TECHNICAL MEMORANDUM 005
NEW YORK CITY BOROUGH-BASED JAIL SYSTEM
CEQR No. 18DOC001Y
ULURP Nos. 190333 PSY, N190334 ZRY, 190335 ZSX, 190336 ZMX, N190337 ZRX, 190338 HAX, 190339 ZSK, 190340 ZSM, 190341 PQM, 190342 ZSQ, 190116 MMK, 190252 MMM, 190117 MMQ
March 19, 2024

A. INTRODUCTION

The City of New York, through the New York City Department of Correction (DOC) and the Mayor's Office of Criminal Justice (MOCJ), is proposing to implement the New York City Borough-Based Jail System project as part of the City's continued commitment to create a modern, humane, and safe justice system. On August 23, 2019, DOC, as lead agency, issued a Notice of Completion for the Final Environmental Impact Statement (FEIS) for the proposal. The City Planning Commission (CPC) approved the proposal on September 3, 2019 and referred the application to the New York City Council (City Council). The actions as approved by the CPC are referred to as the "FEIS project" in this Technical Memorandum.

Following issuance of the Notice of Completion, the City Council proposed certain modifications to the Uniform Land Use Review Procedure (ULURP) applications as a result of its review. These modifications were assessed in a Technical Memorandum dated October 11, 2019 (Technical Memorandum No. 1) and subsequently approved by the City Council on October 17, 2019. Subsequent modifications to the project by DOC and MOCJ related to the scope of the original City Council approval, including changes to the build/analysis year, programmatic changes to support areas and parking, and the relocation of the accessory parking garage curb cut for the Manhattan Borough-Based Jail, were assessed in a Technical Memorandum dated October 14, 2020 (Technical Memorandum No. 2). Further analysis of the effects of this Manhattan curb cut relocation was necessary due to changes associated with a new nearby bicycle lane (independent of the Borough-Based Jails System project). This was addressed and assessed in Technical Memorandum No. 3, which was specific to changes associated to the Manhattan Borough-Based Jail and dated and issued July 28, 2021. A mayoral zoning override (specifically related to a relocation of the accessory parking garage curb cut for the Manhattan site) relied on both the assessments provided in Technical Memorandum No. 2 and Technical Memorandum No. 3.

As discussed in this Technical Memorandum, additional changes specific to the Queens Borough-Based Jail are presented and assessed. These changes are related to reductions from the FEIS project to the anticipated population/beds in Queens, a change to the anticipated completion year of the modified project, changes to the number of parking spaces associated with the Queens Site, and an overall update to the transportation analyses with more current traffic data and traffic conditions.

The project as described in the FEIS would result in the construction of four detention facilities (one in each borough for The Bronx, Brooklyn, Manhattan, and Queens), with community facility and/or retail space at each site along with support space for quality educational programming, recreation, therapeutic services, publicly accessible community space, and staff parking. Per the two preceding Technical Memoranda relevant to Queens (Technical Memorandum No. 1 and Technical Memorandum No. 2), the project was modified subsequent to the FEIS with several changes, including, most notably, a reduction in the number of beds for people in detention at each facility, modest reductions to the program floor area at each site, a change to the anticipated completion year of the project, and changes to the number of parking spaces at the Bronx and Queens Sites (hereafter the "previously modified project").

It is imperative to note the modifications to the project require an overview/assessment of the effects on transportation. The newly modified project would not result in any changes to height, bulk of the maximum zoning envelope, permitted floor area, setbacks, or approved ULURP site plan for the Queens Site. Consequently, this Technical Memorandum does not address or assess the environmental implications or effects as it relates to other technical areas, such as zoning, land use, and public policy; socioeconomic conditions; neighborhood character; community facilities; air quality; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; eliminate change; energy; shadows; historic and cultural resources; urban design and visual resources; natural resources; and hazardous materials.

The project modifications outlined in this Technical Memorandum are referred to as the "newly modified project" and are summarized below. This Technical Memorandum describes the proposed changes and analyzes whether the newly modified project would result in any new or different significant adverse transportation environmental impacts not already identified in the FEIS or preceding Memoranda for the Queens Borough-Based Jail Site. As set forth below, this Technical Memorandum concludes that the modified project would not result in any new or different significant adverse impacts not already identified in the FEIS.

B. DESCRIPTION OF THE NEWLY MODIFIED PROJECT

The Queens Site encompasses the existing Queens Detention Complex, which (up until recently) was previously utilized for daytime holding of persons on trial and not as an overnight detention facility. Under the No-Action condition, it is assumed that the detention center would not be functional. Therefore, the analysis provided in this Technical Memorandum is based on the increment of the newly modified project, described below, to the No-Action condition described in the FEIS (see **Table 1**) and is equivalent to 1,040 beds and 25,000 sf community facility space.

The newly modified project includes the changes discussed below and summarized in **Table 1**. At this time, DOC and MOCJ project that each of the detention facilities, including the Queens Site, would need to house approximately 1,040 beds. In comparison, the FEIS project would have provided approximately 1,150 beds and the previously modified project would have provided approximately 886 beds. This change would also result in a proportional change in the number of uniformed employees in the detention facility. The on-site staff parking garage would be reduced to 100 spaces, as compared to 605 spaces provided in the FEIS and 305 spaces provided in the previously modified project. These programmatic details are reflected in the following analyses. An additional loading curb cut would be utilized on 132nd Street to allow for more operational efficiencies. This project component is not included in the following analyses since driveways were not analyzed in the FEIS or the previous Technical Memoranda. The additional curb cut would not change the traffic assignment, study intersections, or the analyses in any way.

In addition, it is anticipated that the construction of the project is expected to be completed by 2030 instead of 2027 (as per the previously modified project). Based on the revised schedule, the Queens Site is anticipated begin construction in early 2025 and complete construction by mid-2030. This Technical Memorandum analyzes the transportation effects of a completion year of 2030.

Based on the proposed changes, it is assumed that proposed project modifications would not alter the conclusions of the FEIS with respect to land use, zoning, and public policy; socioeconomic conditions; community facilities and services; open space; shadows; urban design and visual resources; historic and cultural resources; hazardous materials; natural resources; water and sewer infrastructure; solid waste and sanitation services; air quality, energy; noise; public health, neighborhood character; greenhouse gases and climate change and construction.

Table 1
Queens Site Project Details

Project Elements	No-Action (1)	FEIS With-Action	Previously Modified With-Action	Newly Modified With-Action	Newly Modified Increment
Beds	0	1,150	886	1,040	1,040
Other Uses (2)	-	Community Facility (25,000 sf)	Community Facility (25,000 sf)	Community Facility (25,000 sf)	Community Facility (25,000 sf)
Parking Spaces (3)	0	605	305	100	100
Construction Completion	-	2026	2027	2030	-

Notes:
(1) The No-Action condition remains the same as discussed in the FEIS.
(2) The 25,000 sf of Community Facility space is part of an adjacent garage that has already been built.
(3) Parking Spaces refers to the accessory parking spaces related to the detention facility. The public parking spaces are separate. The municipal parking lot on the existing site has been replaced by a garage that has already been built.

C. TRIP GENERATION & SCREENING

METHODOLOGY

The 2021 *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the project. According to the *CEQR Technical Manual*, if the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted in this Technical Memorandum. When these thresholds are exceeded, detailed trip assignments (a Level 2 analysis) are to be performed to estimate the incremental trips that would be incurred at specific transportation elements and to identify potential locations for further analyses in this Technical Memorandum. If the trip assignments show that the project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted in this Technical Memorandum to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

PLANNING FACTORS

The transportation planning factors used to forecast the travel demand that would be generated by the project's land uses are primarily consistent with the factors discussed and summarized in Section 5.9, "Transportation-Queens," of the FEIS. A majority of these factors were based on data provided by DOC and Correctional Health Services (CHS) and data from counts conducted at existing detention facilities in Manhattan and Brooklyn. Some modal splits were also based on data from surveys conducted at existing detention facilities in Manhattan and Brooklyn. Some factors summarized in the FEIS were updated based on the 2021 *CEQR Technical Manual*, census data for Queens census tracts, and data provided by NYCDOT. The community facility use was conservatively assumed as medical office space as per guidance received from NYCDOT and utilized the most recent NYCDOT trip generation and other planning factors for medical offices in Queens. Also consistent with the FEIS, all factors are shown for the weekday AM, midday, and PM peak hours and the Saturday peak hour. These factors are presented in **Table 2**.

Table 2
Transportation Planning Factors - Queens Site

Land Use:	Uniformed Staff		Non-Uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Community Center (Medical Office)	
Trip Generation:	(1)		(1)		(1)		(1)		(3)		(6)	
Weekday	2.00		2.00		2.00		0.89		0.3		(see note 9)	
Saturday	2.00		2.00		2.00		0.19		0.3		37.0	
	trips/employee		trips/employee		trips/employee		trips/bed		trips/bed		per 1,000 sf	
Temporal Distribution:	(1)		(1)		(1)		(1)		(3)		(6,8)	
AM	29.1%		36.6%		3.3%		5.2%		0.5%		2.4%	
Midday	29.8%		39.0%		10.3%		4.4%		9.6%		8.4%	
PM	0.0%		0.0%		0.0%		8.2%		9.0%		8.5%	
Saturday	29.0%		39.0%		10.3%		4.3%		11.7%		6.1%	
Modal Splits:	(2) All Periods		(4) All Periods		(4) All Periods		(4) All Periods		(2) All Periods		(7) All Periods	
Auto	85.0%		59.8%		59.8%		59.8%		20.0%		23.0%	
Taxi	3.0%		0.2%		0.2%		0.2%		2.0%		7.0%	
Subway	10.0%		21.6%		21.6%		21.6%		65.0%		26.0%	
Bus	1.0%		10.8%		10.8%		10.8%		11.0%		14.0%	
Walk/Ferry/Other	1.0%		7.6%		7.6%		7.6%		2.0%		30.0%	
	100.0%		100.0%		100.0%		100.0%		100.0%		100.0%	
	(1)		(1)		(1)		(1)		(3)		(6,8)	
In/Out Splits:	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	65.0%	35.0%	100.0%	0.0%	100.0%	0.0%	60.8%	39.2%	100.0%	0.0%	78.0%	22.0%
Midday	37.0%	63.0%	0.0%	100.0%	100.0%	0.0%	73.1%	26.9%	47.6%	52.4%	45.0%	55.0%
PM	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	31.8%	68.3%	55.3%	44.7%	39.0%	61.0%
Saturday	43.0%	57.0%	0.0%	100.0%	100.0%	0.0%	71.4%	28.6%	26.9%	73.1%	37.0%	63.0%
Vehicle Occupancy:	(2)		(4,5)		(4,5)		(4,5)		(2)		(7)	
Auto	1.15		1.10		1.10		1.10		1.50		1.58	
Taxi	1.00		1.40		1.40		1.40		1.00		1.58	
Truck/bus												
Trip Generation:	(1)										(7)	
Weekday	0.06										0.29	
Saturday	0.06										0.29	
	per bed										per 1,000sf	
	(1)										(7)	
AM	2.9%										3.0%	
Midday	5.9%										11.0%	
PM	9.8%										1.0%	
Saturday	5.9%										0.0%	
	In	Out									In	Out
All	55.0%	45.0%									50.0%	50.0%

Notes :

(1) Trip generation rate, temporal distribution, and in/out splits assumes DOC & CHS staff do not typically leave facility during their 8-hour work shifts. DOC & CHS temporal distribution and in/out splits are derived from DOC & CHS staff schedule and information for existing Manhattan and Brooklyn jails. Authorized Visitor rates are derived from day-time count data collected at the Manhattan and Brooklyn jails in July 2018. Rates were determined by discounting expected trips made by DOC & CHS staff from the count data. Authorized Visitor Saturday trip generation rate based on similar ratio between weekday and saturday rates for office use provided in Table 16-2 of the 2021 *City Environmental Quality (CEQR) Technical Manual* (3.9 trips/18 trips = 0.22 ratio).

(2) Based on survey data collected at Manhattan and Brooklyn Houses of Detention, May and June 2018; modal splits adjusted to reflect non-CBD area.

(3) Based on Manhattan and Brooklyn House of Detention average hourly weekday and weekend visitation data for 2017 provided by DOC.

(4) Based on AASHTO CTTP reverse journey to work 5-Year (2012-2016) data for Queens County Census Tract 138, 140, 142.01, 142.02, 212, 214, 220.01, 216, 383.02, 769.02, 773 and 775.

(5) Taxi occupancy rate based on Briarwood Plaza Special Permit Application EAS, 2010.

(6) Based on 2021 *City Environmental Quality Review (CEQR) Technical Manual* .

(7) Based on data provided by NYCDOT.

(8) Based on DOT 24 hour citywide Medical Office distribution data; AM peak 6:30-7:30 used 7:00-8:00 data, midday and Saturday peak 2:45-3:45 used 3:00-4:00 data.

(9) Weekday trip rate was 74.6 per 1,000 sf for medical office less than 15,000 sf, for medical office larger than 15,000 sf, used the equation: 66.626X+141.77, where X=size of gsf in 1,000 sf.

DEMAND FORECAST & LEVEL 1 SCREENING

Under the newly modified project that would be implemented, there would be 1,040 beds along with 462 (weekday) and 392 (Saturday) uniformed staff at the Queens Site. This represents the incremental difference compared to the No-Action condition, as it is assumed that the detention facility is not functional in the No-Action condition. However, compared to the With-Action condition discussed in the FEIS, which would have provided 1,150 beds along with 513 (weekday) and 435 (Saturday) uniformed staff, there would be fewer authorized visitors and other visitors under the newly modified project because there will be fewer beds. Accordingly, the jail portion of the project would generate fewer vehicle, transit, and pedestrian incremental trips and less parking demand for on- and off-street public parking compared to the FEIS project.

