

A. INTRODUCTION

This chapter provides a discussion of the potential impacts of new vehicle trips associated with the proposed action on the local street network and on parking conditions in the area. The potential impacts on transit and pedestrian facilities are described in Chapter 16, “Transit and Pedestrians.”

Analysis results show that the proposed action would result in significant adverse traffic impacts at two intersections (Amsterdam Avenue at West 60th Street and Ninth Avenue at West 57th Street) during the midday peak hour in 2014; at one intersection (Columbus Avenue at West 60th Street) during the PM peak hour in 2014; at one intersection (Amsterdam Avenue at West 60th Street) during the AM peak hour in 2032; two intersections (Amsterdam Avenue at West 60th Street and Ninth Avenue at West 57th Street) during the midday peak hour in 2032; four intersections (Ninth and Tenth Avenues at West 57th Street and Columbus Avenue at West 60th and 62nd Streets) during the PM peak hour in 2032; and three intersections (Ninth and Tenth Avenues at West 57th Street and Broadway/Columbus Avenue/West 65th Street) during the pre-theater peak hour in 2032. Since the proposed action would provide a considerable number of on-site parking spaces to accommodate both the project-generated demand and Fordham faculty and staff who currently park off-site, there would not be any significant parking impacts. In any event, there is existing capacity within ¼ mile to accommodate the project-generated demand, if necessary. Potential measures to mitigate the identified traffic impacts are presented in Chapter 21, “Mitigation.”

B. METHODOLOGY**OVERVIEW**

A transportation impact study analyzes travel characteristics associated with the proposed action, the study area roadway network, and the regional transportation systems. Depending on the size and anticipated trip generation of the proposed action, various transportation elements are evaluated both qualitatively and quantitatively. The determination of analysis needs for projects in New York City is often based on guidance outlined in the *New York City Environmental Quality Review (CEQR) Technical Manual*. Once the analysis needs have been determined, a study area is developed for each of the specific transportation elements and the appropriate analysis time periods are determined. To provide the basic parameters for analysis, baseline traffic, parking, transit and pedestrian data, along with physical and operational characteristics would be collected. These data would be used to develop the baseline conditions, often referred to as the “existing conditions.” Once the basic analysis parameters have been established, operating levels for each of the transportation analysis areas are determined.

The future without the proposed action, or the “No Build condition,” builds on the existing conditions analysis by incorporating background growth, other nearby projects expected to be

completed, and anticipated changes in the transportation network. The analysis results would become the future baseline onto which projected increments associated with the proposed action would be layered to formulate the “Build condition.” If the future Build analysis concludes that the proposed action would result in significant transportation-related impacts, as defined by the *CEQR Technical Manual*, mitigation measures would be explored to alleviate these impacts.

EVALUATION PARAMETERS

The transportation impact assessment addresses future conditions in 2014 and 2032. As described in Chapter 1, “Project Description,” certain elements of the proposed action are expected to be completed by 2014, while others would be completed sometime over the next 25 years. For the purpose of analysis, the 2032 future horizon year was conservatively selected for consideration. The weekday AM, midday, PM, and pre-theater peak hours were selected as representative peak periods for analysis. The AM and PM peak analysis periods account for the typical arrival and departure of daytime students. The midday peak hour includes a mix of commuting and discretionary travel activities. The pre-theater peak hour was analyzed as well because Fordham University offers numerous evening classes with respect to which students’ travel patterns coincide with post-commuter peaking in background traffic from events at neighboring Lincoln Center.

TRAVEL DEMAND PROJECTIONS

The projection of future trips incorporates background growth, “No Build projects” that are expected to be completed absent the proposed action, and travel assumptions associated with the proposed development. Discussions of future background conditions are provided in the respective “Future without the Proposed Action” sections. The following highlights the projections of future trips resulting from the proposed campus expansion and the anticipated growth in campus population. These estimates form the basis of the detailed analyses required to evaluate various transportation elements.

CAMPUS POPULATION PROJECTIONS

The proposed action would result in over 1.7 million gross square feet (gsf) of new University floor area, which is needed currently to better accommodate the existing student body, faculty, administrators, and staff, and to allow for future anticipated growth. Fordham University administrators were consulted to determine the anticipated population for the future analysis years, as summarized in Table 15-1.

Table 15-1

Population Projections of Fordham University Lincoln Center Campus

	2006	2014	2032
Full-Time Graduate Students	2,714	2,777	2,985
Part-Time Graduate Students	2,700	2,794	4,045
Full-Time Undergraduate Students	1,789	3,233	3,151
Part-Time Undergraduate Students	759	705	1,039
Total Students	7,962	9,509	11,220
Faculty and Staff	1,273	1,522	1,795
Visitors	50	60	70
Total University Population	9,285	11,091	13,085
Source:	Fordham University		

TRIP GENERATION ESTIMATES

The projection of future project trips was based on entry/exit data and doorway interviews collected in the spring of 2004, and an on-line survey of Fordham University faculty, administrators, and staff conducted in the fall of 2003. Using the results of these surveys, a travel profile of the existing University users was developed, as illustrated in Table 15-2. The travel assumptions account for different characteristics associated with undergraduate versus graduate students, full-time versus part-time enrollment, students residing in campus dormitories, faculty/staff, and visitors. Based on these assumptions, total person-trip and vehicle-trip estimates were prepared, as shown in Tables 15-3 and 15-4, respectively.

