg. Delay	LOS	Volume	V/C Ratio	Avg. Delay	LOS
	NB	TR	317	0.90	74.7	E	350	0.92	74.5	E
South Conduit Avenue		DefL	166	1.04	119.9	F	185	0.93	89.7	F
& Guy Brewer Blvd	SB	T	306	0.78	53.6	D	365	0.95	76.0	E
···· , · · · ·	EB	LTR	2,326	0.56	12.6	В	2,688	0.80	17.5	В
	Overall			•	32.4	С			32.1	С
	ND	TD	25.0	0.32	32.8	С	672	1.02	84.4	F
South Conduit Avenue	NB	TR DefL	258 190	0.52	52.0	L	196	0.97	98.9	F
& Farmers Blvd	SB	LT	481	0.60	28.5	с	345	0.60	34.8	C
& Faimers bivu	30	T	401	0.00	20.5	C	545	0.00	54.0	C
	EB	LTR	2,488	0.92	34.9	С	2.704	0.81	24.9	С
	Overall	2/10	2,700		33.6	C	2,,04		38.8	D
		•	_							
	NB	Т	243	0.84	69.7	E	222	0.87	74.4	E
South Conduit Avenue		R	75	0.22	41.2	D	186	0.74	60.0	E
& Springfield Blvd	SB	L –	548	1.03	92.9	F	276	0.96	83.3	F
		T	259	0.56	36.9	D	350	0.86	54.2	D
	EB	LTR	2,102	0.32	13.5	B	3,056	0.87	35.9	D
	Overall				40.6	D			44.7	
	NB	LTR	384	0.45	18.8	В	543	0.68	23.6	С
Farmers Blvd &	SB	LTR	301	0.28	16.4	В	351	0.34	17.1	В
Guy Brewer Blvd	EB	LTR	131	0.13	14.9	В	455	0.44	18.2	В
•	WB	DefL	260	0.61	24.2	С	121	0.31	17.8	В
		TR	265	0.48	19.8	В	157	0.33	17.7	В
	Overall				19.1	В			19.7	В
	ND	LTR	260	0.26	12.0	В	577	0.70	18.5	В
	NB	DefL	55	0.20	12.0	D	66	0.22	18.3	В
Farmers Blvd &	SB	LT	75	0.31	12.4	В	38	0.22	12.2	D
147 Avenue	30	TR	194	0.51	12.4		140	0.33	13.5	В
14/ Avenue	EB	LTR	88	0.16	11.4	В	140	0.33	12.6	B
	WB	LTR	166	0.53	18.6	B	140	0.49	18.3	B
	Overall	2	100		13.4	В	/		16.5	В
					-				-	
	NB	LTR	267	0.28	22.3	С	588	0.98	45.8	D
147 Ave &	SB	LTR	513	0.43	33.4	С	428	0.99	53.4	D
Guy Brewer Blvd	EB	LTR	161	0.28	12.7	B	302	0.57	17.1	В
	WB	LTR	428	0.98	53.8	D	180	0.59	19.9	В
	Overall				32.0	С			39.0	D
	NB	LTR								
147 Ave &	SB	LR	186	0.15	13.0	В	116	0.11	12.7	В
Springfield Blvd		L	39	0.12	18.8	В	193	0.66	21.4	С
	EB	T	188	0.31	21.0	С	623	1.02	54.3	D
	WB	TR	452	0.40	42.2	D	134	0.27	10.3	В
	Overall				25.4	С			34.9	С

TABLE 4-2 (Page 2 of 2) Traffic Capacity Analysis for Signalized Intersections Existing Conditions (2014)



Figure 4-5: Intersections with Approach/Lane Group LOS D, E, and F Existing Conditions (AM Peak Hour)

Figure 4-6: Intersections with Approach/Lane Group LOS D, E, and F Existing Conditions (PM Peak Hour)



4.7 Future Traffic Conditions

The 2024 future traffic conditions focused on capacity analysis of 16 intersections. The existing volumes were projected 3.813% for ten years growth, plus trips from potential known developments. Future balanced traffic network volumes were developed for the weekday AM and PM peak hours (see Figures 4-7 and 4-8). Table 4-3 shows the future conditions capacity analysis results.

The LOS analysis show that several intersections would operate at an acceptable level of service (LOS) C or better during the various peak hours but some intersections, or some of their approaches/lane groups would experience LOS D, E, and F. Intersections with approaches or lane groups with mid LOS D or worse are listed below and shown in Figures 4-9 and 4-10.

- South Conduit Avenue and Rockaway Boulevard (AM, PM);
- South Conduit Avenue and Guy R. Brewer Boulevard (AM, PM);
- South Conduit Avenue and Farmers Boulevard (AM, PM);
- South Conduit Avenue and Springfield Boulevard (AM, PM);
- North Conduit Avenue and Farmers Boulevard (PM);
- North Conduit Avenue and Springfield Boulevard (AM, PM);
- Farmers Boulevard and Rockaway Boulevard (AM, PM);
- Guy R. Brewer Boulevard and Rockaway Boulevard (AM, PM);
- Springfield Boulevard and 147th Avenue (PM);
- Guy R. Brewer Boulevard and 147th Avenue (AM, PM);
- Rockaway Boulevard and Nassau Expressway (AM, PM); and
- Rockaway Boulevard and 144th Avenue (PM).



Figure 4-7: Future 2024 Traffic Volumes



Figure 4-8: Future 2024 Traffic Volumes

			ΑΜ ΡΕΑΚ					ΡΜ ΡΕΑΚ			
Intersection	Approach	Movement	Volume	V/C Ratio	Avg. Delay	LOS	Volume	V/C Ratio	Avg. Delay	LOS	
	NB	TR	603	0.64	41.9	D	681	0.93	56.0	E	
Rockaway Blvd &		L	153	0.74	65.2	E	209	0.97	95.3	F	
South Conduit Avenue	SB	Т	367	0.83	55.2	E	291	0.77	52.6	D	
	EB	LT	1,596	0.82	31.3	С	2,781	1.07	72.7	E	
	ED	R	275	0.42	12.7	В	236	0.32	10.2	В	
	Overall				36.8	D			65.6	E	
	NB	TR	585	0.29	12.0	В	472	0.46	14.6	В	
Rockaway Blvd &	SB	L	19	0.05	10.1	В	50	0.18	11.6	В	
144th Avenue	30	Т	526	0.58	17.1	В	450	0.82	28.9	С	
	EB	LTR	81	0.17	30.9	С	212	0.46	36.3	D	
	WB	LR	61	0.23	32.9	C	74	0.29	34.2	С	
	Overall				19.7	В			24.3	С	
Rockaway Blvd &	NB	LTR	649	0.39	13.2	В	520	0.52	15.5	В	
144th Drive	SB	LTR	554	0.42	13.7	В	497	0.56	16.7	В	
	WB	LTR	14	0.04	29.3	С	25	0.15	31.0	С	
	Overall				13.6	В			16.7	В	
		L	520	0.44	34.2	С	547	0.51	35.5	D	
Rockaway Blvd &	SB	R	78	0.29	34.2	C	106	0.48	39.7	D	
Nassau Expressway	EB	Т	1,791	0.99	41.7	D	1,802	1.04	53.5	D	
. ,	WB	Т	1,737	0.78	39.8	D	1,577	1.01	46.2	D	
	Overall				40.2	D			47.8	D	
	ND	тр	1,788	0.64	39.8	D	1,847	0.83	26.0	С	
	NB	TR T	2,184	0.98	41.5	D	2,199	1.07	70.1	E	
Rockaway Blvd &	SB	R	127	0.18	14.5	B	149	0.28	15.8	В	
Farmers Blvd		L	117	0.73	51.8	D	145	0.66	44.9	D	
	EB	LTR	317	0.64	36.8	D	533	0.76	39.9	D	
		L	23	0.19	28.9	С	25	0.56	56.9	E	
	WB	Т	102	0.45	33.4	С	77	0.26	29.3	C	
		R	116	0.47	33.6	С	112	0.45	33.6	С	
	Overall				38.6	D			46.0	D	
	NB	L	165	1.05	136.3	F	89	0.66	72.2	E	
		TR	2,088	1.10	85.8	F	1,824	1.09	80.3	F	
		L	245	0.91	84.4	F	209	0.98	97.1	F	
Rockaway Blvd &	SB	Т	1,920	0.96	42.7	D	1,986	1.06	71.1	E	
Guy Brewer Blvd		R	42	0.07	17.9	В	30	0.07	17.8	В	
	EB	LT	157	0.19	31.6	С	196	0.26	32.6	С	
		R	66	0.20	32.5	С	101	0.35	35.6	D	
	WB		289	0.87	63.9	E	255	0.86	58.9	E	
	0	TR	136	0.34	34.9	C E	116	0.33	34.7	C E	
	Overall			l	65.6			•	71.9	c	
	NB	LT	412	0.62	31.6	С	559	0.98	64.2	E	
North Conduit Avenue	SB	TR	554	0.47	26.6	C	570	0.55	28.3	C	
& Farmers Blvd	WB	LTR	2,016	0.86	31.1	C	1,261	0.59	22.8	C	
	Overall				30.4	С			33.8	С	
	NB	LT	776	1.03	79.5	E	570	0.97	68.9	E	
North Conduit Avenue	SB	Т	562	0.98	77.7	E	458	0.77	53.3	D	
& Springfield Blvd		R	156	0.76	64.9	E	233	0.92	83.5	F	
	WB	LTR	1,963	0.70	19.5	В	1,370	0.83	25.2	С	
	Overall				44.4	D			44.1	D	

TABLE 4-3 (Page 1 of 2) Traffic Capacity Analysis for Signalized Intersections Future 2024 Conditions

TABLE 4-3 (Page 2 of 2) Traffic Capacity Analysis for Signalized Intersections Future 2024 Conditions

				AM P	EAK			PM PE	AK	
Intersection	Approach	Movement	Volume	V/C Ratio	Avg. Delay	LOS	Volume	V/C Ratio	Avg. Delay	LOS
	NB	TR	330	0.94	80.1	F	364	0.94	79.1	E
South Conduit Avenue		DefL	173	1.10	138.5	F	193	0.97	96.5	F
& Guy Brewer Blvd	SB	T	318	0.81	56.0	E	379	0.98	83.4	F
	EB	LTR	2.415	0.58	12.9	В	2.791	0.83	18.4	В
	Overall				35.0	С			34.2	С
			260	0.22	22.0	6	600	1.00	95.5	-
Couth Conduit Avenue	NB	TR	268	0.33	32.9	С	698	1.06 1.01	95.5	F
South Conduit Avenue & Farmers Blvd	SB	DefL LT	198 500	0.63	29.2	с	204 359	0.63	35.5	Г D
& ranners bivu	30	T	500	0.05	29.2	L.	309	0.05	55.5	U
	EB	LTR	2,583	0.95	38.4	D	2.808	0.84	25.9	С
	Overall		2,000	0.55	36.4	D	2,000	0.04	41.9	D
	NB	Т	253	0.87	73.4	E	231	0.90	79.4	E
South Conduit Avenue		R	78	0.23	41.2	D	194	0.77	62.3	E
& Springfield Blvd	SB	L	569	1.07	104.2	F	287	0.99	91.3	F
		T	269	0.58	37.5	D	364	0.89	57.9	E
	EB	LTR	2,183	0.33	13.6	В	3,173	0.90	38.0	D
	Overall				43.6	D			46.2	D
	NB	LTR	399	0.47	19.0	В	564	0.71	24.5	С
Farmers Blvd &	SB	LTR	313	0.29	16.5	В	365	0.36	17.3	В
Guy Brewer Blvd	EB	LTR	136	0.13	14.9	В	473	0.45	18.4	В
-	WB	DefL	270	0.64	25.0	С	126	0.31	17.8	В
		TR	276	0.49	20.1	С	163	0.34	17.8	В
	Overall				19.4	В			20.1	С
	NB	LTR	270	0.27	12.0	В	599	0.73	19.3	В
	IND	DefL	58	0.27	12.0	D	69	0.73	19.3	B
Farmers Blvd &	SB	LT	78	0.32	12.5	В	40	0.23	12.5	Ь
147 Avenue	30	TR	202	0.52	12.5	D	40 146	0.34	13.6	В
147 Avenue	EB	LTR	92	0.16	11.5	В	140	0.28	12.7	B
	WB	LTR	173	0.55	19.1	B	132	0.50	18.7	B
	Overall		1,5		13.5	B	102		16.9	B
							_			
_	NB	LTR	278	0.29	23.3	C	611	1.01	52.1	D
147 Ave &	SB	LTR	533	0.45	34.9	C	445	1.00	58.6	E
Guy Brewer Blvd	EB	LTR	168	0.29	12.8	В	314	0.59	17.4	B
	WB	LTR	445	1.02	62.6	E	187	0.61	20.6	D
	Overall	I			34.2	С			43.1	U
	NB	LTR								
147 Ave &	SB	LR	194	0.16	13.0	В	121	0.11	12.7	В
Springfield Blvd	EB	L	41	0.13	19.8	В	201	0.68	22.4	С
	EB	Т	196	0.33	21.6	С	647	1.05	64.6	E
	WB	TR	470	0.41	44.2	D	140	0.28	10.4	В
	Overall				28.4	С			40.3	D



Figure 4-9: Intersections with Approach/Lane Group LOS D, E, and F Future Conditions (AM Peak Hour)



Figure 4-10: Intersections with Approach/Lane Group LOS D, E, and F Future Conditions (PM Peak Hour)

4-8 Existing Travel Speeds

Many factors contribute to congestion such as heavy traffic volumes, parking, loading/unloading activities that reduce roadway capacity resulting in delays and slow travel speeds. The major corridors in the study area experiencing congestion were subjected to travel speed surveys during the peak periods.

Travel time and speed surveys were conducted along the following corridors:

- 1. Rockaway Boulevard between South Conduit Avenue and 150th Drive
- 2. Guy R. Brewer Boulevard between South Conduit Avenue and Rockaway Boulevard
- 3. Farmers Boulevard between South Conduit Avenue and Rockaway Boulevard
- 4. **147th Avenue** between Springfield and Rockaway Boulevards.

The "floating car" method (a technique whereby a vehicle travels at speeds under prevailing traffic conditions) was used to obtain peak hour travel speeds. Three travel runs were performed for each corridor during the weekday AM 7:00-9:00 and PM 4:00-6:00 peak periods. Travel speeds along the four corridors ranged from 8 to 25 mph during the AM and from 11 to 25 mph during the PM peak hours. The slowest speeds are recorded along Guy R. Brewer Boulevard in northbound direction (8.1 MPH) and 147th Avenue in westbound direction (8.8 MPH) during the AM peak hour. Tables 4-4 and 4-5, and Figures 4-11 to 4-14 provide the average link travel times and speeds for each corridor.