Based on the trip generation assumptions mentioned above, **Table 3** shows estimates of the total net incremental changes in peak-hour person and vehicle trips that would occur in 2030 with the implementation of the project compared to the No-Action Condition. **Table 3** summarizes those trips by mode and peak hour. As shown in **Table 3**, the newly modified project would generate 474 incremental person trips (in and out combined) in the weekday AM peak hour, 629 incremental person trips in the weekday midday peak hour, 258 incremental person trips in the weekday PM peak hour, and 460 incremental person trips in the Saturday peak hour. As shown in **Table 3**, the newly modified project would generate a net total of approximately 314, 365, 88, and 281 (in and out combined) incremental vehicle trips (including auto, taxi, and truck trips) during these same periods, respectively. The newly modified project would generate peak-hour subway trips amounting to approximately 76, 126, 75, and 92 incremental trips, respectively, and bus trips amounting to approximately 26, 47, 33, and 29 incremental trips, respectively. Lastly, trips made entirely on foot (walk-only trips) would amount to a net total of approximately 27, 60, 52, and 31 incremental trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Total pedestrian trips (including walk-only trips and pedestrians en route to/from nearby subway stations and bus stops) would amount to a net total of approximately 129, 233, 160, and 152 incremental trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. Therefore, the newly modified project would likely exceed CEQR thresholds for further traffic and pedestrian screening/analyses in at least one of the analyzed peak hours.

Tables 4a and **4b** show a summary of peak-hour person and vehicle trips that would occur with the implementation of the FEIS project and the newly modified project, respectively. **Table 4c** shows a summary of the estimates of the total net incremental changes in peak-hour person and vehicle trips that would occur in 2030 with the implementation of the newly modified project compared to the trips analyzed in the FEIS project. As shown in **Table 4c**, compared to the FEIS project, the newly modified project would generate approximately two fewer incremental vehicle trips in the weekday AM peak hour, and approximately 19, 38, and three more incremental vehicle trips in the weekday midday, weekday PM, and Saturday peak hours, respectively. This would represent a decrease of approximately one percent in the net incremental weekday AM peak hour vehicle trips compared with the trips analyzed in the FEIS project, and increases ranging from approximately one to 76 percent in net incremental peak hour vehicle trips compared with the trips analyzed in the FEIS project. It should be noted that changes to the planning factors for the community facility space (assumed as medical office in this Technical Memorandum) as well as updates to census data would result in demand increases to some modes of travel compared to the FEIS. As the vehicle trips generated by the newly modified project would exceed the 50-vehicle trip threshold in one or more peak hours, a Level 2 screening and a detailed traffic analysis are conducted in this Technical Memorandum to account for numerous changes to the street network,

minor changes to the assignment to several uses as result of recent census data, and changes to existing vehicular volumes from 2018 to 2023 within the study area.

Table 3
Travel Demand Forecast

Land Use:		Uniformed Staff		Non-uniformed Staff		Clinic Staff		Authorized Visitors		Other Visitors		Queens Community Center (Medical Office)		Total	
Size/Units:	Weekday	462		144		93		1,040 beds				25,000 gsf			
	Saturday	392		144		93									
Peak Hour Trips:															
	AM	269		105		6		48		2		44		474	
	Midday	275		112		19		41		30		152		629	
	PM	0		0		0		76		28		154		258	
	Saturday	227		112		19		9		37		56		460	
Person Trips:															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	149	80	63	0	4	0	17	11	0	0	8	2	241	93
	Taxi	5	3	0	0	0	0	0	0	0	0	2	1	7	4
	Subway	17	9	23	0	1	0	7	5	2	0	9	3	59	17
	Bus	2	1	11	0	1	0	3	2	0	0	5	1	22	4
	Walk/Ferry/Other	2	1	8	0	0	0	2	1	0	0	10	3	22	5
	Total	175	94	105	0	6	0	29	19	2	0	34	10	351	123
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	86	147	0	67	11	0	18	7	3	3	16	19	134	243
	Taxi	3	5	0	0	0	0	0	0	0	0	5	6	8	11
	Subway	11	17	0	24	5	0	7	2	9	11	18	22	50	76
	Bus	1	2	0	12	2	0	3	1	2	2	10	12	18	29
	Walk/Ferry/Other	1	2	0	9	1	0	2	1	0	0	20	24	24	36
	Total	102	173	0	112	19	0	30	11	14	16	69	83	234	395
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	14	31	3	3	14	22	31	56
	Taxi	0	0	0	0	0	0	0	0	0	0	4	7	4	7
	Subway	0	0	0	0	0	0	5	11	10	9	16	24	31	44
	Bus	0	0	0	0	0	0	3	6	2	1	8	13	13	20
	Walk/Ferry/Other	0	0	0	0	0	0	2	4	0	0	18	28	20	32
	Total	0	0	0	0	0	0	24	52	15	13	60	94	99	159
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	83	110	0	67	11	0	4	2	2	5	5	8	105	192
	Taxi	3	4	0	0	0	0	0	0	0	1	1	2	4	7
	Subway	10	13	0	24	5	0	1	1	6	18	5	9	27	65
	Bus	1	1	0	12	2	0	1	0	1	3	3	5	8	21
	Walk/Ferry/Other	1	1	0	9	1	0	0	0	0	1	6	12	8	23
	Total	98	129	0	112	19	0	6	3	9	28	20	36	152	308
Vehicle Trips :															
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM	**Auto**	130	70	57	0	4	0	15	10	0	0	5	1	211	81
	Taxi	5	3	0	0	0	0	0	0	0	0	1	1	6	4
	Taxi Balanced	8	8	0	0	0	0	0	0	0	0	2	2	10	10
	Truck/Bus	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	Total	139	79	57	0	4	0	15	10	0	0	7	3	222	92
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Midday	**Auto**	75	128	0	61	10	0	16	6	2	2	10	12	113	209
	Taxi	3	5	0	0	0	0	0	0	0	0	3	4	6	9
	Taxi Balanced	8	8	0	0	0	0	0	0	0	0	7	7	15	15
	Truck/Bus	2	2	0	0	0	0	0	0	0	0	0	0	2	2
	Total	85	138	0	61	10	0	16	6	2	2	17	19	130	226
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PM	**Auto**	0	0	0	0	0	0	13	28	2	2	9	14	24	44
	Taxi	0	0	0	0	0	0	0	0	0	0	3	4	3	4
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	7	7	7	7
	Truck/Bus	3	3	0	0	0	0	0	0	0	0	0	0	3	3
	Total	3	3	0	0	0	0	13	28	2	2	16	21	34	54
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Saturday	**Auto**	72	96	0	61	10	0	4	2	1	3	3	5	90	167
	Taxi	3	4	0	0	0	0	0	0	0	1	1	1	4	6
	Taxi Balanced	7	7	0	0	0	0	0	0	1	1	2	2	10	10
	Truck/Bus	2	2	0	0	0	0	0	0	0	0	0	0	2	2
	Total	81	105	0	61	10	0	4	2	2	4	5	7	102	179

Table 4a
Summary of Travel Demand Forecast – FEIS Project

Peak Hour	Vehicle Trips			Person Trips											
				Subway			Bus			Walk/Other			Total Pedestrian Trips[1]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	218	98	316	54	17	71	25	5	30	39	18	57	118	40	158
MD	123	214	337	36	60	96	14	25	39	53	53	106	103	138	241
PM	19	31	50	17	24	41	7	12	19	17	41	58	41	77	118
SAT	104	174	278	26	61	87	8	22	30	27	39	66	61	122	183

1- Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-site parking spaces.

Table 4b
Summary of Travel Demand Forecast – Newly Modified Project

Peak Hour	Vehicle Trips			Person Trips											
				Subway			Bus			Walk/Other			Total Pedestrian Trips[1]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	222	92	314	59	17	76	22	4	26	22	5	27	103	26	129
MD	130	226	356	50	76	126	18	29	47	24	36	60	92	141	233
PM	34	54	88	31	44	75	13	20	33	20	32	52	64	96	160
SAT	102	179	281	27	65	92	8	21	29	8	23	31	43	109	152

1- Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-site parking spaces.

Table 4c
Comparison Summary of Travel Demand Forecast (Newly Modified Project – FEIS)

Peak Hour	Vehicle Trips			Person Trips											
				Subway			Bus			Walk/Other			Total Pedestrian Trips[1]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	4	-6	-2	5	0	5	-3	-1	-4	-17	-13	-30	-15	-14	-29
MD	7	12	19	14	16	30	4	4	8	-29	-17	-46	-11	3	-8
PM	15	23	38	14	20	34	6	8	14	3	-9	-6	23	19	42
SAT	-2	5	3	1	4	5	0	-1	-1	-19	-16	-35	-18	-13	-31

1- Includes walk-only trips and pedestrians en route to/from nearby subway stations, bus stops, and off-site parking spaces.

As presented in **Table 4c**, compared with the FEIS project, the newly modified project would generate five and 34 more incremental subway trips during the weekday AM and weekday PM peak hours, respectively. This would represent increases ranging from approximately seven to 83 percent in net incremental peak hour subway trips compared with the FEIS project. The weekday midday and Saturday peak hours would generate 30 and five incremental subway trips, respectively, compared with the FEIS project. This would represent increases ranging from approximately six to 31 percent in net incremental peak hour subway trips compared with the FEIS project during these same peak hours. As shown in **Table 4b**, subway trips generated by the newly modified project would not exceed CEQR threshold (200 or more peak hour subway trips) for detailed subway analyses. As such, as with the FEIS project (see **Table 4a**), incremental subway trips generated under the newly modified project would not result in significant adverse subway station or subway line haul impacts in any peak hour.

Similarly, compared to the FEIS project, the modified project would generate eight and 14 additional incremental bus trips during the weekday midday PM peak hours. This would represent increases up to approximately 74 percent in net incremental peak hour bus trips compared with the FEIS project. All other periods would remain decrease slightly. As shown in **Table 4b**, bus trips generated by the newly modified project would not exceed CEQR threshold (50 or more peak hour bus trips in any direction) for detailed bus analysis. As such, as with the FEIS project (see

Table 4a), incremental bus trips generated under the newly modified project would not result in significant adverse bus line haul impacts in any peak hour.

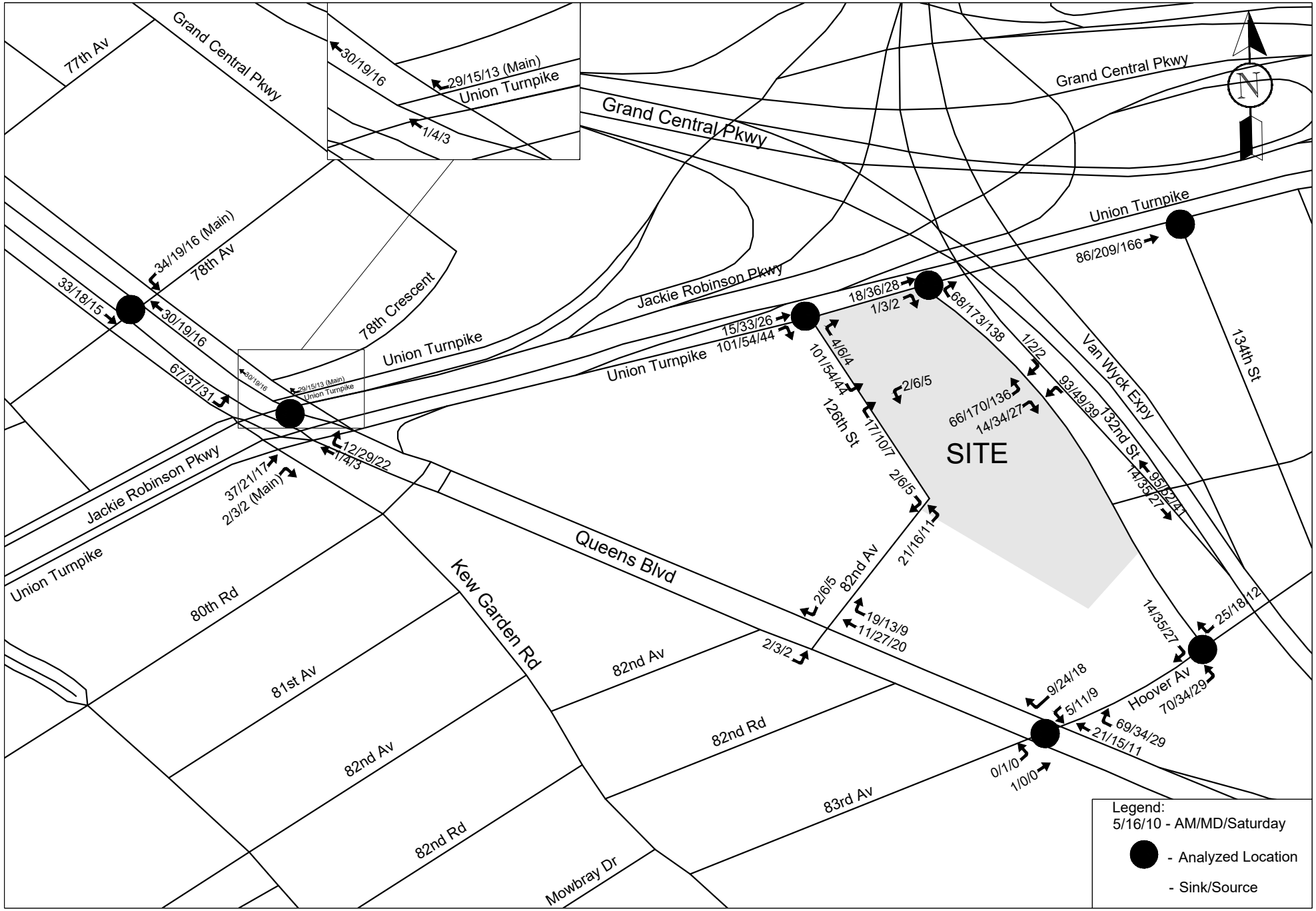
As presented in **Table 4c**, compared with the FEIS project, the newly modified project would generate 42 more incremental pedestrian trips (including walk-only trips and trips to/from area transit services) during the weekday PM peak hour. During the weekday AM, weekday midday, and Saturday peak hours, the newly modified project would generate 29, eight, and 31 fewer pedestrian trips, respectively, compared to the FEIS project. The PM increase would represent approximately 36 percent in net incremental peak hour pedestrian trips compared with the FEIS project. The decreases during the other peak hours would represent a three to 18 percent decrease from the FEIS project. Although the total number of pedestrian trips generated by the newly modified would exceed the 200-trip threshold in the weekday midday peak hour (see **Table 4b**), these peak hour trips would be fewer than those generated by the FEIS project. As such, as also discussed in the FEIS, a more detailed analysis of pedestrian conditions is not warranted as no corner, crosswalk, or sidewalk space is expected to attract 200 or more incremental pedestrian trips and therefore would not result in significant adverse impacts to Project Area pedestrian elements in any peak hour.