**Table 15-2
2006 Fordham University Travel Profile**

Daily Trip Rates	Undergraduate Students Day/Full-Time (1)			Undergraduate Students Night/Part-Time (1)			Graduate Students Day/Full-Time (1)			Graduate Students Night/Part-Time (1)			Faculty/Staff (1)			Visitors (1)			External Dorm Trips * (1)		
	Person Trips	2.72 / student			1.35 / student			2.72 / student			1.35 / student			2.34 / person			2.00 / person			2.34 / person	
Modal Split	Undergraduate Students Day/Full-Time (2)			Undergraduate Students Night/Part-Time (2)			Graduate Students Day/Full-Time (2)			Graduate Students Night/Part-Time (2)			Faculty/Staff (2,3)			Visitors (2)			External Dorm Trips (4)		
		AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD/PM/PT	AM/MD	PM/PT	AM/MD/PM/PT	AM/MD	PM/PT	AM/MD/PM/PT	AM/MD/PM/PT
Auto	1.7%	1.4%		2.6%	2.2%		6.7%	2.0%		2.6%	8.9%		15.3%	8.7%	5.9%		4.3%	5.9%		9.2%	
Taxi	1.1%	2.2%		1.7%	3.3%		5.7%	3.0%		1.7%	2.5%		1.0%	4.3%	5.9%		6.1%			6.1%	
Subway	35.4%	25.4%		54.3%	38.9%		54.9%	35.6%		54.3%	58.2%		62.3%	43.5%	64.7%		42.0%			42.0%	
Bus	6.2%	3.7%		9.5%	5.6%		6.7%	5.1%		9.5%	5.1%		4.4%	0.0%	5.9%		9.0%			9.0%	
Shuttle	5.6%	14.5%		8.6%	22.2%		0.5%	20.3%		8.6%	1.3%		5.2%	0.0%	0.0%		0.0%			0.0%	
Walk Only	15.2%	18.0%		23.3%	27.8%		17.1%	25.6%		23.3%	24.1%		11.8%	43.4%	17.6%		33.3%			33.3%	
Dorm-Based	34.8%	34.8%		0.0%	0.0%		8.4%	8.4%		0.0%	0.0%		0.0%	0.0%	0.0%		0.0%			0.0%	
Total	100%	100%		100%	100%		100%	100%		100%	100%		100%	100%	100%		100%			100%	
Vehicle Occupancy	Undergraduate Students Day/Full-Time (2)			Undergraduate Students Night/Part-Time (2)			Graduate Students Day/Full-Time (2)			Graduate Students Night/Part-Time (2)			Faculty/Staff (2,3)			Visitors (1,2)			External Dorm Trips (4)		
Auto	1.20			1.20			1.11			1.11			1.19			1.20			1.13		
Taxi	1.00			1.00			1.23			1.23			1.00			1.00			1.13		
Temporal Distribution	Undergraduate Students Day/Full-Time (1)			Undergraduate Students Night/Part-Time (1)			Graduate Students Day/Full-Time (1)			Graduate Students Night/Part-Time (1)			Faculty/Staff (3)			Visitors (1)			External Dorm Trips (2)		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
AM	5.0%	75.0%	25.0%	0.0%	0.0%	0.0%	5.0%	75.0%	25.0%	0.0%	0.0%	0.0%	5.9%	98.3%	1.7%	15.0%	90.0%	10.0%	3.8%	35.6%	64.4%
Midday	10.0%	59.0%	41.0%	0.0%	0.0%	0.0%	10.0%	59.0%	41.0%	0.0%	0.0%	0.0%	12.4%	55.0%	45.0%	15.0%	50.0%	50.0%	5.8%	50.5%	49.5%
PM	8.0%	40.0%	60.0%	15.0%	95.0%	5.0%	8.0%	40.0%	60.0%	15.0%	95.0%	5.0%	10.6%	8.3%	91.7%	15.0%	10.0%	90.0%	9.5%	53.3%	46.7%
Pre-Theater	5.0%	27.0%	73.0%	11.0%	49.0%	51.0%	5.0%	27.0%	73.0%	11.0%	49.0%	51.0%	3.3%	5.1%	94.9%	0.0%	0.0%	0.0%	6.2%	55.0%	45.0%
<p>Notes: * "External dorm trips" refers to students living on campus making discretionary trips off campus. Source: (1) Fordham University enrollment statistics, door counts (April 2004), and AKRF assumptions (2) Doorway interview survey (April 2004) (3) Fordham University On-Line Travel Survey (December 2003) (4) Tracts 139, 145, 147, 149 and 155, 2000 US Census Data</p>																					

