A. INTRODUCTION

This chapter examines the potential traffic and parking impacts associated with the Proposed Action, which would facilitate the construction of the Public Safety Answering Center II (PSAC II) in the Pelham Parkway area of the northeastern Bronx. As described in detail in Chapter 1, "Project Description", the proposed PSAC II development would consist of an approximately 640,000 gsf new office building and a 500-space above-grade accessory parking structure located in the northern portion of Hutchinson Metro Center office complex ("Hutchinson Metro Center (<u>HMC</u>)"). As the proposed development site is relatively isolated <u>and has no public street access</u>, the Proposed Action would also map an existing private roadway that provides access to the site as a public street to ensure permanent access and utility service to the proposed development along a public right-of-way. <u>The Proposed Action would also improve and reconfigure an existing pedestrian pathway between the Pelham Parkway and the northern boundary of the proposed development site to ensure continued pedestrian access to the HMC and PSAC II from the Pelham Parkway, as well as enable this path to serve as an emergency access/egress route for the proposed development, which is expected to be only used in the case of a fire, flood, or the evacuation of PSAC II.</u>

When completed in 2012, the proposed PSAC II development would operate continuously 24 hours per day, seven days per week and is expected to have a typical staff size of approximately 850 employees working several eight to ten hour shifts throughout the 24-hour period (approximately 315 employees maximum per shift) ("Typical Operations"). However, under heightened emergency situations or should PSAC I become inoperable, the proposed PSAC II development would accommodate emergency 911 communications for the entire City and accommodate the staffs of both PSAC I and PSAC II. Under this temporary condition ("Consolidated Operations"), the proposed PSAC II development could accommodate up to approximately 1,700 employees that would work the 24-hour period (approximately 630 employees maximum per shift). For the proposed PSAC II development, the traffic study area was selected to encompass the principal roadways most likely to be used by the majority of persons and goods traveling by vehicle to and from the proposed development site. The traffic analysis study area is shown in Figure 12-1 and includes 24 intersections, generally bound by Eastchester Road to the west, the Hutchinson River Parkway to the east, the Pelham Parkway to the north and East Tremont Avenue to the south.

It is important to note that PSAC II employees would work 24-hours per day in three separate shifts, with shift changes occurring around 7 AM, 3 PM and 11 PM. Most vehicle trips generated by the proposed development would therefore occur during the 6:30-7:30 AM, 2:30-3:30 PM (midday) and 10:30-11:30 PM hours. Few if any project-generated vehicle trips are expected to occur during the traditional weekday commuter peak hours (typically 8-9 AM and 5-6 PM), or during the typical lunchtime midday peak hour (12-1 PM). (As discussed later in this chapter, relatively few PSAC II employees are expected to leave the proposed facility during lunch or other meal periods as the proposed development would include an on-site cafeteria.) The greatest potential for significant

¹ Edits to the text of the Traffic and Parking Chapter reflect requested revisions and technical comments made by NYCDOT between Draft and Final EIS.



adverse traffic impacts from the proposed development would therefore occur during the periods when shift changes would occur, rather than during the traditional commuter and lunchtime peak periods.

Under Typical Operations, the proposed PSAC II development is expected to generate approximately 366, 372 and 317 vehicle trips in the AM (6:30-7:30), midday (2:30-3:30) and PM (10:30-11:30) peak hours, respectively. Though project generated trips would exceed the *CEQR Technical Manual* threshold of 50 vehicles trips per hour for all peak hours, all significant impacts are expected to be identified in the AM and midday peak hours, as these shift changes occur in the presence of substantial existing vehicular traffic. As existing PM vehicular travel <u>on the study area street network</u> is low during this period, project generated trips in the PM (10:30-11:30) peak hour <u>are not expected to</u> result in additional significant <u>traffic</u> impacts <u>not</u> other<u>wise</u> identified in the AM and midday peak hours². This chapter, therefore, focuses on the detailed analysis of the 24 analyzed intersections in the AM and midday peak hours.

The parking analysis presented in this chapter focuses on the amount of parking to be provided as part of the proposed PSAC II development, and its ability to accommodate projected parking demand. As the proposed development site is located approximately 0.63 miles from the City street network, it is not anticipated that employees would walk to the proposed development site from an off-site public parking facility or curbside spaces. As the proposed PSAC II development would directly displace (or eliminate) required accessory parking for the <u>HMC</u>, thereby reducing its available capacity, the parking study also considers the proposed development's effect on the existing and projected parking demand at the <u>HMC</u>. This would include the examination of parking facilities available in the <u>HMC</u> during the periods of peak parking demand that would occur around 11 AM and 2 PM, when project generated demand would coincide with the surrounding office parking demand, and around 6 PM, when project generated parking demand would coincide with the student parking demand at Mercy College (also located in the <u>HMC</u>).

The following sections describe the existing traffic network and parking facilities that are expected to be utilized by a concentration of project generated trips. Future 2012 conditions without the Proposed Action ("No-Build" conditions) are determined based on additional travel demand of discrete developments anticipated by 2012 and general background growth, along with any changes to the traffic network and parking facilities expected by 2012. Increases in travel demand resulting from the proposed PSAC II development are then projected and added to the No-Build condition to develop the 2012 future with the Proposed Action ("Build" conditions). Any significant adverse impacts resulting from project-generated trips are then identified and described in detail.

B. EXISTING CONDITIONS

As shown in Figure 12-1, the traffic study area consists of 24 intersections that would be analyzed in the weekday AM and midday peak hours. The 24 intersections chosen for this analysis are those expected to receive the highest concentration of project-generated vehicular traffic. The Existing traffic network was developed from data collected in May and October 2007, which includes manual

² Based on Automatic Traffic Recording (ATR) counts conducted in May 2007, the combined volumes on eastbound and westbound Waters Place in the PM peak hour averages approximately 408 vehicles per hour, as compared to approximately 1,112 and 1,374 vehicles per hour in the AM and midday peak hours, respectively. In addition, the ATR counts indicated that the combined volumes on northbound and southbound Eastchester Road and on eastbound and westbound East Tremont Avenue in the PM peak hour average approximately 512 and 410 vehicles per hour, respectively as compared to approximately 977 and 1,665 on Eastchester Road and 1,638 and 1,527 on East Tremont Avenue in the AM and midday peak hours, respectively. Therefore, in each instance, the ATR traffic volume counts indicate that the PM peak hour traffic volumes represent less than 60 percent of the AM and midday analysis peak hour traffic volumes.

turning movement counts, vehicle classification counts, automatic traffic recorders (ATRs) and travel time surveys (used to determine vehicular speeds for the air quality analysis). Signal timing, provided by the New York City Department of Transportation (NYCDOT), was also used to develop the Existing traffic conditions. The data for the parking analysis was collected in late January 2008 to capture the parking conditions in the presence of both office and Mercy College student demand and consists of utilization studies of the accessory parking facilities located in the <u>HMC</u> office complex at 11 AM, 2 PM, and 6 PM. Figure 12-2 shows the resulting peak hour traffic volumes for the 2007 Existing conditions during the AM and midday peak hours.

Vehicular Traffic

Street Network

The traffic study area for the Proposed Action is generally bound by Eastchester Road to the west, the Hutchinson River Parkway to the east, the Pelham Parkway to the north, and East Tremont Avenue to the south. The traffic study area includes the Pelham Parkway, the Hutchinson River Parkway and a network of arterials and local streets. The study area also includes Eastchester Road and Westchester Avenue, two major two-way north-south arterials, and East Tremont Avenue a two-way east-west arterial. These arterials carry the heaviest volume of traffic, as they are also used by NYC Transit buses and serve as local truck routes in addition to accommodating passenger vehicles. Waters Place, an east-west two-way street that connects Eastchester Road to Westchester Avenue, also carries a substantial amount of traffic as it provides access to the Hutchison River Parkway near Westchester Avenue.

Eastchester Road Corridor and the Pelham Parkway

Eastchester Road is a two-way north-south arterial that carries relatively uniform traffic flows. In the study area, the Eastchester Road corridor begins at East Tremont Avenue (via Silver Street) and extends north to the Pelham Parkway. Within the study area, Eastchester Road carries a substantial volume of traffic, as it provides access to the eastbound and westbound Pelham Parkway (eastbound travel is also available via Stillwell Avenue). Therefore, traffic volumes in the Eastchester Road corridor are slightly more concentrated near the Pelham Parkway. Approach volumes near the parkway on Eastchester Road are observed to be up to approximately 650 and 850 vehicles per hour in the AM and midday peak hours, respectively. New York City Transit also operates the Bx 31 and Bx 21 local bus routes for a substantial stretch of Eastchester Road within the traffic study area.

Connecting Pelham Bay Park with northern Manhattan, the Pelham Parkway accommodates much of the area's east-west travel demand. The Pelham Parkway is comprised of two primary eastbound and westbound throughways (respectively the Pelham Parkway East and West) and their two respective service roads, the Pelham Parkway South and North, respectively. In the AM peak hour, traffic volumes for the eastbound and westbound approaches at the primary eastbound and westbound throughways are up to approximately 800 and 1,050 vehicles per hour, respectively, and approximately 300 vehicles per hour at the service roads. In the midday peak hour, the primary eastbound throughway approach and its service road receive approximately 1,200 and 200 vehicles per hour, respectively, and the primary westbound throughway approach and its service road receive approximately 1,300 and 400 vehicles per hour, respectively. The Bx 12 bus route, which operates with local and limited stops, runs along the Pelham Parkway in the traffic study area.



Westchester Avenue Corridor and the Hutchinson River Parkway

The Westchester Avenue corridor begins at Westchester Square (at East Tremont Avenue) and carries traffic northeast to the Hutchinson River Parkway. Within the study area, Westchester Avenue carries a substantial volume of traffic, as it provides access to the northbound and southbound Hutchinson River Parkway, respectively at Ericson Place/Middletown Road and Waters Place. Demand in the AM and midday peak hours on Westchester Avenue is therefore greatest on the segment between Waters Place and Ericson Place/Middletown Road. In the AM and midday peak hours, approach volumes are approximately 750 and 900 vehicles per hour on this segment. The Bx 8, Bx 14 and Bx 21 bus routes operate on either all or at least a segment of Westchester Avenue in the study area.

The Hutchinson River Parkway accommodates the concentration of north-south travel within the traffic study area and directly connects the borough of Queens with Connecticut. In addition to the access point on Westchester Avenue, vehicles can access the northbound Hutchinson River Parkway by utilizing the interchange with the Pelham Parkway. In this case, vehicles would travel via Stillwell Avenue to the Pelham Parkway in order to access the northbound Hutchinson River Parkway. Vehicles traveling southbound on the Hutchinson River Parkway can exit onto Waters Place and northbound vehicles exit onto East Tremont Avenue at Ericson Place. In the AM peak hour, traffic volumes at the northbound and southbound approaches at the respective off-ramps are approximately 500 and 800 vehicles per hour, respectively, and approximately 500 and 600 vehicles per hour in the midday peak hour. In the traffic study area, no bus routes operate on the Hutchinson River Parkway.

East Tremont Avenue Corridor

East Tremont Avenue is a two-way east-west arterial that accommodates local travel, as well as provides connections to a number of highways, including the Hutchinson River Parkway. The East Tremont Avenue corridor begins at Castle Hill Avenue and intersects with Silver Street (an extension of Eastchester Road) and Westchester Avenue. Traffic volumes are generally more concentrated near the east end of the corridor, as East Tremont Avenue is the recipient of a substantial amount of the traffic exiting from the northbound Hutchinson River Parkway at Ericson Place. Approach volumes on East Tremont Avenue are approximately 700 and 850 vehicles per hour in the AM and midday peak hours, respectively. New York City Transit also operates the Bx 8, Bx 14, Bx 40, BX 42 and Bx 31 on all or at least a segment of East Tremont Avenue in the traffic study area.

Waters Place Corridor

In addition to the arterials discussed above, Waters Place also carries a significant volume of traffic. This two-way street serves as an east-west route for vehicles generally en route to Eastchester Road or Westchester Avenue and the Hutchinson River Parkway. Industrial Street, the entrance to the <u>HMC</u>, as well as the entrance to the Bronx Psychiatric Center are located off of Waters Place (see Figure 12-2a for the existing intersection configuration of Waters Place at Industrial Street). In the AM and midday peak hours, Waters Place carries up to approximately 850 and 900 vehicles per hour, respectively. In the traffic study area, New York City Transit operates the Bx 21 bus route along Waters Place.

Capacity Analysis

The capacity analyses for the analyzed intersections are based on methodology presented in the 2000 *Highway Capacity Manual (HCM)* and analyzed using the *Highway Capacity Software 2000 Release* 4.1f. This analysis considers the volume of vehicles for each intersection approach, the physical geometry of the intersection and also incorporates signal timing. Other factors that may influence the flow of traffic, such as curbside parking movements, bus stops and vehicle types are also incorporated to determine the performance of an intersection.



For signalized intersections, the *HCM* methodology provides a volume-to-capacity (v/c) ratio that represents the volume of traffic at an intersection approach with respect to the carrying capacity of that approach. At v/c ratios between 0.95 and 1.0, near-capacity conditions are reached and delays become substantial. V/c ratios of greater than 1.00 are indicative of saturated conditions and the formation of queues. The *HCM* methodology also provides a level of service (LOS), a qualitative relationship that relates the quality of flow to the amount of delay that a driver typically experiences at an intersection. LOS can range from A, with minimal delays (10 seconds or less per vehicle), to F, which represents long delays (80 seconds or greater per vehicle).

For unsignalized intersections, the *HCM* methodology generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected only by the opposing, or oncoming major street flow, while all movements at the minor street approaches are assumed to be affected by the flows of the major street. Similar to the *HCM* methodology for signalized intersections, the quality of flow at unsignalized intersections is based on the amount of delay typically experienced by a driver and is also expressed in terms of level of service. However, the LOS criteria for unsignalized intersections differ from the criteria for signalized intersections, as drivers generally expect a somewhat different level of performance at these facilities. For unsignalized intersections, LOS can range from A, with minimal delays (10 second or less per vehicle) to F, which represents long delays (over 50 seconds per vehicle).

Table 12-1 shows the relationship between the LOS and approach delay for signalized and unsignalized intersections as defined in *HCM* methodology. LOS A, B, and C, represent extremely favorable to fair traffic flows. At LOS D, the influence of congestion becomes more noticeable as delay increases. For both signalized and unsignalized intersections, LOS E generally represents the limit of acceptable delay, set at 80 and 50 seconds per vehicle at signalized and unsignalized intersections, respectively. Delays above this threshold are indicative of over capacity conditions and correspond to LOS F, as the typical driver would find such delays unacceptable. In this study, a signalized lane group operating at LOS E or F and/or with a v/c ratio of 0.95 or above is identified as congested. For unsignalized intersections, movements with LOS E or worse are also identified as congested.