LEVEL 2 SCREENING

TRAFFIC

Traffic assignment patterns and distributions discussed in the FEIS and used to assign the traffic demand were updated to assign the traffic generated by the newly modified project based on new guidance in the 2021 *CEQR Technical Manual* and recent census data for Queens census tracts. Auto trips that cannot be accommodated in the on-site staff parking garage were assigned to park at the adjacent municipal public parking garage recently constructed on the site. Therefore, all auto trips were assigned to the project site. Staff, worker, and visitor distributions and patterns remain consistent with the origin-destination data obtained in surveys conducted at existing detention facilities in Manhattan and Brooklyn for the EIS. In addition, population densities were updated based on the most recent (2020) census data of census tracts within a one-mile radius of the project area to assign local trips generated by the proposed medical office.

Figure 1 shows the traffic assignment of vehicle trips for the site, during the weekday AM, weekday midday, and Saturday peak periods. As shown in **Figure 1,** traffic entering and exiting the area in proximity to the site, i.e., the "study area", would generally utilize the corridors that provide direct access to the Grand Central Parkway and Van Wyck Expressway. Traffic would be concentrated along Queens Boulevard in both directions as it provides access to the Grand Central Parkway and Union Turnpike and is the main east-west corridor in the study area. Additionally, Hoover Avenue would carry some traffic as it provides a direct connection to/from the project site frontage. Staff and visitor vehicles were assigned to directly to the project site along 132nd Street. Given changes to the area street network, minor changes to the assignment to several uses as result of recent census data, and changes to existing vehicular volumes from 2018 to 2023 within the study area, all seven intersections (listed below) analyzed in the FEIS are also analyzed in this Technical Memorandum.



Borough Based Jails - Queens **Figure 1**

Project Increment AM/MD/SAT Peak Hour Traffic Volumes

Intersections:

1- Queens Boulevard & 78th Avenue (signalized)
2- Queens Boulevard & Union Turnpike (signalized)
3- Queens Boulevard & Hoover Avenue/83rd Avenue (signalized)
4- 132nd Street & Hoover Avenue (stop-controlled)
5- 132nd Street & Union Turnpike (stop-controlled)
6- 134th Street & Union Turnpike (stop-controlled)
7- 126th Street & Union Turnpike (uncontrolled)

PARKING

According to *CEQR Technical Manual* guidance, on- and off-street parking analyses may be warranted if a quantified traffic analysis is necessary based on the Levels 1 and 2 screening assessments. Based on the screening assessments detailed above, a quantified traffic analysis is warranted, and the parking demand must be evaluated.

A parking demand forecast was prepared to determine if the proposed 100-space on-site accessory parking would be sufficient to accommodate all projected demand under the newly modified project. **Tables 5 and 6** show the estimated future parking demand generated by the newly modified project during a typical weekday and Saturday, respectively.

Table 5
With-Action Net Incremental Weekday Hourly Parking Demand

	Uniformed Staff[1]	Non-Uniformed Staff	Medical Staff	Authorized Visitors	Detainee Visitors	Community Center	Total
12-1 AM	70	0	14	0	0	0	84
1-2	70	0	14	0	0	0	84
2-3	70	0	14	0	0	0	84
3-4	71	0	14	0	0	0	85
4-5	87	0	14	0	0	0	101
5-6	92	0	14	0	0	0	106
6-7	198	79	14	2	0	1	294
7-8	179	79	28	21	0	5	312
8-9	157	79	18	48	1	14	317
9-10	161	79	18	63	2	21	344
10-11	165	79	18	56	2	22	342
11-12	166	79	18	56	2	20	341
12-1 PM	186	79	18	64	2	17	366
1-2	174	79	18	74	3	18	366
2-3	233	62	18	59	4	18	**394**
3-4	137	0	33	71	4	16	261
4-5	115	0	19	66	4	11	215
5-6	114	0	19	51	4	6	194
6-7	110	0	19	26	5	3	163
7-8	106	0	19	11	6	1	143
8-9	104	0	19	0	3	0	126
9-10	75	0	19	0	0	0	94
10-11	126	0	19	0	0	0	145
11-12	70	0	29	0	0	0	99

Note:
[1]To be conservative for parking analysis purposes, uniformed staff hourly parking demand is based on in/out patterns observed at the existing Manhattan and Brooklyn facilities (unlike in the traffic analysis).

Table 6
With-Action Net Incremental Saturday Hourly Parking Demand

	Uniformed Staff[1]	Non-Uniformed Staff	Medical Staff	Authorized Visitors	Detainee Visitors	Community Center	Total
12-1 AM	68	0	14	0	0	0	82
1-2	68	0	14	0	0	0	82
2-3	68	0	14	0	0	0	82
3-4	69	0	14	0	0	0	83
4-5	81	0	14	0	0	0	95
5-6	84	0	14	0	0	0	98
6-7	162	79	14	1	0	0	256
7-8	138	79	28	5	1	3	254
8-9	118	79	18	11	3	4	233
9-10	123	79	18	14	4	2	240
10-11	127	79	18	12	5	1	242
11-12	128	79	18	12	6	1	244
12-1 PM	141	79	18	13	6	3	260
1-2	135	79	18	15	7	4	258
2-3	192	62	18	12	6	5	**295**
3-4	123	0	33	15	3	7	181
4-5	105	0	19	14	1	5	144
5-6	105	0	19	11	0	2	137
6-7	99	0	19	6	0	2	126
7-8	94	0	19	3	0	1	117
8-9	92	0	19	0	0	0	111
9-10	72	0	19	0	0	0	91
10-11	122	0	19	0	0	0	141
11-12	68	0	29	0	0	0	97

Note:
[1]To be conservative for parking analysis purposes, uniformed staff hourly parking demand is based on in/out patterns observed at the existing Manhattan and Brooklyn facilities (unlike in the traffic analysis).

As shown in **Tables 5 and 6**, it is expected that the parking demand generated by the newly modified project would peak at approximately 394 and 295 spaces during the 2:00-3:00 PM peak hour on a typical weekday and typical Saturday, respectively. As such, parking demand at the Queens Site would exceed its on-site accessory parking capacity during both a typical weekday and a typical Saturday. Any excess demand from the Queens Site would also have to utilize parking spaces on-street and at off-street parking facilities. As such, on- and off-street parking analyses are provided in this Technical Memorandum.

STREET USER SAFETY

Under *2021 CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the analyzed traffic study areas that have been identified as high crash locations. As such, an assessment of street user safety is warranted and presented below at intersections within the study area.

D. ANALYSIS METHODOLOGY

TRAFFIC

As discussed in Section 5.9, "Transportation-Queens," of the FEIS, the Highway Capacity Manual (HCM) methodology and the Highway Capacity Software (HCS, version 5.5) were utilized for analysis. This methodology is also utilized for this Technical Memorandum. As such, the Level of Service (LOS)/delay relationship for signalized and unsignalized intersections using the HCM methodology remains the same as defined in Section 5.9, "Transportation-Queens," of the FEIS. However, some impact criteria defined in the *2021 CEQR Technical Manual* have changed since the publication of the FEIS (which utilized the *2014 CEQR Technical Manual*); the updated impact criteria for traffic is outlined below.

SIGNIFICANT IMPACT CRITERIA

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the 2021 *CEQR Technical Manual*. If a lane group is LOS A, B, C, or D in the Future With-Action (i.e., delay less than or equal to 55.0 seconds/vehicle for signalized intersections and 35.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant. If the lane-group LOS would deteriorate from LOS A, B, C, or D in the No-Action Condition to LOS E or F in the With-Action Condition, a significant traffic impact is identified. For a lane group that would operate at LOS E in the With-Action Condition, an increase in delay of 5.0 or more seconds compared to the No-Action Condition is considered a significant impact. For a lane group that would operate at LOS F in the With-Action Condition, a projected No-Action Condition increase in delay of 4.0 or more seconds is considered a significant impact.

Similar to the FEIS, the same criteria apply to signalized and unsignalized intersections. However, for traffic on a minor street at an unsignalized intersection to result in a significant impact, 90 passenger car equivalents (PCEs) must be projected in the With-Action Condition in any peak hour.

PARKING

When a detailed analysis is warranted, the parking analysis identifies the supply of on-street and off-street public parking near a project and determines the extent to which the supply is utilized in existing conditions in the future without the Proposed Action and in the future with the Proposed Action. The analysis considers anticipated changes in the study area's parking supply and demand and compares project-generated parking demand with future parking availability to determine if a parking shortfall is likely to occur. The displacement of existing parking capacity attributable to the project is also considered. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curbside spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the 2021 *CEQR Technical Manual*, a quarter-mile radius around a project site is generally assumed as the distance that someone driving to the site would be willing to walk.

SIGNIFICANT IMPACT CRITERIA

Should a project generate the need for more parking than it provides, a shortfall of spaces may be considered significant. The availability of off-street and on-street parking spaces within a

convenient walking distance (about a quarter-mile), as well as the availability of alternative modes of transportation, are considered in making this determination.

Under the 2021 *CEQR Technical Manual* guidance, different criteria for determining significance are used based on whether a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2 as shown in Map 16-2, "CEQR Parking Zones, May 2010," in the 2021 *CEQR Technical Manual*. As the Queens Project Site is not located within Zones 1 or 2 as shown in May 16-2, any potential parking shortfall that exceeds the available on-street and off-street parking spaces within quarter mile of the site when compared to the No-Action condition, can be considered significant. The lead agency should consider additional factors (including transit accessibility, travel demand management, etc) outlined in the 2021 *CEQR Technical Manual* to determine whether such shortfall is significant. The sufficiency of parking within half-mile of the project site to accommodate the projected shortfall may also be considered.

VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

Under the *2021 CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the analyzed traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations at a Vision Zero priority intersection where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. For these locations, crash trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic and pedestrian volumes, crash types and severity, and other contributing factors.

E. TRAFFIC

The FEIS concluded that the proposed project at the Queens Site would have the potential to result in significant adverse impacts to vehicular traffic at four analyzed intersections (three signalized and one unsignalized) in one or more analyzed peak hours. The FEIS identified mitigation for some, but not all, of the Queens Site's potential anticipated traffic impacts; some impacts would remain unmitigated and therefore constitute unavoidable significant adverse traffic impacts. An assessment of the potential environmental traffic impacts of the newly modified project at the Queens Site is provided below.

EXISTING

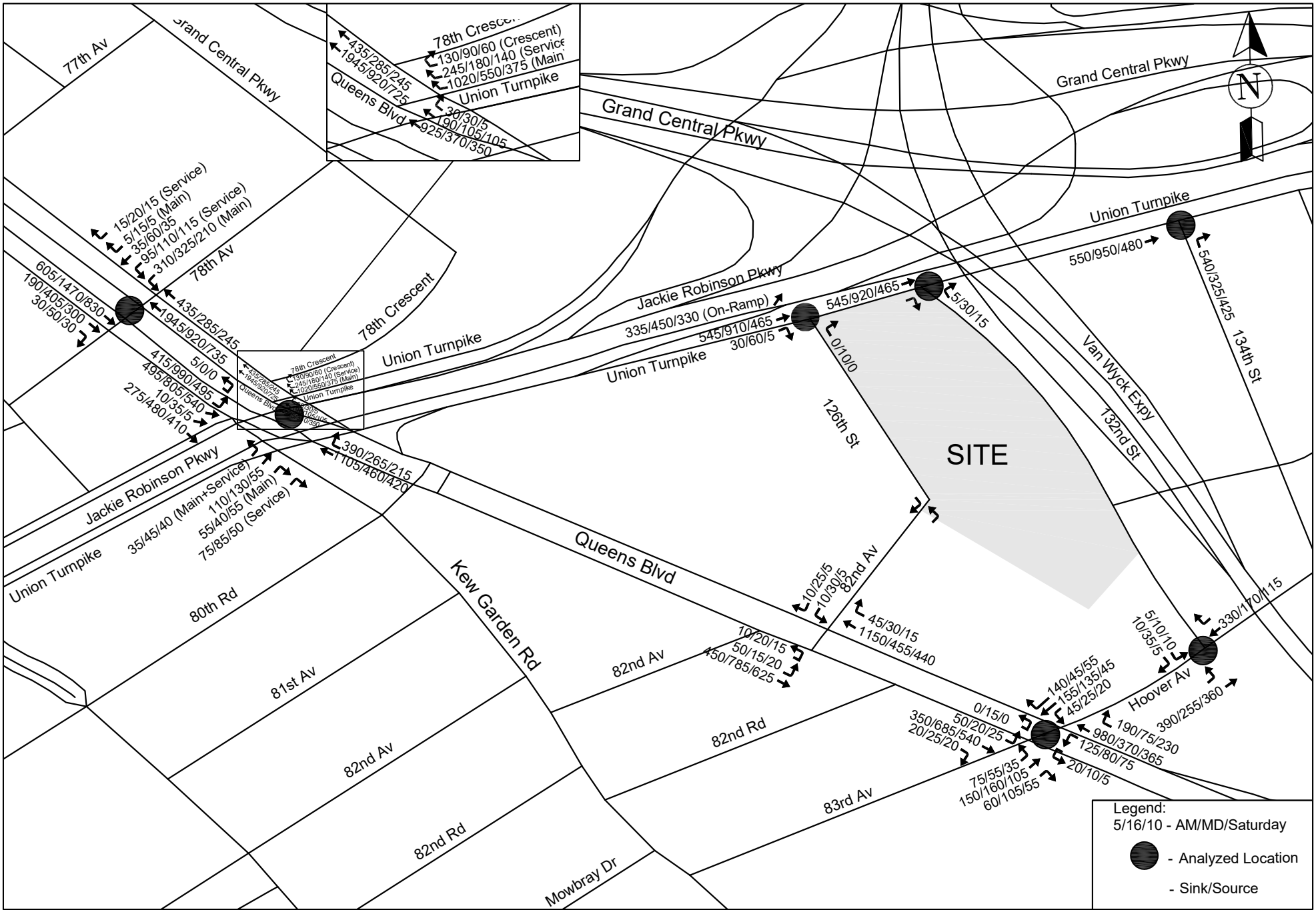
EXISTING VOLUMES & CONDITIONS

To establish the 2023 existing conditions traffic network, recent data was collected using Automatic Traffic Recorders (ATRs), video turning movement counts, and vehicle classification counts. The various datasets were collected in December 2023. Updated physical inventory data was also obtained in 2023 for operational analysis—e.g., the number of traffic lanes, lane widths, pavement markings, turn prohibitions, bus stops, and typical parking regulations. This physical inventory determined street improvements and changes that were completed since the publication

of the FEIS. The most recent signal timing plans for signalized intersections within the study area were also obtained from NYCDOT. **Figure 2** shows existing traffic volumes during weekday AM (6:30-7:30 AM), weekday midday (2:45-3:45 PM), and Saturday (2:45-3:45 PM) peak hours.