Corridor	Direction	Between	Average Travel Time (sec)	Average Travel Speed (mph)
	NB	Springfield Lane and N.		
Rockaway Blvd	IND	Conduit Ave	297.7	20.7
	SB	N. Conduit Ave and		
Rockaway Blvd	30	Springfield Lane	250.0	24.9
	NB	Rockaway Blvd and		
Farmers Blvd	INB	N. Conduit Ave	155.3	15.9
	SB	N. Conduit Ave and		
Farmers Blvd	JD	Rockaway Blvd	160.0	15.0
	ND	Rockaway Blvd and		
Guy R. Brewer Blvd	NB	N. Conduit Ave	380.3	8.1
	CD.	N. Conduit Ave and		
Guy R. Brewer Blvd	SB	Rockaway Blvd	269.3	11.4
		Farmers Blvd and		
147th Ave	EB	225th Street	223.7	12.5
	WB	225th Street and		
147th Ave	VVD	Farmers Blvd	316.3	8.8

Table 4-4: Average Travel Speeds - AM Peak

Figure 4-11: Average Travel Speeds (mph) - AM Peak



Corridor	Direction	Between	Average Travel Time (sec)	Average Travel Speed (mph)
	NB	Springfield Lane and N.		
Rockaway Blvd	ND	Conduit Ave	249.3	24.7
	SB	N. Conduit Ave and		
Rockaway Blvd	20	Springfield Lane	301.7	20.6
	ND	Rockaway Blvd and N.		
Farmers Blvd	NB	Conduit Ave	173.0	14.2
	CD.	N. Conduit Ave and		
Farmers Blvd	SB	Rockaway Blvd	147.3	16.3
	ND	Rockaway Blvd and		
Guy R. Brewer Blvd	NB	N. Conduit Ave	273.3	11.3
	C D	N. Conduit and Ave		
Guy R. Brewer Blvd	SB	Rockaway Blvd	191.7	16.0
	ED.	Farmers Blvd and		
147th Ave	EB	225th Street	167.0	16.7
		225th Street and		
147th Ave	WB	Farmers Blvd	160.0	17.4

Table 4-5: Average Travel Speeds - PM Peak







Figure 4-13: Existing Travel Speeds (AM Peak)





4.9 Future Travel Speeds

The 2024 future travel speeds were calculated using HCS future delays and existing measured speeds. The existing travel time and delays as well as future delays were used to compute future travel speeds.

The future conditions analysis indicates the average travel speeds during the AM and PM peak hours would slightly decrease along major corridors. Travel speeds along the four corridors would range from 7.8 to 24 mph during the AM and from 11 to 24 mph during the PM peak hours. Tables 4-6 and 4-7, and Figures 4-15 to 4-18 provide the average link travel times and speeds for each corridor.

Corridor	Direction	Between	Average Travel Time (sec)	Average Travel Speed (mph)
	NB	Springfield Lane and N.		
Rockaway Blvd	ND	Conduit Ave	305.2	19.8
	SB	N. Conduit Ave and		
Rockaway Blvd	30	Springfield Lane	258.0	24.2
	ND	Rockaway Blvd and		
Farmers Blvd	NB	N. Conduit Ave	161.8	15.2
	CD	N. Conduit Ave and		
Farmers Blvd	SB	Rockaway Blvd	164.5	14.6
	ND	Rockaway Blvd and		
Guy R. Brewer Blvd	NB	N. Conduit Ave	392.0	7.8
	SB	N. Conduit Ave and		
Guy R. Brewer Blvd	38	Rockaway Blvd	282.0	11.1
	ED.	Farmers Blvd and		
147th Ave	EB	225th Street	234.0	12.1
		225th Street and		
147th Ave	WB	Farmers Blvd	322.4	8.5

Table 4-6: Future Average Travel Speeds - AM Peak





Corridor	Direction	Between	Average Travel Time (sec)	Average Travel Speed (mph)
Deckoway Dive	NB	Springfield Lane and N. Conduit Ave	254.0	24.2
Rockaway Blvd			254.0	24.2
Rockaway Blvd	SB	N. Conduit Ave and Springfield Lane	308.2	20.2
Farmers Blvd	NB	Rockaway Blvd and N. Conduit Ave	179.0	13.9
Farmers Blvd	SB	N. Conduit Ave and Rockaway Blvd	153.0	16.0
Guy R. Brewer Blvd	NB	Rockaway Blvd and N. Conduit Ave	270.2	10.9
Guy R. Brewer Blvd	SB	N. Conduit and Ave Rockaway Blvd	196.3	15.7
147th Ave	EB	Farmers Blvd and 225th Street	170.0	16.3
147th Ave	WB	225th Street and Farmers Blvd	164.2	17.1

Table 4-7: Future Average Travel Speeds - PM Peak







Figure 4-18: Future Travel Speeds (PM Peak)



Figure 4-17: Future Travel Speeds (AM Peak)

4-10 Trucks and Goods Movement

New York City is heavily dependent on trucks for delivery of goods and services. Thousands of local and through truck trips are made in the city to satisfy daily needs. Given the reliance upon trucks for goods movement in New York City, the need to examine truck traffic as part of any traffic and transportation study is obvious. This was even more necessary as residents complained about excessive truck traffic in their neighborhood. Though trucks provide a vital service, their presence requires space for loading and unloading as well as parking. The community was concerned about the noise, air pollution, congestion, and other safety issues posed by trucks.

The study area is adjacent to JFK International Airport which is the largest international gateway for freight and air cargo transport. With the Air Cargo industry becoming one of the principal drivers of New York City's economy the area has felt the consequences. According to studies done by the PA of NY&NJ from GPS records, approximately 4,000 truck trips to/from JFK Airport and Springfield Gardens area are sighted over a three-month period. Twenty five thousand different commodities (about 1.4 million tons of freight) are shipped to/from JFK Airport and Springfield Gardens by the largest national/international carriers. These shipments travel via regional transportation facilities such as the Van Wyck Expressway, Nassau Expressway, New England Thruway, Long Island Expressway, Conduit Avenues, and Sunrise Highway. Some of these facilities provide regional and local access not only to JFK Airport but the Springfield Gardens study area as well which has significant warehousing facilities. Of the total truck trips entering the City about 13% are destined to JFK Airport and the Springfield Gardens area.

/With more the 1/3 of study area zoned for manufacturing/industrial use, more than any other neighborhood in Queens, it is impacted by the JFK air cargo industry. There are several industrial and warehouse establishments that attract truck traffic. Also there are major shopping centers in relatively close proximity that depends on truck traffic for supplies. The percentage of trucks in the traffic stream on Rockaway Boulevard is 8-12% compared to a City wide average of 4-7%. Figure 4-19 shows major regional truck trip generators.



Figure 4-19: Major Regional Truck Trip Generators

There are three designated "Through" truck routes in the study area - Rockaway Boulevard, North Conduit and South Conduit Avenues. Springfield Boulevard, Farmers Boulevard, and Guy R. Brewer Boulevard are "local" truck routes north of North Conduit Avenue that do not extend to the study area. However, south of the North Conduit Avenue and west of Rockaway Boulevard are major industrial and warehousing activities that depend on trucks necessitating use of local streets to access their destinations. See Figure 4-20.



Figure 4-20: Truck Routes

Non designated roadway segments used to access warehouses/industrial uses are:

- 1) Nassau Expressway, 157th and 159th Streets;
- 2) 147th Avenue, Guy R. Brewer and Farmers Boulevards, south of the South Conduit Avenue; and
- 3) Baisley Boulevard and 150th Street, the north of North Conduit Avenue.

This reality and unavoidable situation is the source of the community's complains about excessive truck traffic in their neighborhood.

The pictures below show truck activity.



Rockaway/Farmers Blvds, looking east



149th Ave, looking east



Farmers Blvd, looking north



Guy Brewer Blvd/147th Ave, looking east



Rockaway Blvd, oversize truck (53' long)



Penske - Trucks Rental at Rockaway Blvd

To assess truck activities additional field observations were made with an emphasis on loading/ unloading and double or illegal parking. The survey benefited from installed cameras at nine intersections that captured truck traffic patterns along major corridors. See the following pictures.

Cameras Operating Live in the Area



4-36

From the PA study, sixty one percent (61%) of total truck trips occur during off-peak hours (i.e. between 11:00 AM-2:00 PM and overnight between 8:00 PM-5:00 AM) when traffic volumes are at their lowest. During the morning peak hours about 20% of truck trips occur between 5:00 AM to 11:00 AM and about 19% between 2:00 PM and 8:00 PM. See Figure 4-21.

The PA study also showed that approximately 70% of truck trips occur on designated truck routes with 37% exclusively on truck routes, while 54% took a combination of "through" and "off-truck" routes and 9% traveled exclusively "off-truck" route. The percentage of truck traffic in the total traffic stream is between 10 - 20%, much higher than the Borough and City average percentage between 4% and 7%.


Figure 4-21: Regional and Local Truck Traffic

Source: PA of NY/NJ – JFK Truck Access Study

Table 4-8 shows truck traffic along major corridors during the AM and PM peak hours.

			AM	Peak			PM Peak						
Intersection		EB/WB		NB/SB			EB/WB				NB/SB		
	Total Traffic	Trucks	% Trucks	Total Traffic	Trucks	% Trucks	Total Traffic	Trucks	% Trucks	Total Traffic	Trucks	% Trucks	
Rockaway Blvd &		_	-			_							
S. Conduit Ave	1,801	152	8%	1,080	87	8%	2,905	114	4%	1,137	54	5%	
144th Ave	137	1	1%	1,087	82	8%	275	11	4%	935	76	8%	
144th Rd	13	2	15%	1,158	98	8%	24	4	17%	978	89	9%	
Nassau Expy	3,398	198	6%	575	46	8%	3,254	263	8%	638	44	7%	
Farmers Blvd	646	94	15%	3,947	312	8%	834	263	32%	4,040	118	3%	
Guy Brewer Blvd	630	88	14%	4,294	367	9%	641	263	41%	4,184	105	3%	
Guy Brewer Blvd													
S. Conduit Ave	2,326	132	6%	789	20	3%	2,688	98	4%	900	7	1%	
Farmers Blvd	656	38	6%	685	36	5%	733	41	6%	894	26	3%	
147th Ave	589	26	4%	780	40	5%	482	39	8%	1,016	43	4%	
Farmers Blvd													
N. Conduit Ave	1,942	128	7%	928	39	4%	1,193	178	15%	1,087	21	2%	
S. Conduit Ave	2,488	278	11%	929	60	6%	2,704	135	5%	1,213	55	5%	
147th Ave	254	37	15%	584	50	9%	273	44	16%	818	54	7%	
Springfield Blvd													
N. Conduit Ave	1,963	131	7%	1,494	56	4%	1,327	69	5%	1,261	44	3%	
S. Conduit Ave	2,102	142	7%	1,125	26	2%	3,056	107	4%	1,034	33	3%	
147th Ave	679	34	5%	186	11	6%	1,050	31	3%	106	5	5%	
Total	18,945	1,481	Avg. % 8.5	19,455	1,319	Avg. % 6.2	21,439	1,629	Avg. % 11.5	20,241	769	Avg. % 4.7	

Table 4-8: Traffic and Truck Volumes (AM & PM Peak Hours)

Thirteen percent of the City's trucks traffic ends in the study area or JFK Airport. See Figures 4-

22 and 4-23 for truck traffic information on designated truck routes and off-routes.



Figure 4-22: Truck Traffic - AM Peak Hour

Figure 4-23: Truck Traffic - PM Peak Hour



North and South Conduit Avenues, 147th Avenue, and Nassau Expressway process approximately 1,500 and 1,600 trucks during the AM and PM peak hours, respectively. Rockaway, Guy R. Brewer, Farmers, and Springfield Boulevards process approximately 1,300 and 800 trucks during the AM and PM peak hours, respectively. Many trucks on routes to warehouse destinations access local residential streets impacting the quality of life of local residents. Compared to the other neighborhoods, the percentage of trucks in the traffic stream is twice the citywide average.

It is important to note that the majority of truck activity occurs outside the AM and PM peak hours.

5.0 PEDESTRIAN AND BICYCLE

5.1 Introduction

The pedestrian existing conditions analysis consists of counts focused on the locations where high concentration of commercial and recreational activities were observed or in close proximity to bus stations or transfer points. Level of service (LOS) analysis was conducted for crosswalks, sidewalks and corners at key intersections. The field surveys revealed low pedestrian volumes.

5.2 Existing Pedestrian Volumes

Pedestrian counts were conducted during the weekday AM and PM peak hours in 15-minute intervals at seven intersections listed below (See Figure 5-1).

- 1. Rockaway Boulevard and South Conduit Avenue
- 2. Rockaway Boulevard and 144th Avenue
- 3. Rockaway Boulevard and 144th Drive
- 4. Guy R. Brewer Boulevard and 147th Avenue
- 5. Farmers Boulevard and Guy R. Brewer Boulevard
- 6. Farmers Boulevard and 147th Avenue
- 7. 147th Avenue and Springfield Boulevard

The surveys recorded the highest pedestrian volumes at the following locations:

- Guy Brewer and Farmers Boulevards;
- Rockaway Boulevard & 144th Avenue; and
- Guy Brewer Boulevard & 147th Avenue.

5.3 Pedestrian LOS Analysis – Existing Conditions (2014)

The pedestrian LOS is measured in terms of square feet of space per pedestrian (SF/P), as shown in Figure 5-2. The levels of service indicate the quality of pedestrian movement and comfort, and are defined in a density-comfort relationship. The pedestrian LOS for the crosswalks during the AM and PM peak hours indicated all crosswalks operated at LOS A, with no congestion, also there were no visible conflicts with vehicular traffic. See Table 5-1 – Summary of pedestrian LOS.





Figure 5-2: Pedestrian Level of Service (LOS) Criteria

LOS A

Pedestrian Space > 60 ft²/p Flow Rate \leq 5 p/min/ft At a walkway LOS A, pedestrians move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.

LOS B

Pedestrian Space > 40-60 ft²/p Flow Rate > 5-7 p/min/ft At LOS B, there is sufficient area for pedestrians to select walking speeds freely, to bypass other pedestrians, and to avoid crossing conflicts. At this level, pedestrians begin to be aware of other pedestrians, and to respond to their presence when selecting a walking path.

LOS C

Pedestrian Space > 24-40 ft²/p Flow Rate > 7-10 p/min/ft At LOS C, space is sufficient for normal walking speeds, and for bypassing other pedestrians in primarily unidirectional streams. Reverse-direction or crossing movements can cause minor conflicts, and speeds and flow rate are somewhat lower.

LOS D

Pedestrian Space > 15-24 ft²/p Flow Rate > 10-15 p/min/ft At LOS D, freedom to select individual walking speed and to bypass other pedestrians is restricted. Crossing or reverse-flow movements face a high probability of conflict, requiring frequent changes in speed and position. The LOS provides reasonably fluid flow, but friction and interaction between pedestrians is likely.







LOS E

 $\label{eq:pedestrian Space > 8-15 ft^2/p \ \ Flow Rate > 15-23 p/min/ft \\ \mbox{At LOS E, virtually all pedestrians restrict their normal walking speed, frequently adjusting their gait. At the lower range, forward movement is possible only by shuffling. Space is not sufficient for passing slower pedestrians. Cross0 or reverse-flow movements are possible only with extreme difficulties. Design volumes approach the limit of walkway capacity, with stoppages and interruptions to flow.$

LOS F

Pedestrian Space ≤ 8 ft²/p Flow Rate varies p/min/ft

At LOS F, all walking speeds are severely restricted, and forward progress is made only by shuffling. There is frequent, unavoidable contact with other pedestrians. Cross- and reverse-flow movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristic of queued pedestrians than of moving pedestrian streams.