	5	lay per Vehicle conds)
Level of Service	Signalized Intersection	Unsignalized Intersection
А	Less than 10.1	Less than 10.1
В	10.1 to 20.0	10.1 to 15.0
С	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
Е	55.1 to 80.0	35.1 to 50.0
F	Greater than 80.0	Greater than 50.0

TABLE 12-1Roadway Level of Service (LOS) Criteria

Source: 2000 Highway Capacity Manual

Table 12-2 shows the results of the capacity analysis at the 24 analyzed intersections in the AM (6:30 to 7:30 AM) and midday (2:30 to 3:30 PM) peak hours in the 2007 Existing conditions. As discussed earlier, for the proposed development of PSAC II, the AM and midday peak hours would occur outside of the typical peak 8-9 AM and 12-1 PM rush hour commuting periods. As shown in Table 12-2, with the exception of Westchester Avenue at Ericson Place/Middletown Road, Eastchester Road at Pelham Parkway West, East Tremont Avenue at Silver Street and East Tremont Avenue at Castle Hill Avenue, all intersections would operate without congestion in both the AM and midday peak

TABLE 12-22007 Existing Traffic Conditions

ANALYZED INTERSECTIONS 1. Waters Place (E-W) at Eastchester Road (N-S) 2. Waters Place (E-W) at	Lane Group WB-L WB-R NB-TR SB-DefL SB-T	V/C Ratio 0.41 0.56 0.40 0.52 0.23	Delay (sec) 23.9 21.7 18.1 21.3	LOS C C B	V/C Ratio 0.55 0.59	Delay (sec) 36.4	LOS D
 Waters Place (E-W) at Eastchester Road (N-S) Waters Place (E-W) at 	WB-L WB-R NB-TR SB-DefL	0.41 0.56 0.40 0.52	23.9 21.7 18.1	C C	0.55	36.4	D
Eastchester Road (N-S) 2. Waters Place (E-W) at	WB-R NB-TR SB-DefL	0.56 0.40 0.52	21.7 18.1	С	1		
Eastchester Road (N-S) 2. Waters Place (E-W) at	WB-R NB-TR SB-DefL	0.56 0.40 0.52	21.7 18.1	С	1		
2. Waters Place (E-W) at	NB-TR SB-DefL	0.40 0.52	18,1			22.7	С
	SB-DefL	0.52			0.63	21.7	Ċ
				·C	0,70	16.7	в
			11.5	в	0.31	6.2	Α
Industrial Street (N-S)							
	EB-LT	0.41	10.6	в	0.63	14.0	в
	WB-TR	0.53	11.6	в	0.44	10.6	в
	SB-L	0.04	23.1	С			
	SB-LR				0.24	25.6	С
	SB-R	0.05	23.3	С	0.23	25.6	С
3. Waters Place (E-W) at	EB-TR	0.30	16.8	в	0.61	21.5	с
Fink Avenue (N-S)	WB-LT	0.30	18.0	в	0.34	17.2	в
This Avenue (14-b)	NB-LR	0.18	15.6	в	0.37	17.4	В
	SB-L	0.46	18.1	в	0.38	17.2	в
· · · ·	SB-T	0.24	15.9	В	0.19	15.5	В
	EB-LT	0.57	15.9	в	0.67	17.1	в
4. Waters Place (E-W) at	WB-TR	0.78	19.3	B	0.61	15.3	В
entrance to Bronx Psychiatric Center (N-S)	SB-LR	0.10	10.2	B	0.20	10.8	В
rsychiatric Center (N-S)							
5. Waters Place (E-W) at	EB-LT	0.43	18.4	в	0.72	24.1	С
Westchester Avenue (N-S)	NB-LT	0.20	15.9	В	0.34	17.3	В
	SB-DefL	0.29	17.6	в			
	SB-DCIL SB-T	0,27	16.8	В			
	SB-LT	0,27			0.41	18,3	В
	WB-LR	0.20	22.0	с	0.41	25.6	с
6. Little League Place at (E-W)	NB-LR	0.20	10.9	В	0.41	11.9	В
Westchester Avenue (N-S)	SB-T	0.19	10.9	B	0.31	12.0	В
	50-1	0.30	12.4	d	0.52	12.0	
7. Little League Place at (N-S) East Tremont Avenue (E-W) (unsignalized)	EB-LT	0.04	10.3	В	0.11	11.5	В
9 East Termont Avenue (EW) at	EB-LT	0.23	14.6	в	0.50	17.9	в
8. East Tremont Avenue (E-W) at	WB-T	0.32	15.5	B	0.46	17.3	B
Ericson Place (N-S)	NB-LTR	0.52	29.6	c	0,40	28.6	c

NOTES:

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

L-Left, T-Through, R-Right, DefL-Analysis considers a De facto Left Lane on this approach

V/C Ratio-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle

LOS-Level of Service

 \ast - Denotes Congested Intersection (LOS E or F, or V/C>0.95)

Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

ANALYZED		AM			ontinued)		
						MD	
INTERSECTIONS	Lane	V/C	Delay		V/C	Delay	
	Group	Ratio	(sec)	LOS	Ratio	(sec)	LOS
D. East Tremont Avenue (E-W) at Blondell Avenue (N-S)	EB-LT	0.06	11.5	В	0.19	13.5	В
unsignalized)							
10. East Tremont Avenue (E-W) at	EB-DefL	0.78	42.6	D	0.65	28,6	с
Silver Street (N-S)	EB-T	0.35	23.1	С	0.45	19.0	В
Eastchester Road)	WB-T	0.28	21.3	С	0.37	16.8	в
	NB-L	0.33	43.3	D	0.07	35.1	D
	NB-TR	0.23	42.2	D	0.18	35.9	D
	SB-LR	0,97	85.8	F *	0.72	36.9	D.
1. East Tremont Avenue (E-W) at	EB-T	0.56	36.8	D	0.49	29.6	С
Castle Hill Avenue (N-S)	EB-R	0.18	12,6	В	0,49	29.0	c
	WB-LT	0.77	32.4	č	0.96	46.5	Ď
	NB-L	0.82	53.8	Ď	0.76	42.9	D
	NB-R	0.16	38,4	D	0.19	32.4	c
2. East Tremont Avenue (E-W) and From E. Tremont		0.19	23.7	С	0.51	27.5	С
Williamsbridge Road (E-W) at From Williamsbridge		0.31	35.3	D	0.58	32.1	С
Frisby Ave. (N-S) To E. Tremont		0.31	25.3	С	0.44	26.1	С
To Williamsbridge		0.11	5,3	A	0.21	7.7	A
	NB-LR	0.19	42.2	D	0.44	32.5	С
3. Pelham Parkway North (E-W) at	WB-LTR	0.56	32.0	с	0.51	38.9	D
Eastchester Road (N-S)	NB-LT	0.25	7.6	Α	0.47	12.0	В
	SB-TR	0.46	27.3	С	0.64	39.3	D
4. Pelham Parkway West (E-W) at	WB-L	0.54	24.2	C	0.72	50.6	D
Eastchester Road (N-S)	WB-T	0.54	24.2	c	0.72	49.8	D
astonester roud (14-5)	WB-R	0.06	17.4	в	0.18	36.3	D
	NB-DefL	0.38	15.8	В	0.39	13.3	В
	NB-T	0.44	16.1	В	0.61	13.9	В
	SB-TR	0.48	25.4	ĉ	0.87	56.1	E
5 D.H. D. L. C. (C.W.)							
5. Pelham Parkway East (E-W) at	EB-LT	0.57	22.9	С	0.72	34.6	C
Castchester Road (N-S)	NB-TR	0.34	23.4	C	0.53	27.8	С
	SB-LT	0.61	18.3	В	0.73	24.6	С
6. Westchester Avenue (N-S) at	EB-T	0.18	21.7	с	0.45	20.9	с
	EB-R	0.09	21.0	C	0.11	17.4	в
last Tremont Avenue (E-W)			23,3	Ċ	0.36	19.7	в
ast tremont Avenue (E-W)	WB-T	0.30	40.0	\sim	0.50	12./	D
ast tremont Avenue (E-W)	WB-T NB-T	0.30	26.2	č	0.50	29.1	c

TABLE 12-2 2007 Existing Traffic Conditions

NOTES:

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

Left, T-Through, R-Right, Doff-Analysis considers a De facto Left Lane on this approach V/C Ratio-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle

LOS- Level of Service

* - Denotes Congested Intersection (LOS E or F, or V/C>0.95)

Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

			AM		L	MD	
ANALYZED	Lane	V/C	Delay		V/C	Delay	
INTERSECTIONS	Group	Ratio	(sec)	LOS	Ratio	(sec)	LOS
						a 0 (0
17. Westchester Avenue (N-S) at	WB-LT	0.19	22.1	С	0.38	20.6	C
Blondell Avenue (E-W)	NB-LT	0.22	17.8	В	0.45	16.4	В
	SB-TR	0.54	29.4	С	0.61	25.9	С
18. Westchester Avenue (N-S) at From Ericson Pl.	WB-LTR	0,53	35.2	D	0.77	42.2	D
Ericson Pl./Middletown Rd From Middletown Rd	WB-LTR	1.03	87.2	F *		52.3	D
and Hutchinson Pkwy (E-W)	NB-DefL	0.69	30.3	ĉ	0.98	73.4	Ē
and Hutchinson Pkwy (E-W)	NB-TR	0.61	26.0	č	0.98	57.8	Ē
	SB-LT	0.67	35.4	D	0.52	31.9	ĉ
· · · · · · · · · · · · · · · · · · ·	SB-LI	0.67	55.4	U	0.52	51.7	с
19. Eastchester Road (N-S) at	WB-LR	0.27	15.0	в	0.29	15.2	в
Bassett Road (E-W)	NB-TR	0.43	9.4	Α	0,57	10.9	в
Dasset Road (L-W)	SB-LT	0.31	8.5	А	0.49	10.2	В
	-	0.10	10.1		0.17	14.4	В
20. Eastchester Road (N-S) at	EB-LR	0.19	15.1	B	0.17		
Ives Street (E-W)	NB-LT	0.60	11.9	в	0.83	18.6	В
	SB-TR	0.20	7,7	A	0.41	9.3	A
21. Sackett Avenue (N-S) at	WB-L		9,7	А		9,0	А
Ives Street (E-W)	NB-R		7.8	Α		7.5	Α
unsignalized	SB-LT		10,4	В		9.1	A
	EB-DefL	0,60	31.3	с	0.82	44.7	D
22. Eastchester Road (N-S) at			21.4	c	0.37	23.6	c
Morris Park Avenue (E-W)	EB-TR	0.19	21.4	c	0.37	23.6	c
	WB-LTR NB-DefL		20.2 17.9	В	0.20	40.3	D
		3	17.9	В	0.82	40.3 32.7	c
	NB-TR	0.59			0.88	22.9	C.
	SB-LT	0.45.		C C		22.9	C C
	SB-R	0.52	24.6	L	0.47	23.0	ر ر
23. Eastchester Road (N-S) at	EB-LTR	0.05	20.1	с	0.06	20.2	с
Stillwell Avenue (E-W)	WB-LTR		22.6		0.25	23.0	С
Summer receive (15 ")	NB-LT	0.22	11.1	в	0.36	12.4	в
	SB-LTR	0.50	14.2	В	0,52	14.5	в
		0.17				10.0	
24. Eastchester Road (N-S) at	WB-LR	0.17	25.6	с	0.12	19.0	B
Rhinelander Avenue (E-W)	WB-LR	0.18	7.9	Α	0.48	23.9	С
Kninelander Avenue (L-w)	SB-LT	0.50	10.8	в	0.73	30.2	С

TABLE 12-2 2007 Existing Traffic Conditions (continued)

NOTES:

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

L-Left, T-Through, R-Right, DefL-Analysis considers a De facto Left Lane on this approach V/C Ratio-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle

LOS- Level of Service * - Denotes Congested Intersection (LOS E or F, or V/C>0.95)

Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

hours in the Existing condition. A more detailed discussion of the traffic conditions along the key corridors within the study area is provided below.

Eastchester Road Corridor

Traffic flows in the corridor begin either at the Pelham Parkway or at the intersection of Waters Place and Eastchester Road. In the midday peak hour the southbound through-right movement of Eastchester Road at Pelham Parkway West operates with congestion <u>and a vehicle delay of 56.1</u> <u>seconds</u>. In both the AM and midday peak hours, all other intersection approaches along Eastchester Road operate at LOS D or better and v/c ratios of 0.95 or less, indicating that all other intersections in the Eastchester Road corridor operate without congestion in the Existing condition.

Westchester Avenue Corridor

The traffic flow in this corridor is primarily concentrated near the intersection of Westchester Avenue at Waters Place and Ericson Place/Middletown Road, the access points to the Hutchinson River Parkway. In both the AM and midday peak hours, all intersection approaches at four of the five analyzed intersections along Westchester Avenue operate at LOS D or better and v/c ratios of 0.95 or less in both the AM and midday peak hours. In the Existing condition, Westchester Avenue at Ericson Place/Middletown Road contains one or more congested movements at the westbound and northbound approaches in one or more peak hours. The westbound approach from Middletown Road has a vehicle delay of 87.2 seconds in the AM peak hour and the northbound de facto left and the northbound through-right movements have vehicle delays of 73.4 and 57.8 seconds in the midday peak hour.

East Tremont Avenue Corridor

The traffic flow along East Tremont Avenue is most concentrated near Castle Hill Avenue and Ericson Place, the off-ramp for northbound travelers on the Hutchinson River Parkway. In the Existing condition, five of the seven analyzed intersections on East Tremont Avenue operate at LOS D or better and v/c ratios of 0.95 or less in both the AM and midday peak hours. The intersection of East Tremont Avenue at Silver Street and Castle Hill Avenue contain a congested movement in one of the two analyzed peak hours. The southbound movement at East Tremont and Castle Hill Avenues has a vehicle delay of 85.8 seconds in the AM peak hour, and the westbound through-left movement has a vehicle delay of 46.5 seconds in the midday peak hour.

Waters Place Corridor

The traffic flow on Waters Place is relatively uniform across the five intersections that comprise the corridor. Though vehicles are slightly more concentrated near Westchester Avenue, all five of the analyzed intersections in this corridor operate without congestion. It should be noted that the entrance to the proposed PSAC II development site, located at Waters Place and Industrial Street, operates at LOS C or better in both the AM and midday peak hours in the Existing condition.

Parking

As the proposed PSAC II development would directly displace or eliminate required accessory parking spaces for the <u>HMC</u>, this parking analysis considers the current and projected utilization of the accessory parking facilities within the office complex. The data used in the parking analysis was collected in January 2008 during three periods, the 11 AM, 2 PM and 6 PM peak hours, when parking demand in the <u>HMC</u> is expected to be greatest.

As shown in Figure 12-3, the <u>HMC</u>³ office complex contains a 4-story, 460,000 gsf office building that accommodates a range of commercial and government offices as well as the Bronx campus of Mercy College (occupying approximately 130,000 gsf) and a single-story, 52,000 gsf warehouse that is used for storage purposes and as a filling station. The southwest corner of the office complex is currently under construction and will accommodate two new <u>commercial</u> buildings that will provide approximately <u>502,000</u> gsf of new office space <u>and a 150-room hotel</u>, combined, by 2012.

