A. INTRODUCTION

In accordance with the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, in cases where significant adverse impacts are identified, where practicable, mitigation measures to reduce or eliminate the impacts to the fullest extent practicable are developed and evaluated.

B. PRINCIPAL CONCLUSIONS

As presented in Chapters 2 through 19 of this Environmental Impact Statement (EIS), the Proposed Actions would result in significant adverse impacts in the following technical areas: transportation (traffic, transit, and pedestrians), air quality (mobile source), and construction (transportation). Mitigation measures being proposed to address those impacts, where feasible and/or practical, are discussed below. If no feasible mitigation can be identified, an unavoidable significant adverse impact would result.

Transportation

As described below, the Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 16 intersections; b) two stairs at one subway station; and c) pedestrian elements at four sidewalks, five corners, and three crosswalks. Mitigation measures that could address the significant adverse impacts are discussed below and will continue to be evaluated between certification of the DEIS and publication of the FEIS.

Traffic

As described in greater detail in **Chapter 13, "Transportation,"** the Proposed Actions would result in significant adverse traffic impacts at 16 study area intersections (11 signalized and five unsignalized) during one or more analyzed peak hours; specifically 23 lane groups at 14 intersections during the weekday AM peak hour, 19 lane groups at 13 intersections in the midday peak hour, 27 lane groups at 16 intersections in the PM peak hour, and 20 lane groups at 14 intersections during the Saturday peak hour. Implementation of traffic engineering improvements such as signal timing changes and installation of new traffic signals are being proposed and would provide mitigation for some of the anticipated traffic impacts. The proposed traffic engineering improvements will be implemented at the discretion of the New York City Department of Transportation (DOT). If DOT determines that implementation of the proposed traffic engineering improvement at one or more locations is infeasible, and no alternative and equivalent measure is identified, then that impact would remain unmitigated and would constitute an unavoidable adverse impact.

Assuming all the proposed mitigation measures are implemented, **Table 20-1** shows that significant adverse impacts would be fully mitigated at two lane groups in the weekday AM peak hour, one lane group in the midday peak hour, zero lane groups in the weekday PM peak hour, and zero lane groups in the Saturday peak hour. Intersections where these impacts would be fully mitigated would total two, one, zero, and zero during these same periods, respectively. **Table 20-2** provides a more detailed summary of the intersections and lane groups that would have unmitigated significant adverse traffic impacts. In total,

impacts to one or more lane groups would remain unmitigated in one or more peak hours at 16 intersections.

TABLE 20-1
Summary of Lane Groups/Intersections with Significant Adverse Traffic Impacts

Peak Hour	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	100/30	77/18	23/14	2/2	21/12
Weekday Midday	100/30	81/20	19/13	1/1	18/12
Weekday PM	100/30	73/17	27/16	0/0	27/16
Saturday	100/30	80/18	20/14	0/0	20/14

Table 20-2
Lane Groups With Unmitigated Significant Adverse Traffic Impacts

	Peak Hour			
	Weekday AM	**Weekday Midday**	**Weekday PM**	**Saturday**
Signalized Intersections				
1. Broadway & Eastern Pkwy & Hull St		EB-LTR, NB-LTR	EB-LTR, NB-LTR	EB-LTR, NB-LTR
5. Fulton St & Eastern Pkwy	WB-LTR	EB-LTR, WB-LTR	EB-LTR, WB-LTR	EB-LTR, WB-LTR
7. Fulton St & Van Sinderen Ave	WB-LT, NB-LTR, SB-LTR	NB-LTR, SB-LTR	WB-LT, NB-LTR, SB-LTR	NB-LTR
9. Herkimer St & Eastern Pkwy			EB-LTR	EB-LTR
16. Atlantic Ave & Eastern Pkwy	WB-T, NB-R, SB-TR	WB-T	NB-R, SB-TR	WB-T, NB-R
18. Atlantic Ave WB Service Rd & E New York Ave SB Service Road & Williams Pl	SWB-R	SWB-R	SWB-R	SWB-R
19. E New York Ave & Herkimer St & Fulton St & Williams Ave	SB-LTR	SB-LTR	SB-LTR	SB-LTR
20. E New York Ave & Jamaica Ave & Alabama Ave & Broadway	EB-LTR, WB-TR, NB-L	NB-L	EB-LTR, NB-L	EB-LTR
23. Jamaica Ave & Jackie Robinson/Pennsylvania Ave & Bushwick Ave	EB-L, WB-TR, SB-R	EB-L, EB-T	EB-L, EB-T, WB-TR	EB-L, EB-T, WB-TR
28.Atlantic Ave & Georgia Ave	NB-LTR	NB-LTR	NB-LTR	NB-LTR
29. Atlantic Ave & Pennsylvania Ave	NB-L, SB-TR	EB-L, NB-L	NB-L, SB-R	EB-LTR, NB-L
Unsignalized Intersections				
3. Broadway & Conway St	NB-LTR	NB-LTR, SB-LTR	NB-LTR, SB-LTR	NB-LTR
8. Fulton St & Williams Pl	NB-LR		NB-LR	NB-LR
15. Herkimer St & Williams Pl			EB-TR, NB-LT	
22. Truxton St & Van Sinderen Ave			EB-R	
24. Fulton St & Georgia Ave	NB-TR	NB-TR	NB-TR	NB-TR

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

Transit

The Proposed Actions would result in significant adverse impacts to two platform stairs in the AM and PM peak hours at the Broadway Junction (A/C/J/L/Z) Subway Station complex. Stairway widening is the most common form of mitigation for significant stairway impacts, provided that New York City Transit (NYCT) deems it practicable (i.e., that it is worthwhile to disrupt service on an existing stairway to widen it and

that a given platform and sidewalk affected by such mitigation are wide enough to accommodate the stairway widening). Another potential mitigation measure would be to add vertical capacity (i.e., adding an escalator or additional stairway) in the vicinity of the impacted stairway. No feasible mitigation measures were identified for these stairs. While these measures do not currently appear practicable, mitigation measures will continue to be evaluated between certification of the DEIS and publication of the FEIS. Therefore, the Proposed Actions would result in an unmitigated significant adverse impact at platform stairs P3/P4 and the new platform stair to the southbound A/C platform in the Broadway Junction Subway Station complex.

Pedestrians

Incremental demand from the Proposed Actions would significantly adversely impact four sidewalks, three crosswalks, and five corners in one or more analyzed peak hours. Recommended mitigation measures consisting of the widening of crosswalks would mitigate the impacts to two crosswalks in one or more peak hours (one crosswalk in the weekday midday peak hour and one crosswalk in the Saturday peak hour). **Table 20-3** shows a summary of fully mitigated and unmitigated significant adverse impacts. The recommended pedestrian mitigation measures will be implemented at the discretion of DOT. If DOT determines that implementation of the recommended pedestrian mitigation measures at the two crosswalks is infeasible, and no alternative and equivalent measure is identified, then these impacts would remain unmitigated and would constitute unavoidable adverse impacts.

TABLE 20-3
Summary of Significant Pedestrian Impacts

Peak Hour	Sidewalks/ Crosswalks/ Corners Analyzed	Sidewalks/ Crosswalks/ Corners with No Significant Impacts	Sidewalks/ Crosswalks/ Corners with Significant Impacts	Mitigated Sidewalks/ Crosswalks/ Corners	Unmitigated Sidewalks/ Crosswalks/ Corners
Weekday AM	22/12/20	19/12/18	3/0/2	0/0/0	3/0/2
Weekday Midday	22/12/20	19/11/17	3/1/3	0/1/0	3/0/3
Weekday PM	22/12/20	18/11/17	4/1/3	0/0/0	4/1/3
Saturday	22/12/20	18/10/16	4/2/4	0/1/0	4/1/4

Air Quality

The mobile source analyses determined that at one of the intersections analyzed, the maximum annual incremental $PM_{2.5}$ concentration is predicted to exceed the *de minimis* criterion. This would be considered a significant adverse air quality impact in the absence of traffic mitigation measures. Between certification of the DEIS and publication of the FEIS, additional refinements of the analysis will be performed which could determine that the identified impacts related to mobile source annual average $PM_{2.5}$ increments will be avoided. Additional modeling of $PM_{2.5}$ concentrations (Grid Analysis) will be performed using more comprehensive analysis procedures to determine the magnitude and extent of neighborhood-scale $PM_{2.5}$ impacts from mobile sources. Other updates may include the use of newer vehicle emissions model data and projections. It is anticipated that these additional measures will reduce $PM_{2.5}$ concentrations below the annual *de minimis* criteria thresholds. In addition to the refined analysis which may demonstrate that potential impacts related to mobile sources would be avoided, potential mitigation measures are currently being explored by the lead agency, DCP, and will be refined between certification of the DEIS

and publication of the FEIS. Absent the identification and implementation of feasible mitigation measures the impact could remain unmitigated.

Construction

Transportation

As presented in **Chapter 19, "Construction,"** it is expected that potential significant adverse traffic, transit, and pedestrian impacts could occur during construction and that these impacts would be within the range of impacts identified in **Chapter 13, "Transportation"** for the 2036 With-Action condition. The mitigation measures identified below, for 2036 operational traffic and pedestrian impacts would likely be similarly effective at mitigating any potential construction traffic and pedestrian impacts.

C. Transportation

The Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 16 intersections; b) two stairs at one subway station; and c) pedestrian elements at four sidewalks, five corners, and three crosswalks. Mitigation measures that could address the significant adverse impacts are discussed below and will continue to be evaluated between certification of the DEIS and publication of the FEIS.

Traffic

As described in **Chapter 13, "Transportation,"** the Proposed Actions would result in significant adverse traffic impacts at 16 study area intersections (11 signalized and five unsignalized) during one or more analyzed peak hours; specifically, 23 lane groups at 14 intersections during the weekday AM peak hour, 19 lane groups at 13 intersections in the midday peak hour, 27 lane groups at 16 intersections in the PM peak hour, and 20 lane groups at 14 intersections during the Saturday peak hour.

As demonstrated below, some of these impacts could be mitigated through the implementation of traffic engineering improvements, including:

- Modification of existing traffic signal phasing and/or timing; and
- Installation of new traffic signals.