			AN	Λ	PN	Л
Loc. #	Intersection	Crosswalk	SF/P*	LOS	SF/P*	LOS
		North	N/A	N/A	N/A	N/A
1	Rockaway Boulevard &	South	3,549	А	1,371	А
1	South Conduit Avenue	East	1,282	А	1,423	А
		West	1,659	А	6,653	А
		North	4,709	А	4,800	А
2	Rockaway Boulevard &	South	2,609	А	4,247	А
2	144 th Avenue	East	412	А	106	А
		West	782	А	905	А
		North	8,591	А	5,701	А
2	Rockaway Boulevard &	South	2,447	А	1,230	А
3	144 th Drive	East	1,831	А	1,831	А
		West	1,893	А	1,718	А
		North	456	А	146	А
4	Guy Brewer Boulevard &	South	677	А	445	А
4	Farmers Boulevard	East	315	А	126	А
		West	285	А	226	А
		North	2,664	А	1,313	Α
5	Guy Brewer Boulevard &	South	702	А	406	А
Э	147 th Avenue	East	406	А	139	А
		West	638	А	2,229	А
		North	568	А	655	Α
6	Farmers Boulevard &	South	346	А	544	А
0	147 th Avenue	East	550	А	434	А
		West	466	А	660	А
		North	2,506	А	2,512	А
7	Springfield Boulevard &	South	1,880	А	1,460	А
/	147 th Avenue	East	1,650	А	1,402	А
		West	2,110	А	1,895	Α

Table 5-1: Existing Pedestrian LOS

* SF/P – Square feet per pedestrian

5.4 Pedestrian LOS Analysis - Future Conditions (2024)

The projected future 2024 volumes were generated by adding a 3.813% per 10-year growth. All intersections crosswalks under future conditions are expected to operate at acceptable levels of service. See Figure 5-3, and Table 5-2.



Figure 5-3: Future Pedestrian Volume (2024)

		6	AN	I	PN	N
Loc. #	Intersection	Crosswalk	SF/P	LOS	SF/P	LOS
		North	N/A	N/A	N/A	N/A
	Rockaway Boulevard &	South	3,904	А	1,508	А
1	South Conduit Avenue	East	1,410	А	1,565	А
		West	1,825	А	7,318	А
		North	5,180	А	5,280	А
2	Rockaway Boulevard &	South	2,870	А	4,672	А
2	144 th Avenue	East	453	А	117	А
		West	860	А	996	А
		North	9,450	А	6,271	А
2	Rockaway Boulevard &	South	2,692	А	1,353	А
3	144 th Drive	East	2,014	А	2,014	А
		West	2,082	А	1,890	А
		North	502	А	161	А
	Guy Brewer Boulevard &	South	745	А	490	А
4	Farmers Boulevard	East	347	А	139	А
		West	314	А	249	А
		North	2,930	А	1,444	А
-	Guy Brewer Boulevard &	South	772	А	447	А
5	147 th Avenue	East	447	А	153	А
		West	702	А	2,452	А
		North	625	А	720	А
C	Farmers Boulevard &	South	380	А	599	А
6	147 th Avenue	East	605	А	478	А
		West	513	А	726	А
		North	2,757	А	2,763	А
_	Springfield Boulevard &	South	2,068	А	1,606	А
7	147 th Avenue	East	1,815	А	1,542	А
		West	2,321	Α	2,085	Α

Table 5-2: Future Pedestrian LOS

5.5 Bicycle Network (Routes/Paths)

The existing and planned bicycle facilities in the study area are shown in Figure 5-4.





A protected bicycle path was recently installed on Springfield Boulevard from 147th Avenue to South Conduit Avenue and 147th Avenue connecting Brookville and Springfield Parks.

See below protected bicycle lanes on 147th Avenue between Springfield Boulevard and 225th Street and on Springfield Boulevard between 147th Avenue and South Conduit Avenue.



Bicycle lanes on 147th Avenue



Protected bicycle lanes on Springfield Boulevard

6.0 CRASHES AND SAFETY

6.1 Introduction

The analysis of crashes/accidents is an important component of traffic analysis as crashes can lead to loss of life and/or property damage. The main purpose of the crash analysis is to identify patterns and frequency of crashes at locations that might need special attention for potential improvements.

To identify high crash locations and address safety issues, crash history for the three most recent years were compiled and analyzed. Traffic crash data for the study area intersections were obtained from the New York State Department of Transportation (NYSDOT) for the three most recent years (2011 to 2013) for which data is available. The data obtained quantify the total number of reportable crashes (involving fatality, injury, or property damage exceeding \$1,000) as well as a yearly breakdown of pedestrian and bicycle-related crashes at each location.

6.2 Summary of Crashes (2011-2013)

New York State Department of Transportation defines a high crash location as one where five or more pedestrian/bicyclist-related crashes involved or 23 or more crashes in any consecutive 12 months within the most recent 3-years. After reviewing all 195 intersections in the study area between 2011 and 2013, only two - Rockaway Blvd and Guy R. Brewer Blvd, and Rockaway Blvd and Farmers Blvd were identified as "High Crash Locations". Of the 717 reportable crashes between 2011 and 2013, consequences are 903 injuries to drivers/vehicle passengers, 32 involved pedestrians and 16 bicyclists. See Table 6-1 for the crash summary.

Intersection	Total Accident		Injuries			Pedestrian Crashes			Bicycle Crashes			
	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Guy R. Brewer Blvd & Rockaway Blvd	36	29	36	66	29	53	0	0	0	0	0	0
Rockaway Blvd & Farmers Blvd	26	28	34	29	27	48	1	0	1	0	0	0

Table 6-1: Crash Summary (2011-2013)

Figure 6-1 shows high crash locations, fatalities, and "Vision Zero Corridor/Intersection Action Plan" for 2014 (See Section 6.3, page 6-7).



Figure 6-1: Crash/Safety Issues

Fatalities and injuries (2011-2015)

Between 2011 and 2015, there were fifteen fatalities in the study area; four involving pedestrians and eleven motor vehicles. There were no bicyclist related fatalities. Fatalities involving pedestrians occurred on Rockaway Boulevard between Springfield Lane and 136th Avenue and along North and South Conduit Avenues between 150th Street and Springfield Boulevard. Table 6-2 lists locations with fatalities and injuries (2011-2013) including other crash related information.

Internetion (Fat	ality		2011-2013						
Intersection/ Corridor	2011	2012	2012	Total	In	Injury Type			Property		
contaor	2011	2012	2015	2013 Total		В	С	Total	Damage Only		
Guy R. Brewer Blvd & Rockaway Blvd	0	1 (ped)	0	1	2	11	135	148	24		
Rockaway Blvd & Farmers Blvd	0	0	1 (ped)	1	7	7	90	104	14		
North Conduit Ave	1 (mv)	0	0	1	7	5	231	243	33		
Total	1	1	1	3	16	23	456	495	71		

Table 6-2: Summary of Fatalities (2011-2013)

Table 6-3 summaries 2011-2013 crashes per corridor. Figures 6-2 and 6-3 show a summary of crashes/injuries per corridor/per year.

Comidou		Crashes	5	Total	Total	Total	Pedes	trian Cr	ashes	Bicy	cle Cras	shes
Corridor	2011	2012	2013	Crashes	Crashes Injuries		2011	2012	2013	2011	2012	2013
Rockaway Blvd (North Conduit Ave to Nassau Expressway)	73	71	77	221	292	1	1	1	1	0	0	0
Farmers Blvd (North Conduit Ave to Rockaway Blvd)	62	58	62	182	215	1	5	2	2	0	1	1
Guy R. Brewer Blvd (North Conduit Ave to Rockaway Blvd)	74	57	65	196	276	0	6	1	5	5	1	1
Springfield Blvd (North Conduit Ave to Rockaway Blvd)	40	31	17	88	91	0	2	1	1	2	0	0
South Conduit Ave (150 Street to Springfield Blvd)	63	50	40	153	179	0	3	0	1	1	1	0
North Conduit Ave (150 Street to Springfield Blvd)	69	58	56	183	244	1	2	1	5	3	0	1
Nassau Expressway (150 Street to Rockaway Blvd)	5	5	2	12	18	0	0	0	0	0	0	0
147th Ave (Rockaway Blvd to Springfield Blvd)	10	9	2	21	21	0	0	1	1	1	0	0

Table 6-3 Crashes per Corridor 2011-2013



Figure 6-2: Total Crashes/Injuries per Corridor (2011-2013)

Figure 6-3: Total Crashes/injuries by Year (2011-2013)



Pedestrians were involved in 4.5% of all crashes in the study area while bicyclists were involved in 2.2% between 2011 and 2013. See Figure 6-4.



Figure 6-4: Pedestrian and Bicycle Crashes

A crash class (A, B, or C) is determined by the most severe physical injury irrespective of the number of injuries incurred. A crash is considered fatal when someone dies as a result of injuries sustained in the crash. The relative weight scale is used to facilitate comparisons of the financial cost of each type of crash. For example, if a crash resulted in a class C injury, its average cost would be 96 times that of a non-reportable crash. The use of the relative weight values allows us to determine the final severity factor and assign a value between 0 and 10. Various levels of severity can be determined from the relative weight assigned to each crash class.

Of all injuries 3.1% were Type A injuries, 5% type B, 91.9% type C severity, while 143 crashes involved property damage (\$1,000 or more). The three most common collision types were rear end 25.2%, overtaking 12.6%, and right angle 9.9%. Fourteen percent of the crashes occurred

in wet roadway conditions, while 20.2% of all crashes occurred during non-daylight hours. See Figure 6-5.



Figure 6-5: Crashes by Collision Type and Driving Condition (2011-2013)

6.3 Vision Zero Action Plan

Springfield Gardens, Queens, is targeted by the pedestrian safety action plan for safety improvement measures. On an average, one (1) pedestrian is killed or severely injured in the borough of Queens every weekday. The Queens pedestrian fatality rate (1.92/100,000) is slightly above the NYC average (1.88/100,000). In the study area, the Vision Zero Action Plan selected Guy R. Brewer Boulevard as a priority corridor out of 47 corridors and the Rockaway/Guy R. Brewer Boulevards and South Conduit Avenue/Springfield Boulevard intersections out of 72 intersections for the safety improvement action. See Figure 6-1.

7.0 PARKING

7.1 Introduction

The parking analysis focuses on the study area's parking demand and supply to identify parking deficiencies in an attempt to address the area's parking needs. Parking plays an important role in the area's traffic system since deficient parking could lead to unwanted circulation and congestion as motorists search for parking spaces, park double or illegal, thus reduce regularly roadway capacity. The parking analysis included surveys of on-street and off-street parking facilities during selected peak periods to determine the parking demand and supply in the area.

There are numerous on-streets and off-street parking facilities in the study area. On-street parking is generally permitted on all streets in the study area except where it is prohibited by a parking regulation. Off-street parking facilities are primarily accessory parking associated with residential, industrial/warehousing and commercial uses in the study area.

7.2 On-Street Parking

The on-street parking analysis focused on major corridors in the study area where commercial activities are concentrated. Parking regulations in the area range from alternate side street cleaning to restricted or time-limited parking (metered-parking, no stopping/standing zones, bus stops, fire hydrants, authorized parking zones, and truck loading/unloading bays); see Figure 7-1.

The detailed parking survey documented parking capacity, demand and accumulation during the morning, midday and evening peak periods. The survey focused on major arterials and local streets within industrial areas where parking regulations exist; see Figure 7-2. For those streets mainly within the residential area which do not have street cleaning regulations, the survey was not conducted.

7-1



Figure 7-1: On-Street Parking Regulations

On-Street Parking Capacity and Utilization

There are 1,668 on-street parking spaces in the surveyed areas. The average parking utilization for the industrial area and major corridors reached 77% (1,282 spaces) during the analyzed peak hours. There were instances when parking demand exceeds capacity, resulting in an illegal or double parking especially along major corridors such as Rockaway, Farmers and Guy Brewer Boulevards. The average utilization for analyzed corridors is 55% during analyzed peak hours.



Figure 7-2: On-Street Parking - Surveyed Locations

Parking shortfall was noticeable on several local streets within the industrial areas where parking utilization exceeded 90% during the peak hours. Table 7-1 shows total capacity and utilization for corridors and industrial areas. The corridors with high parking demand are listed below:

Western industrial area: 155th Street, 156th Street, 157th Street, 145th Avenue and 146th Drive with an average utilization of about 82%.

Eastern industrial area: 175th Street, 176th Street, 181st Street, 182rd Street, 184th Street, 148th Avenue, 148th Road, 149th Avenue, 149th Road, 150th Avenue, 150th Road, and 150th Drive with an average utilization of about 95%.

There are three roadway segments with metered parking in the study area:

- 1) Rockaway Blvd between 145th Street and 183rd Street (10 meters/58% utilized);
- 2) 175th Street between 148th Avenue and Rockaway Blvd (16 meters/86% utilized); and
- 3) 148th Avenue between Rockaway Blvd and Guy R. Brewer Blvd (16 meters/106% utilized).

Figure 7-3 shows locations with the average peak hour utilization.

					(Page 1	L OF 2)
Major Corridors	Direction	Metered Parking	Non Metered Parking	Total Capacity	Occupancy (#)	Utilization (%)
Rockaway Blvd bet. N. Conduit Ave and 183rd St.	E/W	10	42	52	40	77
Guy R. Brewer Blvd bet. N. Conduit Av and Rockaway Blvd	E/W		159	159	104	65
Farmers Blvd bet. N. Conduit Av and Rockaway Blvd	E/W		130	130	63	48
Springfield Blvd bet. N. Conduit Ave and 147th Ave	E/W		110	110	36	33
147th Ave bet. Springfield Blvd and Rockaway Blvd	N/S		131	131	89	68
N. Conduit Ave bet. 150th St. and Springfield Blvd	N/S		0	0	0	0
S. Conduit Ave bet. 150th St. and Springfield Blvd	N/S		47	47	13	28
Total		10	619	629	345	55
Local Streets	Disasting	Metered	Non	Total	Occupancy	Utilization

Table 7-1: On-Street Parking Facilities (Capacity & Utilization) (Page 1 of 2)

Local Streets (Western industrial enclave)	Direction	Metered Parking	Non Metered Parking	Total Capacity	Occupancy (#)	Utilization (%)
155th St . bet. S. Conduit Ave and 146th Ave	E/W		32	32	29	91
156th St . bet. S. Conduit Ave and 146th Ave	E/W		33	33	31	94
157th St. bet. Rockaway Blvd and 146th Ave	E/W		55	55	50	91
158th St . bet. Rockaway Blvd and 146th Ave	E/W		49	49	36	73
159th St . bet. Rockaway Blvd and 146th Ave	E/W		57	57	34	60
145th Ave bet. 155th St. and 157th St.	N/S		29	29	28	97
145th Rd bet. 157th St. and 159th St.	N/S		32	32	28	88
146th Rd bet. 155th St. and 159th St.	N/S		48	48	35	73
146th Dr bet. 177th St. and Guy R.Brewer Blvd	N/S		19	19	18	95
Total		0	354	354	289	82

			les (Capaci	.,	(Page	2 of 2)
Local Streets (Eastern industrial enclave)	Direction	Metered Parking	Non Metered Parking	Total Capacity	Occupancy (#)	Utilization (%)
175th St . bet. Farmers and Rockaway Blvds	E/W	16	48	64	55	86
176th St. bet. Farmers Blvd and 148th Ave	E/W		41	41	42	102
177th St. bet. Farmers Blvd and 148th Ave	E/W		61	61	51	84
181st St. bet. 147th Ave and Dead End	E/W		12	12	13	108
182rd St . bet. Rockaway Blvd and 147th Ave	E/W		52	52	55	106
183rd St . bet. Rockaway Blvd and 147th Ave	E/W		89	89	79	89
184th St. bet. 147th Ave and 149th Ave	E/W		21	21	19	90
Porter Rd bet. Rockaway Blvd and 147th Ave	N/S		38	38	33	87
148th Ave bet. Rockaway Blvd and Guy R. Brewer Blvd	N/S	16	47	63	67	106
148th Rd bet. 175th St. and Guy R. Brewer Blvd	N/S		25	25	31	124
149th Ave bet. Dead End and 184th St.	N/S		79	79	85	108
149th Rd St bet. Rockaway Blvd and 183rd St.	N/S		32	32	37	116
150th Ave bet. Rockaway Blvd and 183rd St.	N/S		22	22	24	109
150th Rd bet. Rockaway Blvd and 183rd St.	N/S		35	35	34	97
150th Dr bet. Rockaway Blvd and 183rd St.	N/S		13	13	14	108
153rd Pl bet. S. Conduit Ave and 146th Ave	N/S		24	24	9	38
153 Ln bet. S. Conduit Ave and 146th Ave	N/S		14	14	0	0
Total		32	653	685	648	95
Total (Corridors/Streets)		42	1,626	1,668	1,282	77

Table 7-1: On-Street Parking Facilities (Capacity & Utilization)



Figure 7-3: On-Street Parking Utilization

7.3 Off-Street Parking

An inventory of all accessible off-street parking facilities (lots and garages) in the study area was compiled. The inventory includes off-street parking lots located in the residential areas and all other parking facilities within the industrial areas. Figure 7-4 shows the locations and types of off-street parking facilities in the study area.