A total of 1,467 accessory parking spaces are provided within the <u>HMC</u> campus to accommodate the demand of office and warehouse employees, as well as the students and faculty of Mercy College's Bronx campus (the main entrance of which is located on the northern facade of the office building). These spaces are concentrated in two areas, generally located to the north and to the south and east of the 4-story office building. To the north of the 4-story office building and the one-story warehouse there are approximately 666 spaces (a significant portion of these spaces are located within the boundary of the proposed development site). The remaining approximately 801 spaces are located to the south and east of the 4-story building and approximately 434 additional spaces located at the southern boundary of the office complex. As discussed in more detail in Section C, "Future Without the Proposed Action", the lot at the southern corner of the office complex is a recently built and substantially underutilized lot that is intended to serve the future need of the planned <u>commercial</u> development in the <u>HMC</u>. All 1,467 parking spaces located within the <u>HMC</u> are for the exclusive use of the tenants of the <u>HMC</u>, including Mercy College.

Table 12-3 provides the existing parking demand and utilization of the <u>HMC</u> accessory parking spaces. As shown in Table 12-3, approximately 707, 654 and 739 accessory parking spaces are occupied in the 11 AM, 2 PM and 6 PM peak hours, respectively, indicating that in the Existing condition, the overall parking utilization rate for the office complex is approximately 48, 45 and 50 percent, respectively.

			11 AM			2 PM			6 PM	
Lot	Capacity	Demand	Open Spaces	Utilization	Demand	Open Spaces	Utilization	Demand	Open Spaces	Utilization
Total	1,467	707	760	48%	654	813	45%	739	728	50%

 TABLE 12-3

 2007 Existing Parking Conditions in the Hutchinson Metro Center

Source: PHA field survey, January 2008.

Accidents

The annual motor vehicle accidents from 2005 through 2007 at study area intersections are shown in Table 12-4. Accidents listed in the table are classified as either non-reportable (i.e., involving less than \$1,000 in property damage and no injuries or fatalities) or reportable. The numbers of vehicle occupants, cyclists and pedestrians killed or injured are also shown in the table. (NYCDOT accident data do not distinguish injuries from fatalities.) Accidents resulting in injuries or fatalities to pedestrians or bicyclists often involve turning vehicles, with failure to yield the right-of-way to

³ It is estimated that approximately 1,320 employees work in the 4-story building, 26 employees work in the warehouse and 2,500 students are enrolled at Mercy College (combined part-time and full-time students).

PSAC II EIS

FIGURE 12-3 Existing Parking Facilities in the Hutchinson Metro Center

 Boundary.of

 Boundary.of

Site of two
 planned new
 ommercial towers
 and garages

Parking Boundary of Hutchinson Metro Center

Buildin

Parking



BARRIN ())

		Total	Total	Total						
		Reportable	Veh. Occupants	Peds/Bicyclists		Bicyclists		F	Pedestrian	s
		Accidents	Killed/Injured	Killed/Injured	Ki	lled / Inju	red	Kil	lled / Inju	red
Int	ersection	2005-2007	2005-2007	2005-2007	2005	2006	2007	2005	2006	2007
East Tremont Ave. at	St. Raymond Ave.	2	1	1	0	0	0	0	1	0
	Williamsbridge Rd.	2	2	0	0	0	0	0	0	0
	Ponton Ave.	4	1	3	0	0	0	0	1	2
	Lane Ave.	2	0	3	0	0	0	0	0	3
	Fink Ave.	2	0	2	0	0	0	0	1	1
	Blondell Ave.	2	4	0	0	0	0	0	0	0
	Little League Pl.	1	0	1	0	0	0	0	1	0
	Hutchinson River Pkwy	6	9	2	0	0	0	0	1	1
	Ericson Pl.	4	5	1	0	0	0	0	0	1
East Tremont Ave. at	Castle Hill Ave.	1	1	0	0	0	0	0	0	0
	Lyvere St.	2	5	1	0	0	0	0	1	0
	Paulding Ave.	2	2	0	0	0	0	0	0	0
	Seddone St.	1	3	0	0	0	0	0	0	0
	Hone St.	3	5	0	0	0	0	0	0	0
	St. Peters Ave.	0	0	0	0	0	0	0	0	0
	Lurting Ave.	3	2	2	0	1	0	1	0	0
	Montgomery Pl.	2	2	0	0	0	0	0	0	0
Eastchester Rd. at	Silver St.	6	6	3	0	0	0	1	1	1
	Maclay Ave.	2	3	0	0	0	0	0	0	0
	Rhinelander Ave.	2	6	0	0	0	0	0	0	0
	Pelham Pkwy South	25	35	8	0	0	0	3	1	4
	Pelham Pkwy North	4	7	0	0	0	0	0	0	0
	Pelham Pkwy	16	25	2	0	0	0	2	0	0
Eastchester Rd. at	Jarrett Pl.	1	4	0	0	0	0	0	0	0
	Blondell Ave.	12	5	9	0	0	0	5	1	3
	Waters Pl.	24	21	9	0	0	0	4	2	3
	Bassett Ave.	3	3	0	0	0	0	0	0	0
	Ives St.	0	0	0	0	0	0	0	0	0
	Loomis St.	4	5	1	0	0	0	0	0	1
	Morris Park Ave.	9	6	4	0	0	0	1	2	1
	Stillwell Ave.	3	7	0	0	0	0	0	0	0
	Seminole St.	0	0	0	0	0	0	0	0	0
	McDonald St.	1	1	0	0	0	0	0	0	0
Silver St. at	Roselle St.	2	4	0	0	0	0	0	0	0
	Williamsbridge Rd.	10	9	4	0	0	0	0	1	3
Stillwell Ave. at	Seminole St.	0	0	0	0	0	0	0	0	0
	McDonald St.	2	2	0	0	0	0	0	0	0
	Rhinelander Ave.	0	0	0	0	0	0	0	0	0
	Pelham Pkwy South	10	7	3	1	1	0	0	1	0
Waters Pl. at	Industrial St.	0	0	0	0	0	0	0	0	0
	Fink Ave.	5	4	3	1	0	0	0	2	0
Westchester Ave.	East Tremont Ave.	8	8	3	0	1	0	0	1	1
	Blondell Ave.	2	0	2	0	0	0	0	1	1
	Little League Pl.	2	2	0	0	0	0	0	0	0
	Waters Pl.	10	14	3	0	0	0	1	1	1
	Ericson Pl.	1	3	0	0	0	0	0	0	0

TABLE 12-4 Annual Motor Vehicle Accidents at Study Area Intersections, 2005-2007

Notes: Reportable accidents are those that involve more than \$1,000 in property damage and/or injuries or fatalities

Bold: High Accident Location

Source: NYCDOT data.

pedestrians in crosswalks frequently cited as a causal factor. Other factors typically cited as contributing to vehicular accidents are wet road conditions, unsafe speeds, and driver inattention.

<u>According to the CEQR Technical Manual, the NYCDOT considers any intersection at which five or</u> more pedestrians or cyclists are killed or injured per year as a high accident location. As shown in Table 12-4, although seven intersections in the traffic study area experienced ten or more reportable accidents from 2005 to 2007, only one intersection in the traffic study area experienced five pedestrians or cyclists injured or killed in a year during the three year period between 2005 and 2007. With five pedestrians injured or killed 2005, the intersection of Eastchester Road at Blondell Avenue would be the only location in the traffic study area that would be considered a high accident location.

Factors such as a skewed geometry and long pedestrian crossing distances likely contributed to the 12 reportable accidents that occurred at the intersection of Eastchester Road and Blondell Avenue from 2005 through 2007. The intersection of Eastchester Road and Blondell Avenue, located more than a mile to the southwest of the proposed PSAC II development site, is not expected to receive an appreciable number of new pedestrian trips with the implementation of the Proposed Action. As shown in Figures 12-6a and 12-6b, a maximum of 30 vehicle trips are expected to travel through this intersection under the Typical Operation of PSAC II, and up to 35 vehicles trips when PSAC II is operating under its Consolidated condition (which are below the CEQR Manual threshold of 50 vehicle trips through an intersection, and therefore this intersection was not analyzed as part of the traffic analysis). Most, if not all, project-generated vehicle trips at this intersection would be through trips traveling northbound on Eastchester Road, and are not expected to make turning movements at this intersection. As vehicle/pedestrian conflicts are often associated with vehicles turning across pedestrian crosswalks, the fact that most, if not all, project-generated vehicle trips are not expected to make turns at this intersection, there would be less likelihood for vehicle/pedestrian conflicts from this new traffic.

Although the intersections of Eastchester Road at the Pelham Park South, Waters Place at Eastchester Road, and Eastchester Road at the Pelham Parkway are not considered a high accident locations per CEQR guidelines, as each of these intersections had fewer than five pedestrians or cyclists killed or injured per year, they are noteworthy since they had the highest number of accidents within the traffic study area between 2005 and 2007. As shown in Table 12-4, the intersection with the highest overall number of accidents is Eastchester Road at the Pelham Parkway South, with a total of 25 reportable accidents (and 81 non-reportable accidents) from 2005 through 2007. This intersection also has the highest total number of vehicle occupants killed or injured with 35 during the three-year period, and a total of 8 pedestrians killed or injured. Factors that are likely contributing to the relatively high accident rate at this intersection are its slightly skewed geometry, and two bus stops located immediately to the south of the Pelham Parkway Service Road along either side of Eastchester Road.

The intersection of Eastchester Road at Waters Place has the second highest overall number of accidents, with a total of 24 reportable accidents (and 79 non-reportable accidents) from 2005 through 2007. Vehicle occupants killed or injured during this period totaled 21, while the number of pedestrians killed or injured totaled nine. A likely factor contributing to this relatively high number of accidents is the skewed geometry of the intersection and the long pedestrian crossing distance across Waters Place, which is approximately 84 feet wide, as well as potentially pedestrian demand generated by an adjacent supermarket located at the northeast corner of the intersection. This intersection already has high-visibility crosswalks.

As shown in Table 12-4, the intersection with the third highest number of accidents during the 2005 through 2007 period is the intersection of Eastchester Road at the Pelham Parkway (this is a combination of both the Pelham Parkway East and the Pelham Parkway West at Eastchester Road), with a total of 16 reportable accidents (and 60 non-reportable accidents), 25 vehicle occupants killed or injured, and two pedestrians killed or injured over the three-year period. Factors that are likely contributing to the relatively high accident rate at this intersection are its skewed geometry and long pedestrian crosswalks.

All three of these intersections are not expected to receive an appreciable number of new pedestrian trips with the implementation of the Proposed Action, as they are located a significant distance from the proposed development site. The intersections of Eastchester Road and the Pelham Parkway South and Eastchester Road at the Pelham Parkway are located more than 0.33 miles west of the proposed

development site, and the intersection of Eastchester Road and Waters Place is located approximately mile to the southwest of the site.

As shown in Figures 12-6a through 12-6b, the proposed PSAC II development would add up to approximately 150 vehicles per hour (vph) in any peak hour to the Eastchester Road and Pelham Parkway South intersection, up to approximately 250 vehicles per hour to the Waters Place and Eastchester Road intersection, and up to approximately 178 vehicles per hour to the Eastchester Road at Pelham Parkway when operating under its Consolidated condition. Proportionately, these project increments are small compared to the base traffic volumes (representing between 3 and 11 percent of traffic volumes) on the heavily traveled corridors of Eastchester Road, Waters Place, and the Pelham Parkway.

<u>Four additional intersections</u>, Eastchester Road at Blondell Avenue, Silver Street at Williamsbridge Road, Stillwell Avenue at the Pelham Parkway South and Westchester Avenue at Waters Place, experienced between 10 and <u>12</u> reportable total accidents between 2005 and 2007. No data is currently available for an existing connection between the Pelham Parkway North service road/Stillwell Avenue and the Pelham Parkway, the location that would receive the greatest concentration of project-generate pedestrian trips.

C. FUTURE WITHOUT THE PROPOSED ACTION (NO-BUILD CONDITIONS)

In the future without the Proposed Action (No-Build conditions), traffic volumes at the 24 analyzed intersections would change as a result of background growth and discrete developments that would be completed by 2012. Traffic volumes in the 2012 future without the Proposed Action are forecasted by applying the *CEQR Technical Manual* recommended background growth rate of 0.5 percent per year to the existing demand, and then adding the additional demand generated by known, planned or proposed developments that would occur by the analysis year of 2012.

The No-Build traffic analysis considers alterations to the roadway geometry that would occur with implementation of the Select Bus Service (SBS) system that would replace the limited service Bx 12 that currently operates along the Pelham Parkway. As discussed in more detail in Chapter 13, "Transit and Pedestrians", several physical improvements, including enhanced and extended dedicated bus lanes would be implemented along the Pelham Parkway as a part of the reconstruction of the Pelham Parkway. In the eastbound direction, a bus lane would be achieved by designating a 10-foot wide stretch of existing roadway for use as a dedicated bus lane. In the westbound direction, it is anticipated that an additional 12-foot lane would be constructed and completed for use as a dedicated bus lane by 2013. However, as this additional lane would not be completed by 2012, the SBS system is assumed to use an existing lane in the westbound direction. These bus lanes would operate from roughly 7:00 AM to 7:00 PM in both directions with designated two-hour delivery zones to accommodate truck deliveries. The analysis of the future without the Proposed Action assumes implementation of the SBS system and incorporates the above alterations in the traffic study area.

The 2007 to 2012 period will likely see the implementation of physical and operational changes to the study area street system as a result of new developments, as well as initiatives by City agencies, such as the planned reconstruction of the Pelham Parkway and the implementation of the Select Bus Service. In addition, several physical changes are planned for the intersection of Eastchester Road and Morris Park Avenue to establish dedicated left, through, and through-right-turn movements on the northbound approach of Eastchester Road and to establish a left-turn and left-through movements on the eastbound approach of Morris Park. This intersection will also have adjustments to curbside

parking regulations. All of these changes have been incorporated into the 2011 No-Build traffic network.

<u>As mentioned above, the No-Build developments considered in this analysis include the construction</u> of two new <u>buildings</u> in the <u>HMC</u> that would provide a total of approximately <u>502,000</u> gsf of office space <u>and an approximately 150-room hotel, as well as add approximately 1,685 accessory parking spaces</u>. As shown in Table 12-5, the No-Build analysis also assumes completion of an approximately 127,000 sf Ambulatory Care Center in the Jacobi Medical Center and the Michael F. Price Center for Genetic and Translational Medicine, an approximately 201,000 sf research facility for Yeshiva University's Albert Einstein College of Medicine located on Morris Park Avenue, near Eastchester Road. In addition, Albert Einstein College of Medicine is also planning a 310-space enlargement to its Staff Housing to meet the need for additional off-street parking generated by the continued expansion and modernization of its educational and medical facilities. The demand generated from these discrete sites, along with any changes to the traffic network, is incorporated into the No-Build traffic network that is used to develop traffic conditions in the future without the Proposed Action.