The types of mitigation measures proposed herein are standard measures that are routinely identified by the City and considered feasible for implementation. **Table 20-4** summarizes the recommended mitigation measures for each of the intersections with significant adverse traffic impacts during the weekday AM, midday, PM, and Saturday peak hours. The proposed traffic engineering improvements will be implemented at the discretion of DOT. If DOT determines that implementation of the proposed traffic engineering improvement at one or more locations is infeasible, and no alternative and equivalent measure is identified, then that impact would remain unmitigated and would constitute an unavoidable adverse impact. **Tables 20-5** through **20-8** show the v/c ratios, delays, and levels of service (LOS) for impacted lane groups at each intersection with implementation of the recommended mitigation measures and compares them to No-Action and With-Action conditions for the weekday AM, midday, PM, and Saturday peak hours, respectively. According to 2021 *CEQR Technical Manual* criteria, an impact is considered fully mitigated when the resulting LOS degradation under the Action-with-Mitigation condition compared with the No-Action condition is no longer deemed significant following the impact criteria described in **Chapter 13, "Transportation." Tables 20-5** through **20-8** show that significant adverse

impacts would be fully mitigated at two lane groups in the weekday AM peak hour, two lane groups in the midday, zero lane groups in the PM, and zero lane groups in the Saturday peak hour. Intersections where these impacts would be fully mitigated would total two, one, zero, and zero during these same periods, respectively. In total, impacts to one or more lane group(s) would remain unmitigated in one or more peak hours at 16 intersections. Consequently, these impacts would constitute unavoidable significant adverse traffic impacts as a result of the Proposed Actions (see **Chapter 22, "Unavoidable Adverse Impacts"**).

TABLE 20-4
Proposed Traffic Mitigation Measures

	Intersection	Signal Phase	No-Action/With Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Mitigation
			AM	MD	PM	SAT	AM	MD	PM	SAT	
1	Broadway (E-W) &	NB/SB	63	45	63	45	60	45	63	45	-Transfer 3s of green time from
	Eastern Pkwy (N-S) & Hull St (NE)	EB/WB	39	30	39	30	42	30	39	30	NB/WB to EB/WB in AM.
		NE	18	15	18	15	18	15	18	15	
3	Broadway (E-W) &	EB/WB	Unsignalized				Unsignalized				- Unmitigable.
	Conway St (N-S)	NB/SB									
5	Fulton St (E-W) &	NB/SB	57	42	55	42	57	42	55	42	- Unmitigable.
	Eastern Pkwy (N-S)	EB/WB	50	36	50	36	50	36	50	36	
		NB	13	12	15	12	13	12	15	12	
7	Fulton St (E-W) &	EB/WB	40	40	40	40	40	40	40	40	- Unmitigable.
	Van Sinderen Av (N-S)	SB	20	20	20	20	20	20	20	20	
		NB/SB	30	30	30	30	30	30	30	30	
8	Fulton St (E-W) &	EB/WB	Unsignalized				Unsignalized				- Unmitigable.
	William Pl (NB)	NB									
9	Herkimer St (EB) &	NB/SB	73	45	73	45	71	44	73	45	-Transfer 2s of green time from
	Eastern Pkwy (N-S)	LPI	7	10	7	10	7	10	7	10	NB/SB to EB in AM.
		EB	40	35	40	35	72	36	40	35	-Transfer 1s of green time from NB/SB to EB in midday.
15	Herkimer St (EB) &	EB	Unsignalized				45	45	45	45	-Install signal at this intersection
	William Pl (NB)	NB					45	45	45	45	with a 90-second cycle length.
16	Atlantic Av (E-W) &	NB/SB	40	34	40	34	40	34	40	34	- Unmitigable.
	Eastern Pkwy (N-S)	SB	12	12	12	12	12	12	12	12	
		LPI	7	7	7	7	7	7	7	7	
		EB/WB	51	27	51	27	51	27	51	27	
		LPI	10	10	10	10	10	10	10	10	
18	Atlantic Av WB Service Rd (WB) &	WB	72	72	72	45	72	72	72	45	- Unmitigatable.
	East New York Av SB Service Rd (SW)	SW	30	30	30	27	30	30	30	27	
	& Williams Pl (NB)	Ped	18	18	18	18	18	18	18	18	
19	East New York Av (E-W) &	EB/WB	63	63	63	63	63	63	63	63	- Unmitigatable.
	Herkimer St (SB) & Fulton St (SW) &	SB (Herkimer)	25	25	25	25	25	25	25	25	
	Williams Ave (SB)	SB (Williams)	32	32	32	32	32	32	32	32	
20	East New York Av (E-W) &	NB/SB	70	70	70	65	70	70	70	65	- Unmitigatable.
	Jamaica Av (E-W) &	WB	30	30	30	35	30	30	30	35	
	Alabama Av (N) & Broadway (N)	NB	20	20	20	20	20	20	20	20	
22	Truxton St (WB) &	WB	Unsignalized				Unsignalized				- Unmitigatable.
	Georgia Av (NB)	NB									
23	Jamaica Av (E-W) & Jackie Robinson	NB/SB	70	70	70	65	70	70	70	65	- Unmitigatable.
	Pkwy/Pennsylvania Av (N-S) &	WB	30	30	30	35	30	30	30	35	
	Bushwick Av (SE-NW)	NB	20	20	20	20	20	20	20	20	
24	Fulton St (E-W) &	EB	Unsignalized				Unsignalized				- Unmitigatable.
	Georgia Av (NB)	NB									
28	Atlantic Av (E-W) &	EB/WB	71	71	71	45	71	71	71	45	- Unmitigatable.
	Georgia Av (NB)	LPI	10	10	10	10	10	10	10	10	
		NB	39	39	39	35	39	39	39	35	
29	Atlantic Av (E-W) &	NB/SB	42	49	49	35	42	49	49	35	- Unmitigatable.
	Pennsylvania Av (N-S)	EB/WB	48	46	41	31	48	46	41	31	
		EB	15	12	15	12	15	12	15	12	
		NBL/SBL	15	13	15	12	15	13	15	12	

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

TABLE 20-5
Action-With-Mitigation Conditions at Impacted Lane Groups – AM

Signalized Intersections	Approach	Lane Group	No-Action Weekday AM V/C Ratio	No-Action Weekday AM Delay (sec/veh)	No-Action Weekday AM LOS	With-Action Weekday AM V/C Ratio	With-Action Weekday AM Delay (sec/veh)	With-Action Weekday AM LOS	With-Action with Mitigation Weekday AM V/C Ratio	With-Action with Mitigation Weekday AM Delay (sec/veh)	With-Action with Mitigation Weekday AM LOS
1: Broadway (E-W) @	EB	LTR	0.80	59.8	E	0.93	79.3	E *	0.83	59.6	E
Eastern Pkwy (N-S) & Hull St (NE)	WB	TR	0.94	73.1	E	0.95	74.1	E	0.87	58.3	E
	NB	LTR	1.24	34.3	C	1.45	38.8	D	1.61	47.0	D
	SB	LTR	0.65	25.9	C	0.65	25.9	C	0.69	28.8	C
(Hull St)	NEB	LTR	0.99	123.2	F	0.99	123.2	F	0.99	123.2	F
5: Fulton St (E-W) @	EB	LTR	0.64	40.3	D	0.68	42.6	D	0.68	42.6	D
Eastern Pkwy (N-S)	WB	LTR	1.20	144.0	F	1.55	293.3	F *	1.55	293.3	F *
	NB	LTR	0.76	48.8	D	0.76	40.7	D	0.76	38.4	D
	SB	LTR	0.55	26.7	C	0.55	26.7	C	0.55	26.7	C
7: Fulton St (E-W) @	EB	TR	0.20	19.8	B	0.25	20.6	C	0.25	20.6	C
Van Sinderen Av (N-S)	WB	LT	1.18	130.5	F	1.41	225.2	F *	1.41	225.2	F *
	NB	LTR	1.40	234.0	F	1.74	385.1	F *	1.74	385.1	F *
	SB	LTR	0.66	40.0	D	0.88	61.7	E *	0.88	61.7	E *
(Bus Lane)	SEB	LR	0.25	36.5	D	0.25	36.5	D	0.25	36.5	D
(Bus Lane)	SEB	R	0.11	33.1	C	0.11	33.1	C	0.11	33.1	C
9: Herkimer St (E) @	EB	LTR	0.63	45.1	D	0.83	60.4	E *	0.78	53.3	D
Eastern Pkwy (N-S)	NB	TR	0.55	8.3	A	0.69	15.4	B	0.71	18.0	B
	SB	LT	0.74	18.3	B	0.78	20.9	C	0.81	22.8	C
16: Atlantic Av (E-W) @	EB	LTR	0.64	32.7	C	0.64	32.7	C	0.64	32.7	C
Eastern Pkwy (N-S)	WB	T	1.10	90.1	F	1.12	97.4	F *	1.12	97.4	F *
	WB	R	0.26	25.3	C	0.27	24.6	C	0.27	24.6	C
	NB	T	0.71	42.3	D	0.86	49.9	D	0.86	49.9	D
	NB	R	1.26	180.2	F	1.37	228.7	F *	1.37	228.7	F *
	SB	TR	0.97	33.5	C	1.06	58.7	E *	1.06	57.5	E *
18: Atlantic Av WB Service Rd (W) @	WB	TR	0.65	21.1	C	0.65	21.2	C	0.65	21.2	C
East New York Av SB Service Rd (SW) & William Pl (N)	SWB	R	0.80	69.1	E	1.50	292.8	F *	1.50	292.8	F *
19: East New York Av (E-W) @	EB	TR	0.34	19.5	B	0.34	19.5	B	0.34	19.5	B
Herkimer St (S) & Fulton St (SW) &	WB	LTR	0.59	10.8	B	0.85	19.6	B	0.85	19.6	B
Williams Ave (S)	SB	LTR	0.54	52.4	D	1.17	153.7	F *	1.17	153.7	F *
	SWB	LR	0.63	49.9	D	0.65	50.6	D	0.65	50.6	D
20: East New York Av (E-W) &	EB	LTR	1.08	28.0	C	1.55	121.9	F *	1.55	121.9	F *
Jamaica Av (E-W) @	WB	TR	1.25	6.8	A	1.55	77.3	E *	1.55	77.3	E *
Alabama Av (N) & Broadway (N)	NB	L	0.43	62.6	E	1.43	280.1	F *	1.43	280.1	F *
	NB	TR	1.00	110.9	F	1.01	108.3	F	1.01	108.3	F
21: Jamaica Av (E-W) @	EB	L	0.03	66.5	E	0.03	37.2	D	0.03	37.2	D
Georgia Av (N) & Bus Depot	EB	T	0.40	6.6	A	0.47	7.8	A	0.47	7.8	A
Entrance (S)	WB	TR	0.67	2.7	A	0.78	3.2	A	0.78	3.2	A
	NB	L	0.33	44.8	D	0.55	52.2	D	0.55	52.2	D
	NB	T	0.03	41.0	D	0.03	41.4	D	0.03	41.4	D
	NB	R	0.03	41.0	D	0.30	45.1	D	0.30	45.1	D
	SB	R	0.04	47.6	D	0.04	47.6	D	0.04	47.6	D
23: Jamaica Av (E-W) @	EB	L	1.24	169.4	F	1.44	256.2	F *	1.44	256.2	F *
Jackie Robinson Pkwy/Pennsylvania	EB	T	0.57	54.2	D	0.62	56.8	E	0.62	56.8	E
Av (N-S) & Bushwick Av (SE-NW)	WB	TR	0.94	77.5	E	0.97	84.1	F *	0.97	84.1	F *
	WB	R	0.24	45.8	D	0.30	48.0	D	0.30	48.0	D
	NB	L	0.97	51.1	D	0.97	51.2	D	0.97	51.2	D
	NB	TR	0.61	2.0	A	0.61	2.0	A	0.61	2.0	A
	SB	T	0.89	59.2	E	0.89	59.2	E	0.89	59.2	E
	SB	R	1.18	120.9	F	1.40	216.1	F *	1.40	216.1	F *
	SE	R	0.94	82.3	F	0.94	82.3	F	0.94	82.3	F
26: Pennsylvania Av (E-W) @	EB	L	0.04	30.8	C	0.04	31.7	C	0.04	31.7	C
Fulton St (N-S)	EB	TR	0.22	32.9	C	0.28	34.6	C	0.28	34.6	C
	NB	TR	0.88	28.0	C	0.88	27.9	C	0.88	27.9	C
	SB	L	0.32	19.5	B	0.32	19.5	B	0.32	19.5	B
	SB	T	0.55	6.4	A	0.55	6.4	A	0.55	6.4	A
28: Atlantic Av (E-W) @	EB	T	0.48	21.2	C	0.48	21.1	C	0.48	21.1	C
Georgia Av (N)	WB	TR	0.71	21.5	C	0.77	23.1	C	0.77	23.1	C
	NB	LTR	1.09	108.1	F	1.38	228.5	F *	1.38	228.5	F *
29: Atlantic Av (E-W) @	EB	L	1.10	141.8	F	1.10	96.8	F	1.10	142.6	F
Pennsylvania Av (N-S)	EB	LTR	0.87	35.3	D	0.87	35.7	D	0.87	35.7	D
	WB	TR	0.93	48.6	D	0.97	54.6	D	0.97	54.6	D
	NB	L	1.30	194.0	F	1.85	430.4	F *	1.85	430.4	F *
	NB	TR	0.78	43.7	D	0.78	43.8	D	0.78	43.8	D
	SB	L	0.75	70.9	E	0.75	69.7	E	0.75	69.7	E
	SB	TR	0.99	88.3	F	1.02	96.0	F *	1.02	96.0	F *