Off Street Parking Capacity and Utilization

It is estimated that the study area has more than 120 off-street parking facilities with a capacity exceeding 4,600 spaces. Most of these facilities are located within the industrial area serving various warehouses and air-cargo transport needs. The largest off-street parking facility is the NYPD Auto Pound with the capacity of more than 1,000 spaces. The second largest off-street parking facility is the Federal Aviation Administration (FAA) located on Rockaway Boulevard, between 144th Road and 145th Road with 730 parking spaces. Another large off-street parking facilities are the Air Park JFK/AMB located between South Conduit Avenue and 153rd Road with 570 parking spaces and Gabrielli Truck Sales Company that can accommodate more than 200 cars and 100 trucks. Hotels in the study area with combined parking capacity are more than 500 spaces. The Department of Motor Vehicles has a capacity of more than 130 spaces. Other off-street parking facilities in the study area are smaller with capacity fewer than 100 parking spaces.

There are a few small parking lots in residential areas serving mainly luxury condominiums. Majority of single and two family dwellings have on-site parking. Other parking lots in the study area serve various community needs, schools, churches, banks, food centers, etc.

Table 7-2 lists all off-street parking facilities in the study area including their locations, capacity and utilization.

Table 7-2:	Off-Street Parking Facilities (Capacity & Utilization)
------------	---

Tai	ole 7-2: Off-Street Par		es (Capa	city & Ut	lization)	(Pa	age 1 of 4	.)
Name of Lot	Location of Facility	Type of Facility	Capao Trucks/ Docking	city (#) Car Spaces	Trucks/ Containers	Utilization Cars (#)	(# / %) Buses	(%)
Gabrielli Truck Sales	S. Conduit Ave/153rd Pl	private lot	120	200	118	75		38
Dept. of Sanitation (3/4/23)	146th Ave/153rd Ln 146th Ave	docking/lot private lot	7	60 50	22	30 20		50 40
	153rd Ct	docking		14	2	0		0
Air Park JFK AMB JFK Airport Park	S. Conduit Ave/153rd Pl 146th Ave	private lot docking/lot	7	320 100	3	300 50		94 50
School Ducco	C. Conduit Ava/155 St	docking (lot		150	32	150	200	100
School Buses Sel's Swift Services	S. Conduit Ave/155 St 156th St	docking/lot docking	3	50	3	37	300	74
Safe Screening Services	155th St	private lot	5	10	5	10		100
Cosmo Freight Solutions	155th St	private lot		45		32		71
Prime Transport	155th St	docking/lot	28	10	13	5 +6		110
Concordia Int. Forwd. Corp.	155th St	docking	7	10	3	2		110
X-P Shipping	155th St	docking	10		2	5		
Unitrans	156th St/S.C.A	private lot		20		9		45
REEF JFK Port Industrial	157th St	docking	11		4	5		
Prax Air	157th St	docking	32			30		100
Gourmet Boutique	158th St	docking	25		4	14		93
Mersant Int. Ltd	158th St	docking	3		1			
Mersant Int. Ltd	Rockaway Blvd/159th St	private lot		10		8		80
Freigth Transport	156th St/S.C.A	docking/lot	3	4	0	3		75
Arc Air Logistics	146th Ave/157th St	private lot		25		23		92
US Fed. Aviation Adm.	Rockaway Blvd/144th Rd	private lot		730		250		34
JFK Inn	155th St	private lot		80		47		59
Comfort Inn	153rd Ln	private lot		18		10		56
Holiday Inn Express JFK	153rd Ln/S.C.A	private lot		22		14		64
Days Inn	153rd St	private lot		30		12		40
Best Western JFK	153rd Ln	private lot		35		14		40
Fairfield Inn NY JFK	S.C.A./Rockaway Blvd	private lot		33		25		76

Table 7-2: Off-Street Parking Facilities (Capacity & Utilization)

	Table 7-2: Off-Street P	-	(Page 2 of 4)						
Name of Lot	Location of Facility	Type of Facility	Capacity (#)		Utilization (# / %)				
			Trucks/ Docking	Car spaces	Trucks/ Containers	Cars	Buses	(%)	
Getty Repair Station	Rockaway Blvd/S.C.Ave	private lot		15		8		53	
Residential	S.C.Ave/166th St	private lot		10		5		50	
YA Truck Tire Repair	Rockaway Blvd/144th Ave	private lot		50		35		70	
Belt Tire Center - Car/Trucks	Rockaway Blvd/144th Rd	private lot		25		7		28	
Dynasty Exp. Int. Corp.	Rockaway Blvd/144th Dr	private lot		10		12		120	
The UPS Store	Rockaway Blvd/144th Dr	private lot		25		30		120	
New Yummy Express	Rockaway Blvd/145th Rd	private lot		25		22		88	
Maribel International	145th Rd	private lot		25		21		84	
Cross Island Fitness Ctr.	Springfield Blvd/S.C.A	private lot		45		44		98	
NAI Long Island	Springfield Blvd/147 Ave	private lot		30		29		97	
		docking/lot	7	20	7	19		95	
JHS 231	Arthur St	private lot		10		7		70	
Sun Rock Auto Parts	GB/Farmers Blvds	private lot		20		7		35	
Budget Truck Rental	GB Blvd/178th Pl	private lot		20	6	8		40	
Guy R Farmers Ldrmt	GB/Farmers Blvds	private lot		16		2		13	
Instant Money Service	S.C. Ave/178th Pl	private lot		8		4		50	
Empire House Lux. Apts	S.C. Ave/177th St	private lot		13		8		62	
Liberty House Lux. Apts	S.C. Ave/177th St	private lot		23		7		30	
Luxury Apartments	S.C. AVE/GB Blvd	private lot		25		5		20	
145 Food Center	GB/Farmers Blvds	private lot		35	4	15		43	
Birch Family Services	Farmers Blvd/Meadow Dr	private lot		80		52		65	
Lancer Service Station	S.C. Ave/Farmers Blvd	private lot		15		12		80	
Eihab Human Services	S.C. Ave/168th St	private lot		20		16		80	
Residential	S.C. Ave/175th St	private lot		15		6		40	
Hassel Broth. Auto Body	G.B. Blvd/146th Rd	private lot		35		27		77	
Express Line USA Inc.	146th Rd/167th St	docking/lot	6	20	4	12		60	
Truck repair	Rockaway Blvd/145th Rd	private lot		10		10		100	
Garden Lights Corp.	Rockaway Blvd/145th Dr	docking/lot	4	20	6	6		30	
Penske Truck Rental	Rockaway Blvd/146th Ave	private lot		60	32			0	
All State Inc.	Rockaway Blvd/145th Dr	private lot		10	2	2		20	
Pilot Freight Services	167th St/146th Ave	docking/lot	16	10	4	14		140	
MTA Bus JFK Depot	Rockaway/ 147th Ave	private lot							
	147th Ave/Farmers Blvd	private lot		90		70		78	
	147th Ave	docking/lot	3	28		15		54	

	able 7-2: Off-Street Pa		(-	· · · / · · · ·		(P	age 3 of 4	L)
Name of Lot	Location of Facility	Type of Facility	Capacity (#)		Utilization (# / %)			
			Trucks/ Docking	Car spaces	Trucks/ Containers	Cars	Buses	(%)
McDonalds	Rockaway/Farmers Blvds	private lot		10		8		80
Residential	147th Ave/Farmers	private lot		10	1	4		40
Boserino Auto Collision	147th Ave/Farmers Blvd	docking/lot	13	26	0	13		50
Speedway Auto Center	147th Ave/Farmers Blvd	private lot		32		32		100
IFS/BNX Shipping Inc.	147th Ave/Farmers	docking/lot	9	30	5	20		67
Excel	147th Ave/Farmers	docking	4		0			
LLK Logistics Services	147th Ave/Farmers	docking	2	64	1	44		69
Amana Express	147th Ave/Farmers	docking	4	1	3	1		100
Assoc. Global Syst./Seagis	Farmers Blvd	docking	7		0			
Perishable Center JFK	Farmers	docking						
UPS Supply Chain Solutions	150 th Road	docking/lot	94	122	60	90		74
Toll Global Forwarding	183 rd St	docking/lot	15	21	11/23	13		62
Air Tiger Express USA	149^{TH} Ave/183 rd St	docking/lot	23	35	7	57		163
Aramex	182nd/150 th Rd	docking/lot	32	46	5	42		91
Industrial	183 rd St/150 th Dr	docking/lot	4	85	46/8	48		56
Queens Detention Facility	183 rd St/150 th Rd	docking/lot	20	25	0	21		84
Industrial	150 th Rd	docking/lot	11	20	13	14		70
Industrial	Rockaway Blvd/182 nd St	docking/lot	12	14	13	6		43
Mario's Pizza	Guy Br. Blvd/149 th Rd	lot		25	0	15		60
38/39/48	150 th Ave/182 nd St	docking/lot	18	36	2	27		75
GSE Direct	Guy Br. Blvd/149th Ave	docking/lot	12	38	3	25		66
Savino Del Bene USA	F149TH Ave/182 nd St	docking/lot	12	47	0	45		96
Aramex Int. Courrier	182 nd St/147 th Ave	docking/lot	41	20	3	20		100
Industrial	Guy Br. Blvd/149th Ave	docking/lot		50		33		66
Industrial	F149TH Ave/182nd St	docking/lot		20	0	7		35
Fast Fleet	147th Ave/181 st St	docking/lot	34	22	2	20		91
Industrial	147th Ave/183 rd St	docking/lot	52	35	14	35		100
Industrial	Guy Br. Blvd/149th Ave	docking/lot	12	40	8	12		30
Quick Int. Courrier	148th Ave/148 th Rd	docking/lot	5	96	5	49		51
Industrial	148 th Rd	docking/lot		36	2	19		53
JFK Shuttle	175 th St /148 th Rd	lot		40		32		80
Industrial	149 th Rd 177 th St	lot		32		11		34
Industrial	Rockaway Boulevard	lot		26		13		50
Industrial	149 th Avenue	lot		20		19		95

 Table 7-2: Off-Street Parking Facilities (Capacity & Utilization)

				• •		-	Page 4 of 4	1)	
Name of Lot	Location of Facility	Type of Facility	Capacity (#)		Utilization (# / %)				
			Trucks/ Docking	Car spaces	Trucks/ Containers	Cars	Buses	(%)	
Industrial	149 th Avenue	lot		25	5	7		28	
PK Deli	Guy Br. Blvd/149th Rd	lot		30		15		50	
Industrial	149 th Rd/Guy Br. Blvd	lot		28		15		54	
BLVD Hero's	Guy Br. Blvd/149 th Rd	lot		5		3		60	
ATM Services NY	Guy Br. Blvd/150 th Rd	lot		10		6		60	
Industrial	149th Rd/177 th St	lot		58	2	21		36	
Dunkin' Donuts	Guy Br. Blvd/Rock Blvd	lot		16		4		25	
Industrial	150th Rd/Rockaway Blvd	lot		8		5		63	
Kenny Deli & Grocery	147th Ave/Guy Br. Blvd	docking/lot	9	18	8	8		44	
DMV	175 th St/Rockaway Blvd	lot		137		88		64	
Vehicle Brokers of Queens	148 th Ave/Porter Rd	lot		18		12		67	
Industrial	Framers Rd/175 th St	lot		60		44		73	
Industrial	147th Ave/Guy Br. Blvd	3 lots		10/10/10		5/1/5		37	
Sea Food Delight	GBB/147 th Ave	lot		20		14		70	
Industrial	147 th Ave	lot		15	6			13	
Jamaican Flavors	Framers Rd/Porter Rd	lot		12		8		67	
Auto Center	175th St/Farmers Blvd	lot	4	40		40		100	
Industrial	GBB/147th Ave	lot		10	3	6		60	
Industrial	176 th St	lot		20	4	6		30	
Industrial	176 th St	docking/lot	10	12	3	12		100	
Industrial	176 th St	lot		15		8		53	
Industrial	147th Ave/177th St	docking/ lot	7	22	4	13		59	
Industrial	177th St/148 th Ave	docking/ lot	4	60	2	52		87	
Industrial	177th St/147th Ave	docking/ lot		140		80		57	
School Bus Garage	Eastern Rd/Rockaway Blvd						250		
TOTAL			645	4,666	523	2,706	550		

Table 7-2: Off-Street Parking Facilities (Capacity & Utilization)

Due to the area's industrial/warehousing nature, there are numerous off-street parking facilities for trucks and automobiles. For cars, the average utilization for off-street parking facilities is 58%. But for truck docking stations it's 81% during the peak hours. The parking survey indicated that the existing capacity for most of facilities can satisfy existing demand.

7-4 Future Parking Conditions

Under the existing conditions, the parking supply adequately satisfies demand in the study area. The parking analysis indicates that approximately 1,668 on-street and 4,666 off-street parking spaces in the study area will be available in the future. The future demand for parking in the study area will depend of population growth and vehicle ownership rate, and as well as considering potential residential/industrial developments that will generate additional vehicular trips. The future demand for parking analysis of the existing conditions and considering projected needs, it is estimated that the existing capacity will satisfied the future demand. However, there are a few specific locations associated with multi-family dwellings, large commercial and industrial establishments where parking shortfalls can be expected (utilization will exceed 90%).

Western industrial area:

- 155th Street,
- 156th Street,
- 157th Street,
- 145th Avenue, and
- 146th Drive.

Eastern industrial area:

- 175th Street,
- 176th Street,
- 181st Street,
- 182rd Street,
- 184th Street,
- 148th Avenue,
- 148th Road,
- 149th Avenue,

- 149th Road,
- 150th Avenue,
- 150th Road, and
- 150th Drive.

There were several parking additions that increased number of spaces in the study area including new developments:

- 1. Springfield Boulevard reconstruction added two new angular parking facilities that added 44+30 additional parking spaces
- 2. Old parking lot at 146th Avenue was completely recreated with capacity of 150 parking spaces.
- 3. Springfield/North Conduit shopping plaza added 32 new parking spaces.
- 4. JFK Airport Plaza added more than 50 parking spaces for trucks and Travel Plaza has capacity for more 30 parking spaces.

The following pictures show angular parking on Springfield Boulevard at 147th Avenue, before and after the reconstruction of Springfield Boulevard.