Site	Location	Size (sf)		<u>1 Peak l</u> 'ehicle T			<u>ay Peak</u> ehicle Ti	
			In	Out	Total	In	Out	Total
Office Space (1)	Hutchinson Metro Center (Tower 1 & 2)	502,000	<u>59</u>	<u>13</u>	<u>72</u>	144	<u>155</u>	<u>229</u>
150-room Hotel (1)	Hutchinson Metro Center (Tower 2)	<u>150 rooms</u>	<u>6</u>	<u>11</u>	<u>17</u>	<u>25</u>	<u>27</u>	<u>52</u>
Ambulatory Care Facility (2)	Jacobi Medial Center	127,000	68	68	136	58	62	120
Michael F. Price Center (2)	Albert Einstein College of Medicine	201,000	9	2	11	22	22	44
Bronx Mental Health Redevelopment Project (3)	Bronx Psychiatric Center	<u>463,100 ^a</u>	÷	-	Ē	Ē	÷	÷
Wellness Center	<u>1510 Waters Pl.</u>	<u>42,000 ^b</u>	- 11	11	=	- 11	Ē	=

TABLE 12-52012 No-Build Soft Sites

Source: (1)-Zoning Analysis and Calculations for Tower 2 @ the Hutchinson Metro Center, dated 06.23.08

(2)- Bronx office of City Planning

(3)-NYSOMH Bronx Psychiatric Center Bronx Mental Health Redevelopment Project Environmental Impact Analysis Report (EIAR), dated 08.08

Notes: ^a The planned renovations to the Bronx Psychiatric Center will not result in an increase in the number of staff, consumers, or visitors to the Bronx Psychiatric Center, and therefore, would not generate any new trips as a result.

^b The planned Wellness Center will consolidate existing facilities within one building and will not introduce any new employees, or expand existing patient services and therefore, will not generate any new trips as a result.

Vehicular Traffic

Figures 12-4 and 12-5 show the additional demand added by the No-Build sites and the expected 2012 No-Build traffic volumes in the AM and midday peak hours at the analyzed intersections. Table 12-6 shows the corresponding 2012 No-Build traffic conditions compared to the Existing traffic conditions. As shown in Table 12-6, presently congested locations slightly worsen under No-Build conditions, while two new locations would become congested in the midday peak hour. In total, under the No-Build condition, six analyzed intersections would be considered congested, including the three intersections previously congested under the Existing condition.

PSAC II EIS

FIGURE 12-4

2012 Incremental No Build Development Traffic Volumes





TABLE 12-6 2012 No Build Traffic Conditions

				AA	AM Peak Hour						Mid	Midday Peak Hour	four			generation of the second
			2007	2007 Exisitng			2012 No Build	uild		2007	2007 Exisitng		20	2012 No Build	ild	
ANALYZED INTERSECTIONS	Lane Group	V/C Ratio	Delay (sec)	LOS		V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS		V/C Ratio	Delay (sec)	LOS	
1. Waters Place (E-W) at Eastchester Road (N-S)	WB-L WB-R NB-TR SB-DefL SB-T	0.41 0.56 0.40 0.52 0.23	23.9 21.7 18.1 21.3 11.5	ပပကပက		0.42 0.59 0.47 0.76 0.25	24.1 22.4 19.0 36.0 11.7	D D B D B C C	0.55 0.59 0.63 0.70 0.31	36.4 22.7 21.7 16.7 6.2	ABCCD		0.61 0.72 0.71 0.94 0.33	37.9 27.1 23.8 47.1 6.4	A D C C D	
2. Waters Place (E-W) at Industrial Street (N-S)	EB-DefL EB-LT EB-LT WB-TR SB-L SB-LR SB-LR SB-R	0.41 0.53 0.04 0.04	10.6 11.6 23.1 23.3	a a c c a a		0.56 0.57 0.06 0.09	13.1 12.2 23.4 23.8	C CBB	0.63 0.44 0.24 0.23	14.0 10.6 25.6 25.6	മമ ഗറ		0.78 0.78 0.52 0.44 0.48	33.4 20.6 23.6 11.5 29.0 30.2	000m 00	
3 Waters Place (E-W) at Fink Avenue (N-S)	EB-TR WB-LT NB-LR SB-L SB-L	0.30 0.30 0.18 0.18 0.46 0.24	16.8 18.0 15.6 15.1 18.1			0.34 0.44 0.19 0.47 0.25	17.4 18.4 15.7 18.2 18.2 16.0	ന ന ന ന ന	0.61 0.34 0.37 0.38 0.38	21.5 17.2 17.4 17.4 17.2 15.5	U m m m m		0.71 0.40 0.38 0.38 0.38	24.0 18.0 17.6 17.3 15.6	U m m m m	
4. Waters Place (E-W) at entrance to Bronx Psychiatric Center (N-S)	EB-LT WB-TR SB-LR	0.57 0.78 0.10	15.9 19.3 10.2	<u>а</u> а а		0.66 0.83 0.10	18.1 21.6 10.2	BCB	0.67 0.61 0.20	17.1 15.3 10.8	<u></u> щ щ щ		0.81 0.70 0.21	21.5 17.2 10.8	ပထထ	
5. Waters Place (E-W) at Westchester Avenue (N-S)	EB-LT NB-LT SB-DefL SB-T SB-LT	0.43 0.20 0.29 0.27	18.4 15.9 17.6 16.8	8888		0.47 0.25 0.31 0.28	19.0 16.4 17.9 16.9	. മമമമ	0.72 0.34 0.41	24.1 17.3 18.3	ပက္က		0.81 0.44 0.43 0.36	27.4 18.7 21.2 17.9	റയറയം	
6. Little League Place at (E-W) Westchester Avenue (N-S)	WB-LR NB-T SB-T	0.20 0.19 0.36	22.0 10.9 12.4	Daa		0.27 0.20 0.37	23.1 10.9 12.5	U m m	0.41 0.31 0.32	25.6 11.9 12.0	Daa		0.59 0.32 0.33	30.3 12.0 12.1	ပရာရ	
7. Little League Place at (N-S) East Tremont Avenue (E-W) (unsignalized)	EB-LT	0.04	10.3	в	-	0.04	10.8	щ	0.11	11.5	æ		0.13	12.5	в	
8. East Tremont Avenue (E-W) at Ericson Place (N-S)	EB-LT WB-T NB-LTR	0.23 0.32 0.64	14.6 15.5 29.6	n n n		0.23 0.33 0.73	14.7 15.6 32.1	മമറ	0.50 0.46 0.60	17.9 17.3 28.6	CBB		0.51 0.48 0.72	18.1 17.5 31.9	മനാ	
NOTES: Table has been revised for the FEIS. FR-Eachound WR-Westbound NB-Northbound SB-Southbound																

PSAC II FEIS

EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound L-Left, T-Through, R-Right, DefL-Analysis considers a De facto Left Lane on this approach V/C Ratio-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle LOS- Level of Service

Denotes Congested Intersection (LOS E or F, or V/C>0.95)
 Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

12-15

,

2012 No Build Traffic Conditions **TABLE 12-6**

				N.	AM Part Hour						Wide	Middow Dool: House) (C	(continued)
			2007	2007 Exisiting			2012 No Build	bliu		2007]	2007 Exisiting	uay a can a		2012 No Build	blia
ANAL YZED INTERSECTIONS	Lane Group	V/C Ratio	Delay (sec)	ros		V/C Ratio	Delay (sec)	LOS	V/C Ratio	Delay (sec)	LOS		V/C Ratio	Delay (sec)	LOS
9. East Tremont Avenue (E-W) at Blondell Avenue (N-S) (unsignalized)	EB-LT	0.06	11.5	в		0.06	11.9	В	0.19	13.5	B		0.20	14.0	Ĥ
 East Tremont Avenue (E-W) at Silver Street (N-S) (Eastchester Road) 	EB-DefL EB-T WB-T WB-T NB-L NB-TR SB-LR	0.78 0.35 0.28 0.33 0.23 0.23	42.6 23.1 21.3 43.3 43.3 43.3 85.8	ФООФФ г *		0.88 0.36 0.29 0.33 0.33 1.05	55.6 23.2 21.4 43.4 42.3 108.7	н. DDCC н *	0.65 0.45 0.37 0.07 0.18 0.18	28.6 19.0 35.1 35.9 36.9	U M M D D D		0.82 0.46 0.38 0.07 0.18 0.87	42.3 19.2 16.9 35.1 35.1 50.6	0 8 8 0 0 0
 East Tremont Avenue (E-W) at Castle Hill Avenue (N-S) 	EB-T EB-R WB-LT NB-L NB-R	0.56 0.18 0.77 0.82 0.16	36.8 12.6 32.4 53.8 38.4	D M V D D		0.60 0.19 0.82 0.84 0.16	37.7 12.7 35.5 55.2 38.5	О 8 О 8 О 8 О 8 О 8 О 8 О 8 О 8 О 8 О 8	0.49 0.50 0.96 0.76 0.19	29.6 20.2 46.5 32.4			0.55 0.51 1.06 0.78 0.20	30.7 20.5 72.5 43.9 32.4	совсо *
 East Tremont Avenue (E-W) and From E Tremont Ave. Williamsbridge Road (E-W) at Trom Milliamsbridge Road Frisby Ave. (N-S) To E Tremont Ave. To Milliamsbridge Rd 	EB-LT EB-T WB-T WB-LR NB-LR	0.19 0.31 0.31 0.11 0.19	23.7 35.3 25.3 5.3 42.2	DDDCDC		0.19 0.32 0.32 0.11 0.19	23.8 35.5 25.4 5.4 42.2	DDDCAD	0.51 0.58 0.44 0.21 0.44	27.5 32.1 26.1 7.7 32.5	υυυųυ		0.52 0.59 0.45 0.45 0.45	27.7 32.4 26.2 7.7 32.7	CCCC
13. Pelham Parkway North (E-W) at Eastchester Road (N-S)	WB-LTR NB-LT SB-TR	0.56 0.25 0.46	32.0 7.6 27.3	υ¥υ		0.58 0.26 0.48	32.3 7.7 27.6	CAC	0.51 0.47 0.64	38.9 12.0 39.3	D 8 D		0.53 0.49 0.67	39.2 12.4 40.2	DBD
14. Pelham Parkway West (E-W) at Eastchester Road (N-S)	WB-L WB-T WB-R NB-DefL NB-T SB-TR	0.54 0.54 0.06 0.38 0.44 0.48	24.2 22.4 17.4 15.8 16.1 25.4	ပပကာကာပ	WB-TR	0.59 0.58 0.42 0.45 0.50	25.2 23.0 16.5 16.3 25.7 25.7	ပ်ပ ကာကပ	0.72 0.84 0.18 0.39 0.61 0.87	50.6 49.8 36.3 13.3 13.9 56.1	сссаан *	WB-TR	0.78 0.93 0.47 0.64 0.91	54.0 57.9 18.7 14.6 60.6	С Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц Ц
15. Pelham Parkway East (E-W) at Eastchester Road (N-S)	EB-LT NB-TR SB-LT	0.57 0.34 0.61	22.9 23.4 18.3	ပပက		0.83 0.36 0.65	30.7 23.7 19.1	ပပရ	0.72 0.53 0.73	34.6 27.8 24.6	000		1.04 0.59 0.80	72.4 29.1 27.9	* 皿ひひ
16. Westchester Avenue (N-S) at East Tremonî Avenue (E-W)	EB-T EB-R WB-T NB-T SB-TR	0.18 0.09 0.30 0.34 0.39	21.7 21.0 23.3 26.2 20.0	UUUUm	-	0.18 0.10 0.31 0.35 0.40	21.8 21.0 23.4 26.4 20.1	00000	0.45 0.11 0.36 0.68 0.39	20.9 17.4 19.7 29.1 15.3	U M M U M		0.47 0.11 0.37 0.71 0.41	21.0 17.4 19.8 30.1 15.5	ပရရပ်ရ
NOTES: Table hear reviewd for the HEIS															

Taile hus been revised for the FEIS. EB-Eastbound, WB-Westbound, NB-Morthbound, SB-Southbound L-Left, T-Through, R-Right, Duff-Analysis considers a De facto Left Lane on this approach V/C Ratio-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle LOS-Level of Service - - Broness Congested Intersection (LOS E or F, or V/C>0.95) Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

TABLE 12-6 2012 No Build Traffic Conditions

	·								i		· •	· •		(C0	(continued)	~
			2006	AN.	AM Peak Hour		bling on the	11		1000	Mid T Evicitno	Midday Peak Hour		2012 No Ruild	PI:	
ANALYZED INTERSECTIONS	Lane Group	V/C Ratio	2007 Delay (sec)	LOS		V/C Ratio	Delay (sec)	TOS	V/C Ratio	Delay (sec)	LOS		V/C Ratio	Delay (sec)	TOS	7
17. Westchester Avenue (N-S) at Blondell Avenue (E-W)	WB-LT NB-LT SB-TR	0.19 0.22 0.54	22.1 17.8 29.4	CBC		0.25 0.23 0.56	22.8 17.9 29.7	င္ဆင	0.38 0.45 0.61	20.6 16.4 25.9	ပမာပ		0.43 0.48 0.63	21.4 16.8 26.4	ပကာပ	
 Westchester Avenue (N-S) at From Ericson PL Ericson PL/Middletown Rd and Hutchinson Pkwy (E-W) 	WB-LTR WB-LTR NB-LTR NB-LFL NB-TR SB-LT	0.53 1.03 0.69 0.61 0.67	35.2 87.2 30.3 26.0 35.4	drood *		0.54 1.05 0.72 0.63 0.68	35.4 95.3 32.0 26.5 36.0	DECOD *	0.77 0.84 0.98 0.98 0.52	42.2 52.3 73.4 57.8 31.9	рошыс * *		0.79 0.86 1.02 1.00 0.54	43.3 54.6 82.8 63.8 32.1	одщар	* * 1
19. Eastchester Road (N-S) at Bassett Road (E-W)	WB-LR NB-TR SB-LT	0.27 0.43 0.31	15.0 9.4 8.5	A A B		0.27 ° 0.48 0.37	15.0 9.9 9.1	B A	0.29 0.57 0.49	15.2 10.9 10.2	8 8 8 8		0.30 0.67 0.58	15.2 12.3 11.4		1
20. Eastchester Road (N-S) at Ives Street (E-W)	EB-LR NB-LT SB-TR	0.19 0.60 0.20	15.1 11.9 7.7	a a k		0.19 0.68 0.25	15.2 13.5 8.0	A B	0.17 0.83 0.41	14.4 18.6 9.3	A B B		0.18 0.99 0.49	14.5 37.0 10.0	a d A	* 1
 Sackett Avenue (N-S) at Ives Street (E-W) unsignalized 	WB-L NB-R SB-LT		9.7 7.8 10.4	A A B		111	9.8 7.9 10.5	A B		9.0 7.5 9.1	A A			9.1 7.6 9.2	K K K	
22. Eastchester Road (N-S) at Morris Park Avenue (E-W)	EB-Deft EB-TR EB-TR WB-LTR NB-Deft NB-TR SB-LT SB-R	0.60 0.19 0.58 0.58 0.45 0.45	31.3 21.4 21.4 17.9 17.3 21.6 24.6	ပပ ပကာကပပ	EB-LT EB-LT EB-R NB-L NB-L NB-TR	0.45 0.22 0.46 0.46 0.76 0.76 0.28 0.49 0.56	26.9 22.5 26.5 26.1 11.6 26.1 11.6 25.1 25.7	0000000000	0.82 0.37 0.20 0.82 0.88 0.47	44.7 23.6 22.2 40.3 32.7 22.9 23.6		EB-L EB-LT EB-R NB-L NB-L NB-L	0.61 0.33 0.75 0.19 1.04 0.46 0.60 0.60	32.2 24.4 37.1 22.1 88.8 88.8 13.6 24.7 24.7	COUCHEOÓ	*
23. Eastchester Road (N-S) at Stillwell Avenue (E-W)	EB-LTR WB-LTR NB-LT SB-LTR	0.05 0.23 0.22 0.50	20.1 22.6 11.1 14.2	U U U U U U U U U U U U U U U U U U U		0.05 0.24 0.24 0.55	20.1 22.8 11.3 14.9	C C M M	0.06 0.25 0.36 0.52	20.2 23.0 12.4 14.5	nmcc		0.09 0.26 0.42 0.58	20.6 23.2 13.1 15.6	ပပက္က	
24. Eastchester Road (N-S) at Rhinelander Avenue (E-W)	WB-LR NB-TR SB-LT	0.17 0.18 0.50	25.6 7.9 10.8	BAC		0.18 0.19 0.54	25.7 8.0 11.3	A B	0.12 0.48 0.73	19.0 23.9 30.2	CCB		0.13 0.55 0.83	19.1 25.2 35.2	DCB	
NOTES: Table has been revised for the FEIS. E-B-tashound, WB-Wrethound, NB-Northbound, SB-Southbound E-B-tashound, WB-Wrethound, NB-Northbound, SB-Southbound L-Left, T-Through, R-Right, DeLL-Analysis considers a De facto Left Lane on this approach VC Raio-Volume to Capacity Ratio, SEC/VEH-Seconds per Veiticle LOS- Level of Service • Denotes Congested Intersection (LOS E or F, or VIC>0.93) Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)	- 1															