TABLE 20-5 (Cont.)
Action-With-Mitigation Conditions at Impacted Lane Groups – AM

Unsignalized Intersections	Approach	Lane Group	No-Action Weekday AM V/C Ratio	No-Action Weekday AM Delay (sec/veh)	No-Action Weekday AM LOS	With-Action with Weekday AM V/C Ratio	With-Action with Weekday AM Delay (sec/veh)	With-Action with Weekday AM LOS	With-Action with Mitigation Weekday AM V/C Ratio	With-Action with Mitigation Weekday AM Delay (sec/veh)	With-Action with Mitigation Weekday AM LOS
2: Broadway (E-W) @	EB	LT	0.00	0.00	A	0.00	0.00	A	0.00	0.00	A
Stewart St (N-S)	WB	TR	0.23	0.0	A	0.23	0.0	A	0.23	0.0	A
	SB	LR	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
3: Broadway (E-W) @	EB	LTR	0.13	5.7	A	0.13	4.9	A	0.13	4.9	A
Conway St (N-S)	WB	LTR	0.02	0.6	A	0.02	0.6	A	0.02	0.6	A
	NB	LTR	0.68	101.6	F	0.79	137.5	F *	0.79	137.5	F *
	SB	LTR	0.27	25.6	D	0.30	29.4	D	0.30	29.4	D
4: Broadway (E-W) @	EB	R	0.07	0.0	A	0.10	0.0	A	0.10	0.0	A
Van Sinderen Av (S)	WB	LT	0.06	1.4	A	0.06	1.5	A	0.06	1.5	A
6: Fulton St (E-W) @	EB	TR	0.06	0.0	A	0.06	0.0	A	0.06	0.0	A
Sackman St (S)	WB	LT	0.02	0.7	A	0.03	0.7	A	0.03	0.7	A
8: Fulton St (E-W) @	NB	LR	0.05	14.8	B	0.73	77.5	F *	0.73	77.5	F *
William Pl (N)											
10: Herkimer St (E) @	EB	TR	0.12	0.0	A	0.25	0.0	A	0.25	0.0	A
Sherlock Pl (N-S)	NB	LT	0.01	9.7	A	0.01	13.0	B	0.01	13.0	B
11: Herkimer St (E) @	EB	TR	0.12	0.0	A	0.25	0.0	A	0.25	0.0	A
Sackman St (N-S)	SB	LT	0.11	13.1	B	0.25	26.6	D	0.25	26.6	D
12: Herkimer St (E) @	EB	TR	0.12	0.0	A	0.25	0.0	A	0.25	0.0	A
Jardine Pl (N-S)	NB	LR	0.03	10.0	B	0.05	13.6	B	0.05	13.6	B
13: Herkimer St (E) @	EB	TR	0.13	0.0	A	0.25	0.0	A	0.25	0.0	A
Havens Pl (S)											
14: Herkimer St (E) @	EB	LTR		10.1	B		18.3	C		18.3	C
Van Sinderen Av (N-S)	NB	TR		9.7	A		13.1	B		13.1	B
(All-way Stop)	SB	LT		9.2	A		11.9	B		11.9	B
15: Herkimer St (E) @	EB	TR	0.00	0.3	A	0.00	14.1	B	0.78	31.2	C
William Pl (N)	NB	LT	0.04	10.4	B	0.00	9.8	A	0.62	26.5	C
			(Two-way Stop-Controlled)			*(All-way)*			*(Signalized)*		
17: Atlantic Av WB Service Rd (W) @	EB	TR	0.58	0.0	A	0.62	0.0	A	0.62	0.0	A
Van Sinderen Av (N-S)	SB	R	0.23	19.9	C	0.40	33.4	D	0.40	33.4	D
22: Truxton St (W) @	EB	R	0.11	13.5	B	0.13	15.7	C	0.13	15.7	C
Van Sinderen Av (N-S)	SB	T	0.09	7.6	A	0.12	7.7	A	0.12	7.7	A
24: Fulton St (W) @	EB	LT	0.01	0.4	A	0.01	0.4	A	0.01	0.4	A
Georgia Av (N)	NB	TR	0.99	100.8	F	2.05	549.1	F *	2.05	549.1	F *
25: Fulton St (W) @	EB	TR	0.18	0.0	A	0.21	0.0	A	0.21	0.0	A
Sheffield Av (S) & Mary Warren Pl (S)	SB	LT	0.03	12.8	B	0.03	15.3	C	0.03	15.3	C
27: Atlantic Av WB Service Rd (W) @	WB	TR	0.57	0.0	A	0.65	0.0	A	0.65	0.0	A
Alabama Av (N)											
30: Broadway (E-W) @	EB	TR	0.14	0.0	A	0.17	0.0	A	0.17	0.0	A
Somers St (S)	WB	LT	0.31	6.6	A	0.33	7.1	A	0.33	7.1	A

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9)
# denotes no significant adverse impact under CEQR Technical Manual criteria as minor street volume would total less than 90 PCEs in the With Action condition.
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 12)