Table 15-3
2006 Fordham University Person Trip Estimates

Analysis Hour and User	Auto		Taxi		Subway		Bus		Shuttle		Walk Only		Dorm Based		Total		
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM Peak																	
Undergrad Day/FT	3	1	2	1	64	22	11	4	10	3	28	9	64	21	182	61	243
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	19	6	16	5	152	51	19	6	1	0	47	16	23	8	277	92	369
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	27	0	2	0	108	2	8	0	9	0	20	1	0	0	174	3	177
Visitors	1	0	1	0	6	1	0	0	0	0	6	1	0	0	14	2	16
External Dorm Trips	2	5	2	3	11	21	2	4	0	0	10	16	0	0	27	49	76
Total	52	12	23	9	341	97	40	14	20	3	111	43	87	29	674	207	881
Midday Peak																	
Undergrad Day/FT	5	3	3	2	102	71	18	12	16	11	44	30	99	71	287	200	487
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	29	20	25	17	239	166	29	20	2	2	75	52	37	26	436	303	739
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	31	25	2	2	126	103	9	7	11	9	24	20	0	0	203	166	369
Visitors	1	1	0	0	3	3	0	0	0	0	4	4	0	0	8	8	16
External Dorm Trips	5	5	4	3	24	24	5	5	0	0	20	20	0	0	58	57	115
Total	71	54	34	24	494	367	61	44	29	22	167	126	136	97	992	734	1,726
PM Peak																	
Undergrad Day/FT	2	3	3	5	40	59	6	9	23	34	28	42	54	82	156	234	390
Undergrad Night/PT	3	0	5	0	57	3	8	0	32	2	41	3	0	0	146	8	154
Graduate Day/FT	5	7	7	11	84	126	12	18	48	72	60	91	20	29	236	354	590
Graduate Night/PT	13	1	9	0	282	15	49	3	45	2	121	6	0	0	519	27	546
Faculty/Staff	4	44	0	3	16	180	1	13	1	15	4	34	0	0	26	289	315
Visitors	0	1	0	1	6	0	0	0	0	0	1	6	0	0	2	14	16
External Dorm Trips	9	8	6	5	42	37	9	8	0	0	35	30	0	0	101	88	189
Total	36	64	30	25	522	426	85	51	149	125	290	212	74	111	1,186	1,014	2,200
Pre-Theater Peak																	
Undergrad Day/FT	1	2	1	4	17	45	2	7	10	26	12	32	23	62	66	178	244
Undergrad Night/PT	1	1	2	2	21	22	3	3	12	13	16	16	0	0	55	57	112
Graduate Day/FT	2	5	3	8	36	96	5	14	20	55	26	69	8	22	100	269	369
Graduate Night/PT	17	18	5	5	114	119	10	10	3	3	4	49	0	0	196	204	400
Faculty/Staff	1	14	0	1	3	59	0	4	0	5	1	11	0	0	5	94	99
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	6	5	4	3	29	23	0	5	0	0	23	19	0	0	68	55	123
Total	28	45	15	23	220	364	26	43	45	102	125	119	31	84	490	857	1,347

Table 15-4

2006 Fordham University Vehicle Trip Estimates

Analysis Hour and User	Auto		Taxi		Total		Total
	In	Out	In	Out	In	Out	
AM Peak							
Undergrad Day/FT	3	1	2	2	5	3	8
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	17	5	13	13	30	18	48
Graduate Night/PT	0	0	0	0	0	0	0
Faculty/Staff	23	0	2	2	25	2	27
Visitors	1	0	1	1	2	1	3
External Dorm Trips	2	4	4	4	6	8	14
Total	46	10	22	22	68	32	100
Midday Peak							
Undergrad Day/FT	4	3	3	3	7	6	13
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	26	18	24	24	50	42	92
Graduate Night/PT	0	0	0	0	0	0	0
Faculty/Staff	26	21	3	3	29	24	53
Visitors	1	1	0	0	1	1	2
External Dorm Trips	4	4	5	5	9	9	18
Total	61	47	35	35	96	82	178
PM Peak							
Undergrad Day/FT	2	3	6	6	8	9	17
Undergrad Night/PT	3	0	5	5	8	5	13
Graduate Day/FT	5	6	12	12	17	18	35
Graduate Night/PT	12	1	7	7	19	8	27
Faculty/Staff	3	37	3	3	6	40	46
Visitors	0	1	1	1	1	2	3
External Dorm Trips	8	7	6	6	14	13	27
Total	33	55	40	40	73	95	168
Pre-Theater Peak							
Undergrad Day/FT	1	2	4	4	5	6	11
Undergrad Night/PT	1	1	3	3	4	4	8
Graduate Day/FT	2	5	8	8	10	13	23
Graduate Night/PT	15	16	6	6	21	22	43
Faculty/Staff	1	12	1	1	2	13	15
Visitors	0	0	0	0	0	0	0
External Dorm Trips	5	4	5	5	10	9	19
Total	25	40	27	27	52	67	119

As part of the proposed action, additional dormitory space would be constructed to provide more beds for enrolled students and thereby reduce the overall need for traveling to the campus from afar. By 2014, the total number of dorm beds is expected to increase from the current 850 to 1,545. The construction of the new underground accessory garage would also be underway by 2014. This garage would provide parking for University faculty, administrators, and staff, as well as visitors. Parking at this garage would be partially subsidized by the University as a perk to faculty and staff as an incentive to attract candidates who would otherwise be less likely to take positions at the University. In the on-line travel survey, several stated-preference questions were asked to probe the likelihood of Fordham University personnel changing their current travel patterns given various parking incentive levels. This exercise found that a fair share of University faculty, administrators, and staff would take advantage of a potential parking savings and the added convenience of parking on campus. While actual reaction to such an incentive is likely to be less pronounced than the response to the survey, the travel demand estimates conservatively assumed the maximum potential shift to auto use. Under the first stage of construction, however, the available faculty spaces would only accommodate 78 percent of the total faculty parking demand indicated in the survey. This analysis assumes that the university would subsidize parking costs for the overflow parking by its faculty and staff in local garages. The 2014 Fordham University travel profile is presented in Tables 15-5 and the projected person and vehicle trip increments are presented in Tables 15-6 and 15-7, respectively.