Springfield Blvd Before reconstruction



Springfield Blvd After reconstruction
The following pictures show new angular parking before and after the reconstruction of Springfield Boulevard between 145th Road and South Conduit Avenue.





Springfield Blvd Before reconstruction

Springfield Blvd After reconstruction

The following pictures show private parking lot at 146th Avenue, between 147th and Byron Street with 150 parking spaces. The parking lot is used primarily by customers serving the JFK AIR PARK industry.



Parking lot reserved for JFK AIR Park facility

The new commercial facility on North Conduit Avenue and Springfield Boulevard has various commercial uses with off-street parking for 32 vehicles.

The following exhibit shows Springfield/North Conduit Shopping Plaza and parking lot.





JFK Airport Plaza

As a part of parking enhancements in the area, the PA NY&NJ opened the first public truck parking facility in NYC "*Airport Plaza*" at JFK International Airport. The new facility has a capacity for over fifty tractor trailer/trucks and is located directly across the street from the recently opened "*Travel Plaza*" that features a dedicated truck fueling facility together with a 24/7 food court restaurants that provides parking for traveling customers.

The facility can accommodate many tractor-trailers at the same time and features 50 large parking spaces that will enable trucking companies to better organize and schedule shipments, thus increasing air-cargo overall efficiency. The following pictures show JFK Airport Plaza and Travel Plaza.



JFK Airport Plaza

JFK Travel Plaza

The truck parking facility will offer the first 20 minutes of parking for free then incremental charges for a maximum rate of \$59.00 per 24 hours. The PA NY&NJ is currently leasing spaces on a monthly basis for \$1,100 per month. Trucks that fuel at the facility will have the ability to earn a discounted rate.

8.0 PUBLIC TRANSPORTATION

8.1 Introduction

Public transportation plays a key role in the transportation system of the study area. Public transportation has the second largest Journey to work mode share (44%), compared to auto mode (49%). The high share of surface transit is due to the absence of subway/commuter rail in the area. The study area is well served with public transportation (local buses and dollar vans). There are no subway or railroad (LIRR) lines/stations within the study area.

8.2 Bus Network

The Metropolitan Transportation Authority-New York City Transit (MTA-NYCT) provides a network of bus routes along several major corridors (Rockaway, Farmers, Guy R. Brewer, and Springfield Boulevards, and 147th Avenue) in the study area. There are six MTA/NYCT bus lines (Q3, Q6, Q111/114, Q113, and Q77) that operate and provide service within the study area, see Figure 8-1. Service frequency varies from one bus route to the other, reflecting different travel patterns or behavior in the study area. Table 8-1 provides headway information for each route.

MTA Buses:

Q6: The Q6 bus provides service between N. Boundary Rd, JFK Airport cargo area and 165th Street Bus Terminal, Jamaica, daily at all times. Within the study area, the Q6 bus operates along Rockaway Boulevard. The major transfer point along the route is Farmers Blvd at Rockaway Boulevard connecting the Q3 bus. Q3 Limited stop service runs only weekday rush hours, towards 165th Street from 6:00 AM to 8:30 AM and towards JFK airport from 3:00 PM to 7:00 PM.

Figure 8-1: Bus Routes



Q111: The Q111 bus provides service between 148th Avenue/Francis Lewis Boulevard, Rosedale, and Parsons Boulevard subway station, Jamaica at all times. Additional Q111 service operates between Parsons Blvd (F) subway station, Jamaica and 137th Avenue/Guy R. Brewer Boulevard, south Jamaica daily. Within the study area, the Q111 bus operates along Guy R. Brewer Boulevard and 147th Avenue. On school days, additional service runs from Baisley Boulevard/157th Street to Parsons Boulevard (F) subway station at 2:50 PM and 3:40 PM and from Guy R. Brewer Boulevard /134th Avenue to Parsons Boulevard (F) subway station at 3:17 PM.

Q113 Limited: The Q113 Limited bus provides service between Parsons Boulevard (F) subway station, Jamaica, and Beach 20th Street/Seagirt Boulevard, Far Rockaway, via Nassau Expressway, daily. Within the study area, the bus operates along Guy R. Brewer Boulevard and Rockaway Boulevard on school days, additional service runs from Guy R. Brewer Boulevard

/137th Street to Beach 20th Street/Seagirt Boulevard at 2:55 PM. Q113 (Ltd) bus operates only morning to evening.

Q114 Limited: The Q114 Limited bus provides service between Parsons Boulevard (F) subway station, Jamaica, and Beach 20th Street/Seagirt Boulevard, Far Rockaway, daily. Within the study area, the bus operates along Guy R. Brewer Boulevard and 147th Avenue. All Q114 buses make limited stops along Guy R. Brewer Boulevard and 147th Avenue during weekdays 6:00 AM to 9:00 PM, Saturdays 6:00 AM to 9:00 PM and Sunday 9:30 AM to 6:00 PM. All Q114 buses make all local stops between Brookville Boulevard and Far Rockaway at all times.

MTA-NYCT Buses:

Q3: The Q3 bus provides service between 165th Street Bus Terminal, Jamaica and JFK Airport (Terminal 5) daily at all times from 12:00 AM to 12:00 PM. Within the study area, the Q3 bus operates along Farmers Boulevard. The major transfer point along this route in the study area is Rockaway Boulevard (access to the Q6 bus) and Guy R. Brewer Boulevard (access to the Q111 and Q113 Ltd buses).

Q77: The Q77 bus provides service between Merrick Boulevard/165th Street bus terminal and Springfield Boulevard/145th Road, Springfield Gardens, daily. In weekdays and Saturdays, bus operates from 6:15 AM to 9:30 PM and Sunday from 6:55 AM to 10:09 PM. Within the study area, the Q77 bus operates along Springfield Boulevard. The major transfer point along this route is South Conduit Avenue (access to the Q85 buses) near the school.

8-3

	Weekday			Saturday				Sunday							
Route	AM	Noon	РМ	Eve	Night	AM	Noon	РМ	Eve	Night	AM	Noon	PM	Eve	Night
Q3	9	15	9	12	60	20	15	15	15	60	30	17	18	17	60
Q6	5	10	5	9	30	12	12	12	14	30	20	15	15	20	30
Q6(Ltd)	10	-	10	-	-	-	-	-	-	-	-	-	-	-	-
Q77	7	17	10	13	-	30	20	20	24	-	30	30	30	30	-
Q111/Q113 (R1)	5	10	5	9	60	10	10	12	15	60	20	12	12	15	60
Q111/Q113(R2)	3	7	4	6	60	7	7	8	12	60	20	8	8	15	60
Q113 (Ltd)	12	20	12	20	-	20	20	20	20	-	20	20	20	-	-
Q114(Ltd)	12	20	12	20	60	20	20	20	20	60	20	20	20	20	60
Notes: Time Periods: AM= 7-9 AM, Noon= 11 AM-1 PM, PM= 4-7 PM, Eve= 7-9 PM and Night= Midnight - 4 AM															
"-" = no service during time period. R1 = Route one, R2= Route two															

Table 8-1: Average Frequency of NYCT/NICE Bus Services

Headway shown in minutes

8.3 Bus Ridership (2013)

Bus ridership includes all passengers who board buses using a valid Metro Card, cash, transfer, SBS ticket, or pass. Ridership does not include employees, non-revenue passengers (e.g., children under 44" tall traveling with an adult). Average "Weekday" ridership includes every weekday in the year (Monday to Friday), except major holidays. Average "Weekend" ridership is average sum of the two days (Saturday and Sunday). Ridership on major holidays (New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas) is included in the Annual Total.

At the end of 2013, the New York City Transit bus system had 192 local, 5 Select Bus Services and 29 Express routes, and the MTA Bus system had 45 local and 35 Express routes. Of the 45 MTA local bus routes, the Q111 had the 8th rank of annual riders (4,154,512). Bus ridership within the study area for the year 2013 is shown in Table 8-2 and Figures 8-2a, 8-2b, and 8-2c.

Table 8-2: Bus Ridership (2013)

Bus F	Route	Rank	Weekday Average	Weekend Average	Annual Total	
NYCT	Q3	92	9,696	11,808	3,112,508	
BUS	Q77	124	6,486	2,176	1,762,582	
NATA	Q6	11	11,844	10,760	3,600,468	
MTA BUS	Q111	8*	13,832	11,644	4,154,512	
	Q113	10	11,745	5,227	3,762,914	

Source: MTA

* Ranking 8 out of 45 Local bus line (MTA Bus)

** Ranking 92 out of 192 Local bus line (MTA NYCT Bus)



Figure 8-2a: Weekday Bus Ridership



Figure 8-2b: Weekend Bus Ridership

Figure 8-2c: Annual Total Bus Ridership



9.0 RECOMMENDATIONS

The existing and future conditions traffic analyses along with field observations and community input help identify numerous transportation issues to be addressed (traffic congestion, truck activity, loading and unloading, poor roadway conditions, safety, and parking) in the study area. See Exhibit 9-1.





Consequently, a set of recommendations were developed to address the various traffic and transportation issues. The recommendations fall into five categories and are shown in Exhibit 9-2:

- Traffic operations and safety;
- Roadway and infrastructure upgrade;

- Traffic control and signalization;
- Parking restrictions and signage; and
- > Enforcement.





The following locations are identified for improvements:

- 1. Rockaway Boulevard and Guy R. Brewer Boulevard/North Boundary Road
- 2. Farmers Boulevard and Rockaway Boulevard
- 3. Farmers Boulevard and 147th Avenue
- 4. North Conduit Avenue and Belt Parkway Exit Ramp
- 5. Springfield Boulevard between South Conduit Avenue and 144th Avenue

- 6. Springfield Boulevard between 144th and 143rd Avenues
- 7. Springfield Boulevard between 145th Road and South Conduit Avenue
- 8. 147th Avenue between Guy R. Brewer Boulevard and 184th Street
- 9. 147th Avenue and Springfield Lane
- 10. Guy R. Brewer Boulevard and South Conduit Avenue
- 11. Farmers Boulevard and South Conduit Avenue
- 12. South Conduit Avenue between 155th Street and Rockaway Boulevard

1. Rockaway Boulevard and Guy R. Brewer Boulevard/North Boundary Road

Issues:

- Conflicts with southbound vehicles (Guy R. Brewer Boulevard) and northbound (North Boundary Road) trucks making left turns;
- No pedestrian crosswalk on northbound and westbound approaches;
- Inadequate storage capacity for eastbound left turns;
- No directional signs and supporting pavement markings; and
- The intersection is a high crash location.

Proposal:

- Install concrete median and triangles on the east and west side of North Boundary Road;
- Install pedestrian crosswalks and ramps on the south side of North Boundary Road;
- Install countdown signals (P5) on the south and north crosswalks;
- Construct concrete walkway connecting existing pedestrian path to new crosswalk on North Boundary Road (NB right turn lane);
- Install Stop bar on the northbound and westbound (150th Avenue) approaches;
- Extend the eastbound left turn bay by 100';
- Refurbish peg-a-tracks on the southbound/northbound approaches;
- Install directional signs to Rockaways/Five Towns, JFK Airport, and Belt Parkway/Van Wyck Expressway on the northbound and southbound approaches of Guy R. Brewer Boulevard and North Boundary Road;

- Reorient the pedestrian signal (currently twisted upward) on the west crosswalk facing North Boundary Road; and
- During the AM and PM peak hours shift three seconds of green time from the EB/WB phase to the EB/WB left turn phase.

Exhibits 9.3 and 9.4 show the existing and proposed conditions.







Exhibit 9.4: Rockaway Boulevard and Guy R. Brewer Boulevard/N. Boundary Road Proposed Improvements

2. Farmers Boulevard and Rockaway Boulevard

Issues:

- Southbound and northbound left turn conflicts;
- Congestion due to unmet left turn demand;
- Inadequate storage for northbound through/right turn vehicles creating conflicts;
- Bus stop on NB far side creates spillback into the intersection; and
- No directional signs and channelization markings.

Proposal:

- Move existing far side bus stop on Farmers Boulevard (east curb) approximately 80' north and install "No Standing Anytime" sign;
- Post directional sign at the North Boundary Road/Farmers Boulevard intersection directing eastbound vehicles to use Guy R. Brewer/Rockaway Boulevard intersection;
- Post a directional sign for Rockaways/Five Towns, JFK Airport, and Nassau/Van Wyck Expressway/Belt Parkway on the southbound approach (Farmers Boulevard) for EB/ SB, and through traffic; and
- During the PM peak hour shift two seconds of green time from the NB/SB phase to the EB/WB phase.

Exhibits 9-5 and 9-6 show the existing and proposed conditions.



Exhibit 9.5: Farmers and Rockaway Boulevards Existing Condition



Exhibit 9.6: Farmers and Rockaway Boulevards Proposed Improvements

3. Farmers Boulevard and 147th Avenue

Issues:

- Congestion caused by unmet southbound demand;
- Southbound and northbound turning conflicts; and
- Heavy truck and bus maneuvers through intersection.

Proposal:

• Daylight southbound approach; install "No Standing Anytime" signs on west curb (near and far side).

Exhibits 9-7 and 9-8 show existing and proposed conditions.

Exhibit 9.7: Farmers Boulevard and 147th Avenue Existing Condition





Exhibit 9.8: Farmers Boulevard and 147th Avenue Proposed Improvements

4. North Conduit Avenue and Belt Parkway Exit Ramp

Issues:

- Conflicts with vehicles exiting Belt Parkway merging with through traffic;
- Need to reduce speed approaching the exit ramp;
- Merging vehicles do not stop before trying to merge with through traffic;
- Need to install additional warning signs; and
- Poor visibility approaching exit ramp.

Proposal:

- Install a "Stop Bar" on Belt Parkway exit ramp to reinforce the posted STOP sign;
- Relocate STOP sign on south side farther west 15';
- Install "Merge Ahead" sign on North Conduit Avenue about 100' from the exit ramp towards Springfield Boulevard; and

• Prune trees blocking posted signs before exit ramp.

Exhibits 9-9 and 9-10 show existing and proposed conditions.







Exhibit 9-10: Belt Parkway Exit Ramp/North Conduit Avenue Proposed Improvements

5. Springfield Boulevard between South Conduit and 144th Avenues

Issues:

- Congestion on the southbound approach at North Conduit Avenue;
- Vehicle conflicts between through and right vehicles and spillback to 144th Avenue;
- Congestion on southbound approach at South Conduit Avenue, left turns experience delays due to limited capacity to process demand;
- Poor sidewalk condition on overpass; and
- High crash location.

Proposal:

- Restripe the southbound approach (between North Conduit Avenue and 144th Avenue) to L, RT, and R;
- Install peg-a-tracks for northbound left turn movements;

- Refurbish high visibility crosswalks at the Springfield Boulevard and N. Conduit Avenue/144th Avenue intersections;
- Upgrade sidewalks between South and North Conduit Avenues; and
- During the AM and PM peak hours shift three seconds of green time from the EB/WB phase to the NB/SB phase.

See Exhibit 9-11 for proposal.

Exhibit 9-11: Springfield Boulevard between South Conduit and 144th Avenues Proposed Improvements



6. Springfield Boulevard between 144th and 143rd Avenues

Issues:

- Jaywalking/mid-block crossings;
- Missing school zone safety signs, and pavement markings; and
- Speeding.

Proposal:

- Install pedestrian fence on Springfield Boulevard (between North Conduit Avenue and 143rd Avenue) to prevent jaywalking;
- Restripe 144th Avenue between Springfield Blvd and 150 Street to one 11' travel lane and 10' parking lanes to reduce speeding;
- Upgrade and restripe school safety signs: "No Parking During School Hours, 7AM-4PM" and "Pedestrian Crossing Ahead" for school safety zone; and
- Install 20 MPH speed limit signs and pavement markings.