INTERSECTION CAPACITY ANALYSIS

The v/c ratios, delays, and LOS for the individual lane groups at each analyzed intersection during each peak hour under existing conditions are shown in **Table 7**. A lane group is considered congested if it operates at LOS E or F and/or with a v/c ratio of 0.90 or above. A v/c ratio of 1.00 or above reflects capacity conditions. As shown in **Table 7**, four analyzed intersections (Queens Boulevard at: 78th Avenue, Union Turnpike, and Hoover Avenue/83rd Avenue; and 134th Street at Union Turnpike) currently have at least one congested lane group in one or more peak hours. Two analyzed intersections in the weekday AM peak hour and three intersections in the weekday midday peak hour- have one or more lane groups operating at capacity (v/c ratio $\geq$ 1.0). Overall, consistent with the 2018 Existing FEIS analysis, the data in **Table 7** indicates that traffic congestion at analyzed intersections in proximity to the Queens Site is most evident in the weekday AM and midday peak hours.



Borough Based Jails - Queens **Figure 2**

Existing AM/MD/SAT Peak Hour Traffic Volumes

Table 7
Existing Intersection Capacity Analysis

Intersection	Existing Weekday AM						Existing Weekday Midday						Existing Saturday					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Queens																		
Queens Boulevard &	WB	L	1.05	120.4	F	*	WB	L	1.05	120.5	F	*	WB	L	0.66	42.5	D	
78th Avenue	WB	LTR	0.94	93.3	F	*	WB	LTR	0.91	86.5	F	*	WB	LTR	0.45	34.8	C	
(signalized)	NB (Main)	T	0.91	37.2	D	*	NB (Main)	T	0.42	20.0	C		NB (Main)	T	0.46	24.3	C	
	SB (Main)	T	0.25	17.6	B		SB (Main)	T	0.53	21.8	C		SB (Main)	T	0.37	22.8	C	
	NB (Service)	T	0.69	30.2	C		NB (Service)	T	0.39	20.6	C		NB (Service)	T	0.43	25.2	C	
	SB (Service to local)	TR	0.33	19.3	B		SB (Service to local)	TR	0.67	28.2	C		SB (Service to local)	TR	0.54	27.7	C	
Queens Boulevard &	EB	LT	0.49	57.6	E	*	EB	LT	0.58	58.4	E	*	EB	LT	0.33	42.2	D	
Union Turnpike	EB	R	0.70	73.3	E	*	EB	R	0.62	63.2	E	*	EB	R	0.47	47.2	D	
(signalized)	WB	R	0.91	47.4	D	*	WB	R	0.40	15.0	B		WB	R	0.35	23.8	C	
	NB	T	0.61	31.4	C		NB	T	0.45	43.6	D		NB	T	0.29	25.5	C	
	NB	R	0.54	12.8	B		NB	R	0.40	11.4	B		NB	R	0.30	8.4	A	
	SB (Main)	L	0.89	76.5	E	*	SB (Main)	L	1.05	88.8	F	*	SB (Main)	L	0.75	48.8	D	
	SB (Main)	T	0.46	28.3	C		SB (Main)	T	0.55	19.7	B		SB (Main)	T	0.55	30.2	C	
	SB (Service to local)	T	0.47	29.7	C		SB (Service to local)	T	0.61	22.8	C		SB (Service to local)	T	0.76	40.9	D	
Queens Boulevard &	EB	L	0.72	82.0	F	*	EB	L	0.34	51.3	D		EB	L	0.16	45.6	D	
Hoover Avenue/83rd	EB	TR	0.81	76.6	E	*	EB	TR	1.03	115.3	F	*	EB	TR	0.62	58.8	E	*
Avenue	WB	LT	1.03	123.9	F	*	WB	LT	0.88	89.0	F	*	WB	LT	0.23	46.7	D	
(signalized)	WB	R	0.52	50.1	D		WB	R	0.13	34.3	C		WB	R	0.17	35.0	D	
	NB	L	0.91	108.0	F	*	NB	L	1.02	160.7	F	*	NB	L	0.86	121.4	F	*
	NB	TR	1.01	62.4	E	*	NB	TR	0.38	24.6	C		NB	TR	0.52	27.3	C	
	SB	L	0.67	101.4	F	*	SB	L	0.28	66.9	E	*	SB	L	0.18	64.3	E	*
	SB	TR	0.38	28.6	C		SB	TR	0.63	30.7	C		SB	TR	0.48	27.1	C	
132nd Street & Hoover Avenue (two-way stop-controlled)	SB	LR	0.04	12.3	B		SB	LR	0.07	10.2	B		SB	LR	0.03	11.1	B	
132nd Street & Union Turnpike (two-way stop-controlled)	NB	R	0.01	9.7	A		NB	R	0.05	10.2	B		NB	R	0.02	9.2	A	
134th Street & Union Turnpike (two-way stop-controlled)	NB	R	1.04	73.0	F	*	NB	R	0.46	13.7	B		NB	R	0.75	24.8	C	
126th Street & Union Turnpike (uncontrolled)	Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the Existing Condition					

Notes - Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound. Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left. * Denotes congested lane group

THE FUTURE NO-ACTION CONDITION

NO-ACTION TRAFFIC GROWTH

Between 2023 and 2030, it is expected that transportation demand in the vicinity of the Queens Site will increase due to long-term background growth as well as development that could occur pursuant to existing zoning. The No-Action traffic volumes reflect annual background growth rates of 0.50 percent per year for 2023 through 2028 and 0.25 percent per year for 2028 through 2030. These background growth rates, recommended in the 2021 *CEQR Technical Manual* for projects in Queens (exclusive of Long Island City), are applied to account for smaller projects and general increases in travel demand not attributable to specific development projects. In addition,

discrete demand from major development projects in the vicinity of the Queens Site is also reflected in the No-Action traffic network. These No-Action developments, as well as their associated programs, are described in **Table 8** and illustrated in **Figure 3**. As a result, **Figure 4** shows the total No-Action traffic volumes during the weekday AM, weekday midday, and Saturday peak hours.

Table 8
Future No-Action Sites in Study Area

Map ID [1]	Project Name	Total (GSF)	DU	Local Retail (GSF)	Destination Retail (GSF)	Office (GSF)	Hotel (GSF)	Hotel Rooms	Community Facility (GSF)	Health Club (GSF)	Storage/ Warehouse/ Manufacturing (GSF)	Parking Facility (Commercial) (GSF)	Accessory Parking
Quarter-Mile Radius													
1	80-25 126th St	248,155							24,302			223,853	606
2	124-28 Queens Blvd	54,158	32	4,822		8,194			6,075				10
3	81-07 Kew Gardens Rd	50,654	51	7,659									
Half-Mile Radius													
4	75-42 Grand Central Pkwy	12,293	10										
5	78-29 Austin St	213,009	98						47,109				121
6	84-51 129th St	3,672	2										2
7	84-49 129th St	3,672	2										2
8	135-19 78 Rd	8,724	1										1
9	141-15 78 Ave	142,616	79	13,326					53,997				130
10	75-10 137th St	5,521	1										1

Notes: [1] Map ID corresponds to **Figure 3**.
Shading denotes sites accounted for in background growth.

INTERSECTION CAPACITY ANALYSIS

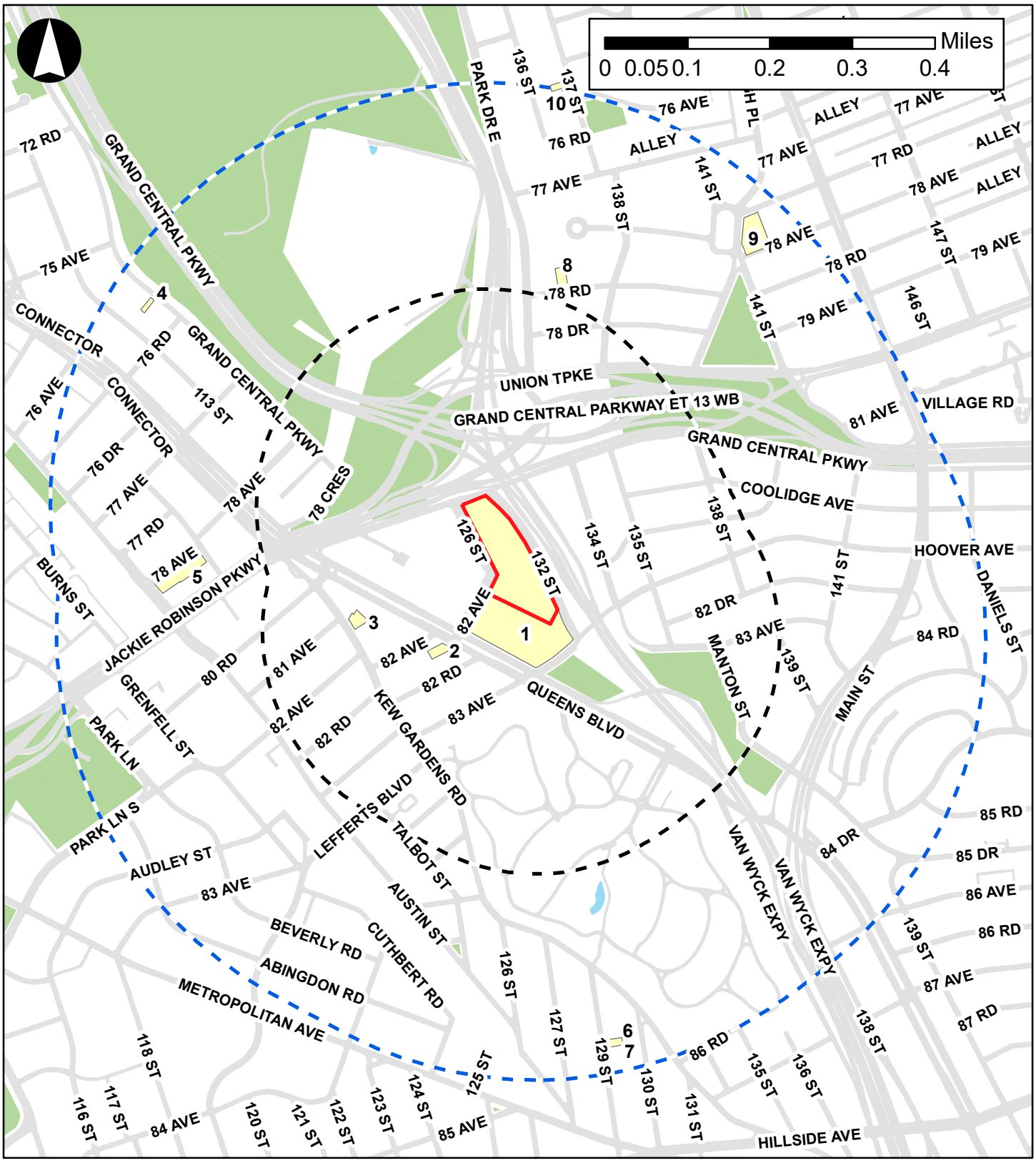
The v/c ratios, delays, and LOS for those individual lane groups at each analyzed intersection during each peak hour under No-Action conditions are shown in **Table 9**. As shown in **Table 9**, four analyzed intersections are expected to have at least one congested lane group in one or more peak hours in the No-Action condition. There would be three analyzed intersections with one or more lane groups operating at capacity (v/c ratio $\geq$ 1.0) in the weekday AM peak hour, three intersections in the weekday midday peak hour, and zero intersections in the Saturday peak hour. Overall, the data presented in **Table 9** indicates that existing traffic congestion at analyzed intersections is expected to worsen in the future No-Action Condition.

WITH-ACTION CONDITION

Figure 5 shows the total traffic volumes in each peak hour under 2030 With-Action conditions. The volumes shown in **Figure 5** are the combination of the net incremental traffic generated by the newly modified project (previously shown in **Figure 1**) and the No-Action volumes (previously shown in **Figure 4**).