**Table 15-5
2014 Fordham University Travel Profile**

Daily Trip Rates	Undergraduate Students Day/Full-Time (1)			Undergraduate Students Night/Part-Time (1)			Graduate Students Day/Full-Time (1)			Graduate Students Night/Part-Time (1)			Faculty/Staff (1)			Visitors (1)			External Dorm Trips (1)			
	Person Trips	2.72 / student			1.35 / student			2.72 / student			1.35 / student			2.34 / person			2.00 / person			2.34 / person		
Modal Split	Undergraduate Students Day/Full-Time (2)			Undergraduate Students Night/Part-Time (2)			Graduate Students Day/Full-Time (2)			Graduate Students Night/Part-Time (2)			Faculty/Staff (2,3)			Visitors (2)			External Dorm Trips (4)			
		AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD	PM/PT	AM/MD/PM/PT	AM/MD	PM/PT	AM/MD/PM/PT	AM/MD	PM/PT	AM/MD/PM/PT	AM/MD/PM/PT	
Auto	1.6%	1.3%	2.6%	2.2%	6.6%	2.0%	2.6%	8.9%	24.2%	8.7%	5.9%	9.2%										
Taxi	1.0%	2.0%	1.7%	3.3%	5.6%	3.0%	1.7%	2.5%	1.0%	4.3%	5.9%	6.1%										
Subway	33.0%	23.6%	54.3%	38.9%	54.0%	35.1%	54.3%	58.2%	54.0%	43.5%	64.7%	42.0%										
Bus	5.8%	3.4%	9.5%	5.6%	6.6%	5.1%	9.5%	5.1%	3.8%	0.0%	5.9%	9.0%										
Shuttle	5.2%	13.5%	8.6%	22.2%	0.5%	20.0%	8.6%	1.3%	5.2%	0.0%	0.0%	0.0%										
Walk Only	14.1%	16.9%	23.3%	27.8%	16.9%	25.0%	23.3%	24.1%	11.8%	43.4%	17.6%	33.3%										
Dorm-Based	39.3%	39.3%	0.0%	0.0%	9.8%	9.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%										
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%										
Vehicle Occupancy	Undergraduate Students Day/Full-Time (2)			Undergraduate Students Night/Part-Time (2)			Graduate Students Day/Full-Time (2)			Graduate Students Night/Part-Time (2)			Faculty/Staff (2,3)			Visitors (1,2)			External Dorm Trips (4)			
		1.20			1.20			1.11			1.11			1.19			1.20			1.13		
Auto	1.20			1.20			1.11			1.11			1.19			1.20			1.13			
Taxi	1.00			1.00			1.23			1.23			1.00			1.00			1.13			
Temporal Distribution	Undergraduate Students Day/Full-Time (1)			Undergraduate Students Night/Part-Time (1)			Graduate Students Day/Full-Time (1)			Graduate Students Night/Part-Time (1)			Faculty/Staff (3)			Visitors (1)			External Dorm Trips (2)			
		Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
	AM	50.0%	75.0%	25.0%	0.0%	0.0%	0.0%	5.0%	75.0%	25.0%	0.0%	0.0%	0.0%	6.0%	98.0%	2.0%	15.0%	90.0%	10.0%	3.8%	35.6%	64.4%
Midday	10.0%	59.0%	41.0%	0.0%	0.0%	0.0%	10.0%	59.0%	41.0%	0.0%	0.0%	0.0%	12.4%	55.0%	45.0%	15.0%	50.0%	50.0%	5.8%	50.5%	49.5%	
PM	8.0%	40.0%	60.0%	15.0%	95.0%	5.0%	8.0%	40.0%	60.0%	15.0%	95.0%	5.0%	10.6%	8.3%	91.7%	15.0%	10.0%	90.0%	11.2%	52.5%	47.5%	
Pre-Theater	5.0%	27.0%	73.0%	11.0%	49.0%	51.0%	5.0%	27.0%	73.0%	11.0%	49.0%	51.0%	3.3%	5.3%	94.7%	0.0%	0.0%	0.0%	6.2%	55.0%	45.0%	

Source: (1) Fordham University enrollment statistics, door counts (April 2004), and AKRF assumptions
 (2) Doorway interview survey (April 2004)
 (3) Fordham University On-Line Travel Survey (December 2003)
 (4) Tracts 139, 145, 147, 149 and 155, 2000 US Census Data

**Table 15-6
2014 Fordham University Projected Person Trip Increments**

Analysis Hour and User	Auto		Taxi		Subway		Bus		Shuttle		Walk Only		Dorm Based		Total		
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM Peak																	
Undergrad Day/FT	2	1	1	0	45	14	8	2	7	3	19	7	66	22	148	49	197
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	1	0	0	0	0	0	1	0	4	2	6	2	8
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	23	1	0	0	4	0	0	0	2	0	5	0	0	0	34	1	35
Visitors	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	0	2
External Dorm Trips	3	3	1	2	10	16	2	4	0	0	6	14	0	0	22	39	61
Total	28	5	2	2	61	30	10	6	9	3	32	21	70	24	212	91	303
Midday Peak																	
Undergrad Day/FT	3	3	2	2	69	48	12	9	11	8	29	21	106	141	232	163	395
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	2	1	0	0	0	0	0	0	8	6	10	7	17
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	28	23	0	0	5	4	0	1	2	1	6	3	0	0	41	32	73
Visitors	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
External Dorm Trips	5	5	2	3	21	20	5	4	0	0	15	15	0	0	48	47	95
Total	36	31	4	5	98	74	17	14	13	9	50	39	114	76	332	248	580
PM Peak																	
Undergrad Day/FT	2	2	3	3	26	41	4	5	15	23	19	29	56	85	125	188	313
Undergrad Night/PT	0	0	-1	0	-4	0	0	0	-2	0	-3	-1	0	0	-10	-1	-11
Graduate Day/FT	0	0	0	0	1	0	0	0	0	0	1	0	4	7	6	8	14
Graduate Night/PT	1	0	0	0	10	0	2	0	1	0	4	1	0	0	18	1	19
Faculty/Staff	4	40	0	0	1	7	0	0	1	3	-1	7	0	0	5	57	62
Visitors	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	2
External Dorm Trips	8	7	5	5	35	30	7	6	0	0	27	24	0	0	82	72	154
Total	15	49	7	8	69	80	13	11	15	26	47	61	60	92	226	327	553
Pre-Theater Peak																	
Undergrad Day/FT	1	2	1	2	11	31	2	4	6	17	8	22	24	65	53	143	196
Undergrad Night/PT	0	0	0	0	-1	-1	0	0	-1	-1	-2	-2	0	0	-4	-4	-8
Graduate Day/FT	0	1	0	0	0	1	0	0	0	0	0	0	2	5	2	7	9
Graduate Night/PT	1	1	0	0	4	4	0	1	0	0	2	2	0	0	7	8	15
Faculty/Staff	0	13	0	0	0	1	0	0	0	1	1	3	0	0	1	18	19
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	5	4	4	3	23	19	5	4	0	0	18	16	0	0	55	46	101
Total	7	21	5	5	37	55	7	9	5	17	27	41	26	70	114	218	332