See Exhibit 9-12 for proposal.

Pedestrian jaywalking on Springfield Blvd b/w 144th Avenue and 143rd Road



Example of fencing



Exhibit 9-12: Springfield Boulevard between North Conduit and 143rd Avenues Proposal

7. Springfield Boulevard between 145th Road and South Conduit Avenue

Issues:

- Long block (800') with no crossings;
- Mid-block crossing/jaywalking;
- School buses block traffic during drop offs/pick-ups;
- Missing school safety zone signs and pavement markings;
- Speeding; and
- Safety concerns as buses make U-turns at 145th Road.

Proposal:

- Install pedestrian fence on Springfield Blvd between South Conduit Avenue and 145th Road;
- Install school safety signs (Pedestrian Crossing Ahead) and pavement markings (School X-ING) on Springfield Blvd, Arthur Road and 145th Road;
- Install speed limit signs (20 MPH);
- Change signal plan; add exclusive LT phase for buses in right lane activated by a sensor or explore extension of bus line to 147th Avenue with new turnaround;
- Daylight the southeast corner of Springfield Boulevard/145th Road to facilitate bus turnaround; and
- Install signal at Springfield Blvd/145th Avenue with pedestrian crossings.

See Exhibit 9-13 for proposal.



Exhibit 9-13: Springfield Blvd b/w 145th Road and S. Conduit Ave - Proposal

Proposed Pedestrian Fence (example)



8. 147th Avenue between Guy R. Brewer Boulevard and 184th Street

Issues:

- Long distance between intersections with no crosswalks;
- Trucks parked in front of repair-shop block sidewalk and moving lane;
- Missing parking regulation signs; and
- Speeding.

Proposal:

- Repair sidewalk; install "No Standing Anytime" sign on the south curb of 147th Avenue between 181st Street and Guy R. Brewer Boulevard;
- Install signal with pedestrian crossings on 147th Avenue at 182nd Street;
- Install speeding signs (25 MPH) along 147th Avenue; and
- Install bus shelters on the southwest side of Guy R. Brewer Boulevard and on the southeast side of 147th Avenue.

Exhibit 9-14 shows existing and proposed conditions for 147th Avenue.

Exhibit 9-14: 147th Avenue between Guy R. Brewer and Springfield Boulevards



Existing



9. Springfield Lane and 147 Avenue

Issues:

- Congestion on eastbound/westbound approaches;
- Signal was removed during the reconstruction;
- Difficult for pedestrians crossing to access bus stop; and
- Springfield Lane too narrow to accommodate parking on both curbs.

Proposal:

- Install signal and pedestrian crossings; and
- Daylight Springfield Lane between 147th Avenue and 221st Street.

10. Guy R. Brewer Boulevard and South Conduit Avenue

Issues:

- Congestion on northbound and southbound approaches; and
- Inadequate capacity to process southbound left turn demand.

Proposal:

• During the AM and PM peak hours shift three seconds of green time from the EB phase to the NB/SB phase.

11. Farmers Boulevard and South Conduit Avenue

Issues:

- Congestion on northbound and southbound approaches; and
- Inadequate capacity to process southbound left turn demand.

Proposal:

• During the PM peak hours shift four seconds of green time from the EB phase to the NB/SB phases.

12. South Conduit Avenue between 155th/156th Streets and Rockaway Boulevard

To enhance safety and traffic operations at the intersections South Conduit Avenue and 156th Street/Rockaway Boulevard, a feasibility of implementing street directional changes on 155th Street and 156th Street, between 146th Avenue and South Conduit Avenue to address the following was done:

Issues:

- Congestion/weaving on South Conduit Avenue;
- Vehicles make unsafe right turns from northbound 156th Street onto eastbound South Conduit Avenue that includes large trucks and school buses, have to cross three lanes of traffic to make EB to access northbound Rockaway Boulevard; and
- Pedestrian safety at crosswalk with no traffic control.

Proposal:

- Reverse 155th Street from one-way southbound to one-way northbound between 146th Avenue and South Conduit Avenue. This will increase the weaving distance (from 60' to 360') for vehicles making right turns onto eastbound South Conduit Avenue and left turns onto northbound Rockaway Boulevard.
- Reverse 156th Street from one-way northbound to one-way southbound from South Conduit Avenue to 146th Street. This will form a paired street with 155th Street, maintaining traffic circulation in the area while eliminating safety concerns at the intersection of 156th Street and South Conduit Avenue.
- Install stop bars on 155th and 156th Streets at 145th Avenue/South Conduit Avenue;
- Install pedestrian crossing on 155th and 156th Streets with ADA ramps; and
- Install signs for new street directions and truck/school bus routing guidance.

See Exhibits 9-15 and 9-16 for proposal.



Exhibit 9-15: South Conduit Avenue between 155th/156th Streets Existing Street Directions

Proposed 155th/156th Streets Reversal





Exhibit 9-16: South Conduit Avenue between 155th and 156th Streets Existing Condition

Proposal



All-way Stop Control

To improve safety and reduce speeding on local residential streets, six locations were evaluated taking account of vehicular and pedestrian volumes, crash history, vehicular speeds, visibility and signal spacing for all-way stop control installation. The evaluation resulted in only one location **(145th Road/179th Street)** satisfying the warrants. The five other locations (145th Road/181st Street, 145th Avenue/ 182nd Street, 145th Drive/180th Street, 145th Road/158th Street, and 146th Avenue/222nd Street) will be reevaluated at a future date.

Roadway Resurfacing and Maintenance

The following roadway segments were found to be in need of resurfacing:

- Rockaway Boulevard between South Conduit Avenue and Farmers Boulevard/Nassau Expressway;
- 2. 147th Avenue between Farmers Boulevard and 184th Street;
- 3. North and South Conduit Avenues between Rockaway and Springfield Boulevards;
- 4. 146th Avenue between 156th and 158th Streets;
- 5. 145th Avenue between 155th and 157th Streets;
- 6. 227th Street between 147th Avenue and 145th Road; and
- 7. 145th Road between 227th and 228th Streets.

Exhibit 9-17 shows recently resurfaced streets and upgraded sewer system (red line) or planned upgrade (blue line).



Exhibit 9-17: Street Resurfacing and Sewer System Upgrade

Source: EDC - Blue Belt

Truck issues:

The high concentration of warehousing/air-cargo facilities in the study area requires a unique strategy to manage trucks navigating throughout residential streets. To better regulate truck traffic efficiently while preserving the residential character and a safe environment, the following recommendations were developed:

Designate "Local" truck routes

Springfield Gardens has the highest off-airport concentration of air cargo facilities in NYC, thus many trucks have trips with origins and destinations at facilities. While many truck trips travel on designated truck routes, there are many trips made on local streets traveling to reach the final destination; this is lawful according to NYCDOT rules. The major streets used by trucks include Farmers Boulevard, Guy R. Brewer Boulevard, Springfield Boulevard, North Boundary Road, 150th Street, and 147th Avenue. The street segments recommended for "Local" truck

routes as key connectors between designated truck routes and facilities within the industrial area are:

- Farmers Boulevard, between South Conduit Avenue and Rockaway Boulevard,
- Guy R. Brewer Boulevard, between South Conduit Avenue and Rockaway Boulevard,
- Springfield Boulevard, between South Conduit Avenue and 147th Avenue,
- Nassau Expressway, between Van Wyck Expressway and Rockaway Boulevard,
- North Boundary Road, between 150th St. and Rockaway/Guy R. Brewer Boulevards, and
- **150th Street,** between Rockaway Boulevard and 147th Avenue/JFK Airport.

Exhibits 9-18 and 9-19 show the existing and proposed truck routes.



Exhibit 9-18: Existing Truck Routes

Exhibit 9-19: Proposed Truck Routes



Appropriate signs should be posted at various locations associated with new truck routes such as "Local Truck Route", "No Trucks Except Local Deliveries", "No Parking Anytime", "No Dumping/littering" consistent with the Manual on Uniform Traffic Control Devices (MUTCD). DOT will inform trucking companies, local businesses, and the community about these changes. The posted signs along truck route should provide clear information for all truck drivers. It should also provide clear direction or alternative routes. Accordingly, the City would update the current NYC Truck Route Map to reflect any changes.

227th Street between 147th Avenue and 145th Road

Issues:

- Trucks traveling to/from warehouses can create safety issues and inconvenience to local residents;
- 227th Street is badly damaged by heavy trucks usage; and
- Community requested one-way street conversions to alleviate the problem.

Proposals:

- The one-way suggestion was evaluated for all implications, i.e. effective traffic circulation, safety, diverting trucks to other local streets, and impacts on street maintenance. It was determined that the existing street network with enhanced maintenance would better address the impact of truck traffic. It is recommended that roadways be resurfaced in the area including 226th and 227th Streets as per the current schedule;
- According the latest information, the warehouse tenants with large trucks that were parking on the streets and sidewalks will not have their leased renewed (lease expires on May 31, 2017). New leases will be signed only with companies that use smaller trucks; this provision will help to reduce truck impact on the local streets; and
- New zoning was initiated recently to change the lot at 145th Road and 227th Street from residential to commercial, thus the workers will be able to park their cars off street during the day, freeing up additional space to the community.
Encourage off-peak delivery hours

Any changes in the existing freight policy should be applied to the area while embracing innovation in urban freight. For instance, decreasing truck traffic during the congested times of the day would reduce congestion and spreading peak traffic with creating less vehicular conflicts. It is recommended that the best time window for trucks delivery services would be between the morning and evening peak hours (10 AM - 4 PM).

Due to high level of noise during overnight hours and complains from the community, deliveries should be discouraged or restricted during that time on residential streets. The objective is to encourage trucking companies and local businesses to use local streets, primarily during off-hours, within this time frame window, while minimalizing night-time hours.

Other incentives should be provided to shippers/receivers for their commitments to accept offhours deliveries. In addition, off-hours delivery schedule will help solutions for unattended businesses.

Change Parking Regulations/Signs

Installing additional signs and providing curbside parking for truck loading/unloading operations while at the same time controlling truck behavior will address some of parking issues in the area. Proposed regulations will include signs: "*Local Truck Route*", "*No Truck Except Local Deliveries*", "*No Parking or Standing Anytime*", "*No Standing from 7AM-7PM*", "*No Standing - Truck Waiting Line*", "*No Idling*", "*No Dumping/Littering*", and "*Security Cameras*". Additional time lapse cameras will be installing at 16 locations to observe daily truck activities (loading/unloading, double parking or blocking through traffic) to facilitate regulation changes.

Exhibit 9-20 shows locations for proposed signage and regulation changes.





Encourage truck parking at JFK Airport Plaza

Information to trucking companies should be provided about the newly opened JFK Airport Plaza for both short and long-term parking. PANY&NJ will continue with advertising initiatives to use the JFK Airport Plaza, especially the overnight were utilization is low.

Upgrade Truck Route Map

Maps with truck routes should be provided to all local and state police departments for distribution to truckers during routine stops. These maps should also be provided through the Internet, Advanced Traveler Information Systems (ATIS), and mapping projects which will inform drivers about truck routes and improve flow along major corridors in the area. This action should be a priority for the State, City and local officials.

Reduction of Air-Pollution and Noise

To reduce high levels of truck emissions and noise in the area provide education to truck (diesel) operators to raise awareness in an effort to improve air quality. Provide information such as the section 217-3 of the New York State Conservation Regulations which states that it is unlawful to idle trucks or buses more than five (5) minutes – violators are subject to citation and penalty. The appropriate signage such as "No Idling", "Shut off Engine" to warn truck drivers subject to fines should be posted on streets bordering the industrial and residential areas including streets 156th, 157th, 167th and 147th Avenue where these activities take place.

Transit Enhancement

Many bus stops in the study area do not have bus shelters, thus bus shelters are recommended to be installed at the following locations:

- Guy R. Brewer Boulevard at Farmers Boulevard
- Guy R. Brewer Boulevard at 147 Avenue
- Guy R. Brewer Boulevard at 146th Drive
- Farmers Boulevard at 147th Avenue
- 147th Avenue at 182nd Street

10.0 PUBLIC PARTICIPATION

To provide the community and stakeholders the opportunity to bring their concerns and issues to NYCDOT's attention, a series of meetings (Technical Advisory Committee and Public) were held. The public outreach effort sought to obtain input from all stakeholders – elected officials, residents, business owners, civic associations, and community representatives. This served to help in identifying traffic and transportation problems in the study area and the development of improvement measures. Three Technical Advisory Committee (TAC) meetings were held along with three public meetings in the study area's Community District 13.

- A. TAC Kickoff Meeting September 30, 2014
- B. Public Meeting #1 CB13 December 10, 2014
- C. TAC Meeting #2 November 16, 2015
- D. Public Meeting #2 CB13 December 10, 2015
- E. TAC Meeting #3 May 18, 2016
- F. Public Meeting #3 CB13 June 09, 2016

The following are notes of the respective TAC and Public meetings.

Springfield Gardens/JFK Transportation Study Notes of Technical Advisory Committee (TAC) Kick-off Meeting September 30, 2014 @ 10:00 AM

NYCDOT Traffic Planning conducted the first Technical Advisory Committee (TAC) meeting for the Springfield Gardens/JFK Transportation Study at the Queens Borough Commissioner's Office, 120-55 Queens Boulevard, 2 FL / Room 280 – Queens, NY. The purpose of the meeting was to introduce the study to the TAC members, present the draft scope of work and receive input from the members. The meeting was attended by representatives from Councilmember Richard's office, State Senator Malcolm Smith's office, NYCDCP, NYSDOT region 10 and 11, MTA-Bus and various NYCDOT units.

NYCDOT Borough Commissioner Dalila Hall welcomed attendees and had everyone introduce themselves and identify affiliation. She then asked the project team to make the presentation.

Michael Griffith provided a brief background and context of the study before making the Power Point presentation. The presentation addresses the scope of the study, highlighting the goal and objectives, study area, subjects to be analyzed (demographics, zoning and land use, traffic, parking, pedestrians and bicyclists, crashes, transit, and goods movement), data collection plan, other planning initiatives in the area, and the next steps process. After the presentation attendees were invited to comment and/or ask questions.

- 1. Borough Commissioner Dalila Hall stated that there are issues in the area related to trucks and speeding and that coordination effort amongst DOT divisions are ongoing.
- 2. MTA-Bus informed that they flagged Woodhaven Blvd and Guy Brewer Blvd for selected bus service (SBS) that they have added a new route Q114.
- 3. MTA acknowledge that Brookville and Rockaway is outside the study area but asked what can be done at the intersection which is often flooded causing MTA to reroute buses, and what can be done with Brookville Boulevard as well.
- 4. DOT explained that there had recently restriped this intersection. DOT is aware of the wetland issues in the area and of some of the work State DOT has done.
- 5. NYSDOT has conducted the SE Queens Transportation study which identified potential improvements for the intersection to provide additional left turn capacity. They have also recently implemented in coordination with City DOT signal improvements. They are examining the removal of the EB left turn at Guy R Brewer Avenue and at the location of Rockaway Boulevard.
- 6. DCP representative said that they are working with EDC on the Jamaica Action Plan which will increase retail activity in Jamaica reducing the need for some people to travel to Green Acres mall. He also spoke about the resilient neighborhoods initiative which is intended to identify local strategies to support the vitality and resiliency of communities in the flood zone.
- 7. DCP noted that there are no active rezoning projects in the area at this time.
- 8. Someone asked about the public participation process and it was explained that following this TAC the first public meeting will be held in October.