PSAC II FEIS

Eastchester Road Corridor

As shown in Table 12-6 the congested movement at Eastchester Road at Pelham Parkway West would slightly worsen in the future without the Proposed Action. In the midday peak hour, the southbound through-right movement at this intersection would operate with approximately <u>60.6</u> (LOS E) seconds of delay, compared to 56.1 (LOS E) seconds of delay in the Existing conditions. <u>The westbound through-right movement also becomes congested with LOS E (delay of 57.9 seconds) in the midday peak hour.</u> No additional movements at this intersection would become congested under the No-Build conditions in either the AM or midday peak hours.

As shown in Table 12-6, the Eastchester Road corridor contains <u>three</u> new locations that would become congested under the No-Build condition-Eastchester Road at <u>the Pelham Parkway East</u>, Morris Park Avenue and Ives Street. Through traffic volumes would generally increase in both the AM and midday peak hours in the future without the Proposed Action, the newly congested movements would occur in the midday peak hour. Under the No-Build condition, the northbound left-turn movement of Eastchester Road at Morris Park Avenue would become congested, operating with approximately <u>88.8</u> (LOS F) seconds of delay, in the midday peak hour. In addition, the northbound left-through movement <u>at Eastchester Road and Ives Road</u> would become congested under the No-Build condition in the midday peak hour operating with approximately <u>37.0</u> (v/c ratio of <u>0.99</u> and LOS C) seconds of delay. <u>The eastbound left-through movement at the Pelham Parkway East and Eastchester Road would also become congested with delays of 72.4 (LOS E) seconds in the midday peak hour. Though background growth would generally increase traffic volumes throughout the corridor, no additional intersection in the AM and midday peak hours would become congested under the No-Build condition.</u>

Westchester Avenue Corridor

As shown in Table 12-6, congested movements at the intersection of Westchester Avenue at Ericson Place/Middletown Road would slightly worsen in the future without the Proposed Action. In the AM peak hour, the westbound left-through-right movement would operate with approximately 95.3 (LOS F) seconds of delay under the No-Build condition compared to approximately 87.2 (LOS F) seconds of delay in the Existing condition. In midday peak hour, the northbound de facto left-turn and northbound through-right movements would operate with approximately 82.8 (LOS F) and 63.8 (LOS E) seconds of delay, respectively, compared to approximately 73.4 (LOS E) and 57.8 (LOS E) seconds of delay, respectively, in the Existing condition. Though background growth would generally increase traffic volumes throughout the corridor, no additional intersection in the AM and midday peak hours would become congested under the No-Build condition.

East Tremont Avenue Corridor

As shown in Table 12-6, congested movements at the intersections of East Tremont Avenue at Silver Street and Castle Hill Avenue would slightly worsen in the future without the Proposed Action. In the AM peak hour, the southbound left-right movement at East Tremont Avenue and Silver Street would operate with approximately <u>108.7</u> (LOS F) seconds of delay compared to 85.8 (LOS E) seconds of delay in the Existing condition. Additionally, the eastbound de facto left-turn movement at this intersection would become congested in the AM peak hour, operating with approximately <u>55.6</u> (LOS E) seconds of delay compared to 42.6 (LOS D) seconds of delay under the Existing condition. In the AM peak hour, the northbound left-<u>turn</u> movement at East Tremont Avenue and Castle Hill Avenue would become congested, operating with approximately <u>55.2</u> (LOS E) seconds of delay compared to 53.8 (LOS D) seconds of delay in the Existing condition. In the midday peak hour, the westbound left-through movement of East Tremont Avenue at Castle Hill Avenue would operate with approximately <u>72.5</u> (LOS E) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared to approximately <u>46.5</u> (LOS D) seconds of delay compared t

delay in the Existing condition. Though background growth would generally increase traffic volumes throughout the corridor, no additional intersection in the AM or midday peak hours would become congested under the No-Build condition.

Waters Place Corridor

As shown in Table 12-6 though background growth would generally increase traffic volumes throughout the corridor, no intersections in the AM or midday peak hours would become congested in the Waters Place Corridor under the No-Build condition. It should be noted that in the No-Build condition, the entrance to the proposed PSAC II development, located at Waters Place and Industrial Street, would continue to operate at LOS C or better in both the AM and midday peak hours.

In the No-Build Condition, there would be three congested locations in the AM versus two in the Existing condition, and six congested locations in the midday as compared to three under the Existing conditions.

Parking

In the future without the Proposed Action, the parking condition in the <u>HMC</u> is expected to change as a result of general background growth, <u>and</u> the construction of two new <u>commercial</u> towers <u>containing</u> <u>office space and a hotel</u>. As discussed in more detail in Chapter 2, "Land Use, Zoning and Public Policy", pursuant the sites M1-1 zoning, the <u>HMC</u> would be required to provide a total of approximately <u>3,151</u> accessory parking spaces to remain compliant with zoning regulations, a net increase of approximately <u>1.684</u> spaces from the Existing condition. It is anticipated that approximately <u>1.432</u> (<u>85</u>%) of these new required parking spaces would be provided in two enclosed garages located beneath the planned towers. The remaining <u>252</u> new required parking spaces would be provided by operating the lot located at the southern boundary of the <u>HMC</u> as an attended lot that would contain 687 spaces⁴ (an increase of 253 spaces from existing conditions). With these additional spaces, the <u>HMC</u> would contain <u>3,152</u> accessory parking spaces within the <u>site</u> for the exclusive use of its tenants in the future without the Proposed Action.⁵

As shown in Table 12-7, based on observed patterns for the existing <u>HMC</u> and the typical vehicle accumulation pattern for the office <u>and hotel</u> land use<u>s</u>, background growth coupled with demand from the two new <u>commercial</u> towers would generate a new demand of approximately <u>1,336</u>, <u>1,536</u> and <u>118</u> spaces in the 11 AM, 2 PM, and 6 PM hours, respectively. In the future without the Proposed Action, the total parking demand in the <u>HMC</u> would increase to approximately <u>2,043</u>, <u>2,190</u>, and <u>857</u> spaces in the 11 AM, 2 PM, and 6 PM hours, respectively, corresponding to utilization rates of approximately <u>65</u>, <u>70</u>, and <u>27</u> percent, respectively.

⁴ Source: Zoning Analysis and Calculations for Tower 2 @ Hutchinson Metro Center, dated 06.23.08.

⁵ Although only 3,151 accessory parking spaces would be required for the HMC to comply with the site's M1-1 zoning, a total of 3,152 accessory spaces would be provided on-site in the future without the Proposed Action.

	Ex	isting Condi	tion			No-Build Condi	tion (1)	
Lot	Capacity	Demand	Utilization	Spaces Added (2)	No-Build Capacity	Net New Demand (3)	Total Demand	Utilization
11 AM Total	1,467	707	48%	<u>1,685</u>	<u>3,152</u>	<u>1,336</u>	2,043	<u>65%</u>
2 PM Total	1,467	654	45%	<u>1,685</u>	<u>3,152</u>	<u>1,536</u>	<u>2,190</u>	<u>70%</u>
6 PM Total	1467	739	54%	<u>1,685</u>	<u>3,152</u>	<u>118</u>	<u>857</u>	<u>27%</u>

TABLE 12-7 2012 No-Build Parking Conditions in the Hutchinson Metro Center

Notes:

(1)-No-Build condition assumes completion of two new planned towers with approximately 502,000 sf of office space, a 150-room hotel, and two accessory garages containing a total of 1.432 parking spaces

(2)- Capacity of accessory lot located at the southern boundary of the <u>HMC</u> would also increase to 687 spaces, as it would be operated as an attended facility (Source: <u>Zoning Analysis and Calculations for Tower 2 @ Hutchinson Metro Center, dated 06.23.08</u>).

(3)-Includes 0.5 percent growth rate per year between 2007 and 2012. <u>Factoring the auto share for the project in the ITE generation</u> for Hotel. The overnight demand for the hotel is assumed to be 0.65 per hotel room.

D. FUTURE WITH THE PROPOSED ACTION (BUILD CONDITION)

This section provides an analysis of the traffic and parking conditions in the 2012 future with the Proposed Action (Build condition). As described in detail in Chapter 1, "Project Description" and noted at the beginning of this chapter, the Proposed Action would result in the construction of PSAC II, which would consist of an approximately 640,000 gsf new office building and a 500-space above-grade accessory parking structure. As the proposed development site, comprising the northern portion of the <u>HMC</u>, is relatively isolated from the surrounding street network, the Proposed Action would also map an existing private roadway, Industrial Street, as a public street ("Marconi Street"). The proposed street would be mapped at width of 60 feet for approximately 1,670 feet and 50 feet for approximately 1,300 feet.

The new roadway is expected to include two approximately 11-foot approach lanes from Waters Place, which would narrow to one travel lane after approximately 1,670 feet, where there would be a turn off to HMC, just north of the southernmost accessory parking lot of the HMC (see Figure 12-6). One travel lane would extend north to the mapped cul de sac. There would generally be one southbound travel lane that would widen into two approximately 11-foot travel lanes at the intersection with Waters Place.

When completed in 2012, PSAC II would operate continuously 24 hour per day, 7 days per week and is expected to have a typical staff size of approximately 850 employees working three eight to ten hour shifts throughout the 24-hour period (approximately 315 employees maximum per shift). The analysis presented in this section focuses on the condition of the 24 intersections under these typical conditions ("Typical Operations"). However, when operating in back up mode or during heighten security days, PSAC II could be temporarily comprised of both PSAC I and PSAC II staff members, totaling approximately 1,700 employees (approximately 630 employees maximum per shift), therefore this section also presents the traffic analysis under this temporary condition ("Consolidated Operations").

The transportation planning assumptions for the proposed PSAC II development are based on 2000 Census reverse journey-to-work data as well as data supplied by the New York City Police Department (NYPD), Fire Department of New York (FDNY) and the New York City Emergency



Medical Services (EMS) for the existing PSAC I facility in Brooklyn. Other environmental studies for similar projects were also used as secondary references.

Table 12-8 shows the transportation planning assumptions used in the proposed PSAC II development's travel demand forecast. Under normal future operating conditions, it is expected that the proposed development would operate with approximately 850 employees throughout a 24-hour period ("Typical Operations"). When the proposed development would temporarily be comprised of both PSAC I and PSAC II employees under Consolidated Operations, approximately 1,700 employees would work throughout the 24-hour period. Under both Typical and temporary Consolidated Operations, as employees would work primarily in three separate shifts, new trips are expected to be concentrated in the half hour before and after the shift changes that would occur around 7 AM, 3 PM, and 11 PM.

For the purpose of this study, peak hour trips are comprised of both incoming and outgoing shift workers. Lunch hour travel in and out of the proposed development is expected to be minimal as it is assumed that proposed PSAC II facility will include a cafeteria. Though project generated trips would exceed the *CEQR Technical Manual* threshold of 50 vehicle trips per peak hour during all shift changes, all significant impacts are expected to be identified in the AM (6:30 to 7:30 AM) and midday (2:30 to 3:30 PM) peak hours, as these shift changes occur in the presence of substantial existing traffic. Projected generated trips in the PM (10:30-11:30 PM) peak hour would not result in additional significant impacts to those identified in the AM and midday peak hours, as existing vehicular travel is very low during this period. This section, therefore, focuses on the 24 analyzed intersections in the AM and midday peak hours under both Typical and temporary Consolidated Operations.

Table 12-9 shows the Trip Generation for PSAC II under Typical and temporary Consolidated Operations based on the Transportation Planning Assumptions provided in Table 12-8. As shown in Table 12-9, under Typical Operations, PSAC II would result in a net total increase of approximately 366 vehicle trips in the AM peak hour and a net total increase of approximately 372 vehicle trips in the midday peak hour.

Auto and taxi trips under Typical Operations are assigned to the study area based on the most direct route between their origins and destinations while trucks are assumed to travel on the nearest designated local truck routes. Under temporary Consolidated Operations, a total net increase of approximately 712 and 745 vehicle trips would occur in the AM and midday peak hours, respectively. Auto and taxi trips for this temporary Consolidated Operation assumes that approximately half of the net demand would originate from PSAC I in Brooklyn, and the remaining half of the net demand would originate from typical reverse journey to work origins. The following sections provide a more detailed discussion of the resulting traffic and parking conditions in the future with the Proposed Action.

TABLE 12-8	
Transportation Planning Assumptions for the Proposed PSAC II Development	

		Land Use:	640,000	gsf Office Type F	acility		
		Temporal	Distribution of W	orkers (1)	W	orkers per Shift	(1)
	Shift 1	11:00 PM	ТО	7:00 AM		29%	
	Shift 2	7:00 AM	ТО	3:00 PM		34%	
	Shift 3	3:00 PM	ТО	11:00 PM		<u>37%</u>	
						100%	
	TYPICAL OPERAT (PSAC II Em)		ON	COM	SOLIDATED OPE (PSAC I AND		DITION
	Total Workers (2):	850	persons	Т	otal Workers (3):	1700	persons
Modal Split (4):	:			Modal Split (4):			
- · ·	Shift 1	Shift 2	Shift 3		Shift 1	Shift 2	Shift 3
Auto	70.0%	74.1%	57.0%	Auto	74.8%	64.9%	64.6%
Taxi	1.6%	1.3%	0.8%	Taxi	2.8%	2.8%	1.7%
Bus	19.4%	16.8%	25.6%	Bus	9.8%	11.8%	12.9%
Subway/Rail	7.6%	4.3%	12.8%	Subway/Rail	11.9%	18.6%	18.9%
Walk	1.4%	3.5%	<u>3.7%</u>	Walk	0.7%	2.0%	1.9%
Total	100.0%	100.0%	100.0%	Total	100.0%	100.0%	100.0%
Vehicle Occupa	ncy Rate (4):	1.14		Vehicle Occupan	cy Rate (4):	1.14	
Truck Generati	on Trips (5):	0.29	per 1,000 sf	Truck Generation	n Trips (5):	0.29	per 1,000 s
Truck Tempora	al Distribution (5):			Truck Temporal	Distribution (5):		
	AM	9.6%			AM	9.6%	
	MD	11.0%			MD	11.0%	
	PM	0.0%			PM	0.0%	
					IN	A 1 1	
	IN	OUT			11N	OUT	

NOTES:

(1) Per NYC PSAC I NYPD staffing data.