Table 15-7

2014 Fordham University Projected Vehicle Trip Increments

Analysis Hour and User	Auto		Taxi		Total		Total
	In	Out	In	Out	In	Out	
AM Peak							
Undergrad Day/FT	1	1	1	1	2	2	4
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0
Graduate Night/PT	0	0	0	0	0	0	0
Faculty/Staff	19	1	0	0	19	1	20
Visitors	0	0	0	0	0	0	0
External Dorm Trips	2	3	1	1	3	4	7
Total	22	5	2	2	24	7	31
Midday Peak							
Undergrad Day/FT	3	2	3	3	6	5	11
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0
Graduate Night/PT	0	0	0	0	0	0	0
Faculty/Staff	24	19	0	0	24	19	43
Visitors	0	0	0	0	0	0	0
External Dorm Trips	5	5	2	2	7	7	14
Total	32	26	5	5	37	31	68
PM Peak							
Undergrad Day/FT	1	1	5	5	6	6	12
Undergrad Night/PT	0	0	-1	-1	-1	-1	-2
Graduate Day/FT	0	0	0	0	0	0	0
Graduate Night/PT	1	0	0	0	1	0	1
Faculty/Staff	4	34	0	0	4	34	38
Visitors	0	0	0	0	0	0	0
External Dorm Trips	7	6	8	8	15	14	29
Total	13	41	12	12	25	53	78
Pre-Theater Peak							
Undergrad Day/FT	1	1	3	3	4	4	8
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	0	0	0
Graduate Night/PT	1	1	0	0	1	1	2
Faculty/Staff	0	11	0	0	0	11	11
Visitors	0	0	0	0	0	0	0
External Dorm Trips	5	4	3	3	8	7	15
Total	7	17	6	6	13	23	36

Under the full build-out scenario, which for the purpose of analysis is assumed to occur in 2032, the total number of dormitory beds would increase to 2,300. With all planned dormitory space completed, a substantially higher proportion of students who are eligible to reside on campus would have access to dormitory beds. Concurrently, the accessory garage would be completed and would fully accommodate the potential demand for subsidized on-campus parking for the University’s faculty, administrators, and staff, as well as visitors. Table 15-8 summarizes the 2032 Fordham University travel profile. The projected person and vehicle trip increments are presented in Tables 15-9 and 15-10, respectively.

**Table 15-8
2032 Fordham University Travel Profile**

Daily Trip Rates	Undergraduate Students Day/Full-Time (1)			Undergraduate Students Night/Part-Time (1)			Graduate Students Day/Full-Time (1)			Graduate Students Night/Part-Time (1)			Faculty/Staff (1)			Visitors (1)			External Dorm Trips (1)					
	2.72 / student			1.35 / student			2.72 / student			1.35 / student			2.34 / person			2.00 / person			2.34 / person					
Modal Split	Undergraduate Students Day/Full-Time (2)			Undergraduate Students Night/Part-Time (2)			Graduate Students Day/Full-Time (2)			Graduate Students Night/Part-Time (2)			Faculty/Staff (2,3)			Visitors (2)			External Dorm Trips (4)					
	AM/MD	PM/PT		AM/MD	PM/PT		AM/MD	PM/PT		AM/MD	PM/PT		AM/MD/PM/PT	AM/MD	PM/PT		AM/MD	PM/PT		AM/MD/PM/PT	AM/MD	PM/PT		
Auto	1.1%	0.9%		2.6%	2.2%		6.2%	1.9%		2.6%	8.9%		24.4%	8.7%	5.9%		2.6%	2.2%		6.2%	1.9%		2.6%	8.9%
Taxi	0.7%	1.4%		1.7%	3.3%		5.3%	2.8%		1.7%	2.5%		1.0%	4.3%	5.9%		0.7%	1.4%		1.7%	3.3%		5.3%	2.8%
Subway	22.3%	15.9%		54.3%	38.9%		51.1%	33.2%		54.3%	58.2%		54.0%	43.5%	64.7%		22.3%	15.9%		54.3%	38.9%		51.1%	33.2%
Bus	3.9%	2.3%		9.5%	5.6%		6.2%	4.8%		9.5%	5.1%		3.8%	0.0%	5.9%		3.9%	2.3%		9.5%	5.6%		6.2%	4.8%
Shuttle	3.5%	9.1%		8.6%	22.2%		0.5%	18.9%		8.6%	1.3%		5.2%	0.0%	0.0%		3.5%	9.1%		8.6%	22.2%		0.5%	18.9%
Walk Only	9.6%	11.4%		23.3%	27.8%		16.0%	23.7%		23.3%	24.1%		11.8%	43.4%	17.6%		9.6%	11.4%		23.3%	27.8%		16.0%	23.7%
Dorm-Based	59.0%	59.0%		0.0%	0.0%		14.7%	14.7%		0.0%	0.0%		0.0%	0.0%	0.0%		59.0%	59.0%		0.0%	0.0%		0.0%	0.0%
Total	100%	100%		100%	100%		100%	100%		100%	100%		100%	100%	100%		100%	100%		100%	100%		100%	100%
Vehicle Occupancy	Undergraduate Students Day/Full-Time (2)			Undergraduate Students Night/Part-Time (2)			Graduate Students Day/Full-Time (2)			Graduate Students Night/Part-Time (2)			Faculty/Staff (2,3)			Visitors (1,2)			External Dorm Trips (4)					
Auto	1.20			1.20			1.11			1.11			1.19			1.20			1.13					
Taxi	1.00			1.00			1.23			1.23			1.00			1.00			1.13					
Temporal Distribution	Undergraduate Students Day/Full-Time (1)			Undergraduate Students Night/Part-Time (1)			Graduate Students Day/Full-Time (1)			Graduate Students Night/Part-Time (1)			Faculty/Staff (3)			Visitors (1)			External Dorm Trips (2)					
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
AM	5.0%	75.0%	25.0%	0.0%	0.0%	0.0%	5.0%	75.0%	25.0%	0.0%	0.0%	0.0%	6.0%	98.3%	1.7%	15.0%	90.0%	10.0%	3.8%	35.5%	64.5%			
Midday	10.0%	59.0%	41.0%	0.0%	0.0%	0.0%	10.0%	59.0%	41.0%	0.0%	0.0%	0.0%	12.4%	55.0%	45.0%	15.0%	50.0%	50.0%	5.8%	50.5%	49.5%			
PM	8.0%	40.0%	60.0%	15.0%	95.0%	5.0%	8.0%	40.0%	60.0%	15.0%	95.0%	5.0%	10.6%	8.3%	91.7%	15.0%	10.0%	90.0%	11.3%	52.5%	47.5%			
Pre-Theater	5.0%	27.0%	73.0%	11.0%	49.0%	51.0%	5.0%	27.0%	73.0%	11.0%	49.0%	51.0%	3.3%	5.1%	94.9%	0.0%	0.0%	0.0%	6.2%	55.0%	45.0%			