- 9. The objectives of the first public meeting are to introduce the study and get some initial input on issues in the community. As the study progress other public meetings will be held which could take the form of workshops or sherette.
- 10. MTA-Bus asked who owns Brookville Boulevard.
- 11. NYSDOT stated that Brookville Blvd is a city street managed by City DOT but connects to Rockaway Blvd, which is a state facility therefore they are looking at both arterials for improvements.
- 12. NYSDOT enquired to what extent NYC DOT will be addressing the flooding on Brookville.
- 13. DOT explained that flooding is outside of the scope and objectives of the study due to its magnitude; however coordination will occur during the study process to take account of all issues in the study area. DOT is aware that EDC and DDC are currently doing some work to address these problems.
- 14. NYSDOT asked about the timeline of the study and whether some of the funds will be used for implementation.
- 15. NYCDOT stated that the duration of the study is 15 months and the funding source is the Unified Planning Work Program which is only for planning studies. Some of the recommended improvements can be done in house such as signal timing changes and restriping which can be done quickly by the agency. Other major recommendations that may require capital improvements will have to find different funding source for construction.
- 16. DCP discussed the need and preliminary efforts to create a JFK Airport Industrial Business Improvement District. He pointed out that commercial growth is being encouraged off airport. These types of BIDs would have less of a visual impact but would be more operational in nature.
- 17. It was suggested that NYC DOT reach out to Port Authority to be part of the future discussions.
- 18. Borough Commissioner said that there are a large number of pedestrian crossings at the intersection of Farmers Boulevard and Rockaway Blvd due to the existence of a daycare facility.
- 19. The Borough Commissioner stated that truck loading/unloading can block sidewalks as older facilities loading docks are not long enough. The BP held a meeting in August on trucks and truck enforcement.
- 20. DCP mentioned that there is a need for hotels in the area between JFK and downtown Jamaica and the study needs to take account of that need.

After thanking the participants for their significant comments and contribution, the meeting was adjourned.

Springfield Gardens/JFK Transportation Study Notes of Public Meeting #1 December 10, 2014 @ 7:00 PM

NYC DOT Traffic Planning conducted the first public meeting for the Springfield Gardens/JFK Transportation Study at the Birch Family Service Center, 145-02 Farmers Boulevard, Queens NY. In attendance were representatives from various community groups (Spring Jam Block Assoc., Friends of Springfield Park, Federated Block's, 147th Road Block and Community Assoc.,), Community Board 13, Councilman Richards' office and Queens Borough Commissioner's office.

NYCDOT Project Director, Michael Griffith opened the meeting by welcoming attendees, before stating the purpose of the meeting. He provided a brief background to the study then asked the project manager, Milorad Ubiparip, to present the scope of the proposed study. The PowerPoint presentation identified the goals and objectives of the study, study area boundaries, then focused on the subjects to be covered, demographics, zoning and land use, traffic, goods movement/trucks, pedestrian and bicycles, crashes/safety, parking, and public transit. After the presentation, the community was invited to raise issues and ask questions.

- 1. Kim Lawton (Spring Jam Block Assoc.) spoke about illegal truck activities on residential streets such as parking, layovers, dangerous turning maneuvers in some instances hit parked cars, crossing over medians/sidewalks, dumping and garbage disposal. She also complained about truck activity and safety issues on Rockaway Boulevard near the FAA building, and along 146th Avenue and 159th Street. She asked DOT to replace a missing "No Standing Anytime" sign, install additional signs, install speed bumps and increase enforcement to reduce illegal truck activities. DOT explained that it is working closely with the Port Authority (NY/NJ) and Economic Development Corporation (EDC) to address truck traffic in the area.
- 2. The community expressed concern about pedestrian safety and recurring accidents at certain locations namely Rockaway Boulevard at North and South Conduit Avenues, and 181st Street at 145th Road. They asked DOT to install All-way stop sign or traffic signal at 181st Street and 145th Road to alleviate the speeding. Another issue has to do with trucks traveling from Rockaway Boulevard to Guy R. Brewer Boulevard where they make difficult right turn that conflict with other traffic. They asked DOT for adequate signalization to control traffic going southwest towards Rockaway Boulevard. DOT undertook to look at these locations.
- 3. A resident asked about congestion on Springfield Boulevard and 147th Avenue where there is ongoing construction and "what can be done to relieve congestion or have any potential detour to divert traffic from the area?" Concerns about drag-racing during the late evening hours/overnight alongside 147th Avenue near Springfield Boulevard, especially during Friday night when the warehouse employee are leaving were raised. She mentioned letters were sent to the Borough Commissioner Office on this issue, but he had not received response. She requested safety improvement measures to slow down traffic along 147th Avenue and Springfield Boulevard (i.e. posting speed limit signs 25 mph, speed bumps, etc.).

- 4. The community inquired about a temporary traffic signal installed in the construction area at Springfield Boulevard/145th Avenue and asked if it is possible to make this permanent after the construction is completed.
- 5. Concerns about the dollar vans traveling in the area a high speeds, also double park on the streets. They asked what the City can do to better enforce laws regulating the dollar vans. DOT acknowledged that the dollar vans originated from downtown Jamaica to Springfield Gardens and undertook to investigate the issues.
- 6. The community expressed concern about signage on 159th Street and 146th Avenue; the posted regulation is "No Standing Anytime" but trucks/trailers park there illegally blocking resident's driveways making it difficult for traffic to turn around parked vehicles. It was also said that the area has insufficient lighting which contributes to lots of illegal dumping. DOT informed the community that the agency applied for grants to recruit more enforcement officers.
- 7. The community complained about bus and truck drivers who regularly dump garbage on their local streets that residents have to clean up by themselves.
- 8. Another issue was the poor pavement condition in the area, particularly along Rockaway Boulevard, south of Belt Parkway.
- 9. Also concern was about trucks/trailers entering Federal (traffic) circle at Nassau Expressway/Rockaway Boulevard, destined for air cargo/warehousing facility at JFK International airport or Springfield Gardens industrial area. They asked if it is possible to provide a designated truck route to JFK airport directly from the traffic circle. DOT responded that any matter that relates to access to JFK airport could have security implications for Port Authority. DOT will coordinate with PA and EDC on these truck circulation issues.
- 10. George Bradley (Friends of Springfield Park) asked about the loss of parking spaces on Springfield Boulevard between 145th Road and South Conduit Avenue due to reconstruction on Springfield Boulevard. He said DOT promised to retain 22 parking spaces but the new plan eliminates most parking within this section. He also questioned the striping plan along Springfield Boulevard; he suggested concrete medians be built to slow down traffic near the school. He also suggested converting 144th Road from two-way to one-way (EB) during school drop-off or pick-up hours, where constant congestion occurs with school buses blocking the street. DOT said it does not operate street direction for specific time periods but on a permanent basis. DOT will consider various options to improve traffic operations during those critical school drops off/picks up hours.
- 11. There is a persistent speeding problem in the vicinity of 181st Street/145th Road intersection and at the intersection of South Conduit Avenue/Rockaway Boulevard by the gas station where accidents occur almost every month. The community asked DOT to do something to address these safety issues. DOT responded that it will not exclude any streets in the network; DOT will examine all locations identified by the community for traffic and safety issues.
- 12. A Rosedale resident asked DOT to install traffic lights along Brookville Boulevard between Sunrise Highway/South Conduit Avenue and 147th Avenue to slow down the traffic. She mentioned many kids cross the street to access the playground in Brookville Park near Caney Road. She also asked DOT to include Rosedale as part of this study since the area has

similar issues to Springfield Gardens. DOT explained that currently another traffic study is being done for Rosedale.

- 13. A resident raised an issue with MTA bus (Q111) last stop at Francis Lewis Boulevard and 148th Avenue/Hook Creek Boulevard, where poor pavement condition exists with lack of sidewalk. The Q111 bus turnaround (U-turn) to travel back northbound on Francis Lewis Boulevard conflicts with local traffic. DOT stated that it will investigate and coordinate with MTA.
- 14. A community member suggests that DOT install speed bumps to slow down the traffic on 148th Drive, close to PS 195, which is currently Stop controlled.
- 15. Someone asked "What does the Safety Enhancement means". DOT explained "safety enhancements" are actions that minimize risks to pedestrians' crossing at an intersection or midblock.
- 16. Another question was "How long does it take DOT to finish the study and have some physical improvements implemented"? It was suggested that DOT give more advance notice prior to the public meeting and have local businessmen together with the community as a joint effort to address potential problems in the area.
- 17. The community asked DOT to establish an email address where the community can direct their comments and questions. DOT promised to do so.
- 18. They thus asked when will be the next public meeting. DOT responded, the next public meeting is expected to be held in May, 2015.

Springfield Gardens/JFK Transportation Study Notes of Technical Advisory Committee (TAC) Meeting #2 November 16, 2015 @ 1:00 PM

On November 16,⁷ 2015 Traffic Engineering and Planning conducted the second Technical Advisory Committee (TAC) meeting for the *Springfield Gardens/JFK Transportation Study* at the Queens Borough Commissioner's office. In attendance were representatives from NYS Senator Comrie's Office, PANY&NJ, MTA-NYCT, DCP, Community Board 13, and various NYCDOT units. The purpose of the meeting was to present the existing conditions analysis and receive feedback from the TAC.

Milorad Ubiparip made a presentation that outlined the goals and objectives, study process, and highlighted subjects and issues such as traffic congestion, land use conflicts, truck circulation and parking. The presentation also identified locations for potential improvement and indicated next steps in the study process. After the presentation, attendees were invited to ask questions. Following are questions and concerns raised by TAC members.

- 1. Ms. DeBetham (CB13) stated that based on what she heard from the presentation today and the previously held meeting in December 2014, truck traffic is a crucial issue in the area. She raised concerns about safety issues and traffic operation at the Guy R. Brewer and Rockaway Boulevards intersection. She observed that trucks coming from the airport making left-turn onto Rockaway Blvd (WB) from N. Boundary Road conflicts with through traffic from Guy R. Brewer Blvd to JFK Airport. She suggested some sign/marking indicating specific directions to JFK because the left-turns and through movements operate with drivers undecided who should go and where.
- 2. Mr. Abbady (Senator Comrie's office) questioned the feasibility of the future bike lane on Farmers Boulevard. He stated that the area is already congested with high crash locations, thus he wondered how this will be addressed since cyclists' safety will be compromised.
- 3. Mr. Griffith stated that it can be problematic to install bike lanes on truck routes.
- 4. Mr. Abbady also asked if the proposed bike lane will be analyzed and results presented at the next TAC meeting, so everyone can see the effects.
- 5. Mr. Griffith stated that proposed bike lanes are usually examined before implementation can be carried out, this usually take some time.
- 6. A participant wanted to know how the Vision Zero corridors and intersections were selected. He questioned how and why was Springfield Boulevard/South Conduit Avenue location selected?
- 7. Mr. Griffith stated that the accident data is used to identify high crash locations, and based on where these concentrations of crashes as shown in heat maps, the Vision Zero priority intersections and corridors were selected.
- Ms. DeBetham questioned if the coming bike lane on 147th Avenue will be extended to Guy
 R. Brewer Boulevard; she wondered where the space to create that lane will come from?
- 9. Mr. Griffith stated that the proposed bike lane is not shown on the City map, thus it won't be extended to Guy Brewer Boulevard; the bike lane was mainly intended to connect Springfield and Brookville Parks.

- 10. Members wanted to know if there will be any community meeting after the TAC.
- 11. DOT staff responded that the public meeting would be held in approximately three weeks; the meeting place, date and time will be provided shortly.

Springfield Gardens/JFK Transportation Study Notes of Public Meeting #2 December 10, 2015 @ 7:30 PM

On December 10th NYC DOT Traffic Engineering & Planning unit conducted the second public meeting for the *Springfield Gardens/JFK Transportation Study* at the Birch Family Service Center, 145-02 Farmers Boulevard, Queens. In attendance were representatives from State Senator Sander's Office, CM Richards's Office, CB 13, Springfield Gardens Civic Association, Federated Blocks of Laurelton, Queens Courier, PANY&NJ, NYS DOT, and NYCDOT.

The objective of the meeting was to present the existing conditions analysis and receive community input.

Milorad Ubiparip made a presentation explaining the description of goals and objectives and the issues identified from the existing conditions analysis that focused on traffic congestion, truck activity, safety and quality of life issues. The presentation also identified recent initiatives to regulate truck activity and road reconstruction projects. After the presentation, attendees were invited to ask questions. Following are questions and specific concerns raised by participants.

- 1. The first question was why areas north of the Belt Parkway were not included in the study, since there are problems concentrated along Merrick Boulevard along with a lack of sufficient traffic enforcement.
- 2. Michael Griffith stated that for larger areas it takes an enormous amount of time and resources to conduct such a study giving as an example the Downtown Jamaica Transportation study.
- 3. Ms. De Betham (Transportation Chair of CB13) asked of the status of the studies for "Queens Village" and "Laurelton-Rosedale", stating that they were told the final reports were sent to Washington for approval. She wanted to know what the results of the studies and recommendations entailed.
- 4. Mr. Griffith explained that the studies were finalized and sent to Federal/NYMTC as a standard procedure for accounting purposes. He added that a set of recommendations are a part of the studies. Some of the recommendations were implemented in the area such as installing two traffic signals on Brookville Boulevard and the pedestrian signal on 147th Avenue as well as coordinating efforts for the ongoing reconstruction of 147th Avenue. He said the final reports will be sent to the CB13 and, if requested, DOT will make a presentation to CBs.
- 5. Concern was expressed about large trucks making turns onto 227th Street from 147th Avenue, which create unsafe conditions for local residents. Trucks are traveling to/from a new warehouse in the area. This street segment is badly damaged by heavy truck usage, and asked what DOT will do to address this problem. She suggested that the street be reconstructed and asked DOT to consider converting the street from two-way to one-way operation to reduce conflicts and improve safety.

- 6. DOT said it will investigate whether there are any plans to repair or when it is scheduled for resurfacing. Mr. Sanders (Council Member representative) added that his office is aware of the plans to reconstruct some streets as a part of the area's sewer system improvements but would have to check for 227th Street. Half of the area is already reconstructed, but he will go back to check reconstruction plans.
- 7. Springfield Gardens Association representative brought to DOT's attention that the traffic light at Guy R. Brewer Boulevard and South Conduit Avenue doesn't work properly. He suggested changing the timing plan at this intersection to allow vehicles making the turn to continue instead of being stopped.
- 8. Mr. Griffith said DOT has data and analysis for this intersection and that the signal timing will be re-evaluated.
- 9. One participant spoke of the challenges for the elderly in crossing 147th Avenue to catch the bus. There are no signals within the five blocks between Springfield and Guy R. Brewer Boulevards, thus there is the need for an additional signal on 147th Avenue, near the bus stop at 183rd Street.
- 10. The Springfield Gardens Civics group raised concerns about accidents occurring at intersections controlled by Two-way Stops. He suggested replacing Two-way Stop Control with All-way Stop Control at some locations. He will provide the list of potential locations and share information obtained from NYPD reports.
- 11. DOT stated that those locations will be examined for appropriate traffic controls.
- 12. It was asked whether trucking companies were informed about the new Airport Plaza parking facility. How will drivers perceive charging to park at the plaza? They still might continue to park on residential streets which is free. Lue Venech (PANY&NJ) stated that there are several initiatives from PA including a signage, and a promotion to encourage truck drivers to use the Airport Plaza. He mentioned that the overnight utilization is very low and it will take some time for companies to become aware.
- 13. Participants generally complained about insufficient traffic enforcement in the area. They asked for increased police presence and more traffic enforcement. Something must be done! People are tired with the problems such as blocking moving lanes and illegally parked trucks.
- 14. DOT stated that NYPD is not under DOT's jurisdiction; DOT work closely with NYPD, meets with them regularly, but can't decide for them where to send officers. DOT assured participants that will work with NYPD to bring more enforcement to the area.
- 15. Concerns were raised about trucks parked on residential streets idling constantly for long periods, polluting the atmosphere, damaging soil surface, and becoming a hazard to the local community.
- 16. DOT stated that DEP is responsible for air pollution and there are regulations prohibiting idling for extended periods. Mr. Sanders explained that the City has legislation to control levels of air-pollution and asked citizens to take part in the training program provided by the City. As part of the training, they will learn how to record information for trucks that have idle engines running for long periods. The program allows for people to be compensated from part of the fines collected.
- 17. It was said that speeding occurs along South Conduit Avenue between 175th Street and Farmers Boulevard with cars travelling at speeds of 50 mph, especially during the morning

rush hours. Complaints are also about large trucks having difficulty turning onto narrow local streets. Some of these streets have posted speed limit signs but more signage is needed as well as area enforcement.