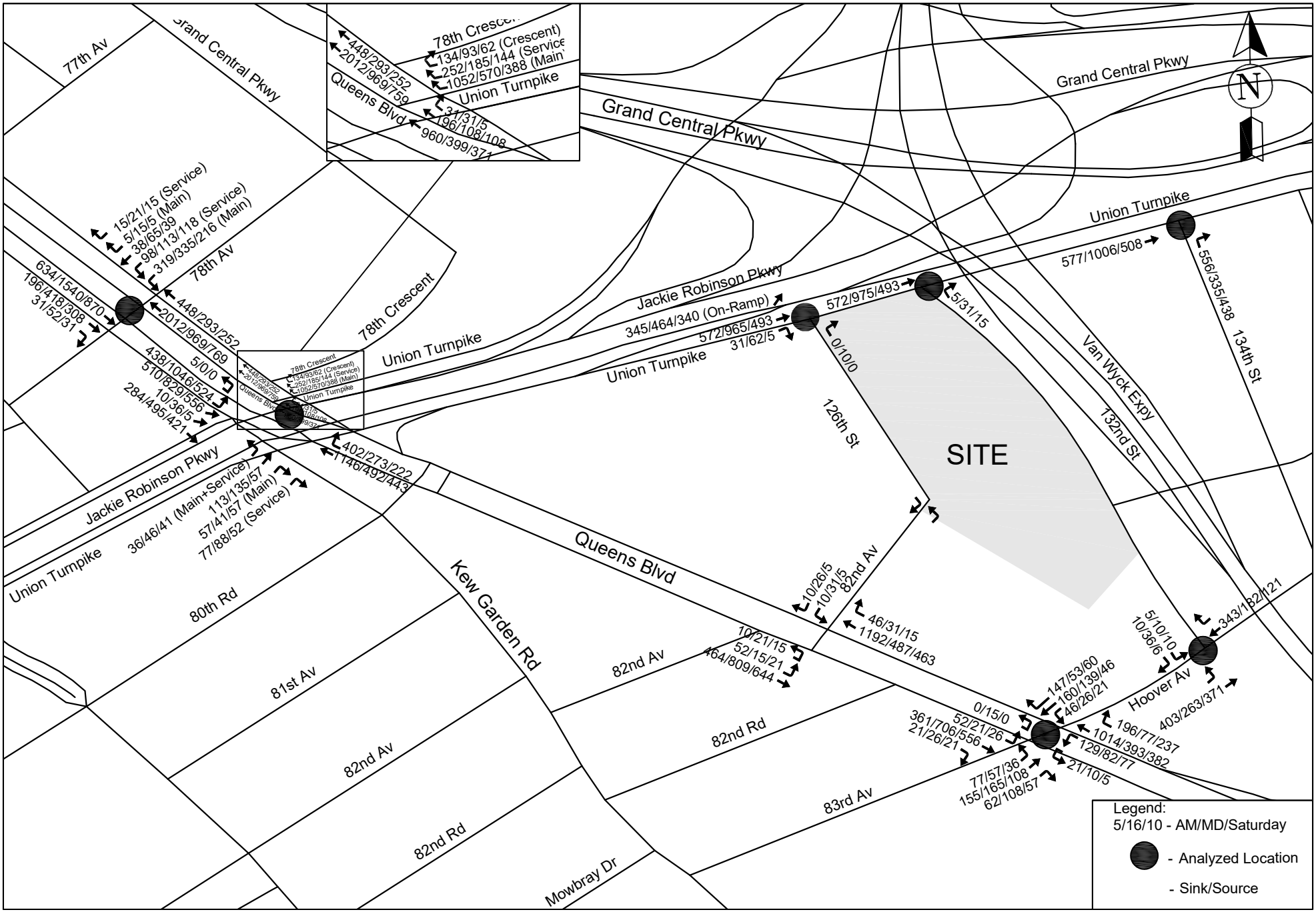
The v/c ratios, delays, and LOS for analyzed lane groups during all peak hours under the With-Action condition are shown in **Table 10**. With the implementation of the newly modified project, four analyzed intersections are expected to have at least one impacted lane group in one or more peak hours in the With-Action condition. There would be six impacted lane groups at four analyzed intersections in the weekday AM peak hour and four impacted lane groups at three intersections in the weekday midday. There would be no impacts in the Saturday peak hour. In comparison, as shown in **Table 11**, the FEIS project had the potential to impact seven lane groups at the same four intersections in the weekday AM peak hour, three lane groups at the same three intersections in the weekday midday peak hour, and three lane groups at three intersections in the Saturday peak hour.

No-Build Development Sites



Legend

Project Site | 1/4-Mile Radius | 1/2-Mile Radius | 1 No-Build Development Sites



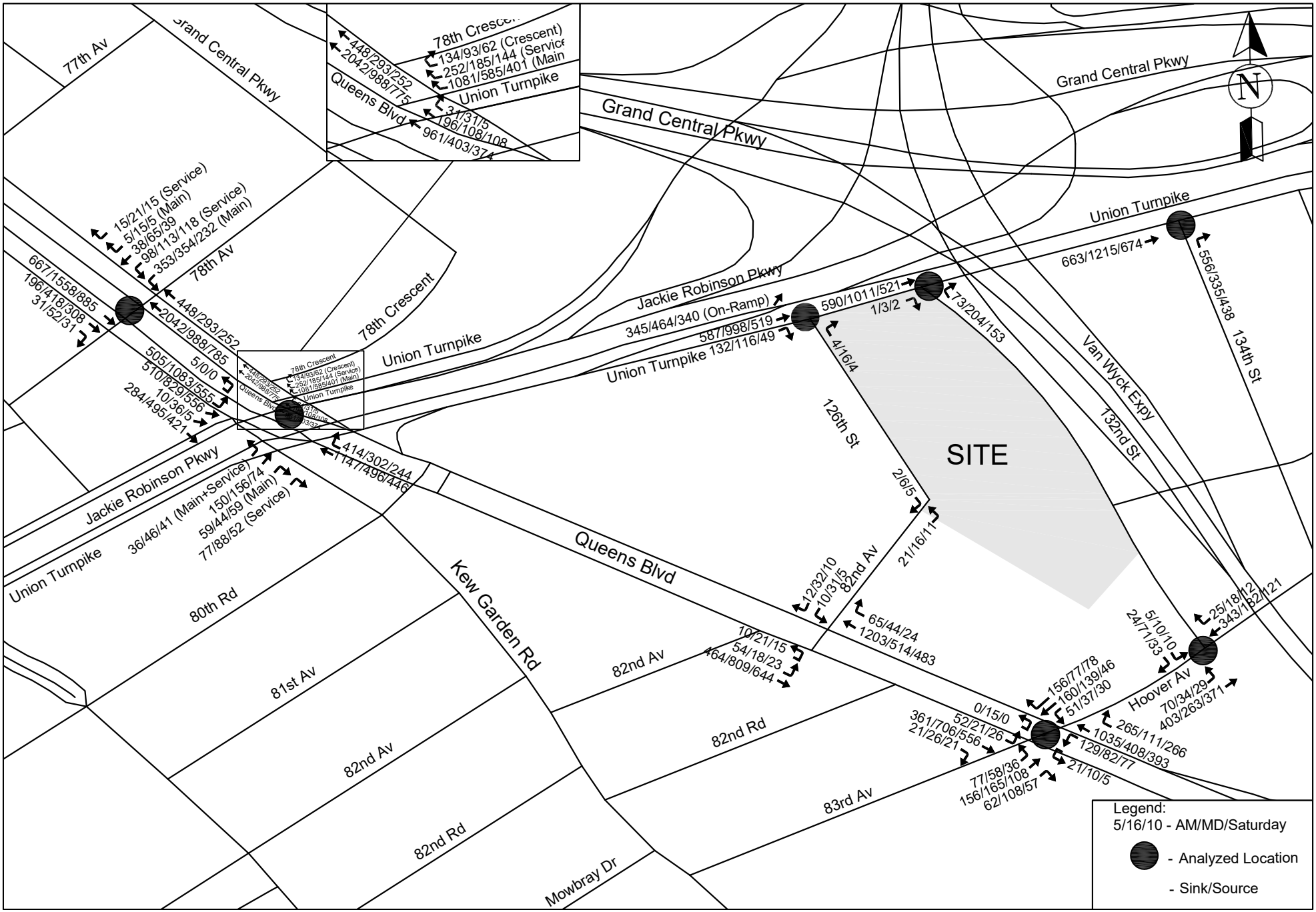
Borough Based Jails - Queens **Figure 4**

No Action AM/MD/SAT Peak Hour Traffic Volumes

Table 9
No-Action Intersection Capacity Analysis

	Existing Weekday AM						No-Action Weekday AM						Existing Weekday Midday						No-Action Weekday Midday						Existing Saturday						No-Action Saturday					
Intersection	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Queens																																				
Queens Boulevard &	WB	L	1.05	120.4	F	*	WB	L	1.08	130.5	F	*	WB	L	1.05	120.5	F	*	WB	L	1.09	132.4	F	*	WB	L	0.66	42.5	D		WB	L	0.78	50.2	D	
78th Avenue	WB	LTR	0.94	93.3	F	*	WB	LTR	0.97	100.5	F	*	WB	LTR	0.91	86.5	F	*	WB	LTR	0.93	91.0	F	*	WB	LTR	0.45	34.8	C		WB	LTR	0.37	32.9	C	
(signalized)	NB (Main)	T	0.91	37.2	D	*	NB (Main)	T	0.94	40.9	D	*	NB (Main)	T	0.42	20.01	C		NB (Main)	T	0.44	20.4	C		NB (Main)	T	0.46	24.3	C		NB (Main)	T	0.47	24.4	C	
	SB (Main)	T	0.25	17.6	B		SB (Main)	T	0.26	17.7	B		SB (Main)	T	0.53	21.8	C		SB (Main)	T	0.55	22.3	C		SB (Main)	T	0.37	22.8	C		SB (Main)	T	0.39	23.1	C	
	NB (Service)	T	0.69	30.2	C		NB (Service)	T	0.72	31.2	C		NB (Service)	T	0.39	20.6	C		NB (Service)	T	0.40	20.8	C		NB (Service)	T	0.43	25.2	C		NB (Service)	T	0.44	25.4	C	
	SB (Service to local)	TR	0.33	19.3	B		SB (Service to local)	TR	0.34	19.5	B		SB (Service to local)	TR	0.67	28.2	C		SB (Service to local)	TR	0.70	29.2	C		SB (Service to local)	TR	0.54	27.7	C		SB (Service to local)	TR	0.55	28.0	C	
Queens Boulevard &	EB	LT	0.49	57.6	E	*	EB	LT	0.50	58.0	E	*	EB	LT	0.58	58.4	E	*	EB	LT	0.60	59.2	E	*	EB	LT	0.33	42.2	D		EB	LT	0.34	42.4	D	
Union Turnpike	EB	R	0.70	73.3	E	*	EB	R	0.73	75.3	E	*	EB	R	0.62	63.2	E	*	EB	R	0.64	64.7	E	*	EB	R	0.47	47.2	D		EB	R	0.49	47.7	D	
(signalized)	WB	R	0.91	47.4	D	*	WB	R	0.94	50.9	D	*	WB	R	0.40	15	B		WB	R	0.42	15.2	B		WB	R	0.35	23.8	C		WB	R	0.36	24.1	C	
	NB	T	0.61	31.4	C		NB	T	0.64	32.0	C		NB	T	0.45	43.6	D		NB	T	0.48	44.2	D		NB	T	0.29	25.5	C		NB	T	0.31	25.7	C	
	NB	R	0.54	12.8	B		NB	R	0.56	13.2	B		NB	R	0.40	11.4	B		NB	R	0.42	11.6	B		NB	R	0.30	8.4	A		NB	R	0.31	8.5	A	
	SB (Main)	L	0.89	76.5	E	*	SB (Main)	L	0.94	84.3	F	*	SB (Main)	L	1.05	88.8	F	*	SB (Main)	L	1.11	109.6	F	*	SB (Main)	L	0.75	48.8	D		SB (Main)	L	0.80	51.2	D	
	SB (Main)	T	0.46	28.3	C		SB (Main)	T	0.47	28.6	C		SB (Main)	T	0.55	19.7	B		SB (Main)	T	0.57	20.1	C		SB (Main)	T	0.55	30.2	C		SB (Main)	T	0.57	30.5	C	
	SB (Service to local)	T	0.47	29.7	C		SB (Service to local)	T	0.49	30.1	C		SB (Service to local)	T	0.61	22.8	C		SB (Service to local)	T	0.63	23.4	C		SB (Service to local)	T	0.76	40.9	D		SB (Service to local)	T	0.78	42.2	D	
Queens Boulevard &	EB	L	0.72	82	F	*	EB	L	0.76	88.7	F	*	EB	L	0.34	51.3	D		EB	L	0.38	52.8	D		EB	L	0.16	45.6	D		EB	L	0.17	45.7	D	
Hoover Avenue/83rd	EB	TR	0.81	76.6	E	*	EB	TR	0.84	80.4	F	*	EB	TR	1.03	115.3	F	*	EB	TR	1.07	125.8	F	*	EB	TR	0.62	58.8	E	*	EB	TR	0.63	59.6	E	*
Avenue	WB	LT	1.03	123.9	F	*	WB	LT	1.11	150.4	F	*	WB	LT	0.88	89	F	*	WB	LT	0.95	104.9	F	*	WB	LT	0.23	46.7	D		WB	LT	0.24	46.9	D	
(signalized)	WB	R	0.52	50.1	D		WB	R	0.55	51.1	D		WB	R	0.13	34.3	C		WB	R	0.16	34.9	C		WB	R	0.17	35.01	D		WB	R	0.19	35.3	D	
	NB	L	0.91	108	F	*	NB	L	0.94	114.3	F	*	NB	L	1.02	160.7	F	*	NB	L	1.05	168.6	F	*	NB	L	0.86	121.4	F	*	NB	L	0.88	124.7	F	*
	NB	TR	1.01	62.4	E	*	NB	TR	1.05	72.5	E	*	NB	TR	0.38	24.6	C		NB	TR	0.40	25.0	C		NB	TR	0.52	27.3	C		NB	TR	0.54	27.7	C	
	SB	L	0.67	101.4	F	*	SB	L	0.70	104.0	F	*	SB	L	0.28	66.9	E	*	SB	L	0.29	67.1	E	*	SB	L	0.18	64.3	E	*	SB	L	0.18	64.5	E	*
	SB	TR	0.38	28.6	C		SB	TR	0.39	28.8	C		SB	TR	0.63	30.7	C		SB	TR	0.65	31.3	C		SB	TR	0.48	27.1	C		SB	TR	0.50	27.4	C	
132nd Street & Hoover Avenue (two-way stop-	SB	LR	0.04	12.3	B		SB	LR	0.04	13.9	B		SB	LR	0.07	10.2	B		SB	LR	0.09	11.3	B		SB	LR	0.03	11.1	B		SB	LR	0.04	12.1	B	
132nd Street & Union Turnpike (two-way stop-	NB	R	0.01	9.7	A		NB	R	0.01	9.7	A		NB	R	0.05	10.2	B		NB	R	0.05	10.4	B		NB	R	0.02	9.2	A		NB	R	0.02	9.2	A	
134th Street & Union Turnpike (two-way stop-	NB	R	1.04	73.0	F	*	NB	R	1.07	80.5	F	*	NB	R	0.46	13.7	B		NB	R	0.49	14.3	B		NB	R	0.75	24.8	C		NB	R	0.76	25.3	D	
126th Street & Union Turnpike (uncontrolled)	Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the No-Action Condition						Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the No-Action Condition						Intersection is uncontrolled in the Existing Condition						Intersection is uncontrolled in the No-Action Condition					

Notes - Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound. Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left. * Denotes congested lane group.