TABLE 20-6
Action-With-Mitigation Conditions at Impacted Lane Groups – Midday

Signalized Intersections	Approach	Lane Group	No-Action Weekday Midday V/C Ratio	No-Action Weekday Midday Delay (sec/veh)	No-Action Weekday Midday LOS	With-Action Weekday Midday V/C Ratio	With-Action Weekday Midday Delay (sec/veh)	With-Action Weekday Midday LOS	With-Action with Mitigation Weekday Midday V/C Ratio	With-Action with Mitigation Weekday Midday Delay (sec/veh)	With-Action with Mitigation Weekday Midday LOS
1: Broadway (E-W) @	EB	LTR	1.22	155.6	F	1.35	209.7	F *	1.35	209.7	F *
Eastern Pkwy (N-S) & Hull St (NE)	WB	TR	0.71	39.0	D	0.73	40.3	D	0.73	40.3	D
	NB	LTR	0.95	37.5	D	1.30	59.0	E *	1.30	59.0	E *
	SB	LTR	0.72	24.4	C	0.73	24.4	C	0.73	24.4	C
(Hull St)	NEB	LTR	0.74	64.1	E	0.74	64.1	E	0.74	64.1	E
5: Fulton St (E-W) @	EB	LTR	1.28	175.0	F	1.35	205.4	F *	1.35	205.4	F *
Eastern Pkwy (N-S)	WB	LTR	1.11	118.0	F	1.72	374.9	F *	1.72	374.9	F *
	NB	LTR	0.57	18.8	B	0.57	17.9	B	0.57	17.4	B
	SB	LTR	0.54	21.4	C	0.54	21.4	C	0.54	21.4	C
7: Fulton St (E-W) @	EB	TR	0.34	12.5	B	0.37	12.3	B	0.37	12.3	B
Van Sinderen Av (N-S)	WB	LT	0.60	28.0	C	0.82	40.1	D	0.82	40.1	D
	NB	LTR	0.60	38.7	D	0.82	57.9	E *	0.82	57.9	E *
	SB	LTR	0.86	59.6	E	0.94	68.2	E *	0.94	68.2	E *
(Bus Lane)	SEB	LR	0.21	37.5	D	0.21	37.9	D	0.21	37.9	D
(Bus Lane)	SEB	R	0.10	35.6	D	0.10	36.0	D	0.10	36.0	D
9: Herkimer St (E) @	EB	LTR	0.85	49.7	D	0.93	61.1	E *	0.89	54.0	D
Eastern Pkwy (N-S)	NB	TR	0.60	6.6	A	0.66	8.0	A	0.67	9.1	A
	SB	LT	0.88	22.1	C	0.94	27.7	C	0.97	31.0	C
16: Atlantic Av (E-W) @	EB	LTR	0.78	38.1	D	0.78	38.1	D	0.78	38.1	D
Eastern Pkwy (N-S)	WB	T	1.11	95.7	F	1.14	108.0	F *	1.14	108.0	F *
	WB	R	0.26	30.0	C	0.25	30.0	C	0.25	30.0	C
	NB	T	0.60	28.1	C	0.65	29.3	C	0.65	29.3	C
	NB	R	1.45	246.0	F	1.45	244.4	F	1.45	244.4	F
	SB	TR	0.98	12.9	B	1.05	14.7	B	1.05	14.0	B
18: Atlantic Av WB Service Rd (W) @	WB	TR	0.43	16.6	B	0.43	16.6	B	0.43	16.6	B
East New York Av SB Service Rd (SW) & William Pl (N)	SWB	R	0.64	27.3	C	1.25	160.2	F *	1.25	160.2	F *
19: East New York Av (E-W) @	EB	TR	0.28	18.8	B	0.28	18.8	B	0.28	18.8	B
Herkimer St (S) & Fulton St (SW) &	WB	LTR	0.53	8.1	A	0.59	9.5	A	0.59	9.5	A
Williams Ave (S)	SB	LTR	0.71	59.9	E	1.09	125.4	F *	1.09	125.4	F *
	SWB	LR	0.79	59.0	E	0.81	60.8	E	0.81	60.8	E
20: East New York Av (E-W) &	EB	LTR	0.74	14.2	B	0.84	21.9	C	0.84	21.9	C
Jamaica Av (E-W) @	WB	TR	0.74	10.7	B	0.79	12.4	B	0.79	12.4	B
Alabama Av (N) & Broadway (N)	NB	L	0.38	48.0	D	0.69	62.9	E *	0.69	62.9	E *
	NB	TR	0.76	61.2	E	0.79	62.5	E	0.79	62.5	E
21: Jamaica Av (E-W) @	EB	L	0.51	79.8	E	0.51	70.9	E	0.51	70.9	E
Georgia Av (N) & Bus Depot	EB	T	0.38	3.7	A	0.42	4.3	A	0.42	4.3	A
Entrance (S)	WB	TR	0.50	2.1	A	0.52	2.2	A	0.52	2.2	A
	NB	L	0.50	50.8	D	0.61	54.9	D	0.61	54.9	D
	NB	T	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
	NB	R	0.00	0.0	A	0.24	44.8	D	0.24	44.8	D
	SB	R	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
23: Jamaica Av (E-W) @	EB	L	1.09	111.6	F	1.18	143.9	F *	1.18	143.9	F *
Jackie Robinson Pkwy/Pennsylvania	EB	T	0.72	66.5	E	0.78	71.5	E *	0.78	71.5	E *
Av (N-S) & Bushwick Av (SE-NW)	WB	TR	0.56	48.5	D	0.64	52.8	D	0.64	52.8	D
	WB	R	0.58	59.6	E	0.57	58.8	E	0.57	58.8	E
	NB	L	0.68	20.5	C	0.68	20.4	C	0.68	20.4	C
	NB	TR	0.70	5.1	A	0.70	5.1	A	0.70	5.1	A
	SB	T	0.97	71.4	E	0.97	71.4	E	0.97	71.4	E
	SB	R	0.85	35.4	D	0.89	39.1	D	0.89	39.1	D
	SE	R	1.10	123.1	F	1.10	123.1	F	1.10	123.1	F
26: Pennsylvania Av (E-W) @	EB	L	0.07	21.5	C	0.08	23.9	C	0.08	23.9	C
Fulton St (N-S)	EB	TR	0.48	26.0	C	0.54	28.5	C	0.54	28.5	C
	NB	TR	0.86	24.0	C	0.86	23.8	C	0.86	23.8	C
	SB	L	0.45	18.7	B	0.45	18.0	B	0.45	18.0	B
	SB	T	0.49	1.5	A	0.49	1.4	A	0.49	1.4	A
28: Atlantic Av (E-W) @	EB	T	0.55	18.3	B	0.55	18.3	B	0.55	18.3	B
Georgia Av (N)	WB	TR	0.56	18.5	B	0.58	18.9	B	0.58	18.9	B
	NB	LTR	0.91	69.1	E	0.98	82.0	F *	0.98	82.0	F *
29: Atlantic Av (E-W) @	EB	L	1.18	166.0	F	1.20	177.1	F *	1.20	177.1	F *
Pennsylvania Av (N-S)	EB	LTR	0.82	34.0	C	0.82	34.4	C	0.82	34.4	C
	WB	TR	0.87	44.4	D	0.89	46.0	D	0.89	46.0	D
	NB	L	1.21	164.2	F	1.35	218.9	F *	1.35	218.9	F *
	NB	TR	0.82	41.2	D	0.82	41.2	D	0.82	41.2	D
	SB	L	0.88	78.6	E	0.88	77.3	E	0.88	77.3	E
	SB	TR	0.83	29.3	C	0.84	30.3	C	0.84	30.3	C

TABLE 20-6 (Cont.)
Action-With-Mitigation Conditions at Impacted Lane Groups – Midday

Unsignalized Intersections	Approach	Lane Group	No-Action Weekday Midday V/C Ratio	Delay (sec/veh)	LOS	With-Action with Weekday Midday V/C Ratio	Delay (sec/veh)	LOS	With-Action with Mitigation Weekday Midday V/C Ratio	Delay (sec/veh)	LOS
2: Broadway (E-W) @	EB	LT	0.01	0.5	A	0.01	0.4	A	0.01	0.4	A
Stewart St (N-S)	WB	TR	0.17	0.0	A	0.17	0.0	A	0.17	0.0	A
	SB	LR	0.02	12.2	B	0.02	12.5	B	0.02	12.5	B
3: Broadway (E-W) @	EB	LTR	0.13	4.9	A	0.13	4.4	A	0.13	4.4	A
Conway St (N-S)	WB	LTR	0.01	0.2	A	0.01	0.2	A	0.01	0.2	A
	NB	LTR	1.07	167.1	F	1.15	201.1	F *	1.15	201.1	F *
	SB	LTR	0.35	38.6	E	N/A	>9999	F	N/A	>9999	F *
4: Broadway (E-W) @	EB	R	0.09	0.0	A	0.12	0.0	A	0.12	0.0	A
Van Sinderen Av (S)	WB	LT	0.05	1.5	A	0.05	1.6	A	0.05	1.6	A
6: Fulton St (E-W) @	EB	TR	0.10	0.0	A	0.11	0.0	A	0.11	0.0	A
Sackman St (S)	WB	LT	0.01	0.5	A	0.02	0.5	A	0.02	0.5	A
8: Fulton St (E-W) @	NB	LR	0.00	0.0	A	0.40	30.5	D	0.40	30.5	D
William Pl (N)											
10: Herkimer St (E) @	EB	TR	0.10	0.0	A	0.16	0.0	A	0.16	0.0	A
Sherlock Pl (N-S)	NB	LT	0.02	11.7	B	0.03	12.7	B	0.03	12.7	B
11: Herkimer St (E) @	EB	TR	0.10	0.0	A	0.16	0.0	A	0.16	0.0	A
Sackman St (N-S)	SB	LT	0.17	28.0	D	0.20	33.6	D	0.20	33.6	D
12: Herkimer St (E) @	EB	TR	0.11	0.0	A	0.17	0.0	A	0.17	0.0	A
Jardine Pl (N-S)	NB	LR	0.03	11.2	B	0.04	12.2	B	0.04	12.2	B
13: Herkimer St (E) @	EB	TR	0.10	0.0	A	0.16	0.0	A	0.16	0.0	A
Havens Pl (S)											
14: Herkimer St (E) @	EB	LTR		8.8	A		10.6	B		10.6	B
Van Sinderen Av (N-S)	NB	TR		8.2	A		9.2	A		9.2	A
(All-way Stop)	SB	LT		8.6	A		9.9	A		9.9	A
15: Herkimer St (E) @	EB	TR	0.00	0.0	A	0.00	11.3	B	0.63	24.2	C
William Pl (N)	NB	LT	0.92	347.1	F	0.00	8.7	A	0.51	23.0	C
			(Two-way Stop-Controlled)			*(All-way)*			*(Signalized)*		
17: Atlantic Av WB Service Rd (W) @	EB	TR	0.41	0.0	A	0.46	0.0	A	0.46	0.0	A
Van Sinderen Av (N-S)	SB	R	0.11	20.2	C	0.16	21.6	C	0.16	21.6	C
22: Truxton St (W) @	EB	R	0.11	14.8	B	0.13	16.2	C	0.13	16.2	C
Van Sinderen Av (N-S)	SB	T	0.11	7.6	A	0.14	6.7	A	0.14	7.7	A
24: Fulton St (W) @	EB	LT	0.01	0.3	A	0.01	0.3	A	0.01	0.3	A
Georgia Av (N)	NB	TR	1.60	339.0	F	2.16	588.9	F *	2.16	588.9	F *
25: Fulton St (W) @	EB	TR	0.25	0.0	A	0.28	0.0	A	0.28	0.0	A
Sheffield Av (S) & Mary Warren Pl (S)	SB	LT	0.04	14.0	B	0.06	16.7	C	0.06	16.7	C
27: Atlantic Av WB Service Rd (W) @	WB	TR	0.42	0.0	A	0.44	0.0	A	0.44	0.0	A
Alabama Av (N)											
30: Broadway (E-W) @	EB	TR	0.19	0.0	A	0.22	0.0	A	0.22	0.0	A
Somers St (S)	WB	LT	0.15	4.2	A	0.15	4.4	A	0.15	4.4	A

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9)
# denotes no significant adverse impact under CEQR Technical Manual criteria as minor street volume would total less than 90 PCEs in the With Action condition.
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 12)