(2) Includes NYPD, FDNY, EMS and support personnel under Typical Operating conditions when 850 staff would operate from PSAC II.

(3) Includes NYPD, FDNY, EMS and support personnel under Temporary Operating conditions when 1,700 combined PSAC I and II staff would operate from PSAC II.

(4) Based on 2000 Census data for travel patterns in the vicinity of the project site.

(5) Federal Highway Administration, "Curbside Pickup and Delivery and Arterial Traffic Impacts", 1981.

TABLE 12-9

TYPICAL OPE (PSAC II	RATING C Employees		1	CONSOLIDATED ((PSAC I A			FION
<u>Peak Hour Trips:</u>				Peak Hour Trips:			
	In	Out	Total		In	Out	Total
AM (6:30 AM to 7:30 AM)	289	247	536	AM (6:30 AM to 7:30 AM)	578	493	1071
MD (2:30 PM to 3:30 PM)	315	289	604	MD (2:30 PM to 3:30 PM)	629	578	1207
PM (10:30 PM to 11:30 PM)	247	315	562	PM (10:30 PM to 11:30 PM)	493	629	1122
<u>Person Trips:</u>				<u>Person Trips:</u>			
AM	In	Out	Total	AM	In	Out	Total
Auto	214	173	387	Auto	375	369	744
Taxi	4	4	8	Taxi	16	14	30
Bus	48	48	96	Bus	68	48	116
Subway/Rail	13	19	32	Subway/Rail	107	59	166
Walk	10	<u>3</u>	<u>13</u>	Walk	<u>12</u>	<u>3</u>	<u>15</u>
Total	289	247	536	Total	578	493	1071
MD	<u>In</u>	Out	Total	MD	In	Out	Total
Auto	180	214	394	Auto	407	375	782
Taxi	2	4	6	Taxi	10	16	26
Bus	81	48	129	Bus	81	68	149
Subway/Rail	40	13	53	Subway/Rail	119	107	226
Walk	12	10	<u>22</u>	Walk	<u>12</u>	<u>12</u>	<u>24</u>
Total	315	289	604	Total	629	578	1207
PM	In	Out	Total	РМ	In	Out	Total
Auto	173	180	353	Auto	369	407	776
Taxi	4	2	6	Taxi	14	10	24
Bus	48	81	129	Bus	48	81	129
Subway/Rail	19	40	59	Subway/Rail	59	119	178
Walk	3	<u>12</u>	15	Walk	3	12	<u>15</u>
Total	2 <u>4</u> 7	315	562	Total	4 <u>9</u> 3	629	1122
<u>Vehicle Trips:</u>				<u>Vehicle Trips:</u>			
AM	<u>In</u>	Out	Total	АМ	<u>In</u>	Out	Total
Auto	188	152	340	Auto	330	324	654
Taxi (balanced)	6	6	12	Taxi (balanced)	22	22	44
Truck	<u>7</u>	<u>7</u>	<u>14</u>	Truck	<u>7</u>	<u>7</u>	<u>14</u>
Total	201	165	366	Total	359	353	712
MD	<u>In</u>	<u>Out</u>	Total	MD	In	<u>Out</u>	<u>Total</u>
Auto	158	188	346	Auto	358	330	688
Taxi (balanced)	5	5	10	Taxi (balanced)	21	21	42
Truck	<u>8</u>	<u>8</u>	<u>16</u>	Truck	<u>8</u>	<u>8</u>	<u>16</u>
Total	171	201	372	Total	3 <u>8</u> 7	359	746
PM	<u>In</u>	Out	Total	PM	In	Out	<u>Total</u>
Auto	152	158	310	Auto	<u>324</u>	358	682
Taxi (balanced)	4	4	8	Taxi (balanced)	17	17	34
Truck	4 0	4 <u>0</u>	<u>0</u>	Truck	0	0	0
Total	156	162	<u>0</u> 318	Total	341	375	716
i otai	150	102	510	1 Star	541	515	/10

Travel Demand Forecast for the Proposed PSAC II Development

Vehicular Traffic

Figures 12-6a and 12-6b show the AM and midday incremental traffic assignments generated by the proposed development under Typical Operations and the incremental traffic assignments generated by the proposed development under temporary Consolidated Operations when it would be comprised of the staffs of both PSAC I and PSAC II. The incremental demand at the 24 analyzed intersections are added to the No-Build traffic volumes to determine the traffic volumes in the future with the proposed PSAC II development, under Typical and temporary Consolidated Operations, respectively shown in Figures 12-7a and 12-7b.

Based on *CEQR Technical Manual* criteria, a significant adverse traffic impact occurs when an intersection operating at No-Build LOS A, B or C deteriorates to a marginally acceptable mid-LOS D (greater than 45 seconds of delay), E or F under the Build condition. For intersections that operate at No-Build mid-LOS D, an increase of five or more seconds of delay in a lane group would be considered significant. For intersections that operate at No-Build LOS F, a three second increase in delay would be considered significant. For intersections that operate at No-Build LOS F, a three second increase in delay would be considered significant. For intersections that operate at No-Build LOS F, and exceeding 120 seconds of delay, an increase in delay of one second would be considered significant.

Table 12-10 shows the results of the traffic analysis for the 2012 Build condition and highlights the significantly impacted locations according to the above outlined *CEQR Technical Manual* criteria. As shown in Table 12-10, under Typical Operations, six signalized intersections would be significantly impacted in the future with the proposed PSAC II development. Under temporary Consolidated Operations, when PSAC II accommodates both PSAC I and PSAC II employees, three additional signalized intersections (nine in total) would be significantly impacted. The operating conditions of these impacted intersections are discussed in more detail below.

Eastchester Road Corridor

Three intersections, Eastchester Road at Waters Place, Ives Street and at Morris Park Avenue, would become significantly impacted in the future with the proposed PSAC II development. The southbound de facto left-turn at Waters Place at Eastchester Avenue would operate with approximately <u>84.3</u> and <u>87.8</u> seconds of delay (both LOS F) in the AM and midday peak hours, respectively, in the future with the Proposed Action, compared to <u>36.0</u> and <u>47.1</u> seconds of delay (both LOS D) in the AM and midday peak hours, respectively, in the No-Build condition. Under temporary Consolidated Operations when PSAC II would accommodate both PSAC I and PSAC II employees, the southbound de facto left-turn at Waters Place at Eastchester Avenue would operate with approximately <u>99.2</u> (LOS F) and <u>112.4</u> (LOS F) seconds of delay, respectively, in both the AM and midday peak hours.

In the future with the proposed PSAC II development, the northbound left-through movement at Eastchester Road and Ives Street would become significantly impacted in the midday peak hour, operating with approximately <u>66.1</u> (LOS E) seconds of delay compared to approximately <u>37.0</u> (LOS <u>D</u>) seconds of delay under the No-Build condition. Under temporary Consolidated Operations, when PSAC II would accommodate both PSAC I and PSAC II employees, the northbound left-through movement at Eastchester Road and Ives Street would operate with approximately <u>77.0</u> (LOS E) seconds of delay in the midday peak hour.

In the midday peak hour, the northbound left-turn movement at Eastchester Road and Morris Park Avenue would become significantly impacted, operating with approximately <u>112.1</u> (LOS F), compared to approximately <u>88.8</u> (LOS F) seconds of delay in the No-Build condition. Under temporary Consolidated Operations, the northbound left-turn movement at Eastchester Road and

PSAC II EIS

FIGURE 12-6a

Project Increment under Typical Operating Conditions (PSAC II Only)





PSAC II EIS

FIGURE 12-7a





PSAC II FEIS

TABLE 12-10 2012 Build Level of Service

Chapter 12: Traffic and Parking

• • •	1											╞				Midday	Midday Peak Hour	OUL				П
				ŀ		AM Pe	AM Peak Hour	┝		Consolidated	lated	╞								Consolidated	dated	-
		2012	2012 No Build		F	ypical O	Typical Operations			Operations	ions		21	Build		Typical	Typical Operations	su		<u>e</u> 1	erations Delav	Т
ANALYZED	Lane	V/C Ratio	Delay (sec)	ros		V/C De Ratio (se	Delay (sec) LOS	ş	V/C Ratio	(C Delay tio (sec)	ay c) LOS	V/C Ratio	Delay io (sec)	N FOS		Ratio ((sec) L	LOS .	· 2	Ratio (s		ros
INTERSECTIONS	diam's					L	1	-	Č			0.6			u carcary bi		39.5		0			
1. Waters Place (E-W) at	WB-L	0.42	24.1	υ c					50			0.7	2 27.1				35.7	<u>م</u>	00	0.89	38.6	
Eastchester Road (N-S)	NB-R		19.0) m					0.1			_					24.0 8.7.8	کار سار				
	SB-DefL		36.0	Q #		1.03 &	84.3 F 11.7 B		1.2	1.08 99.2 0.25 11.7	7 F	0,33	4 4/.1 3 6.4	n ∢ - +		0.33	6.4		0			
	1-00			2				-				+			_			┥				T
									. [0				1.33	194.0	щ	(4)	2.05 51	0.5	<u>ц</u> (
2. Waters Place (E-W) at	EB-DefL				-	0.56 1	13.5 B	. ~	10	0.56 13.5		0.78			*******	0.78	20.6		0		20.6	a سرن
Industrial Street (N-S)	EB-LT	0.56	13.1	В					ć		163.6 F	0.57	23.6	۳ ں م		0.58	14.5 12.5	ങ് ച ഇ	Ū	0.72 1	5.2	
(rume marcon succe)	WB-TR	0.57	12.2	щ	-	0.66 1	13.8 E	а U	00	0.// 10 0.63 33		5									00	
	SB-LR	0.00	4.67	 ر				, , ,	c	40 30	ن 1		0.44 29.0	00 99		0.64	34.1 40.2	с <u>р</u>		0.88	52.5	
	SB-R	60'0	23.8	с U		7 15.0	9 8.12					\neg										Τ
				,					c							0.78	26.5	۔ ں	-	06.0	34.0	<u>ں</u>
3. Waters Place (E-W) at	EB-TR	0.34	17.4	са п				<u> </u>	, o		21.6 C					0.46	18.8	шц	-		1.1	ບ ¤
Fink Avenue (N-S)	WB-L1	0.19	15.7	a m				- e	0							0.38	17.6	nα			73	- m
	SB-L	0.47	18.2	e en		0.47	18.2 I	<u>а</u> (0.47 18.	18.2 B		0.38 1/	17.5 B		0.20	15.6	а			15.6	B
	SB-T	0.25	16.0	в								-		1								
	CD LT	990	181	æ				U	-			1.88	21	Ś		0.93	31.8	U m		1.18 1 0.94	108.0 30.6	ы с с
4. Waters Place (E-W) at centrance to Broux	WB-TR		21.6	υr		0.94	30.4	ပ ¤	- 0	1.08 65	65.2 E 10.2 B		0.70 17. 0.21 10.	0.8 B	*******	0.21	10.8	а <u>с</u>			10.8	g
Psychiatric Center (N-S)	SB-LR	0.10	10.2	Ω				<u>,</u>				+										
	EB-I.T	0.47	19.0	В		0.53				0.65 22			0.81 27	27.4 C		0.87	30.8 20.1	00	NB-LT	86.0	43.9 31.7	aυ
5. Waters Place (E-W) at Westchester Avenue (N-S)	NB-LT	0.25	16.4	В	NB-LT				NB-LT NB-Def 0							2		1	NB-DefL		43.8 .	D
					NB-DetL						6.8 B				NOTE:	049	23.4	- -	NB-T	0.34	20.0	n m
	SB-DefL SB-T	0.31	17.9	щщ		0.28 0.28	17.4 16.9	в в		0.28 1	17.4 E		0.36	17.9 B		0.36	17.9	æ			17.9	с С
	1-00			1																		
19	-	-						,			v	1			uncosit:	0.77	38.4	۵		1.19	137.1	議 員 正
6. Little League Place at (E-W) Westchester Avenue (N-S)	WB-LR NB-T SB-T	0.27	23.1 10.9 12.5	ഗമമ		0.50 0.20 0.37	27.6 11.0 12.5	о щ щ		0.20 1 0.37	11.0 H		0.33	12.0 B	Hormoniani/fain	0.32	12.0	a a		0.32 0.34	12.0	88
												-			-						011	۵
 Little League Place at (N-S) East Tremont Avenue (E-W) (concinentized) 	EB-LT	0.04	10.8	B		0.05	11.4	£		0.06	12.5 1	e a	0.13 1	12.5 B	- Maria and a subscription	0.14	13.1	m		0.10	14.7	٩
(norther and section)								+								0.51	18.1	В		0.51	18.1	В
8. East Tremont Avenue (E-W) at Ericson Place (N-S)	EB-LT WB-T NB-LTR	R 0.73	14.7 15.6 32.1	n n U	ALCONTRACTOR INC.	0.23 0.34 0.83	14.7 15.7 36.6			0.23	14.7 15.7 62.0	а с с с с с с с с с с с с с с с с с с с	0.72 3	17.5 B 31.9 C		0.48 0.79	17.6 34.7	вс		0.49	57.9	ан M

NOTES: Table has been revised for the FEIS. Table has been revised for the FEIS. E.B.E.Ristound, W.B.Vesthound, NB-Notthbound, SB-Southbound E.B.E.Ristound, W.B.Vesthound, NB-Notthbound, SB-Southbound L.J.ett, T.Through, R.Risght, DefL-Analysis considers a De facto Left Lane on this approach V.C. Raio-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle LOS-Level of Service - Denose imperced intersection Analysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