Borough Based Jails - Queens **Figure 5**

With Action AM/MD/SAT Peak Hour Traffic Volumes

Table 10
With-Action Intersection Capacity Analysis

Intersection	No-Action Weekday AM					With-Action Weekday AM					No-Action Weekday Midday					With-Action Weekday Midday					No-Action Saturday					With-Action Saturday				
	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Appr.	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Queens																														
Queens Boulevard &	WB	L	1.08	130.5	F *	WB	L	1.17	161.4	F *	WB	L	1.09	132.4	F *	WB	L	1.13	147.7	F *	WB	L	0.78	50.2	D	WB	L	0.82	53.7	D
78th Avenue	WB	LTR	0.97	100.5	F *	WB	LTR	1.04	118.6	F *	WB	LTR	0.93	91.0	F *	WB	LTR	0.96	96.8	F *	WB	LTR	0.37	32.9	C	WB	LTR	0.38	33.1	C
(signalized)	NB (Main)	T	0.94	40.9	D *	NB (Main)	T	0.96	43.0	D	NB (Main)	T	0.44	20.4	C	NB (Main)	T	0.45	20.6	C	NB (Main)	T	0.47	24.4	C	NB (Main)	T	0.48	24.6	C
	SB (Main)	T	0.26	17.7	B	SB (Main)	T	0.27	17.9	B	SB (Main)	T	0.55	22.3	C	SB (Main)	T	0.56	22.4	C	SB (Main)	T	0.39	23.1	C	SB (Main)	T	0.40	23.2	C
	NB (Service)	T	0.72	31.2	C	NB (Service)	T	0.72	31.2	C	NB (Service)	T	0.40	20.8	C	NB (Service)	T	0.40	20.8	C	NB (Service)	T	0.44	25.4	C	NB (Service)	T	0.44	25.4	C
	SB (Service to local)	TR	0.34	19.5	B	SB (Service)	TR	0.34	19.5	B	SB (Service to local)	TR	0.70	29.2	C	SB (Service)	TR	0.70	29.2	C	SB (Service to local)	TR	0.55	28.0	C	SB (Service)	TR	0.55	28.0	C
Queens Boulevard &	EB	LT	0.50	58.0	E *	EB	LT	0.63	62.8	E	EB	LT	0.60	59.2	E *	EB	LT	0.68	62.6	E	EB	LT	0.34	42.4	D	EB	LT	0.40	43.7	D
Union Turnpike	EB	R	0.73	75.3	E *	EB	R	0.74	76.7	E	EB	R	0.64	64.7	E *	EB	R	0.66	65.8	E	EB	R	0.49	47.7	D	EB	R	0.49	47.9	D
(signalized)	WB	R	0.94	50.9	D *	WB	R	0.96	54.0	D	WB	R	0.42	15.2	B	WB	R	0.43	15.3	B	WB	R	0.36	24.1	C	WB	R	0.37	24.3	C
	NB	T	0.64	32.0	C	NB	T	0.64	32.0	C	NB	T	0.48	44.2	D	NB	T	0.48	44.3	D	NB	T	0.31	25.7	C	NB	T	0.31	25.8	C
	NB	R	0.56	13.2	B	NB	R	0.58	13.6	B	NB	R	0.42	11.6	B	NB	R	0.46	12.4	B	NB	R	0.31	8.5	A	NB	R	0.34	8.9	A
	SB (Main)	L	0.94	84.3	F *	SB (Main)	L	1.08	121.9	F *	SB (Main)	L	1.11	109.6	F *	SB (Main)	L	1.15	125.0	F *	SB (Main)	L	0.80	51.2	D	SB (Main)	L	0.84	54.4	D
	SB (Main)	T	0.47	28.6	C	SB (Main)	T	0.47	28.6	C	SB (Main)	T	0.57	20.1	C	SB (Main)	T	0.57	20.1	C	SB (Main)	T	0.57	30.5	C	SB (Main)	T	0.57	30.5	C
	SB (Service to local)	T	0.49	30.1	C	SB (Service to local)	T	0.49	30.1	C	SB (Service to local)	T	0.63	23.4	C	SB (Service to local)	T	0.63	23.4	C	SB (Service to local)	T	0.78	42.2	D	SB (Service to local)	T	0.78	42.2	D
Queens Boulevard &	EB	L	0.76	88.7	F *	EB	L	0.78	92.1	F	EB	L	0.38	52.8	D	EB	L	0.39	53.4	D	EB	L	0.17	45.7	D	EB	L	0.17	45.8	D
Hoover Avenue/83rd	EB	TR	0.84	80.4	F *	EB	TR	0.85	80.8	F	EB	TR	1.07	125.8	F *	EB	TR	1.06	123.6	F	EB	TR	0.63	59.6	E *	EB	TR	0.63	59.6	E
Avenue	WB	LT	1.11	150.4	F *	WB	LT	1.19	180.6	F *	WB	LT	0.95	104.9	F *	WB	LT	1.26	211.6	F *	WB	LT	0.24	46.9	D	WB	LT	0.31	48.9	D
(signalized)	WB	R	0.55	51.1	D	WB	R	0.59	52.7	D	WB	R	0.16	34.9	C	WB	R	0.23	36.2	D	WB	R	0.19	35.3	D	WB	R	0.25	36.5	D
	NB	L	0.94	114.3	F *	NB	L	0.94	114.3	F	NB	L	1.05	168.6	F *	NB	L	1.05	168.6	F	NB	L	0.88	124.7	F *	NB	L	0.88	124.7	F
	NB	TR	1.05	72.5	E *	NB	TR	1.14	105.9	F *	NB	TR	0.40	25.0	C	NB	TR	0.45	25.9	C	NB	TR	0.54	27.7	C	NB	TR	0.57	28.7	C
	SB	L	0.70	104.0	F *	SB	L	0.70	104.0	F	SB	L	0.29	67.1	E *	SB	L	0.29	67.1	E	SB	L	0.18	64.5	E *	SB	L	0.18	64.5	E
	SB	TR	0.39	28.8	C	SB	TR	0.39	28.8	C	SB	TR	0.65	31.3	C	SB	TR	0.65	31.3	C	SB	TR	0.50	27.4	C	SB	TR	0.50	27.4	C
132nd Street &	SB	LR	0.04	13.9	B	SB	LR	0.10	16.1	C	SB	LR	0.09	11.3	B	SB	LR	0.16	11.8	B	SB	LR	0.04	12.1	B	SB	LR	0.08	10.9	B
Hoover Avenue						EB	LT	0.10	9.5	A						EB	LT	0.04	8.2	A						EB	LT	0.03	7.8	A
(two-way stop-																														
132nd Street &	NB	R	0.01	9.7	A	NB	R	0.11	9.9	A	NB	R	0.05	10.4	B	NB	R	0.36	13.0	B	NB	R	0.02	9.2	A	NB	R	0.22	10.4	B
Union Turnpike																														
(two-way stop-																														
134th Street &	NB	R	1.07	80.5	F *	NB	R	1.10	94.5	F *	NB	R	0.49	14.3	B	NB	R	0.49	14.3	B	NB	R	0.76	25.3	D	NB	R	0.82	32.4	D
Union Turnpike																														
(two-way stop-																														
126th Street &	Intersection is uncontrolled in the No-Action Condition					NB	R	0.00	9.5	A	Intersection is uncontrolled in the No-Action Condition					NB	R	0.03	11.5	B	Intersection is uncontrolled in the No-Action Condition					NB	R	0.00	9.2	A
Union Turnpike																														
(uncontrolled)																														

Notes - Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound. Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left. * Denotes impacted lane group.

Table 11
Comparison of With-Action Impacted Intersection Movements

Analyzed Intersections	Weekday AM		Weekday MD		Saturday	
	FEIS	Newly Modified Project	FEIS	Newly Modified Project	FEIS	Newly Modified Project
1. Queens Boulevard & 78th Avenue	WB-L	WB-L, WB-LTR	WB-L	WB-L, WB-LTR	WB-L	-
2. Queens Boulevard & Union Turnpike	EB-LT, WB-R, SB (Main)-L	SB (Main)-L	SB (Main)-L	SB (Main)-L	SB (Main)-L	-
3. Queens Boulevard & Hoover Avenue/83rd Avenue	WB-LTR, NB-TR	WB-LT, NB-TR	WB-LTR	WB-LT	WB-LTR	-
6. 134th Street & Union Turnpike	NB-R	NB-R	-	-	-	-
Total Impacted Movement	**7**	**6**	**3**	**4**	**3**	**0**

MITIGATION

Many of these impacts discussed above could be mitigated through the implementation of traffic engineering improvements, including modification of existing traffic signal phasing and/or timing. **Table 12** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM and weekday midday peak hours. Implementation of the recommended traffic engineering improvements is subject to final review and approval by DOT. If this measure is deemed infeasible, other potential measures will be considered in consultation with the NYCDOT. In the absence of the application of mitigation measures, the impact would remain unmitigated.

The v/c ratios, delays, and LOS for analyzed lane groups during the weekday AM and weekday midday peak hours under the newly modified project's With-Action condition with mitigation measures are shown in **Tables 13** through **14**, respectively. **Tables 13** through **14** show that significant adverse impacts would be fully mitigated at all impacted lane groups during all the impacted peak hours with the exception of three lane groups at two intersections during the weekday AM peak hour – the westbound left/through lane group at the intersection of Queens Boulevard & Hoover Avenue/83rd Avenue; the northbound through/right lane group at the intersection of Queens Boulevard & Hoover Avenue/83rd Avenue; and the northbound right lane group at the intersection of 134th Street and Union Turnpike. These same lane groups would remain unmitigated in the FEIS. In addition, the FEIS would result in significant adverse impacts that would remain unmitigated at a total of five, two, and three lane groups in the weekday AM, weekday midday, and Saturday peak hours, respectively. **Table 15** shows the comparison summary of traffic impacts between the FEIS and the newly modified project, while **Table 16** details the specific lane groups at each intersection with potentially unmitigated significant adverse traffic impacts for both the FEIS and newly modified project.

Table 12
Proposed Traffic Mitigation Measures Under the Newly Modified Project

Intersection	Signal Phase	No Action Signal Timing (Seconds) [1]			Proposed Signal Timing (Seconds) [1]			Recommended Mitigation
		AM	MD	SAT	AM	MD	SAT	
78th Avenue &	WB	47	47	47	50	48	47	- Transfer 3s of green time from NB/SB to WB in AM.
Queens Boulevard	NB/SB	88	88	58	85	87	58	- Transfer 1s of green time from NB/SB to WB in weekday midday.
	PED	15	15	15	15	15	15	
Union Turnpike &	EB/WB-R	38	41	33	38	41	33	- Transfer 4s of green time from NB/SB to SB-L/NB-R/WB-R in AM.
Queens Boulevard	NB/SB	75	50	52	71	48	52	- Transfer 2s of green time from NB/SB to SB/NB-R/WB-R in midday.
	SB-L/NB-R/WB-R	37	15	35	41	15	35	
	SB/NB-R/WB-R	-	44	-	-	46	-	
Hoover Avenue/	NB/SB	62	63	63	62	59	63	- All potential impacts would remain unmitigated in the weekday AM peak hour.
83rd Avenue &	NB	25	16	16	25	16	16	- Transfer 4s of green time from NB/SB to EB/WB in midday.
Queens Boulevard	PED	7	7	7	7	7	7	
	EB/WB	41	44	44	41	48	44	
	SB/EB-R	15	20	20	15	20	20	
134th Street &	Unsignalized	-	-	-	-	-	-	- All potential impacts would remain unmitigated in the weekday AM peak hour.
Union Turnpike		-	-	-	-	-	-	

Notes:
[1] Signal timings shown indicate green plus yellow (including all red) for each phase.