- 18. Someone asked why trucks are using 147th Avenue if it is not a designated truck route.
- 19. DOT explained that 147th Avenue borders the industrial district and trucks are permitted to use local streets to reach the nearest destination.
- 20. Someone asked what time of the day traffic counts were done.
- 21. DOT explained these are automatic Traffic Recorder (ATR) counts for 7 days/24 hours and manual turning movement counts for two hours during the AM, PM, and weekend Saturday or Sunday. He explained that this presentation is only a summary of traffic while the report will include the detailed data.
- 22. Someone said there is not "No Standing Anytime" sign in front of the church on Farmers Boulevard at 175th Road. He also pointed Springfield Boulevard/175th Road intersection where buses have difficulties turning safely to a local street. He asked DOT to provide signage restricting parking at those locations.
- 23. DOT stated that the Queens Borough Commissioner office and Borough Engineering will address these issues.
- 24. They would like to convert selected streets from two-way to one-way operation to improve traffic operations and safety. They will provide a list of recommended streets.
- 25. DOT stated that a one-way study will be done and additional data collected as needed for evaluation.
- 26. The last question was about safety issues related to Baisley Park, located outside the study area and wanted to know whose responsibility the park falls under.
- 27. DOT said they can't answer all questions related to the parks but pointed out that the NYC Department of Parks and Recreation is responsible; all questions should be discussed with them. It was suggested to call 311 and make complaint.

Springfield Gardens/JFK Transportation Study Notes of Technical Advisory Committee (TAC) Meeting #3 May 18, 2016 @ 10:00 AM

On May 18th Traffic Engineering and Planning conducted the third Technical Advisory Committee (TAC) meeting for the *Springfield Gardens/JFK Transportation Study* at the Queens Borough Commissioner's office. In attendance were Councilmen Donavan Richards and Daneek Miller, representatives for Senator Leroy Comrie and the Queens Borough President's Office, PANY&NJ, NYCEDC, MTA - NYCT, NYCTCC, and other NYCDOT units. The purpose of the meeting was to present the recommendations of the study for input from the TAC.

Milorad Ubiparip presented the background information related to the study, identifying problems/issues and outlined general recommendations, which included improving traffic operation with signal timing changes, roadway striping, and enhanced pedestrian safety. It also included the designation of new truck routes and intersection geometry changes. The overall response was very positive with Councilmember Richards complementing DOT for the work done emphasizing that he felt all issues were covered. Several questions and concerns were raised by TAC members.

- 1. CM Richards raised general concerns regarding trucks, speeding, and the lack of traffic enforcement in the area, and stressed the need to address these issues. He reiterated that truck enforcement was critical and would push for a new legislation which allows private entities to tow trucks parked on residential streets. He also stated that a new precinct is proposed for the area which could assist with addressing some of these problems; stressing the commitment to work closely with NYPD is vital.
- 2. A question was raised about speeding along Rockaway Boulevard, which is a long segment with few access points and requested that DOT should take account of a proposed development on Rockaway Boulevard, adjacent to the FAA building which may increase traffic activities in the area. It was noted that a RFP has been issued for the site by EDC.
- 3. Michael Griffith stated that DOT will incorporate the proposed development in the future condition analysis and provide necessary measures to address pedestrian safe crossings and access points to the site.
- 4. One of the TAC members asked where the Weight-in-Motion (WIM) station is located and how the installed device will work with overweight trucks.
- 5. A representative from the Freight Mobility group responded that trucks will be recorded in real time. He further explained that in order to adequately utilize the WIM station, DOT will need an approval from the State to regulate overweight trucks.
- 6. There was a question regarding information on the type of fencing proposed for installation on Springfield Boulevard, near the school.
- 7. Mr. Griffith responded that the final decision on what kind of fence has not been determined, but an example of similar fence was presented in the slide.

- 8. CM Richards raised another concern about vehicles entering North Conduit Avenue from side streets/driveways crossing three lanes to enter the Belt Parkway. He asked DOT to examine solutions to address this issue.
- 9. Members asked about the procedure for designating "Local" truck routes; suggesting public outreach efforts and informing trucking companies about the proposal to ensure that it will work for them.
- 10. Mr. Griffith stated that coordinated efforts with the private industry and local community will be established; signs will be posted and drivers will be encouraged to stay on main routes.
- 11. Another question was whether there were any plans to widen streets since there are a lot of trucks which experience difficulty attempting to maneuver on narrow streets. CM Richards further stated that large trucks using 159th and 158th Streets near Rockaway Boulevard impede traffic circulation. He asked whether DOT could provide innovative solutions to prevent trucks from accessing narrow streets.
- 12. Members raised question about parking and signs affecting traffic flow on North Conduit Avenue. A representative from Highway Design and Construction made a suggestion to look at similar improvements implemented at Francis Lewis Boulevard, where a divider between Belt Parkway exit lane and North Conduit Avenue was restriped.
- 13. Somebody asked if proposed signal timing adjustments at Guy R. Brewer Boulevard/Conduit Avenue will affect traffic flow along Guy R. Brewer Boulevard. DOT stated that the signal timing from North/South Conduit Avenues will be readjusted in order to improve traffic flow along Guy R. Brewer Boulevard.
- 14. Last question came from a MTA Bus Company representative concerning U-turn bus maneuvers at the 165th Road/Springfield Boulevard intersection. It was suggested that DOT analyze the signal phasing providing an exclusive left-turn phase to accommodate the safe U-turn maneuvers by MTA buses.
- 15. DOT informed the TAC that the recommendations will be developed as specific projects for implementation and a public meeting will be held in June 2016.

Springfield Gardens/JFK Transportation Study Notes of Public Meeting #3 June 9, 2015 @ 7:00 PM

On June 9th NYC DOT Traffic Engineering & Planning unit conducted the third public meeting for the *Springfield Gardens/JFK Transportation Study* at the Birch Family Service Center, 145-02 Farmers Boulevard, Queens. In attendance were CM Donovan Richards, and representatives from CB 13, Springfield Gardens Civic Association, Federated Blocks of Laurelton, Queens Courier, and NYCDOT.

The objective of the meeting was to present the recommendations of the study and receive community input. CM Richards gave opening remarks and complemented DOT for the comprehensive work done and providing solutions to address many truck and transportation problems in the area.

Milorad Ubiparip made a presentation providing the background to the study, identified problems/issues and outlined study's recommendations. The presentation also emphasized on recent initiatives to regulate truck activity and improve roadway infrastructure in the area. After the presentation, attendees were invited to ask questions, thus many specific concerns were raised.

- 1. The first participant raised concerns about safety issues at 144th Avenue and Springfield Blvd, near the High School, asking for the Police presence all times and installing adequate signage such as "Don't Block Intersection" to reduce spillbacks and facilitate traffic operations. Participant also asked for speed humps installation on 144th Avenue to reduce speeding.
- 2. BC Garcia stated that the speed hump study was done in the past and found not feasible between 185th Street and Springfield Boulevard due to a bus stop on the southwestern corner next to gas station. CM Richards emphasized that DOT did good job when analyzed this location but the certain criteria for a potential speed hump or regulation must be tailed by the Federal and State standards.
- 3. One participant raised concerns about safety issues associated with large trucks entering 157th, 158th, and 159th Streets near Rockaway Boulevard. He complained about recurring accidents on 145th Road between 157th and 159th Streets, speeding problem as a result of no appropriate signage (All-way stop control). He indicated that trucks must be better managed, large trucks (53') should be prohibited from entering the area, blocking narrow streets during loading/unloading activities, and reducing layover and idling. He asked DOT to consider converting two-way streets to one-way operation and install All-way stop signs at 145th Road and 157th and 158th Streets.
- 4. One participant questioned unsafe pedestrian crossings at the corner of 145th Road and Springfield Blvd after the reconstruction. The participant also indicated that an arrow sign showing "No turns" (except buses that make U-turns) is posted on the southbound approach but cars regularly disobey sign by making U-turns. She asked DOT to look at this

redesigned intersection to improve pedestrian safety. She also stated that the proposed fence it won't discourage all kids of mid-block crossing.

- 5. CM Richards indicated that pedestrian fences installed at the similar locations worked well and facilitated pedestrian safety.
- 6. One question came about the traffic light on 147th Avenue at Springfield Lane that was removed as part of the "Blue Belt" reconstruction project; as a result, this created unsafe conditions especially for kids and pedestrians wishing to cross the street to reach bus stop; the community asked DOT to bring back light at this location. They also asked DOT to evaluate a "blind spot" on Springfield Lane at 147th Avenue and provide calming measures.
- 7. One participant raised concerns about large trucks (53') making turns onto 227th Street at 147th Avenue that create unsafe conditions for local residents. Trucks are traveling to/from a warehouse that was recently built in the core of residential area. Several members were vocal on this issue asking DOT to provide an adequate solution. In addition to proposed resurfacing the community asked to convert 227th Street from two-way to one-way operation. After several requests and a submitted petition, the participant asked what would be the next step in the process to address this issue.
- 8. Michael Griffith stated that the study didn't include this particular roadway segment and new warehouse at 227th Street, but when the community raised the issues, DOT observed the area and looked for a possible solution. DOT asked for more time to collect additional data and analysis in order to provide a long-term solution. Mr. Griffith stressed that in the case of one-way conversation, two streets must be maintained instead of one, and trucks will bring problems (noise, pollution, safety, road condition, etc.) on the second residential street impeding traffic.
- 9. Other concerns were raised about excessive noise caused by trucks along 147th Avenue, especially overnight, in addition to making dangerous maneuvers that include entering private driveways and sidewalks, damaging parked cars, etc. The other concerns were related to unsafe crossing on 147th Avenue that involves the senior citizens and also excessive speeding between Springfield and Guy R. Brewer Boulevards. Participants asked DOT to consider a new traffic light at 183rd Street and 147th Avenue to slow down traffic while allowing pedestrians to cross the street.
- 10. One participant raised concerns about safety issues at merge point on Belt Parkway exit ramp approaching Farmers Blvd and North Conduit Avenue; he suggested installing a light to control/ slow down traffic and facilitating traffic operations at this "blind spot". He also questioned why the second Belt Parkway exit ramp approaching Springfield Blvd is not included in the study analysis to assess heavy traffic coming from North Conduit Avenue and the BP exit ramp.
- 11. DOT pointed out that Springfield Blvd represents the eastern boundary of the study area, but on a NYPD request, DOT collected additional data and conducted analysis for several additional locations including this ramp. Mr. Griffith also stated that several years ago, the State developed plans to manage this facility since it's under their jurisdiction.
- 12. One participant raised concerns about deteriorated sidewalk on Springfield Boulevard between North and South Conduit Avenues, where sidewalk pavement is crumbling due to heavy usage of overpass. He suggested restriping the Springfield Blvd southbound approach

at South Conduit Avenue by cutting median or sidewalks to provide three travel lanes including double left turns.

- 13. One participant raised concerns about safety issues in the Laurelton, complaining about high recurring accidents on 147th Avenue at 243rd Street, double parking and garbage disposal/littering in the area. He asked Sanitation Department to increase cleaning service and asked also the community to clean their backyard before starting complaining about other City agencies.
- 14. One participant raised concerns about heavy trucks activity on Merrick Blvd and 136th/137th Streets near Farmers Blvd where the cement plant exists. He raised issue with speeding and indicated that numerous accidents occurred especially overnight in this area. He asked DOT to consider converting 136th and 137th Streets from two-way to one-way operation and additionally install speed humps.
- 15. Somebody asked for criteria to designate a truck route?
- 16. Mr. Griffith stated that routes heavily used by trucks to reach the nearest destination (warehouse/industrial complex) are legal according to the City rules, thus the zoning classification dictates the character of land uses (residential, commercial or industrial).
- 17. One participant advocates that it must be established a mutual respect and coexistence between various industrial and residential needs in the area.
- 18. Some participants expressed concerns about numerous accidents that take place at several streets and intersections controlled by Two-way Stops, suggesting to replacing Two-way Stop Control with All-way Stop Controls. They complained about excessive speeding along 146th Avenue and 222nd Street and asked for either speed humps or All-way stop signs. It was suggested that 145th Road (between Farmers and Guy R. Brewer Boulevards) and 145th Avenue (between Farmers Blvd and Arthur Street) be converted to one-way operation westbound. Additional locations will be also provided.
- 19. DOT stated that a few locations will be examined for appropriate ALL-way Stop controls.
- 20. One participant at the meeting distributed written paper including several concerns about excessive truck activity on 147th Avenue; he suggested installing signs "No trucks allowed except local deliveries" on 147th Avenue. He also complained about trucks honking their big horns for various reasons and asked for "No Horn Blowing, Except Emergency Vehicles" signs. He also complained about loud road noise coming from trucks when they hit a bump or uneven road with an excessive speeding. He also raised concern about the trucks activity at the repair shop located on 147th Avenue, between Guy R. Brewer Blvd and 181st Street, where sidewalk is blocked by parked trucks that force pedestrians to walk in the narrow street or cross to the other side. He asked for a new sidewalk on the south side of 147th Avenue and ticket violators at the same site.
- 21. One participant raised concerns about recurring accidents on 147th Avenue at 249th Street (Brookville) and asked to control speeding of dollar vans between Francis Lewis Blvd and 243rd Street.
- 22. Participants generally expressed their main concerns about lack of traffic enforcement in the area and asked for solutions to address truck issues.
- 23. CM Richards indicated that the economy is picking up in the country bringing more and more trucks to the area of JFK/Springfield Gardens and asked the community to recognize

this reality; he stressed that the key solution is enforcement and stated that the new Police Precinct will be built to cover three neighborhoods (Springfield Gardens, Rosedale and Laurelton), this will help to address some of the community concerns.

- 24. One participant raised question about high trucks activity on Rockaway Boulevard and 250th Street, which is outside of the study area, and asked if DOT has plans to enlarge the study area to capture this section.
- 25. The last question asked "what is the next phase in the study process based on received comments and implementation schedule"?
- 26. DOT responded that it will take into consideration all community concerns/suggestions from the meeting and work closely with the other groups evaluating proposals then follow up with implementation.

Before adjourning the meeting, CM Richards asked the community to appreciate DOT for work done and asked to support the DOT's comprehensive plan for improvement; he also suggested to participants to create new block associations, transportation committees, or other working groups to help shape the future of the Springfield Gardens.