TABLE 20-7
Action-With-Mitigation Conditions at Impacted Lane Groups – PM

Signalized Intersections	Approach	Lane Group	No-Action Weekday PM V/C Ratio	No-Action Weekday PM Delay (sec/veh)	No-Action Weekday PM LOS	With-Action Weekday PM V/C Ratio	With-Action Weekday PM Delay (sec/veh)	With-Action Weekday PM LOS	With-Action with Mitigation Weekday PM V/C Ratio	With-Action with Mitigation Weekday PM Delay (sec/veh)	With-Action with Mitigation Weekday PM LOS
1: Broadway (E-W) @	EB	LTR	1.27	183.9	F	1.40	236.4	F *	1.40	236.4	F *
Eastern Pkwy (N-S) & Hull St (NE)	WB	TR	0.57	42.7	D	0.59	43.6	D	0.59	43.6	D
	NB	LTR	1.21	87.4	F	1.74	157.7	F *	1.74	157.7	F *
	SB	LTR	0.58	24.2	C	0.60	24.8	C	0.60	24.8	C
(Hull St)	NEB	LTR	1.03	132.6	F	1.03	132.6	F	1.03	132.6	F
5: Fulton St (E-W) @	EB	LTR	1.21	153.9	F	1.27	181.1	F *	1.27	181.1	F *
Eastern Pkwy (N-S)	WB	LTR	1.27	178.4	F	2.68	801.9	F *	2.68	801.9	F *
	NB	LTR	0.79	17.6	B	0.79	14.3	B	0.79	14.3	B
	SB	LTR	0.48	26.6	C	0.48	26.6	C	0.48	26.6	C
7: Fulton St (E-W) @	EB	TR	0.54	26.0	C	0.66	31.2	C	0.66	31.2	C
Van Sinderen Av (N-S)	WB	LT	0.51	25.6	C	1.17	125.8	F *	1.17	125.8	F *
	NB	LTR	0.75	52.1	D	1.20	168.0	F *	1.20	168.0	F *
	SB	LTR	1.11	120.1	F	1.52	285.3	F *	1.52	285.3	F *
(Bus Lane)	SEB	LR	0.29	36.4	D	0.29	36.4	D	0.29	36.8	D
(Bus Lane)	SEB	R	0.26	36.0	D	0.26	36.0	D	0.26	36.0	D
9: Herkimer St (E) @	EB	LTR	0.77	52.2	D	0.96	80.9	F *	0.96	80.9	F *
Eastern Pkwy (N-S)	NB	TR	0.54	6.6	A	0.62	7.8	A	0.62	7.8	A
	SB	LT	0.70	13.6	B	0.83	16.4	B	0.83	16.4	B
16: Atlantic Av (E-W) @	EB	LTR	0.91	44.5	D	0.91	44.5	D	0.91	44.5	D
Eastern Pkwy (N-S)	WB	T	0.88	32.6	C	0.91	34.7	C	0.91	34.7	C
	WB	R	0.21	20.3	C	0.22	20.4	C	0.22	20.4	C
	NB	T	0.76	44.2	D	0.86	50.2	D	0.86	50.2	D
	NB	R	1.22	162.9	F	1.36	221.3	F *	1.36	221.3	F *
	SB	TR	1.24	49.5	D	1.45	59.0	E *	1.45	59.0	E *
18: Atlantic Av WB Service Rd (W) @	WB	TR	0.41	16.2	B	0.41	16.3	B	0.41	16.3	B
East New York Av SB Service Rd (SW) & William Pl (N)	SWB	R	0.61	28.7	C	2.62	776.1	F *	2.62	776.0	F *
19: East New York Av (E-W) @	EB	TR	0.43	20.8	C	0.43	20.8	C	0.43	20.8	C
Herkimer St (S) & Fulton St (SW) &	WB	LTR	0.56	8.3	A	0.68	10.2	B	0.68	10.2	B
Williams Ave (S)	SB	LTR	1.41	254.9	F	3.13	1019.9	F *	3.13	1019.9	F *
	SWB	LR	1.02	98.2	F	1.02	98.2	F	1.02	98.2	F
20: East New York Av (E-W) &	EB	LTR	1.07	61.4	E	1.56	280.3	F *	1.56	280.3	F *
Jamaica Av (E-W) @	WB	TR	0.60	7.4	A	0.79	12.3	B	0.79	12.3	B
Alabama Av (N) & Broadway (N)	NB	L	0.38	46.5	D	1.08	143.9	F *	1.08	143.9	F *
	NB	TR	0.90	79.5	E	0.92	81.0	F	0.92	81.0	F
21: Jamaica Av (E-W) @	EB	L	0.30	46.9	D	0.30	46.8	D	0.30	46.8	D
Georgia Av (N) & Bus Depot	EB	T	0.53	5.0	A	0.70	6.6	A	0.70	6.6	A
Entrance (S)	WB	TR	0.47	2.2	A	0.52	2.3	A	0.52	2.3	A
	NB	L	0.40	48.7	D	0.59	54.8	D	0.59	54.8	D
	NB	T	0.08	42.7	D	0.08	42.8	D	0.08	42.8	D
	NB	R	0.08	42.7	D	0.30	46.1	D	0.30	46.1	D
	SB	R	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
23: Jamaica Av (E-W) @	EB	L	1.33	207.5	F	1.62	333.4	F *	1.62	333.4	F *
Jackie Robinson Pkwy/Pennsylvania	EB	T	0.79	67.6	E	0.92	86.2	F *	0.92	86.2	F *
Av (N-S) & Bushwick Av (SE-NW)	WB	TR	0.89	70.6	E	0.95	80.5	F *	0.95	80.5	F *
	WB	R	0.32	47.5	D	0.42	52.1	D	0.42	52.1	D
	NB	L	0.55	18.1	B	0.55	18.1	B	0.55	18.1	B
	NB	TR	0.55	5.1	A	0.55	5.1	A	0.55	5.1	A
	SB	T	0.98	74.3	E	0.98	74.3	E	0.98	74.3	E
	SB	R	0.75	30.3	C	0.83	34.5	C	0.83	34.5	C
	SE	R	1.09	116.7	F	1.09	116.7	F	1.09	116.7	F
26: Pennsylvania Av (E-W) @	EB	L	0.20	19.5	B	0.23	19.8	B	0.23	19.8	B
Fulton St (N-S)	EB	TR	0.44	21.2	C	0.57	23.0	C	0.57	23.0	C
	NB	TR	0.83	26.1	C	0.83	26.0	C	0.83	26.0	C
	SB	L	0.34	11.0	B	0.34	11.0	B	0.34	11.0	B
	SB	T	0.59	1.5	A	0.59	1.5	A	0.59	1.5	A
28: Atlantic Av (E-W) @	EB	T	0.63	13.0	B	0.63	12.7	B	0.63	12.7	B
Georgia Av (N)	WB	TR	0.55	18.2	B	0.59	18.9	B	0.59	18.9	B
	NB	LTR	0.78	50.1	D	0.99	81.3	F *	0.99	81.3	F *
29: Atlantic Av (E-W) @	EB	L	1.17	162.2	F	1.17	162.8	F	1.17	162.8	F
Pennsylvania Av (N-S)	EB	LTR	0.96	48.4	D	0.98	51.8	D	0.98	51.8	D
	WB	TR	0.88	48.4	D	0.93	52.7	D	0.93	52.7	D
	NB	L	1.23	169.4	F	1.34	213.3	F *	1.34	213.3	F *
	NB	TR	0.66	34.5	C	0.66	34.6	C	0.66	34.6	C
	SB	L	0.73	42.9	D	0.73	40.5	D	0.73	40.5	D
	SB	TR	0.96	45.5	D	1.03	63.1	E *	1.03	63.1	E *

TABLE 20-7 (Cont.)
Action-With-Mitigation Conditions at Impacted Lane Groups – PM

Unsignalized Intersections	Approach	Lane Group	No-Action Weekday PM V/C Ratio	No-Action Weekday PM Delay (sec/veh)	No-Action Weekday PM LOS	With-Action with Weekday PM V/C Ratio	With-Action with Weekday PM Delay (sec/veh)	With-Action with Weekday PM LOS	With-Action with Mitigation Weekday PM V/C Ratio	With-Action with Mitigation Weekday PM Delay (sec/veh)	With-Action with Mitigation Weekday PM LOS
2: Broadway (E-W) @	EB	LT	0.03	0.9	A	0.03	0.9	A	0.03	0.9	A
Stewart St (N-S)	WB	TR	0.16	0.0	A	0.16	0.0	A	0.16	0.0	A
	SB	LR	0.03	15.0	B	0.04	16.3	C	0.04	16.3	C
3: Broadway (E-W) @	EB	LTR	0.25	6.2	A	0.25	5.9	A	0.25	5.9	A
Conway St (N-S)	WB	LTR	0.03	1.1	A	0.04	1.3	A	0.04	1.3	A
	NB	LTR	1.92	603.6	F	3.25	>9999	F *	3.25	>9999	F *
	SB	LTR	N/A	>9999	F	N/A	>9999	F *	N/A	>9999	F *
4: Broadway (E-W) @	EB	R	0.14	0.0	A	0.18	0.0	A	0.18	0.0	A
Van Sinderen Av (S)	WB	LT	0.08	2.4	A	0.09	2.6	A	0.09	2.6	A
6: Fulton St (E-W) @	EB	TR	0.10	0.0	A	0.11	0.0	A	0.11	0.0	A
Sackman St (S)	WB	LT	0.02	0.5	A	0.02	0.5	A	0.02	0.5	A
8: Fulton St (E-W) @	NB	LR	0.03	13.2	B	2.74	874.3	F *	2.74	874.3	F *
William Pl (N)											
10: Herkimer St (E) @	EB	TR	0.10	0.0	A	0.18	0.0	A	0.18	0.0	A
Sherlock Pl (N-S)	NB	LT	0.03	9.8	A	0.04	13.4	B	0.04	13.4	B
11: Herkimer St (E) @	EB	TR	0.11	0.0	A	0.18	0.0	A	0.18	0.0	A
Sackman St (N-S)	SB	LT	0.09	12.4	B	0.24	28.4	D	0.24	28.4	D
12: Herkimer St (E) @	EB	TR	0.11	0.0	A	0.18	0.0	A	0.18	0.0	A
Jardine Pl (N-S)	NB	LR	0.01	9.2	A	0.01	12.2	B	0.01	12.2	B
13: Herkimer St (E) @	EB	TR	0.10	0.0	A	0.17	0.0	A	0.17	0.0	A
Havens Pl (S)											
14: Herkimer St (E) @	EB	LTR		9.6	A		13.1	B		13.1	B
Van Sinderen Av (N-S)	NB	TR		8.6	A		10.5	B		10.5	B
(All-way Stop)	SB	LT		11.3	B		16.4	C		16.4	C
15: Herkimer St (E) @	EB	TR	0.00	0.1	A	0.00	68.0	F *	1.05	76.4	E *
William Pl (N)	NB	LT	0.02	12.3	B	0.00	72.2	F *	2.09	523.6	F *
			(Two-way Stop-Controlled)			*(All-way)*			*(Signalized)*		
17: Atlantic Av WB Service Rd (W) @	EB	TR	0.42	0.0	A	0.49	0.0	A	0.49	0.0	A
Van Sinderen Av (N-S)	SB	R	0.14	14.5	B	0.30	26.0	D	0.30	26.0	D
22: Truxton St (W) @	EB	R	0.38	26.1	D	0.53	42.1	E *	0.53	42.1	E *
Van Sinderen Av (N-S)	SB	T	0.16	7.7	A	0.20	7.9	A	0.20	7.9	A
24: Fulton St (W) @	EB	LT	0.01	0.4	A	0.01	0.4	A	0.01	0.4	A
Georgia Av (N)	NB	TR	1.45	275.3	F	3.77	>9999	F *	3.77	>9999	F *
25: Fulton St (W) @	EB	TR	0.38	0.0	A	0.45	0.0	A	0.45	0.0	A
Sheffield Av (S) & Mary Warren Pl (S)	SB	LT	0.04	17.6	C	0.06	25.7	D	0.06	25.7	D
27: Atlantic Av WB Service Rd (W) @	WB	TR	0.42	0.0	A	0.46	0.0	A	0.46	0.0	A
Alabama Av (N)											
30: Broadway (E-W) @	EB	TR	0.31	0.0	A	0.35	0.0	A	0.35	0.0	A
Somers St (S)	WB	LT	0.11	3.6	A	0.14	4.4	A	0.14	4.4	A