Source: (1) Fordham University enrollment statistics, door counts (April 2004), and AKRF assumptions
(2) Doorway interview survey (April 2004)
(3) Fordham University On-Line Travel Survey (December 2003)
(4) Tracts 139, 145, 147, 149 and 155, 2000 US Census Data

Table 15-9

2032 Fordham University Projected Person Trip Increments

Analysis Hour and User	Auto		Taxi		Subway		Bus		Shuttle		Walk Only		Dorm Based		Total		Total
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	
AM Peak																	
Undergrad Day/FT	1	0	0	0	8	2	2	0	1	1	3	1	124	42	139	46	185
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	3	1	0	0	1	1	2	0	21	7	27	9	36
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	32	1	0	0	24	0	1	0	4	0	10	0	0	0	71	1	72
Visitors	1	0	0	0	2	0	0	0	0	0	2	0	0	0	5	0	5
External Dorm Trips	5	7	2	5	20	34	5	8	0	0	14	29	0	0	46	83	129
Total	39	8	2	5	57	37	8	8	6	2	31	30	145	49	288	139	427
Midday Peak																	
Undergrad Day/FT	1	1	1	0	11	7	2	2	2	1	5	4	197	136	219	151	370
Undergrad Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Graduate Day/FT	1	1	0	1	6	4	1	1	0	0	2	1	33	22	43	30	73
Graduate Night/PT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faculty/Staff	38	32	1	0	29	23	2	2	4	3	11	8	0	0	85	68	153
Visitors	0	0	0	0	2	2	0	0	0	0	1	1	0	0	3	3	6
External Dorm Trips	10	9	6	6	42	41	9	9	0	0	33	33	0	0	100	98	198
Total	50	43	8	7	90	77	14	14	6	4	52	47	230	158	450	350	800
PM Peak																	
Undergrad Day/FT	0	1	1	1	4	6	0	0	2	3	3	5	108	161	118	177	295
Undergrad Night/PT	1	0	2	0	21	1	3	1	12	0	15	1	0	0	54	3	57
Graduate Day/FT	0	0	0	0	2	3	0	1	1	2	2	1	19	29	24	36	60
Graduate Night/PT	7	0	4	1	140	7	25	1	22	2	61	3	0	0	259	14	273
Faculty/Staff	5	55	0	1	4	40	0	3	1	6	1	14	0	0	11	119	130
Visitors	0	1	0	0	2	0	0	0	0	0	0	2	0	0	0	5	5
External Dorm Trips	16	14	11	10	73	63	16	14	0	0	56	50	0	0	172	151	323
Total	29	71	18	13	244	122	44	20	38	13	138	76	127	190	638	505	1,143
Pre-Theater Peak																	
Undergrad Day/FT	0	1	1	0	1	5	1	0	1	2	1	4	45	123	50	135	185
Undergrad Night/PT	1	1	1	1	9	9	1	1	5	5	4	5	0	0	21	22	43
Graduate Day/FT	0	1	0	0	1	2	0	0	1	1	0	1	8	22	10	27	37
Graduate Night/PT	9	9	2	3	57	59	5	6	1	1	24	24	0	0	98	102	200
Faculty/Staff	1	18	0	0	1	13	0	1	0	2	0	5	0	0	2	39	41
Visitors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
External Dorm Trips	11	9	7	6	48	40	11	9	0	0	39	31	0	0	116	952	211
Total	22	39	11	10	117	128	18	17	8	11	68	70	53	145	297	420	717