12-25

PSAC II FEIS

5 2012 Build Level

																				5	continued)	ied)
		╞		ſ		AM Pe	AM Feak Hour									Midday Peak Hour	Peak He	ar l				ſ
ANAL VZED		20	2012 No Build	pliu	£	pical O _F	Typical Operations		್ರ ರೆ	Consolidated Operations	7	2012	2012 No Build	F		Tunical Oncertic				Consolidated	dated	Т
INTERSECTIONS	Lane Group	~ 2	Delay (sec)	LOS	V Ra	V/C Delay Ratio (sec)	ay c) LOS	ļ	V/C Datio	Delay	30,	VIC	Delay			V/C De	Delay	2	Ň	-	Delay	Τ
9. East Tremont Avenue (E-W) at Blondell Avenue (N-S) (unsignalized)	EB-LT	0.06			õ				0.06	(sec)	а Ф	0.20		807 m	× °		(sec) I.(B R	8 °	Ratio (sec) 0.20 14.0	1	B ROS
10. East Tremont Avenue (E-W) at Silver Street (N-S) (Eastchester Road)	EB-Defl EB-T EB-T WB-T NB-L NB-TR SB-LR	0.88 0.36 0.29 0.33 1.05	55.6 55.6 23.2 21.4 43.4 42.3 42.3 108.7	E O O O C F	0.99 0.36 0.23 0.23 0.23 1.14	99 77.2 36 23.2 29 21.4 33 43.4 24 42.3 14 138.9	HOODDF		0.99 0.36 0.29 0.33 0.24 1.17	78.7 23.2 21.4 43.4 42.3 148.7		0.82 0.46 0.38 0.07 0.18 0.18	42.3 19.2 16.9 35.1 35.1 50.6		000000	0.92 56 0.46 19 0.38 16 0.07 35 0.18 35 0.18 35	56.3 E 19.2 B 116.9 B 35.1 D 335.1 D 88.2 E		0.95 0.46 0.38 0.07 0.18 0.18	5 62.0 16 19.2 18 16.9 17 35.1 8 35.9 6 69.5	000-00 Ш Щ Щ Щ Щ Щ Щ Щ Щ Щ Щ Щ Щ Щ	
11. East Tremont Avenue (E-W) at Castle Hill Avenue (N-S)	EB-T EB-R WB-LT NB-L NB-L	0.60 0.19 0.82 0.84 0.84	37.7 12.7 35.5 55.2 38.5	DwDwD	0.63 0.19 0.87 0.87 0.84	33 38.6 9 12.7 17 38.7 6 38.5 6 38.5	0 E D B D		0.64 0.19 0.87 0.84 0.16	38.7 12.7 39.5 55.2 38.5	ОщОШО	0.55 0.51° 1.06 0.78 0.20	30.7 20.5 72.5 43.9 32.4	00m00		0.58 31.3 0.51 20.5 1.11 89.5 0.78 43.9 0.20 32.4	31.3 C 20.5 C 89.5 F 43.9 D 32.4 C		0.59 0.51 1.11 0.78 0.20		00FCC	
 East Tremont Avenue (E-W) and From E Tremont Ave. Williamsbridge Road (E-W) at From Williamsbridge Rut Frisby Ave. (N-S) To Williamsbridge Rut 	w EB-LT w WB-T w WB-T NB-LR	0.19 0.32 0.32 0.32 0.19	23.8 35.5 5.4 5.4 42.2	V Q U V Q	0.19 0.32 0.32 0.11 0.19	9 23.8 2 35.5 2 25.4 1 5.4 9 42.2	DDDD DDDDD		0.19 0.32 0.32 0.11 0.11	23.8 35.5 25.4 5.4 42.2	υσύνα	0.52 0.59 0.45 0.22 0.45	27.7 0 32.4 0 26.2 0 7.7 4 32.7 0	00040	0.52 0.59 0.45 0.45 0.22	52 27.7 59 32.4 45 26.2 22 7.7 15 32.7			0.52 0.59 0.45 0.45 0.45	2 27.7 9 32.4 5 26:2 2 7.7 5 32.7	00000	
13. Pétham Parkway North (E-W) at Eastchester Road (N-S)	WB-LTR NB-LT SB-TR	0.58 0.26 0.48	32.3 7.7 27.6	U Y U	0.58 0.50	8 32.3 8 7.8 0 27.9	0 4 0		0.58 0.28 0.50	32.3 7.8 28.0	U Y U	0.53 2 0.49 1 0.67 2	39.2 II 12.4 F 40.2 II	0 # 0	0.53 0.51 0.69	3 39.2 11 12.6 9 40.7	0 B D D D D D D D D D D D D D D D D D D		0.53 0.51 0.69	3 39.2 1 12.6 9 40.9		
14. Pelham Parkway West (E-W) at Eastchester Road (N-S)	WB-L WB-TR NB-DefL NB-T SB-TR	0.59 0.58 0.42 0.45 0.50	25.2 23.0 16.5 16.3 25.7	U U M M U	0.59 0.58 0.47 0.52 0.52	25.2 23.0 19.5 19.5 16.7 26.0	U D M M D		0.59 0.58 0.62 0.48 0.52	25.2 23.0 21.3 16.8 26.1	000000	0.78 5 0.93 5 0.47 1 0.64 1 0.91 6	54.0 D 57.9 E 18.7 B 14.6 B 60.6 E		0.78 0.93 0.54 0.66 0.93	8 54.0 3 57.9 4 22.3 6 15.0 3 63.2	ш <u>в</u> С ш <u>р</u>		0.78 0.93 0.56 0.66 0.94	54.0 57.9 233.2 15.0 64.2	C H C M H	
15. Pelham Parkway East (E-W) at Eastchester Road (N-S)	EB-LT NB-TR SB-LT	0.83 0.36 0.65	30.7 23.7 19.1	ပပက	0.83 0.43 0.69	30.7 24.6 20.0	ບບຂໍ		0.83 0.45 0.70	30.7 25.0 20.3	000	1.04 7 0.59 2 0.80 2	72.4 E 29.1 C 27.9 C		1.04 0.64 0.84	4 72.4 4 30.4 4 30.2	4 4 0 E O O		1.04 0.65 0.84	72.4 30.7 30.9	မပပံ	1
16. Westchester Avenue (N-S) at East Tremont Avenue (E-W) NOTES.	EB-T EB-R WB-T NB-T SB-TR	0.18 0.10 0.31 0.35 0.35	21.8 21.0 23.4 26.4 20.1	.00000	0.18 0.10 0.31 0.36 0.40	21.8 21.0 23.4 26.5 20.2	00000		0.18 0.10 0.31 0.36 0.36	21.8 21.0 23.4 26.6 20.2 20.2	00000	0.47 2 0.11 1 0.37 19 0.71 30 0.41 19	21.0 C 17.4 B 19.8 B 30.1 C 15.5 B		0.47 0.11 0.37 0.37 0.72 0.72	7 21.0 1 17.4 7 19.8 2 30.4			0.47 0.11 0.37 0.37 0.41	21.0 17.4 19.8 30.4 15.5	00000	T

NOTES:

Table has been revised for the FEIS. EB-Easthound, WB-Westhound, NB-Northbound, SB-Southbound L-Left, T-Through, R-Right, DetL-Analysis considers a Dc facto Left Lane on this approach UCR attribution in the Capacity Rario, SECVEH-Seconds per Vehicle UCS-Level of Service - - Denotes Impacted Intersection Audysis is based on the 2000 Highway Capacity Manual Methodology (HCS 2000)

P	SA	C	Π	F	EI	S

Chapter 12: Traffic and Parking

																	20	112 Bu	TABLE 12-10 2012 Build Level of Service (continued)	TABLE 12-10 evel of Service (continued)	LE 12-10 f Service (continued)	2-10 vice	
	L					AM Peak Hour	k Hour									Midda	Midday Peak Hour	Hour				Π	
	+	2012	No Buil	_		pical Op	erations	<u> </u>	Ĭ	Consolidated Operations	tted IIIS	201	2012 No Build	iid -		Typical	Typical Operations	ons		Cons Ope	Consolidated Operations		
ANALYZED INTERSECTIONS	Lane Group	V/C J	//C Delay atio (sec) LC	ros	V/ Rat	C Del: io (set	V/C Delay Ratio (sec) LOS		V/C Ratio	Delay () (sec)	TOS	V/C Ratio	Delay (sec)	LOS		V/C J Ratio	Delay (sec) I	ros		V/C I Ratio	Delay (sec) I	SOL	
17. Westchesier Avenue (N-S) at Blondell Avenue (E-W)		0.25 0.23 0.56	22.8 17.9 29.7	ပရပ	0.25 0.23 0.56	15 22.8 13 18.0 16 29.8	C B C		0.25 0.23 0.56	5 22.8 1 18.0 5 29.9	ပက္ရပ	0.43 0.48 0.63	21.4 16.8 26.4	ບຂບ		0.43 0.48 0.64	21.4 16.9 26.5	ပကပ		0.43 0.48 0.64	21.4 16.9 26.6	C B C	
18. Westchester Avenue (N-S) at From Ericson Pl. Ericson Pl.Middletown Rd and Hutchinson Pkwy (E-W)	WB-LTR WB-LTR NB-DefL NB-TR NB-TR SB-LT	0.54 1.05 0.72 0.63 0.68	35.4 95.3 32.0 36.0	DFCOD	0.54 1.05 0.72 0.63 0.63	54 35.4 05 95.3 72 32.0 53 26.5 58 36.0	0 0 0 0 4 FD		0.54 1.05 0.72 0.63 0.63	t 35.4 5 95.3 2 32.0 3 26.5 8 36.0	UFOOD	0.79 0.86 1.02 1.00 0.54	43.3 54.6 82.8 63.8 32.1	ロロFEC		0.79 0.86 1.02 1.00 0.54	43.3 54.6 82.8 63.8 32.1	ひつFEUU		0.79 0.86 1.02 1.00 0.54	43.3 54.6 82.8 63.8 32.1	ранно	
19. Eastchester Road (N-S) at Bassett Road (E-W)	WB-LR NB-TR SB-LT	0.27 0.48 0.37	15.0 9.9 9.1	BAA	0.27 0.53 0.43	27 15.0 53 10.4 43 9.7	.0 B 14 B 7 A		0.27 0.55 0.45	7 15.0 5 10.7 5 9.8	A W W	0.30 0.67 0.58	15.2 12.3 11.4	<u>а</u> т т		0.30 0.72 0.63	15.2 13.4 12.2	888	. *	0.30 0.73 0.66	15.2 13.7 12.7	<u>م</u> م م	
20. Eastchester Road (N-S) at lives Street (E-W)	EB-LR NB-LT SB-TR	0.19 0.68 0.25	15.2 13.5 8.0	A B B	000	0.19 15 0.76 15 0.30 8.	t5.2 B 15.8 B 8.4 A		0.19 0.80 0.31	9 15.2 0 17.0 1 8.4	ра ра	0.18 0.99 0.49	14.5 37.0 10.0	BUA		0.18 1.08 0.53	14.5 66.1 10.5	а н а В		0.18 1.11 0.54	14.5 77.0 10.7	а Пара	
 Sackett Avenue (N-S) at Ives Street (E-W) unsignalized 	WB-L NB-R SB-LT	111	9.8 7.9 10.5	A B	111	9. – – – – – – – – – – – – – – – – – – –	9.8 A 7.9 A 10.5 B			9.8 7.9 10.5	A A B	111	9.1 7.6 9.2	A A A			9.1 7.6 9.2	K K K			9.1 7.6 9.2	~ ~ ~	
22. Eastchester Road (N-S) at Morris Park Avenue (E-W)	EB-LT EB-LT EB-LT EB-LT EB-LT NB-LTR NB-LT SB-LT SB-R	0.45 0.22 0.46 0.46 0.76 0.28 0.49 0.56	26.9 22.5 26.5 26.5 26.5 26.1 11.6 11.6 22.1 25.7 25.7	00000m00	00000000	0.45 26 0.45 26 0.46 26 0.06 20 0.82 31 0.34 12 0.56 23 0.56 23	269 C 2255 C 2255 C 202 C 31,5 C 31,5 C 31,5 C 22,25,7 C 25,7 C		0.45 0.46 0.06 0.83 0.36 0.57 0.56	5 26.9 6 26.5 6 26.5 3 32.6 6 12.4 6 12.4 6 25.7 6 25.7		0.61 0.75 0.19 0.19 0.46 0.46 0.60	32.2 24,4 37,1 22,1 88.8 82.8 13.6 24,3 24,7 24,7	ししつし下きしし		0.61 0.33 0.75 0.19 1.10 0.52 0.66	32.2 24.4 37.1 22.1 112.1 14.4 14.4 25.6 24.7	COUCE MOO		0.61 0.33 0.75 0.19 1.14 0.53 0.68 0.53	32.2 24.4 37.1 22.1 126.1 14.6 26.3 24.7	UUDUL MUU	
23. Eastchester Road (N-S) at Stillwell Avenue (E-W)	EB-LTR WB-LTR NB-LT SB-LTR	0.05 0.24 0.24 0.55	20.1 22.8 11.3 14.9	ပပက္က	0000	0.05 20 0.24 22 0.28 11 0.60 15	20.1 C 22.8 C 11.7 B 15.8 B		0.05 0.24 0.30 0.61	5 20.1 4 22.8 0 11.9 11 16.0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.09 0.26 0.42 0.58	20.6 23.2 13.1 15.6	ပပက္က	-	0.09 0.26 0.46 0.62	20.6 23.2 13.7 16.3	ပ်ဂမီမ		0.09 0.26 0.47 0.64	20.6 23.2 13.8 16.7	ပပာၾက	Non-Address of the Address of the Ad
24. Eastchester Road (N-S) at Rhinelauder Avenue (E-W)	WB-LR NB-TR SB-LT	0.18 0.19 0.54	25.7 8.0 11.3	D A B	000	0.18 25 0.23 8 0.58 11	25.7 C 8.3 A 11.9 B		0.18 0.25 0.59	8 25.7 25 8.4 9 12.0	B V C	0.13 0.55 0.83	19.1 25.2 35.2	m U D		0.13 0.60 0.90	19.1 26.4 40.9	BCB		0.13 0.61 0.93	19.1 26.6 44.3	a n n	Contraction of the second s
NOTES:																							

NOTES: Table has been revised for the FEIS. Table has been revised for the FEIS. E.B. Eschound, NP. Wei Northound. SB-Southbound L-Left, T-Through, R-Right, DefL-Analysis considers a De facto Left Lane on this approach UC Ruis-Volume to Capacity Ratio, SEC/VEH-Seconds per Vehicle LOS-Level of Service - Demoss Impacted Intersection Analysis is based on the 2000 Highiney Capacity Manual Methodology (HCS 2000)

12-27

Morris Park Avenue would operate with approximately <u>126.1</u> (LOS F) seconds of delay in the midday peak hour. Though travel demand would generally increase at other analyzed intersections in the corridor, no additional significant impact would occur in the future with the Proposed Action under Typical or temporary Consolidated Operations in any analyzed peak hour.

Westchester Avenue Corridor

Under Typical Operations, all intersections in the Westchester Avenue corridor are expected to operate at an acceptable mid-LOS D or better in the future with the Proposed Action, though one movement of Westchester Avenue at Little League Place and Westchester Avenue at Waters Place would become significantly impacted under temporary Consolidated Operations. Under temporary Consolidated Operations, the westbound left-right movement of Westchester Avenue at Little League Place would operate with approximately 50.6 (LOS D) and <u>137.1</u> (LOS F) seconds of delay in the AM and midday peak hours, respectively, compared to 23.1 (LOS C) and <u>30.3</u> (LOS C) seconds of delay, respectively, in the No-Build condition. Though travel demand would generally increase at other analyzed intersections in the corridor, no additional significant impacts would occur in the future with the Proposed Action under Typical or temporary Consolidated Operations in any analyzed peak hour.