Table 13
With-Action Condition with Mitigation at Impacted Lane Groups – Weekday AM Peak Hour

Intersection	Appr.	Lane Group	No-Action Weekday AM V/C Ratio	No-Action Weekday AM Delay (sec/veh)	No-Action Weekday AM LOS		With-Action Weekday AM V/C Ratio	With-Action Weekday AM Delay (sec/veh)	With-Action Weekday AM LOS		With-Action Weekday AM With Mitigation V/C Ratio	With-Action Weekday AM With Mitigation Delay (sec/veh)	With-Action Weekday AM With Mitigation LOS	
Queens														
Queens Boulevard &	WB	L	1.08	130.5	F		1.17	161.4	F	*	1.08	127.1	F	
78th Avenue	WB	LTR	0.97	100.5	F	*	1.04	118.6	F	*	0.95	93.7	F	
(signalized)	NB (Main)	T	0.94	40.9	D	*	0.96	43.0	D		0.99	52.4	D	
	SB (Main)	T	0.26	17.7	B		0.27	17.9	B		0.29	19.5	B	
	NB (Service)	T	0.72	31.2	C		0.72	31.2	C		0.74	34.6	C	
	SB (Service to local)	TR	0.34	19.5	B		0.34	19.5	B		0.35	21.3	C	
Queens Boulevard &	EB	LT	0.50	58.0	E		0.63	62.8	E		0.63	62.8	E	
Union Turnpike	EB	R	0.73	75.3	E		0.74	76.7	E		0.74	76.7	E	
(signalized)	WB	R	0.94	50.9	D		0.96	54.0	D		0.90	44.2	D	
	NB	T	0.64	32.0	C		0.64	32.0	C		0.68	35.5	D	
	NB	R	0.56	13.2	B		0.58	13.6	B		0.58	13.7	B	
	SB (Main)	L	0.94	84.3	F		1.08	121.9	F	*	0.96	84.2	F	
	SB (Main)	T	0.47	28.6	C		0.47	28.6	C		0.50	31.6	C	
	SB (Service to local)	T	0.49	30.1	C		0.49	30.1	C		0.52	33.4	C	
Queens Boulevard &	EB	L	0.76	88.7	F		0.78	92.1	F		0.78	92.1	F	
Hoover Avenue/83rd	EB	TR	0.84	80.4	F		0.85	80.8	F		0.85	80.8	F	
Avenue	WB	LT	1.11	150.4	F		1.19	180.6	F	*	1.19	180.6	F	*
(signalized)	WB	R	0.55	51.1	D		0.59	52.7	D		0.59	52.7	D	
	NB	L	0.94	114.3	F		0.94	114.3	F		0.94	114.3	F	
	NB	TR	1.05	72.5	E		1.14	105.9	F	*	1.14	105.9	F	*
	SB	L	0.70	104.0	F		0.70	104.0	F		0.70	104.0	F	
	SB	TR	0.39	28.8	C		0.39	28.8	C		0.39	28.8	C	
132nd Street &	SB	LR	0.04	13.9	B		0.10	16.1	C		0.10	16.1	C	
Hoover Avenue							0.10	9.5	A		0.10	9.5	A	
(two-way stop-														
132nd Street &	NB	R	0.01	9.7	A		0.11	9.9	A		0.11	9.9	A	
Union Turnpike														
(two-way stop-														
134th Street &	NB	R	1.07	80.5	F	*	1.10	94.5	F	*	1.1	94.5	F	*
Union Turnpike														
(two-way stop-														
126th Street &	NB	R	Intersection is uncontrolled in the Existing Condition				0.00	9.5	A		0	9.5	A	
Union Turnpike														
(uncontrolled)														

Notes:
Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes impacted lane group.

Table 14
With-Action Condition with Mitigation at Impacted Lane Groups – Weekday Midday Peak Hour

Intersection	Appr.	Lane Group	No-Action Weekday Midday V/C Ratio	No-Action Weekday Midday Delay (sec/veh)	No-Action Weekday Midday LOS	With-Action Weekday Midday V/C Ratio	With-Action Weekday Midday Delay (sec/veh)	With-Action Weekday Midday LOS		With-Action Weekday Midday With Mitigation V/C Ratio	With-Action Weekday Midday With Mitigation Delay (sec/veh)	With-Action Weekday Midday With Mitigation LOS
Queens												
Queens Boulevard &	WB	L	1.09	132.4	F	1.13	147.7	F	*	1.10	136.0	F
78th Avenue	WB	LTR	0.93	91.0	F	0.96	96.8	F	*	0.94	90.2	F
(signalized)	NB (Main)	T	0.44	20.4	C	0.45	20.6	C		0.46	21.2	C
	SB (Main)	T	0.55	22.3	C	0.56	22.4	C		0.57	23.1	C
	NB (Service)	T	0.40	20.8	C	0.40	20.8	C		0.41	21.5	C
	SB (Service to local)	TR	0.70	29.2	C	0.70	29.2	C		0.70	30.2	C
Queens Boulevard &	EB	LT	0.60	59.2	E	0.68	62.6	E		0.68	62.6	E
Union Turnpike	EB	R	0.64	64.7	E	0.66	65.8	E		0.66	65.8	E
(signalized)	WB	R	0.42	15.2	B	0.43	15.3	B		0.42	14.3	B
	NB	T	0.48	44.2	D	0.48	44.3	D		0.50	46.1	D
	NB	R	0.42	11.6	B	0.46	12.4	B		0.46	12.4	B
	SB (Main)	L	1.11	109.6	F	1.15	125.0	F	*	1.11	107.8	F
	SB (Main)	T	0.57	20.1	C	0.57	20.1	C		0.57	20.1	C
	SB (Service to local)	T	0.63	23.4	C	0.63	23.4	C		0.63	23.4	C
Queens Boulevard &	EB	L	0.38	52.8	D	0.39	53.4	D		0.34	47.9	D
Hoover Avenue/83rd	EB	TR	1.07	125.8	F	1.06	123.6	F		0.96	92.0	F
Avenue	WB	LT	0.95	104.9	F	1.26	211.6	F	*	0.97	106.3	F
(signalized)	WB	R	0.16	34.9	C	0.23	36.2	D		0.21	33.2	C
	NB	L	1.05	168.6	F	1.05	168.6	F		1.05	168.6	F
	NB	TR	0.40	25.0	C	0.45	25.9	C		0.48	28.7	C
	SB	L	0.29	67.1	E	0.29	67.1	E		0.29	67.1	E
	SB	TR	0.65	31.3	C	0.65	31.3	C		0.68	36.6	D
132nd Street &	SB	LR	0.09	11.3	B	0.16	11.8	B		0.16	11.8	B
Hoover Avenue						0.04	8.2	A		0.04	8.2	A
(two-way stop-												
132nd Street &	NB	R	0.05	10.4	B	0.36	13.0	B		0.36	13	B
Union Turnpike												
(two-way stop-												
134th Street &	NB	R	0.49	14.3	B	0.49	14.3	B		0.49	14.3	B
Union Turnpike												
(two-way stop-												
126th Street &	NB	R	0.00	0.0	0	0.03	11.5	B		0.03	11.5	B
Union Turnpike												
(uncontrolled)												

Notes:
Approach: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound.
Lane Group: L-Left, T-Through, R-Right, DefL-Defacto left.
* Denotes impacted lane group.

Table 15
Comparison Summary of Traffic Impacts between FEIS & Newly Modified Projects

Net Increment	Lane Groups/ Intersections Analyzed		Lane Groups/ Intersections With No Significant Impacts		Lane Groups/ Intersections With Significant Impacts (1)		Mitigated Lane Groups/ Intersections		Unmitigated Lane Groups/ Intersections (2)	
	FEIS	Newly Modified	FEIS	Newly Modified	FEIS	Newly Modified	FEIS	Newly Modified	FEIS	Newly Modified
Weekday AM	27/7	27/7	20/3	21/3	7/4	6/4	2/0	3/2	5/4	3/2
Weekday Midday	27/7	27/7	24/4	23/4	3/3	4/3	1/1	4/3	2/2	0/0
Saturday	27/7	27/7	24/4	27/7	3/3	0/0	0/0	0/0	3/3	0/0

Notes
(1) Refer to **Table 11** for specific lane groups / intersections.
(2) Refer to **Table 17** for specific lane groups / intersections.

Table 16
Comparison of Lane Groups with Potentially Unmitigated Significant Traffic Impacts

Intersections	Weekday AM		Weekday MD		Saturday	
	FEIS	Newly Modified	FEIS	Newly Modified	FEIS	Newly Modified
Signalized Intersections						
Queens Boulevard & 78th Avenue	WB-L	--	WB-L	--	WB-L	--
Queens Boulevard & Union Turnpike	SB (Main)-L	--		--	SB (Main)-L	--
Queens Boulevard & Hoover Avenue/83rd Avenue	WB-LTR, NB-TR	WB-LT, NB-TR	WB-LTR	--	WB-LTR	--
Unsignalized Intersections						
134th Street and Union Turnpike	NB-R	NB-R	--	--	--	--

Notes: NB-northbound; SB-southbound; EB-eastbound; WB-westbound; L-left-turn; T-through; R-right-turn

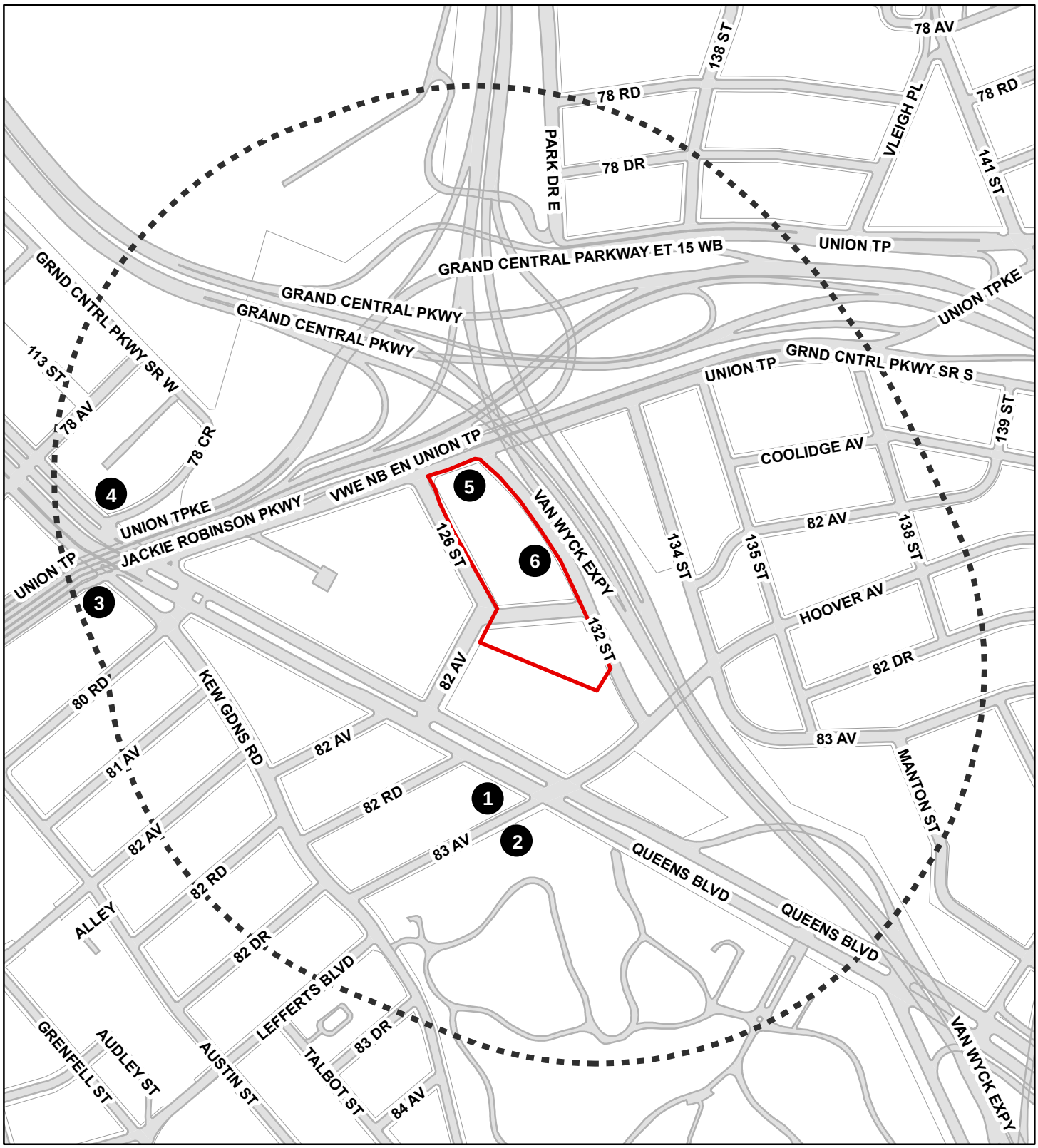
F. PARKING

EXISTING

OFF-STREET PARKING

Based on a December -2023 off-street parking survey, there are currently five off-street public parking facilities located within approximately ¼-mile of the Queens Site. **Figure 6** shows the locations of these parking facilities and **Table 17** provides a summary of their names, addresses, license numbers, capacities, and estimated utilization during the weekday early AM (overnight), weekday midday, and Saturday midday periods. Based on field observations and interviews with parking attendants conducted in late 2023, the five parking facilities have a combined licensed capacity of 847 spaces during the weekday early morning period, 2,310 spaces during the weekday midday period, and 1,728 spaces during the Saturday midday period. Three facilities are closed during the weekday early morning period. Additionally, all facilities except one (No. 4 in **Table 17**) are open seven days a week. Approximately 13 percent, 51 percent, and 26 percent of available off-street spaces within the parking study area are utilized during the weekday early morning, weekday midday, and Saturday midday periods, respectively, leaving a residual supply of approximately 111, 1,185, and 456 available parking spaces during these same periods, respectively.