Table 15-10
2032 Fordham University Projected Vehicle Trip Increments

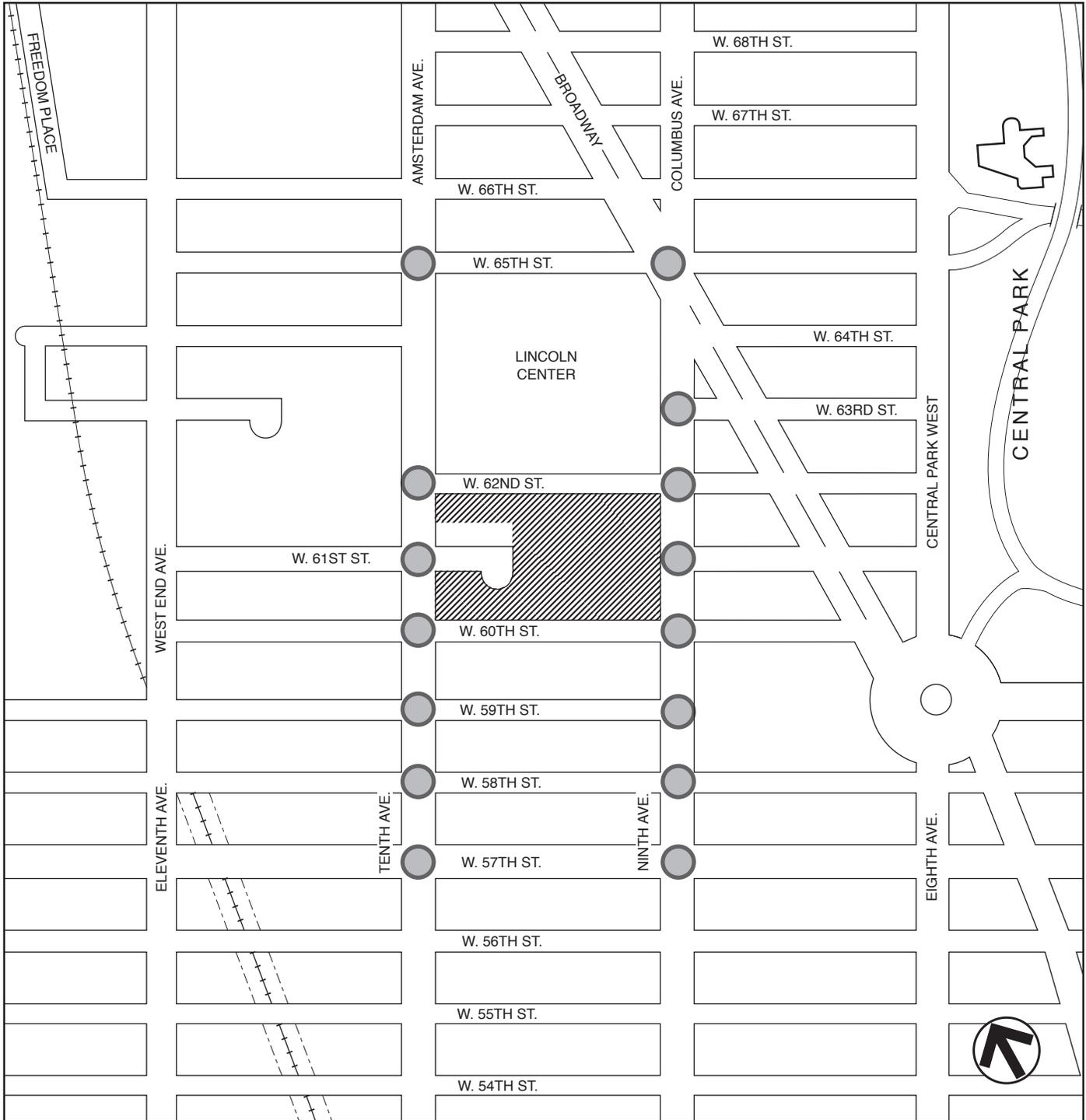
Analysis Hour and User	Auto		Taxi		Total		
	In	Out	In	Out	In	Out	Total
AM Peak							
Undergrad Day/FT	0	0	0	0	0	0	0
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	0	0	0	0	1	0	1
Graduate Night/PT	0	0	0	0	0	0	0
Faculty/Staff	27	1	0	0	27	1	28
Visitors	1	0	0	0	1	0	1
External Dorm Trips	4	7	5	5	9	12	21
Total	32	8	5	5	37	13	50
Midday Peak							
Undergrad Day/FT	1	0	1	1	2	1	3
Undergrad Night/PT	0	0	0	0	0	0	0
Graduate Day/FT	1	1	1	1	2	2	4
Graduate Night/PT	0	0	0	0	0	0	0
Faculty/Staff	32	27	0	0	32	27	59
Visitors	0	0	0	0	0	0	0
External Dorm Trips	9	8	7	7	16	15	31
Total	43	36	9	9	52	45	97
PM Peak							
Undergrad Day/FT	0	0	2	2	2	2	4
Undergrad Night/PT	0	0	2	2	2	2	4
Graduate Day/FT	0	0	0	0	0	0	0
Graduate Night/PT	6	0	4	4	10	4	14
Faculty/Staff	5	46	1	1	6	47	53
Visitors	0	1	0	0	0	1	1
External Dorm Trips	14	12	14	14	28	26	54
Total	25	59	23	23	48	82	130
Pre-Theater Peak							
Undergrad Day/FT	0	1	1	1	1	2	3
Undergrad Night/PT	1	1	1	1	2	2	4
Graduate Day/FT	0	0	0	0	0	0	0
Graduate Night/PT	8	8	4	4	12	12	24
Faculty/Staff	1	15	0	0	1	15	16
Visitors	0	0	0	0	0	0	0
External Dorm Trips	10	8	8	8	18	16	34
Total	20	33	14	14	34	42	81

To sustain the increased activities projected for the proposed action, there would be additional truck deliveries. Table 15-11 provides estimates of incremental truck trips resulting from the increase of academic and dormitory space.