East Tremont Avenue Corridor

Under Typical Operations, all intersections in the East Tremont Avenue corridor would operate at an acceptable mid-LOS D or better in the future with the proposed PSAC II development with the exception of East Tremont Avenue at Silver Street and Castle Hill Avenue. Under Typical Operations, the eastbound de facto left-turn and southbound left-right movements of East Tremont Avenue at Silver Street would become significantly impacted, operating with approximately <u>77.2</u> (LOS E) and <u>138.9</u> (LOS F) seconds of delay, respectively, in the AM peak hour, compared to <u>55.6</u> (LOS E) and <u>108.7</u> (LOS F), respectively, in the No-Build condition. In the midday peak hour, the eastbound de facto left-turn and southbound left-right movements of East Tremont Avenue at Silver Street would operate with approximately <u>56.3</u> (LOS E) and <u>68.2</u> (LOS E) seconds of delay, respectively, compared to approximately <u>42.3</u> (LOS D) and <u>50.6</u> (LOS D) seconds of delay, respectively, in the No-Build condition. Additionally, in the midday peak hour, the westbound left-through movement at East Tremont Avenue at Castle Hill Avenue would be come significantly impacted, operating with approximately <u>89.5</u> (LOS F) seconds of delay, compared to <u>72.5</u> (LOS E) seconds of delay, in the No-Build condition.

Under temporary Consolidated Operations when both PSAC I and PSAC II employees would operate from PSAC II, conditions would generally worsen at the intersection of East Tremont Avenue and Silver Street and Castle Hill Avenue. In the AM peak hour, delays would increase to approximately <u>78.7</u> (LOS E) and <u>148.7</u> (LOS F) seconds at the eastbound de facto left-turn and southbound left-right movements of East Tremont Avenue and Silver Street, respectively. In the midday peak hour, delays at East Tremont Avenue and Silver Street would increase to approximately <u>62.0</u> (LOS E) and <u>69.5</u> (LOS E) seconds at the eastbound de facto left-turn and southbound left-right movements, respectively. Under temporary Consolidated Operations, the westbound left-through movement at East Tremont Avenue and Castle Hill Avenue would operate with approximately <u>92.4</u> (LOS F) seconds of delay.

Under temporary Consolidated Operations, an additional significant impact would occur at the northbound left-through-right approach of East Tremont Avenue at Ericson Place in both the AM and midday peak hours. Delays of approximately <u>62.0</u> (LOS E) and <u>57.9</u> (LOS E) seconds would occur at this approach when PSAC II temporarily operates with both PSAC I and PSAC II employees, compared to <u>32.1</u> and <u>31.9</u> seconds of delay (both LOS C) in the AM and midday peak hours, respectively, under the No-Build condition. Though travel demand would generally increase at other

analyzed intersections in the corridor, no additional significant impacts would occur in the future with the Proposed Action under Typical or temporary Consolidated Operations in any analyzed peak hour.

Waters Place Corridor

In addition to the significant impact at Waters Place and Eastchester Road (previously identified for the Eastchester Road corridor), one additional significant impact would occur at the eastbound a<u>pproach</u> of Waters Place at Marconi Street (known as Industrial Street under the Existing and No-Build conditions) under Typical Operations. In the AM and midday peak hours, this movement would operate with approximately <u>71.4</u> (LOS <u>E</u>) and <u>74.3</u> (LOS <u>E</u>) seconds of delay, respectively, under Typical Operations, compared to <u>13.1</u> (LOS B) and <u>23.6</u> (LOS B and C, respectively) seconds of delay for the eastbound left-through movement in the in the AM and midday peak hours, respectively, under the No-Build condition. Under temporary Consolidated Operations, conditions would generally worsen at the eastbound <u>approach</u> of Waters Place at Marconi Street (formerly Industrial Street), which would operate with approximately <u>163.6</u> (LOS F) and <u>185.2</u> (LOS F) seconds of delay in the AM and midday peak hours, respectively. Also, in the midday under the temporary Consolidated Operations the southbound exit at Waters Place and Marconi Street (formerly Industrial Street) would be congested in both the left-right-turn and right-turn movements, which have LOS D with delays of <u>52.6</u> and <u>52.5</u> seconds, as compared to the No-Build condition delays of 29.0 and 30.2 seconds, respectively.

Additionally, under temporary Consolidated Operations, the eastbound left-through and westbound through-right movements at Waters Place and the Bronx Psychiatric Center entrance would also become significantly impacted in the AM peak hour, operating with approximately <u>88.8</u> (LOS F) and <u>65.2</u> (LOS E) seconds of delay, respectively, compared to <u>18.0</u> (LOS B) and 21.6 (LOS C) seconds of delay, respectively, under the No-Build condition. In the midday peak hour, the eastbound left-through movement at this intersection would become significantly impacted, operating with approximately <u>108.0</u> (LOS F) seconds of delay compared to <u>21.5</u> (LOS C) seconds of delay in the No-Build condition. Though travel demand would generally increase at other analyzed intersections in the corridor, no additional significant impacts would occur in the future with the Proposed Action under Typical or temporary Consolidated Operations in any analyzed peak hour.

As discussed earlier, significant adverse traffic impacts would occur at six signalized intersections under the 2012 future with the Proposed Action when PSAC II operates under typical conditions, and at three additional signalized intersections (totaling nine) when PSAC I and II are temporarily consolidated at PSAC II. Mitigation measures for the impacted intersections are discussed later in Chapter 18, "Mitigation".

Parking

All of the proposed PSAC II parking demand is expected to be accommodated on-site. The proposed PSAC II development would include the construction of a 500-space accessory parking structure at the southern end of the proposed development site, which would be dedicated to accommodating the parking needs of PSAC II. As shown in Table 12-11, the greatest parking demand would generally occur during the proposed facility's three primary shift changes, at which time the proposed development would be expected to generate a maximum parking demand of approximately 264 spaces, under Typical Operations (PSAC II employees only), and a maximum of approximately 496 spaces under Consolidated Operations. It is therefore anticipated that the accessory garage would provide sufficient parking to accommodate the demand generated by the proposed development under the Typical Operations. During the Consolidated Operation of PSAC II, the 500-space accessory garage would operate at capacity with a maximum accumulation of 496 spaces and a utilization rate of

<u>99 percent with only four available spaces. In the event additional vehicles would need to park at the garage, the NYPD would direct vehicles to park elsewhere on the site. It should be noted that the project site would be a secured facility with no unauthorized access.</u>

The proposed PSAC II development would be constructed within the northern portion of the <u>HMC</u>, and is expected to directly displace (or eliminate) approximately <u>513</u> required accessory parking spaces for the <u>HMC</u>. These <u>513</u> accessory spaces are required pursuant to the <u>site</u>'s M1-1 zoning (refer to Chapter 2, "Land Use, Zoning and Public Policy for further detail). As discussed in more detail later in this section, vehicles that previously parked within the boundary of the proposed development site would likely resort to parking south of the 4-story office building, where parking spaces remain available under the Build condition.

Table 12-12 shows the parking conditions in the <u>HMC</u> in the future with the Proposed Action. As shown in Table 12-12, the <u>HMC</u> would have a total parking capacity of approximately <u>2.639</u> accessory spaces that would be provided within two <u>attended</u> accessory parking garages and at-grade accessory lots; one of the accessory lots would be an attended facility. The total parking demand in the <u>HMC</u> would continue to be approximately <u>2.043</u>, <u>2.190</u> and <u>857</u> spaces in the 11 AM, 2 PM and 6 PM hours, respectively, the same as under the future without the Proposed Action. However, with the direct displacement of <u>513</u> accessory spaces, the utilization rates would increase to approximately <u>77</u>, <u>83</u> and <u>32</u> percent in the 11 AM, 2 PM and 6 PM hours, respectively.

			(P:	Typical Oper SAC II Employ						orary Consolid PSAC I and II		ons
	IN	OUT	Accumulation	Accessory Supply	Excess Supply	Percent Capacity	IN	OUT	Accumulation	Accessory Supply	Excess Supply	Percent Capacity
12-1 AM	0	0	152	500	152	30%	0	0	324	500	176	65%
1-2	0	0	152	500	152	30%	0	0	324	500	176	65%
2-3	0	0	152	500	152	30%	0	0	324	500	176	65%
3-4	0	0	152	500	152	30%	0	0	324	500	176	65%
4-5	0	0	152	500	152	30%	0	0	324	500	176	65%
5-6	0	0	152	500	152	30%	0	0	324	500	176	65%
6-7*	137	31	258	500	227	52%	246	78	492	500	8	98%
7-8*	51	121	188	500	67	38%	84	246	330	500	170	66%
8-9	0	0	188	500	188	38%	0	0	330	500	170	66%
9-10	0	0	188	500	188	38%	0	0	330	500	170	66%
10-11	0	0	188	500	188	38%	0	0	330	500	170	66%
11-12	0	0	188	500	188	38%	0	0	330	500	170	66%
12-1 PM	0	0	188	500	188	38%	0	0	330	500	170	66%
1-2	0	0	188	500	188	38%	0	0	330	500	170	66%
2-3*	121	45	264	500	219	53%	257	91	496	500	4	99%
3-4*	37	143	158	500	15	32%	101	239	358	500	142	72%
4-5	0	0	158	500	158	32%	0	0	358	500	142	72%
5-6	0	0	158	500	158	32%	0	0	358	500	142	72%
6-7	0	0	158	500	158	32%	0	0	358	500	142	72%
7-8	0	0	158	500	158	32%	0	0	358	500	142	72%
8-9	0	0	158	500	158	32%	0	0	358	500	142	72%
9-10	0	0	158	500	158	32%	0	0	358	500	142	72%
10-11*	121	37	242	500	205	48%	236	102	492	500	8	98%
11-12*	31	121	152	500	31	30%	88	256	324	500	176	65%

TABLE 12-11
Parking Demand for the Proposed PSAC II Development

Notes

-Primary shift changes are expected to occur at 7 AM, 3 PM and 11 PM.

* -Temporal distribution based on data provided by NYPD, FDNY and EMS, and assumes employees arrive and leave the proposed PSAC II development the half hour before and after the shift changes. Inbound and outbound employee travel during the 7 AM, 3 PM and 11 PM shift changes occur between 6:30 and 7:30 AM, 2:30 to 3:30 PM, and 10:30 to 11:30 PM, respectively.

	No-l	Build Condi	tion		Buil	d Condition		
Lot	Capacity	Demand	Utilization	Spaces Eliminated (1)	Build Capacity	Net New Demand (2)	Total Demand	Utilization
11 AM Total	<u>3,152</u>	<u>2,027</u>	64%	<u>513</u>	<u>2,639</u>	0	<u>2,043</u>	<u>77%</u>
2 PM Total	<u>3,152</u>	<u>2,173</u>	69%	<u>513</u>	<u>2,639</u>	0	<u>2,190</u>	<u>83%</u>
6 PM Total	<u>3,152</u>	<u>838</u>	<u>27%</u>	<u>513</u>	<u>2,639</u>	0	<u>857</u>	<u>32%</u>

TABLE 12-12 2012 Build Parking Conditions in the Adjacent Hutchinson Metro Center

Notes:

(1)-The Proposed Action would directly displace approximately 513 required accessory parking spaces for the Hutchinson Metro Center, which are located within the boundaries of the proposed development site.

(2)-All parking demand generated by PSAC II under Typical and temporary Consolidated Operations is expected to be accommodated in the 500-space accessory garage, which would be constructed at the proposed development site.

According to the *CEQR Technical Manual*, for areas outside the Manhattan Central Business District (CBD) or outlaying business districts (OBD), a parking shortfall that exceeds the number of off-street parking spaces by more than half the available on-street parking space within ¹/₄-miles of the site may be considered significant. As the proposed PSAC II employees are not expected to utilize outside off-street or on-street parking facilities and because the <u>HMC</u> would retain sufficient capacity to accommodate all of its future parking demand, the Proposed Action would not result in significant parking impacts according to *CEQR Technical Manual* criteria.

Although a significant parking impact is not anticipated with the construction of the proposed PSAC II development, the elimination of approximately 513 required accessory parking spaces, located within the boundaries of the proposed development site, would likely cause the <u>HMC</u> to become non-compliant with M1-1 zoning parking requirements. This is discussed in more detail in Chapter 2, "Land Use, Zoning and Public Policy". Additionally, it should be noted that because Mercy College students preferentially park in the northern portion of the <u>HMC</u>, the elimination of <u>513</u> parking spaces from the northern lot would cause students to park a greater distance from the college. Under the Build condition, Mercy College students, especially in the evening 6 PM hour when student demand is greatest, would likely find additional parking to the south of the main 4-story building, in the two available at-grade lots or in the planned tower garages. However, as discussed earlier, because the <u>HMC</u> would contain a sufficient number of parking spaces to accommodate the future demand of all uses in the complex, from the operational viewpoint, no significant adverse parking impacts would occur in the future with the Proposed Action.

E. CONCLUSION

This chapter analyzes the effect of the added traffic and parking demand resulting from the construction of the proposed PSAC II development on the street network in the AM (6:30 AM to 7:30 AM) and midday (2:30 PM to 3:30 PM) peak hours in the 2012 future with the Proposed Action. As there are expected to be a number of instances when the proposed PSAC II development would handle emergency communications for the entire City and the proposed development could accommodate the combined staffs of both PSAC I and PSAC II, this chapter also presents an analysis of traffic and

parking under this temporary Consolidated Operation condition. The results of the analysis show that under Typical Operations the proposed PSAC II development would result in significant traffic impacts at six signalized intersections (three in the AM peak hour, six in the midday peak hour). Under the Consolidated Operations, the proposed PSAC II development could result in significant traffic impacts at three additional signalized intersections (in total, six in the AM peak hour and nine in the midday peak hour). Mitigation measures for the impacted intersections are discussed in more detail in Chapter 18, "Mitigation".

The proposed 500 space accessory parking garage would provide enough capacity to accommodate all of the demand generated by the proposed PSAC II development under <u>the</u> Typical Operations. Under Typical Operations, the proposed PSAC II development would have a maximum parking demand of approximately 264 spaces (53% garage utilization). Under temporary Consolidated Operations, the accessory parking garage would operate at capacity, as the PSAC II development is expected to have a maximum demand of approximately 496 spaces (99% garage utilization) in the midday peak hour. In the event that additional vehicles would need to park at PSAC II, the NYPD would direct vehicles to park elsewhere on the site.

As the proposed PSAC II development would directly displace some required accessory parking for the <u>HMC</u>, this chapter also analyzes the effect of this loss of required accessory parking on the current and projected parking demand at <u>HMC</u>. The results of the analysis indicate that although the provided accessory parking capacity of the <u>HMC</u> would no longer comply with the site's M1-1 zoning parking regulations (which, as discussed in Chapter 2, "Land Use, Zoning and Public Policy" would result in an adverse, but not significant, zoning impact), the <u>HMC</u> would retain a sufficient number of parking spaces to accommodate all of its projected parking demand. Therefore, as the <u>HMC</u> office, <u>hotel</u> and student demand would not affect on-street or off-street parking demand and capacity, no significant adverse parking impacts would result from the Proposed Action.