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9)
# denotes no significant adverse impact under CEQR Technical Manual criteria as minor street volume would total less than 90 PCEs in the With Action condition.
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 12)

TABLE 20-8
Action-With-Mitigation Conditions at Impacted Lane Groups – Saturday

Signalized Intersections	Approach	Lane Group	No-Action Saturday V/C Ratio	No-Action Saturday Delay (sec/veh)	No-Action Saturday LOS	With-Action Saturday V/C Ratio	With-Action Saturday Delay (sec/veh)	With-Action Saturday LOS	With-Action with Mitigation Saturday V/C Ratio	With-Action with Mitigation Saturday Delay (sec/veh)	With-Action with Mitigation Saturday LOS
1: Broadway (E-W) @	EB	LTR	1.35	211.7	F	1.51	277.7	F *	1.51	277.7	F *
Eastern Pkwy (N-S) & Hull St (NE)	WB	TR	0.77	43.5	D	0.81	47.4	D	0.81	47.4	D
	NB	LTR	0.92	41.9	D	1.22	74.9	E *	1.22	74.9	E *
	SB	LTR	0.61	21.3	C	0.61	21.3	C	0.61	21.3	C
(Hull St)	NEB	LTR	0.82	72.8	E	0.82	72.8	E	0.82	72.8	E
5: Fulton St (E-W) @	EB	LTR	1.17	134.8	F	1.34	206.3	F *	1.34	206.3	F *
Eastern Pkwy (N-S)	WB	LTR	0.74	39.2	D	1.51	274.0	F *	1.51	274.0	F *
	NB	LTR	0.60	20.4	C	0.60	16.2	B	0.60	16.2	B
	SB	LTR	0.45	20.0	C	0.45	20.0	C	0.45	20.0	C
7: Fulton St (E-W) @	EB	TR	0.26	31.5	C	0.33	32.9	C	0.33	32.9	C
Van Sinderen Av (N-S)	WB	LT	0.45	24.0	C	0.79	37.6	D	0.79	37.6	D
	NB	LTR	0.82	53.4	D	1.36	222.5	F *	1.36	222.5	F *
	SB	LTR	0.54	34.5	C	0.78	37.5	D	0.78	37.5	D
(Bus Lane)	SEB	LR	0.26	28.5	C	0.26	26.0	C	0.26	26.0	C
(Bus Lane)	SEB	R	0.09	26.4	C	0.09	24.7	C	0.09	24.7	C
9: Herkimer St (E) @	EB	LTR	1.09	100.4	F	1.31	189.0	F *	1.31	189.0	F *
Eastern Pkwy (N-S)	NB	TR	0.60	35.0	C	0.70	10.0	A	0.70	10.0	A
	SB	LT	0.76	46.7	D	0.84	21.8	C	0.84	21.8	C
16: Atlantic Av (E-W) @	EB	LTR	0.90	44.7	D	0.90	44.7	D	0.90	44.7	D
Eastern Pkwy (N-S)	WB	T	1.13	105.6	F	1.16	117.4	F *	1.16	117.4	F *
	WB	R	0.27	30.2	C	0.27	30.4	C	0.27	30.4	C
	NB	T	0.55	27.2	C	0.63	28.7	C	0.63	28.7	C
	NB	R	1.23	149.4	F	1.39	219.4	F *	1.39	219.4	F *
	SB	TR	0.99	31.6	C	1.10	15.5	B	1.10	15.5	B
18: Atlantic Av WB Service Rd (W) @	WB	TR	0.64	23.1	C	0.64	23.2	C	0.64	23.2	C
East New York Av SB Service Rd (SW) & William Pl (N)	SWB	R	0.60	36.5	D	1.39	226.0	F *	1.39	226.0	F *
19: East New York Av (E-W) @	EB	TR	0.43	20.8	C	0.43	20.8	C	0.43	20.8	C
Herkimer St (S) & Fulton St (SW) &	WB	LTR	0.55	5.0	A	0.65	8.2	A	0.65	8.2	A
Williams Ave (S)	SB	LTR	0.95	92.8	F	1.70	380.2	F *	1.70	380.2	F *
	SWB	LR	0.96	85.1	F	0.96	85.1	F	0.96	85.1	F
20: East New York Av (E-W) &	EB	LTR	1.05	52.7	D	1.31	166.1	F *	1.31	166.1	F *
Jamaica Av (E-W) @	WB	TR	0.69	6.0	A	0.89	14.7	B	0.89	14.7	B
Alabama Av (N) & Broadway (N)	NB	L	0.23	45.1	D	0.55	54.7	D	0.55	54.7	D
	NB	TR	0.69	58.5	E	0.72	60.1	E	0.72	60.1	E
21: Jamaica Av (E-W) @	EB	L	0.56	38.3	D	0.63	41.8	D	0.63	41.8	D
Georgia Av (N) & Bus Depot	EB	T	0.67	15.7	B	0.74	18.4	B	0.74	18.4	B
Entrance (S)	WB	TR	0.64	3.3	A	0.70	3.5	A	0.70	3.5	A
	NB	L	0.31	43.3	D	0.46	47.2	D	0.46	47.2	D
	NB	T	0.07	39.9	D	0.07	39.9	D	0.07	39.9	D
	NB	R	0.07	39.9	D	0.28	42.9	D	0.28	42.9	D
	SB	R	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
23: Jamaica Av (E-W) @	EB	L	1.20	152.5	F	1.28	185.6	F *	1.28	185.6	F *
Jackie Robinson Pkwy/Pennsylvania	EB	T	0.99	100.1	F	1.08	126.5	F *	1.08	126.5	F *
Av (N-S) & Bushwick Av (SE-NW)	WB	TR	0.86	69.5	E	0.99	94.2	F *	0.99	94.2	F *
	WB	R	0.33	47.8	D	0.45	53.0	D	0.45	53.0	D
	NB	L	0.82	59.8	E	0.82	59.8	E	0.82	59.8	E
	NB	TR	0.77	27.5	C	0.77	27.5	C	0.77	27.5	C
	SB	T	0.93	63.7	E	0.93	63.7	E	0.93	63.7	E
	SB	R	0.84	35.2	D	0.92	41.8	D	0.92	41.8	D
	SE	R	1.09	121.3	F	1.09	121.3	F	1.09	121.3	F
26: Pennsylvania Av (E-W) @	EB	L	0.12	27.1	C	0.15	27.6	C	0.15	27.6	C
Fulton St (N-S)	EB	TR	0.60	34.1	C	0.72	38.1	D	0.72	38.1	D
	NB	TR	0.80	13.6	B	0.80	13.5	B	0.80	13.5	B
	SB	L	0.47	30.0	C	0.47	30.0	C	0.47	30.0	C
	SB	T	0.44	8.6	A	0.44	8.6	A	0.44	8.6	A
28: Atlantic Av (E-W) @	EB	T	0.57	18.5	B	0.57	18.5	B	0.57	18.5	B
Georgia Av (N)	WB	TR	0.54	18.0	B	0.58	18.7	B	0.58	18.7	B
	NB	LTR	0.78	51.2	D	1.01	90.8	F *	1.01	90.8	F *
29: Atlantic Av (E-W) @	EB	L	1.06	109.6	F	1.06	110.0	F	1.06	110.0	F
Pennsylvania Av (N-S)	EB	LTR	1.02	54.5	D	1.03	59.7	E *	1.03	59.7	E *
	WB	TR	0.90	41.1	D	0.95	47.2	D	0.95	47.2	D
	NB	L	1.19	140.9	F	1.29	179.3	F *	1.29	179.3	F *
	NB	TR	0.84	35.6	D	0.84	35.8	D	0.84	35.8	D
	SB	L	0.89	69.4	E	0.89	67.8	E	0.89	67.8	E
	SB	TR	0.91	33.1	C	0.93	36.0	D	0.93	36.0	D

TABLE 20-8 (Cont.)
Action-With-Mitigation Conditions at Impacted Lane Groups – Saturday