Public Parking Study Area (Quarter-Mile)



Legend

- 1/4 Mile Radius
- 1 Parking Garages
- Project Site

Table 17
Existing Off-Street Public Parking Facilities

No.	Garage	Address	License Number	Capacity	Utilization			Available Capacity		
					Early AM	Weekday Midday	Saturday Midday	Early AM	Weekday Midday	Saturday Midday
1	Silver Towers Parking, LLC	125-10 Queens Blvd	1260274	400	Closed	90%	60%	Closed	40	160
2	SP Plus Co.	123-60 83rd Ave	1346726	94	90.00%	70%	70%	9	28	28
3	Sylan Kew Garage, LLC	80-02 Kew Gardens Road	1227187	481	Closed	62%	21%	Closed	181	381
4	CE Towers Co.	118-35 Queens Blvd	800489	582	Closed	69%	Closed	Closed	182	Closed
5	Borough Hall Municipal	80-25 126th Street	N/A	600	0.83%	4%	3%	595	576	580
6	Municipal Parking Lot	80-25 126th Street	Zone # 469384	153	13.73%	23%	20%	132	118	123
			Total Early AM	**847**	**13%**			**736**		
			Total Midday	**2,310**		**51%**			**1125**	
			Total Saturday	**1,728**			**26%**			**1272**

ON-STREET PARKING

A recent inventory of existing parking regulations within a ¼-mile radius of the Queens Site was compiled from field surveys and online sources. On-street public parking is generally governed by alternate-side-of-the-street regulations to facilitate street cleaning as well as some regulations for authorized parking in vicinity of the Queens Site. Some more restrictive regulations were observed at locations where additional traffic flow capacity is needed. Based on existing curbside parking regulations and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 1,720 curbside parking spaces during the weekday early morning (overnight) and weekday midday, and approximately 1,802 curbside parking spaces Saturday midday periods within a ¼-mile of the site. It should be noted that these values include authorized parking that may be related to the detention center, including court staff, attorneys, corrections but does not include DOT or the office of Borough President.

As shown in **Table 18**, based on data collected during field surveys conducted in within ¼-mile of the site in early 2024, on-street parking within the overall parking study area is approximately 75, 91, and 66 percent utilized during the weekday early morning (overnight), weekday midday, and Saturday midday periods, respectively. Approximately 436, 154, and 618 on-street parking spaces are currently available within the study area during each of these periods, respectively.

Table 18
Existing On-Street Parking Utilization

	Legal Curbside Spaces	Estimated Utilization	Available Capacity
Weekday Early Morning	1,720	75%	436
Weekday Midday	1,720	91%	154
Saturday Midday	1,802	66%	618

NO-ACTION CONDITIONS

By 2030, it is expected that parking demands in the vicinity of the Queens Site will increase due to long-term background growth as well as developments expected to occur in the vicinity. The No-Action parking demand reflects annual background growth rates of 0.50 percent per year through 2028 and 0.25 percent per year for 2028 through 2030. These background growth rates, recommended in the *CEQR Technical Manual* for projects in Queens (exclusive of Long Island City), are applied to account for smaller projects and general increases in parking demand not attributable to specific development projects. As was also done for the traffic analysis, discrete demand from major development projects within or near the ¼-mile study area is also reflected in the No-Action demand (refer to Sites in **Table 8**).

No change in public parking capacity is anticipated under the No-Action condition within the ¼-mile study area with exception to some closed on-street spaces (due to construction) that may or may not re-open by 2030. Future No-Action demand was determined by applying general background growth as well as discrete demand from planned developments near the site that would not provide sufficient accessory parking space. As shown in **Table 19**, based on the increased demand under the No-Action condition, weekday early morning, weekday midday, and Saturday midday overall public parking utilization within the study area is expected to increase to 56 percent, 70 percent, and 48 percent of capacity, with no deficit of spaces during any peak hour.

Table 19
No-Action Public Parking Capacity, Demand and Utilization

		Weekday Early AM	Weekday Midday	Saturday Midday
Public Parking Capacity				
Existing Condition	*Off-Street Supply*	*847*	*2,310*	*1,728*
	On-Street Supply	*1,720*	*1,720*	*1,802*
	Total Existing Supply	2,567	4,030	3,530
No-Action Condition	**Total No-Action Supply**	2,567	4,030	3,530
Public Parking Demand				
Existing Condition	*Off-Street Demand*	111	1,185	456
	On-Street Demand	1284	1566	1184
	Total Existing Demand	1,395	2,751	1,640
No-Action Condition	*Incremental Background Growth Demand*	42	84	50
	Estimated Demand from No-Action Developments	0	0	0
	Total No-Action Demand	1,437	2,835	1,690
Parking Utilization				
No-Action Condition	**Public Parking Utilization**	56%	70%	48%
	Public Parking Surplus/(Deficit)	1,130	1,195	1,840

WITH-ACTION CONDITIONS

As discussed previously, **Tables 5** and **6** present the hourly net incremental change in parking demand generated by the site under the With-Action condition. As shown in **Tables 5** and **6**, incremental parking demand generated by the newly modified project would peak just before the start of the uniformed staff shift change periods. The on-site staff parking garage within the main detention building would be unable to accommodate all parking demand generated by the newly modified project during the day, from the early morning to the mid-afternoon. In the weekday early morning period, total incremental parking demand would peak at 312 spaces. In the weekday and Saturday midday periods (2:00-3:00 PM), peak parking demand would total 394 and 295 spaces, respectively. Approximately 212 autos would need to utilize public parking within the study area in the early morning period as they would not be accommodated in the designated staff parking. In the weekday and Saturday midday periods (2:00-3:00 PM), approximately 294 and 195 autos would also need to utilize public parking within the study area, respectively. It should be noted that much of this excess demand would likely utilize the adjacent borough municipal parking garage (No. 5 in **Table 17**). Implementation of the project would displace an existing 153-space public parking facility on the site (the Queens Borough Hall Municipal Parking Lot, No. 5 in **Table 17**). In addition, a total of approximately 224 on-street parking spaces including 76 spaces along the portion of 82nd Avenue within the project site, 173 spaces along 132nd Street, and 43 spaces along 126th Street.

As shown in **Table 20**, the area public parking supply would be able to adequately accommodate the excess parking demand expected to be generated by the newly modified project. Consistent with the FEIS, the newly modified project would result in an overall increase in the future parking demand that would affect the study area's parking; however, the potential for a parking shortfall as a result of the newly modified project is unlikely because of the availability of on and off-street parking in the study area.

Table 20
With-Action Public Parking Capacity, Demand and Utilization

		Weekday Early AM	Weekday Midday	Saturday Midday
Public Parking Capacity				
No-Action Condition	**Total No-Action Supply**	2,567	4,030	3,530
With-Action Condition	*Displaced Off-Street Supply*	*153*	*153*	*153*
	Displaced On-Street Supply	*292*	*292*	*292*
	Total With-Action Supply	2,122	3,585	3,085
Public Parking Demand				
No-Action Condition	**Total No-Action Off-Street Parking Demand**	1,437	2,835	1,690
With-Action Condition	*Excess Project Parking Demand*	*212*	*294*	*195*
	Total With-Action Off-Street Parking Demand	1,649	3,129	1,885
Parking Utilization				
With-Action Condition	**Public Parking Utilization**	78%	87%	61%
	Public Parking Surplus/Deficit	473	456	1,200

G. STREET USER SAFETY

RECENT NYCDOT INITIATIVES

VISION ZERO QUEENS PEDESTRIAN SAFETY ACTION PLAN

Since the publication of the FEIS, the City's Vision Zero initiative has been updated. The *Vision Zero Queens Pedestrian Safety Action Plan* was initially released on February 19, 2015. In the vicinity of the Queens Site, the *Vision Zero Queens Pedestrian Safety Action Plan Update*, released in 2019, identifies Queens Boulevard as a "Priority Corridor" as well a segment of Lefferts Boulevard (west of Kew Garden Road). No intersections within a quarter-mile of the Project Site are identified as "Priority Intersections." However, within a quarter-mile of the Project Site, a very small portion in the southeast is identified as a "Priority Area." Actions (most of which have not changed from the FEIS) recommended in the *Vision Zero Queens Pedestrian Safety Action Plan* to enhance pedestrian safety in Queens are summarized below.

<u>Engineering And Planning</u>

- Implement at least 50 Vision Zero safety engineering improvements at Priority Corridors, Intersections, and Areas citywide, informed by community input.
- Expand exclusive pedestrian crossing time, install expanded speed limit signage, and modify signal timing to reduce off-speak speeding on Priority Corridors and Intersections where feasible.
- Expand community outreach and engagement with regard to Priority Corridors, Intersections, and Areas.
- Install additional lighting under elevated trains and around other key transit stops.
- Coordinate with MTA to ensure bus operations contribute to a safe pedestrian environment.
- Expand a bicycle network in Queens that improves safety for all road users.
- Proactively design for pedestrian safety in high-growth areas in Queens including locations in the *Housing New York* plan.

<u>Enforcement</u>

- Deploy speed cameras at Priority Corridors, Intersections, and Areas.
- Focus enforcement and deploy dedicated resources to Queens NYPD precincts that overlap substantially with Priority Areas.
- Prioritize targeted enforcement at all Priority Corridors, Intersections, and Areas annually.

<u>Education And Awareness Campaigns</u>

- Target child and senior safety education at Priority Corridors and Priority Areas.
- Launch multilingual public information campaigns in Priority Areas.
- Target Street Team outreach at Priority Corridors, Intersections, and Areas.

STUDY AREA HIGH CRASH LOCATIONS

Crash data for analyzed intersections in the traffic and pedestrian study areas were obtained from NYCDOT for the three-year period between January 1, 2017 and December 31, 2019 (the most recent three-year period for which data are available). The data quantifies the total number of reportable and non-reportable crashes (reportable crashes are those involving a fatality, injury, or

more than $1,000 in property damage), as well as the total number of crashes involving injuries to pedestrians or bicyclists. During the three-year reporting period, a total of 401 reportable and non-reportable crashes, 201 total injuries, 38 pedestrian/bicyclist-related injury crashes, and one fatality occurred at study area intersections. **Table 21** provides a summary of these crashes by year and location, including a breakdown of pedestrian and bicycle crashes.

According to the 2021 *CEQR Technical Manual*, a high crash location is defined as any analysis location identified at Vision Zero priority intersections or intersections where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any analysis location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent 3-year period for which data is available should be identified as a high crash location. As shown in **Table 21**, no intersections were identified as high crash locations based on the criteria outlined above.

Table 21
Crash Data Summary

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
KEW GARDENS ROAD	82 AVENUE	1	0	0	0	0	0	1	0	0	1	2	3
	82 ROAD	1	2	1	0	0	0	1	2	1	1	3	4
	MOWBRAY DRIVE	0	0	0	0	0	0	0	0	0	0	1	3
	83 AVENUE	0	1	0	1	0	0	1	1	0	3	3	4
	80 ROAD	0	1	1	0	0	0	0	1	1	1	6	5
	81 AVENUE	0	0	1	0	0	0	0	0	1	1	1	2
	83 DRIVE	0	1	0	0	0	0	0	1	0	0	2	0
	LEFFERTS BOULEVARD / MAPLE GROVE CEMETERY BOUNDARY	0	0	0	0	0	0	0	0	0	0	2	0
	QUEENS BOULEVARD / UNION TURNPIKE	1	1	0	1	0	0	2	1	0	17	35	34
QUEENS BOULEVARD	82 ROAD / QUEENS BOULEVARD	0	0	0	0	0	0	0	0	0	1	1	3
	83 AVENUE / HOOVER AVENUE	1	2	0	0	0	0	1	2	0	7	11	9
	82 AVENUE / QUEENS BOULEVARD	0	0	0	0	0	0	0	0	0	3	1	2
	80 ROAD / QUEENS BOULEVARD	0	1	1	0	0	0	0	1	1	7	7	6
126 STREET	UNION TURNPIKE	0	0	0	0	0	0	0	0	0	0	3	2
	82 AVENUE	0	0	0	0	0	0	0	0	0	0	0	2
132 STREET	UNION TURNPIKE	0	0	0	0	0	0	0	0	0	2	2	5
	HOOVER AVENUE	0	0	0	0	1	0	0	1	0	1	2	3
134 STREET	82 AVENUE / 82 AVENUE PEDESTRIAN OVERPASS	0	0	0	0	0	0	0	0	0	0	0	2
	HOOVER AVENUE	1	4	0	0	0	0	1	4	0	1	5	1
	UNION TURNPIKE	0	1	0	0	0	0	0	1	0	3	4	1
135 STREET	83 AVENUE	0	0	0	0	0	0	0	0	0	0	0	2
	COOLIDGE AVENUE	0	0	0	0	0	0	0	0	0	1	2	0
	HOOVER AVENUE	0	0	1	0	0	0	0	0	1	1	1	2
	82 DRIVE	0	0	0	0	0	0	0	0	0	0	1	2
	UNION TURNPIKE	0	0	0	0	1	0	0	1	0	2	2	2
138 STREET	COOLIDGE AVENUE	0	0	0	0	0	0	0	0	0	2	0	0
	HOOVER AVENUE	0	0	0	0	0	0	0	0	0	1	0	0
	UNION TURNPIKE	0	0	0	0	0	0	0	0	0	0	3	3
	78 DRIVE	0	1	0	0	0	0	0	1	0	0	3	0
MANTON STREET	83 AVENUE	0	0	0	0	0	0	0	0	0	0	2	0
MAIN STREET	COOLIDGE AVENUE	0	0	0	0	0	0	0	0	0	2	9	8
	UNION TURNPIKE	3	1	4	0	0	0	3	1	4	17	15	25
GRAND CENTRAL PARKWAY	78 AVENUE	0	0	0	0	0	0	0	0	0	0	0	2
	141 STREET / MAIN STREET	0	0	0	1	0	0	1	0	0	17	25	16
PARK DRIVE EAST	78 DRIVE	0	0	0	0	0	0	0	0	0	0	0	1
	78 ROAD	0	0	0	0	0	0	0	0	0	1	0	0

H. CONCLUSION

This Technical Memorandum concludes that the newly modified project would not result in any new or different significant adverse transportation impacts not already identified in the approved FEIS. However, the newly modified project would generally result in fewer impacted lane groups (with no impacts during the Saturday midday peak hour); more mitigatable impacted lane groups; and fewer unmitigated lane groups (with no unmitigated locations during the weekday PM and Saturday peak hours), as compared to the approved FEIS.

Prepared by:

April 4, 2024

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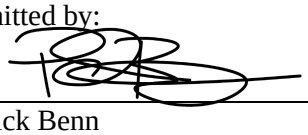
Date

Submitted by:



04/24/2024

Patrick Benn
Deputy Commissioner
NYC Department of Correction

Date

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