Unsignalized Intersections	Approach	Lane Group	No-Action Saturday V/C Ratio	No-Action Saturday Delay (sec/veh)	No-Action Saturday LOS	With-Action with Saturday V/C Ratio	With-Action with Saturday Delay (sec/veh)	With-Action with Saturday LOS	With-Action with Mitigation Saturday V/C Ratio	With-Action with Mitigation Saturday Delay (sec/veh)	With-Action with Mitigation Saturday LOS
2: Broadway (E-W) @ Stewart St (N-S)	EB	LT	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
	WB	TR	0.18	0.0	A	0.18	0.0	A	0.18	0.0	A
	SB	LR	0.03	13.0	B	0.03	13.4	B	0.03	13.4	B
3: Broadway (E-W) @ Conway St (N-S)	EB	LTR	0.19	5.8	A	0.19	5.3	A	0.19	5.3	A
	WB	LTR	0.01	0.2	A	0.01	0.2	A	0.01	0.2	A
	NB	LTR	1.58	386.6	F	2.21	691.6	F *	2.21	691.6	F *
	SB	LTR	0.17	17.4	C	0.19	19.7	C	0.19	19.7	C
4: Broadway (E-W) @ Van Sinderen Av (S)	EB	R	0.11	0.0	A	0.15	0.0	A	0.15	0.0	A
	WB	LT	0.03	0.7	A	0.03	0.8	A	0.03	0.8	A
6: Fulton St (E-W) @ Sackman St (S)	EB	TR	0.07	0.0	A	0.08	0.0	A	0.08	0.0	A
	WB	LT	0.01	0.5	A	0.01	0.4	A	0.01	0.4	A
8: Fulton St (E-W) @ William Pl (N)	NB	LR	0.01	12.1	B	0.75	65.9	F *	0.75	65.9	F *
10: Herkimer St (E) @ Sherlock Pl (N-S)	EB	TR	0.14	0.0	A	0.22	0.0	A	0.22	0.0	A
	NB	LT	0.00	0.0	A	0.00	0.0	A	0.00	0.0	A
11: Herkimer St (E) @ Sackman St (N-S)	EB	TR	0.14	0.0	A	0.22	0.0	A	0.22	0.0	A
	SB	LT	0.09	13.5	B	0.24	30.9	D	0.24	30.9	D
12: Herkimer St (E) @ Jardine Pl (N-S)	EB	TR	0.16	0.0	A	0.24	0.0	A	0.24	0.0	A
	NB	LR	0.01	9.9	A	0.01	13.4	B	0.01	13.4	B
13: Herkimer St (E) @ Havens Pl (S)	EB	TR	0.15	0.0	A	0.23	0.0	A	0.23	0.0	A
14: Herkimer St (E) @ Van Sinderen Av (N-S) (All-way Stop)	EB	LTR		10.0	A		14.1	B		14.1	B
	NB	TR		8.4	A		9.9	A		9.9	A
	SB	LT		9.2	A		11.4	B		11.4	B
15: Herkimer St (E) @ William Pl (N)	EB	TR	0.00	0.0	A	0.00	14.4	B	0.68	26.2	C
	NB	LT	0.02	11.0	B	0.00	10.2	B	0.73	8.5	A
			(Two-way Stop-Controlled)			*(All-way)*			*(Signalized)*		
17: Atlantic Av WB Service Rd (W) @ Van Sinderen Av (N-S)	EB	TR	0.42	0.0	A	0.46	0.0	A	0.46	0.0	A
	SB	R	0.07	13.5	B	0.17	21.6	C	0.17	21.6	C
22: Truxton St (W) @ Van Sinderen Av (N-S)	EB	R	0.07	15.2	C	0.09	19.0	C	0.09	19.0	C
	SB	T	0.10	7.6	A	0.14	7.7	A	0.14	7.7	A
24: Fulton St (W) @ Georgia Av (N)	EB	LT	0.00	0.1	A	0.00	0.1	A	0.00	0.1	A
	NB	TR	0.75	41.2	E	1.60	336.2	F *	1.60	336.2	F *
25: Fulton St (W) @ Sheffield Av (S) & Mary Warren Pl (S)	EB	TR	0.29	0.0	A	0.32	0.0	A	0.32	0.0	A
	SB	LT	0.04	13.2	B	0.06	16.3	C	0.06	16.3	C
27: Atlantic Av WB Service Rd (W) @ Alabama Av (N)	WB	TR	0.45	0.0	A	0.48	0.0	A	0.48	0.0	A
30: Broadway (E-W) @ Somers St (S)	EB	TR	0.23	0.0	A	0.27	0.0	A	0.27	0.0	A
	WB	LT	0.18	4.9	A	0.21	5.6	A	0.21	5.6	A

Notes:
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9)
# denotes no significant adverse impact under CEQR Technical Manual criteria as minor street volume would total less than 90 PCEs in the With Action condition.
Analysis is based on the 2000 Highway Capacity Manual methodology (Synchro 12)

Effects of Pedestrian Mitigation on Traffic Conditions

Proposed pedestrian mitigation measures would not affect traffic conditions at any analyzed intersection in any peak hour.

Proposed Schedule For Traffic Mitigation Measures

Subject to the final review and approval of DOT, the mitigation measures summarized in **Table 20-4** would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of development facilitated by the Proposed Actions in 2036. As the development facilitated by the Proposed Actions would be expected to occur over an approximately 10-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out in 2036.

Effects Of Traffic Mitigation On Parking Conditions

Proposed traffic mitigation measures would not affect parking conditions at any analyzed intersection in any peak hour.

Transit

Under the Proposed Actions, platform stairs P3/P4 in the AM peak hour and the new platform stairs to the southbound A/C platform in the PM peak hour at the Broadway Junction (A/C/J/L/Z) Subway Station complex would experience significant adverse impacts due to project-generated demand. Stairway widening is the most common form of mitigation for significant stairway impacts. Other potential mitigation measures could include adding an escalator or an additional stairway in the vicinity of the impacted subway. It should be noted that as part of the planned transit improvements at the Broadway Junction Subway Station complex, the station complex will be upgraded to an accessible station with elevator access to each platform within the entire station complex. Therefore, some of the subway trips using platform stairs P3/P4 and the new southbound A/C platform stair may potentially utilize the proposed elevators, which would reduce the demand on the impacted stairs.

Table 20-9 shows the minimum stair widening that would be required to fully mitigate the significant adverse stair impacts at the Broadway Junction Subway Station complex based on 2021 *CEQR Technical Manual* criteria. As shown in **Table 20-9**, widening stairs P3/P4 by 3 inches (0.25 feet) and the new platform stairs to the southbound A/C platform by 33 inches (2.75 feet) would result in a width increment threshold (WIT) below the 2021 *CEQR Technical Manual* impact threshold in the AM and PM peak hours, respectively, fully mitigating the significant stair impact.

TABLE 20-9
Minimum Required Subway Stairway Widening to Mitigate Impacts at the Broadway Junction (A/C/J/L/Z) Subway Station Complex

		With Action						Action-With-Mitigation						
Peak Hour	Stair	Total Width (ft.)	Effective Width (ft.)	V/C Ratio	LOS	WIT	Impact Threshold (inches)	Total Width (ft.)	Effective Width (ft.)	V/C Ratio	LOS	WIT (inches)	Impact Threshold (inches)	Minimum Required Widening
AM	P3/P4	12.58	11.08	1.16	D *	7.09	7.00	12.83	11.83	1.09	D	7.09	8.00	0'-3"
PM	New Platform Stair to SB A/C	7.00	6.00	1.84	F *	4.16	2.00	9.00	8.00	1.38	E	4.16	5.00	2'-0"

Notes:
WIT denotes the Width Increment Threshold.
* denotes a significant adverse impact per 2021 *CEQR Technical Manual* criteria.

It should be noted that actual stair widening is planned based on NYCT guidance. Typically, stair widths are considered in terms of 30-inch (2.5-foot) pedestrian lanes. Thus, the platform stairs P3/P4 would ideally be widened from its proposed width of 12.83 feet to 15 feet to provide five pedestrian lanes and the new platform stairs to the southbound A/C platform would ideally be widened from its proposed

width of 7 feet to 10 feet to provide four pedestrian lanes. It may be infeasible to widen these platform stairs within the subway station due to the width of the platform and structural columns adjoining the stairs.

Without a stairway widening or other measure to increase capacity, passengers using platform stairs P3/P4 to access the station's northbound A/C platform and the new southbound A/C platform stair to access the station's southbound A/C platform would need some additional time entering or exiting the platform, but access from the other platform stairs serving the northbound A/C platform (the new northbound A/C platform stairs) and southbound A/C platform (P1/P2), access from the station's other stairs serving the J/Z and L platforms, and subway train operations into and out of the station would not be adversely affected. Therefore, no feasible mitigation measures were identified, and the Proposed Actions would result in unmitigated significant adverse subway station impacts. While these measures do not currently appear practicable, mitigation measures will continue to be evaluated between certification of the DEIS and publication of the FEIS.

Pedestrians

As discussed in **Chapter 13, "Transportation,"** the results of the analyses of pedestrian conditions show that demand from the Proposed Actions would significantly adversely impact four sidewalks, five corners, and three crosswalks in one or more peak hours under the With-Action Condition (see **Table 20-10**).

A significant adverse pedestrian impact is considered mitigated if measures implemented return the anticipated conditions to an acceptable level, following the same criteria used in determining impacts. Standard mitigation for projected significant adverse pedestrian impacts can include providing additional signal green time or new signal phases; widening crosswalks; relocating or removing street furniture or other impediments to pedestrian flow; providing curb extensions, neck-downs, or lane reductions to reduce pedestrian crossing distance; and sidewalk widening. Discussed below are recommended mitigation measures to address the Proposed Actions' significant adverse pedestrian impacts. The mitigation measures generally consist of the relocation/removal of impediments to sidewalk flow along with crosswalk widening. The recommended pedestrian mitigation measures will be implemented at the discretion of DOT. If DOT determines that implementation of the recommended pedestrian mitigation measures at the two crosswalks is infeasible, then these impacts would remain unmitigated and would constitute unavoidable adverse impacts.

TABLE 20-10
Summary of Significant Pedestrian Impacts

Corridor/Intersection	Impacted Element	Peak Hour			
		AM	Midday	PM	SAT
Van Sinderen Ave. btw. Broadway and Fulton St.	East Sidewalk	X	X	X	X
Herkimer St btw. Williams Pl. and E New York Ave.	South Sidewalk	X		X	X
Atlantic Ave. btw. Alabama Ave. and Georgia Ave.	North Sidewalk		X	X	X
Atlantic Ave. btw. Williams Ave. and Alabama Ave.	North Sidewalk		X	X	X
Van Sinderen Ave. & Fulton St.	East Crosswalk			X	X
Williams Ave./Herkimer St. & E New York Ave.	North Crosswalk		X		
Georgia Ave. & Atlantic Ave.	West Crosswalk				X
Williams Ave. & Herkimer St. & E New York Ave.	Northeast Corner	X	X	X	
Williams Ave. & Herkimer St. & E New York Ave.	Northwest Corner	X	X	X	X
Broadway & Alabama Ave. & Jamaica Ave. & E New York Ave.	Northwest Corner		X	X	X

Georgia Ave. & Atlantic Ave.	Southwest Corner				X
Georgia Ave. & Atlantic Ave.	Northwest Corner				X

Sidewalks

Of the 22 sidewalks analyzed, four are expected to be significantly adversely impacted by incremental demand from the Proposed Actions in one or more peak hours. **Table 20-11** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in **Table 20-11**, the Proposed Actions' significant adverse impacts to four sidewalks would remain unmitigated.

TABLE 20-11
Action-With-Mitigation Sidewalk Conditions

Sidewalk		No-Action			With-Action			Action-with-Mitigation			
		Effective Width (ft)	Average Pedestrian Space (ft^2/ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft^2/ped)	LOS	Effective Width (ft)	Average Pedestrian Space (ft^2/ped)	LOS	Mitigation Measures
Weekday AM Peak Hour											
S1	East sidewalk along Van Sinderen Ave btw Broadway and Fulton St	0.5	164.2	B	0.5	9.4	F *	0.5	9.4	F *	- Unmitigatable.
S13	South sidewalk along Herikimer St btw Williams Place and E New York Ave	0.5	58.5	C	7.0	30.7	D *	7.0	30.7	D *	- Unmitigatable.
S22	North sidewalk along Atlantic Ave btw Williams Ave and Alabama Ave	2.5	285.5	B	2.5	30.1	D *	2.5	30.1	D *	- Unmitigatable.
Weekday MD Peak Hour											
S1	East sidewalk along Van Sinderen Ave btw Broadway and Fulton St	0.5	121.7	B	0.5	22.3	E *	0.5	22.3	E *	- Unmitigatable.
S21	North sidewalk along Atlantic Ave btw Alabama Ave and Georgia Ave	3.0	124.8	B	3.0	25.3	D *	3.0	25.3	D *	- Unmitigatable.
S22	North sidewalk along Atlantic Ave btw Williams Ave and Alabama Ave	2.5	91.0	B	2.5	20.8	E *	2.5	20.8	E *	- Unmitigatable.
Weekday PM Peak Hour											
S1	East sidewalk along Van Sinderen Ave btw Broadway and Fulton St	0.5	71.9	C	0.5	1.1	F *	0.5	1.1	F *	- Unmitigatable.
S13	South sidewalk along Herikimer St btw Williams Place and E New York Ave	0.5	66.3	C	7.0	24.4	D *	7.0	24.4	D *	- Unmitigatable.
S21	North sidewalk along Atlantic Ave btw Alabama Ave and Georgia Ave	3.0	186.1	B	3.0	18.2	E *	3.0	18.2	E *	- Unmitigatable.
S22	North sidewalk along Atlantic Ave btw Williams Ave and Alabama Ave	2.5	242.9	B	2.5	23.3	D *	2.5	23.3	D *	- Unmitigatable.
Saturday Peak Hour											
S1	East sidewalk along Van Sinderen Ave btw Broadway and Fulton St	0.5	59.1	C	0.5	4.8	F *	0.5	4.8	F *	- Unmitigatable.
S13	South sidewalk along Herikimer St btw Williams Place and E New York Ave	0.5	74.0	C	7.0	28.1	D *	7.0	28.1	D *	- Unmitigatable.
S21	North sidewalk along Atlantic Ave btw Alabama Ave and Georgia Ave	3.0	259.4	B	3.0	23.6	D *	3.0	23.6	D *	- Unmitigatable.
S22	North sidewalk along Atlantic Ave btw Williams Ave and Alabama Ave	2.5	240.7	B	2.5	22.3	E *	2.5	22.3	E *	- Unmitigatable.

Note:
* Denotes a significant adverse impact per 2021 *CEQR Technical Manual* criteria.

Crosswalks

Of the 12 crosswalks analyzed, three are expected to be significantly adversely impacted by incremental demand from the Proposed Actions in one or more peak hours. **Table 20-12** shows the recommended mitigation measures to address these impacts and their effectiveness. As shown in **Table 20-12**, with implementation of the proposed mitigation measures, all of the impacts would be fully mitigated with the exception of one crosswalk in the weekday PM peak hour and one crosswalk in the Saturday peak hour, which would therefore remain unmitigated.

TABLE 20-12
Action-With-Mitigation Crosswalk Conditions

Intersection	Crosswalk		No-Action			With-Action			Action-with-Mitigation			
			Width (ft)	Average Pedestrian Space (ft^2/ped)	LOS	Width (ft)	Average Pedestrian Space (ft^2/ped)	LOS	Width (ft)	Average Pedestrian Space (ft^2/ped)	LOS	Mitigation Measures
Weekday Midday Peak Hour												
Williams Ave/Herkimer St & E New York Ave	X6	North	11.5	146.2	A	11.5	18.3	D *	12.5	20.1	D	- Widen crosswalk by 1 ft.
Weekday PM Peak Hour												
Van Sinderen Ave & Fulton St	X2	East	15.5	292.0	A	15.5	10.3	E *	19.0	13.1	E *	- Widen crosswalk by 3.5 ft.
Saturday Peak Hour												
Van Sinderen Ave & Fulton St	X2	East	15.5	265.0	A	15.5	15.4	D *	19.0	19.5	D	- Widen crosswalk by 3.5 ft.
Georgia Ave & Atlantic Ave	X12	West	11.5	84.6	A	11.5	12.6	E *	11.5	12.6	E *	- Unmitigable.

Note:
* denotes a significant adverse impact per 2021 *CEQR Technical Manual* criteria.

Corner Areas

Of the 20 corners analyzed, five are expected to be significantly adversely impacted by incremental demand from the Proposed Actions in one or more peak hours. As shown in **Table 20-13**, the Proposed Actions' significant adverse impacts for all five corners would remain unmitigated.

TABLE 20-13
Action-With-Mitigation Corner Conditions

Intersection	Corner		No-Action		With-Action		Action-with-Mitigation		
			Average Pedestrian Space (ft^2/ped)	LOS	Average Pedestrian Space (ft^2/ped)	LOS	Average Pedestrian Space (ft^2/ped)	LOS	Mitigation Measures
Weekday AM Peak Hour									
Williams Ave & Herkimer St & E New York Ave	C07	NE	350.2	A	18.7	D *	18.7	D *	- Unmitigatable.
Williams Ave & Herkimer St & E New York Ave	C09	NW	354.5	A	16.4	D *	16.4	D *	- Unmitigatable.
Weekday Midday Peak Hour									
Williams Ave & Herkimer St & E New York Ave	C07	NE	153.2	A	12.0	E *	12.0	E *	- Unmitigatable.
Williams Ave & Herkimer St & E New York Ave	C09	NW	134.5	A	2.2	F *	2.2	F *	- Unmitigatable.
Broadway & Alabama Ave & Jamaica Ave & E New York Ave	C13	NW	121.5	A	16.4	D *	16.4	D *	- Unmitigatable.
Weekday PM Peak Hour									
Williams Ave & Herkimer St & E New York Ave	C07	NE	329.5	A	14.8	E *	14.8	E *	- Unmitigatable.
Williams Ave & Herkimer St & E New York Ave	C09	NW	294.3	A	2.9	F *	2.9	F *	- Unmitigatable.
Broadway & Alabama Ave & Jamaica Ave & E New York Ave	C13	NW	196.4	A	10.5	E *	10.5	E *	- Unmitigatable.
Saturday Peak Hour									
Williams Ave & Herkimer St & E New York Ave	C09	NW	377.1	A	3.3	F *	3.3	F *	- Unmitigatable.
Broadway & Alabama Ave & Jamaica Ave & E New York Ave	C13	NW	268.8	A	13.5	E *	13.5	E *	- Unmitigatable.
Georgia Ave & Atlantic Ave	C19	SW	134.4	A	13.8	E *	13.8	E *	- Unmitigatable.
Georgia Ave & Atlantic Ave	C20	NW	155.0	A	6.9	F *	6.9	F *	- Unmitigatable.

Note:
* denotes a significant adverse impact per 2021 *CEQR Technical Manual* criteria.

Effects of Traffic Mitigation on Pedestrian Conditions

Proposed traffic mitigation measures would not affect pedestrian conditions at any analyzed elements in any peak hour.

Proposed Schedule for Pedestrian Mitigation Measures

Subject to DOT approval, the pedestrian mitigation measures described above would be implemented to mitigate the significant adverse crosswalk impacts resulting from full build-out of development facilitated by the Proposed Actions in 2036. As the development facilitated by the Proposed Actions would be expected to occur over an approximately 10-year period, it is possible that the sidewalk, corner and crosswalk impacts could occur prior to full build-out in 2036.

D. Air Quality

As described in **Chapter 14, "Air Quality,"** the mobile source analysis determined that at the intersection of East New York Avenue and Williams Avenue (identified as East New York Ave & Herkimer St & Fulton St & Williams Ave in the transportation analysis), the maximum annual incremental $PM_{2.5}$ concentration is predicted to potentially exceed the annual *de minimis* criterion at the intersection of East New York Avenue and Williams Avenue. Feasible traffic mitigation measures were not identified for this intersection.

Therefore, for the DEIS, at this location, the significant adverse air quality impact is deemed as unmitigated, as discussed in **Chapter 22, "Unavoidable Adverse Impacts."** Between certification of the DEIS and publication of the FEIS, additional refinements to the analysis will be performed which is expected to determine that the identified threshold for a *de minimis* impact related to mobile source annual average $PM_{2.5}$ increments will not be met. Additional modeling of $PM_{2.5}$ concentrations (Grid Analysis) will be performed using more comprehensive analysis procedures to determine the magnitude and extent of neighborhood-scale $PM_{2.5}$ impacts from mobile sources. Other updates may include the use of newer vehicle emissions model data and projections. It is anticipated that the analysis accounting for these additional data points will conclude that $PM_{2.5}$ concentrations as a result of the Proposed Actions fall below the annual *de minimis* criteria thresholds, and consequently the identified impacts related to mobile sources would not occur. In addition to the refined analysis which may demonstrate that potential impacts related to mobile sources would not occur, potential mitigation measures are currently being explored by the lead agency, DCP, and will be refined between certification of the DEIS and publication of the FEIS. Absent the identification and implementation of feasible mitigation measures the impact could remain unmitigated.

E. Construction

Transportation

As presented in **Chapter 19, "Construction,"** it is expected that potential significant adverse traffic and pedestrian impacts could occur during construction and that these impacts would be within the range of impacts identified **Chapter 13, "Transportation"** for the 2036 With-Action condition. As presented in **Chapter 13, "Transportation,"** the Proposed Actions would result in significant adverse impacts to: a) vehicular traffic at 16 intersections; b) two stairs at one subway station; and c) pedestrian elements at four sidewalks, five corners, and three crosswalks. Therefore, there is the potential for significant adverse construction transportation impacts at the same 16 intersections, two stairs at one subway station, and four sidewalks, five corners, and three crosswalks.

The mitigation measures identified above for 2036 operational traffic and pedestrian impacts would likely be similarly effective at mitigating any potential 2035 construction traffic and pedestrian impacts. These mitigation measures would also be subject to DOT review and approval. If DOT determines that an identified improvement is infeasible, and no alternative and equivalent measure is identified, then the impact would be unmitigated and would constitute an unavoidable significant adverse impact.

As indicated above, regardless of any proposed mitigation measures, impacts to one or more lane group(s) would remain unmitigated in one or more peak hours at 16 intersections, two stairs at one subway station, and at four sidewalks, five corners, and two crosswalks in one or more peak hours in the 2036 With-Action condition. Consequently, these impacts could also constitute unavoidable significant adverse traffic,

transit, and pedestrian impacts in the 2035 construction peak as a result of the Proposed Actions (see **Chapter 22, "Unavoidable Adverse Impacts"**).