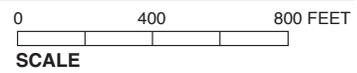
STUDY AREA

Based on the travel demand projections and assignment of projected vehicle trips, an overall study area was defined that considers the location of the project site, primary access routes to and from the site, and key intersections likely to be affected by project-generated trips. The study area is bounded by West 65th Street to the north, West 57th Street to the south, Columbus Avenue (Ninth Avenue south of West 60th Street) to the east, and Amsterdam Avenue (Tenth Avenue south of West 60th Street) to the west. As shown in Figure 15-1, the study area consists of a network of 15 intersections, as follows:

- Tenth Avenue at West 57th, West 58th, and West 59th Streets;
- Amsterdam Avenue at West 60th, and West 61st, West 62nd, and West 65th Streets;
- Ninth Avenue at West 57th, West 58th, and West 59th Streets;
- Columbus Avenue at West 60th, West 61st, West 62nd, and West 63rd Streets; and
- Columbus Avenue and Broadway at West 65th Street.



-  Project Site Boundary
-  Intersection to be Analyzed



**Table 15-11
Truck Delivery Trip Generation**

Daily Trip Rates						
Academic Space (1):			0.03 trips per kgsf			
Dormitory Beds (2,3):			0.03 trips per bed			
Temporal Distribution						
	AM	Midday	PM	PT		
Academic Space:			9.7%	7.8%	7.8%	0.0%
Dormitory Beds:			9.7%	7.8%	5.1%	0.0%
Analysis Hour and Use	2014 Net Increments			2032 Net Increments		
	In	Out	Total	In	Out	Total
AM Peak						
Academic Space	1	1	2	4	4	8
Dormitory Beds	1	1	2	5	5	10
Total	2	2	4	9	9	18
Midday Peak						
Academic Space	1	1	2	3	3	6
Dormitory Beds	1	1	2	4	4	8
Total	2	2	4	7	7	14
PM Peak						
Academic Space	1	1	2	3	3	6
Dormitory Beds	1	1	2	2	2	4
Total	2	2	4	5	5	10
Pre-Theater Peak						
Academic Space	0	0	0	0	0	0
Dormitory Beds	0	0	0	0	0	0
Total	0	0	0	0	0	0
Sources:						
(1) <i>Columbia University School of Social Works</i> (2001)						
(2) <i>Motor Trucks in the Metropolis</i> (1969), Wilbur Smith Associates						
(3) Conservative application of per dwelling unit rate onto dormitory beds						

OPERATIONAL ANALYSIS METHODOLOGY—SIGNALIZED INTERSECTION

The operation of signalized intersections in the study area was analyzed in accordance with CEQR guidelines by applying the methodologies presented in the 2000 *Highway Capacity Manual (HCM)*. This procedure evaluates signalized intersections for average delay per vehicle and level of service (LOS).

LOS for a signalized intersection is based on the average stopped delay per vehicle for the various lane group movements within the intersection. This delay is the basis for an LOS determination for individual lane groups (grouping of movements in one or more travel lanes), the approaches, and the overall intersection. The levels of service are defined in Table 15-12:

Table 15-12
LOS Criteria for Signalized Intersections

Level-of-Service (LOS)	Average Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 20.0 seconds
C	> 20.0 and ≤ 35.0 seconds
D	> 35.0 and ≤ 55.0 seconds
E	> 55.0 and ≤ 80.0 seconds
F	> 80.0 seconds
Source: Transportation Research Board. <i>Highway Capacity Manual</i> , 2000.	

Although the *HCM* methodology calculates a volume-to-capacity (v/c) ratio, there is no strict relationship between v/c ratios and LOS as defined in the HCM. A high v/c ratio indicates substantial traffic passing through an intersection, but a high v/c ratio combined with low average delay actually represents the most efficient condition in terms of traffic engineering standards, where an approach or the whole intersection processes traffic close to its theoretical maximum with minimal delay. However, very high v/c ratios—especially those approaching or greater than 1.0—are often correlated with a deteriorated LOS. Other important variables affecting delay include cycle length, progression, and green time. LOS A and B indicate good operating conditions with minimal delay. At LOS C, the number of vehicles stopping is higher, but congestion is still fairly light. LOS D describes a condition where congestion levels are more noticeable and individual cycle failures (a condition where motorists may have to wait for more than one green phase to clear the intersection) can occur. The mid-point of this service level (45 seconds of delay) is considered the threshold of acceptable operating conditions. Conditions at LOS E and F reflect poor service levels, and cycle failures are frequent. The HCM methodology provides for a summary of the total intersection operating conditions, by identifying the two critical movements (the worst-case from each roadway) and calculating a summary of critical v/c ratio, delay, and LOS.

SIGNIFICANT IMPACT CRITERIA

According to the criteria presented in the *CEQR Technical Manual*, impacts are considered significant and require examination of mitigation if they result in an increase of 5 or more seconds of delay in a lane group over No Build levels beyond mid-LOS D. For No Build LOS E, a 4-second increase in delay is considered significant. For No Build LOS F, a 3-second increase in delay is considered significant. Also, if the No Build LOS F condition already corresponds with a delay in excess of 120 seconds, an increase of 1.0 or more seconds of delay is considered significant. In addition, impacts are considered significant if levels of service deteriorate from acceptable A, B or C in the No Build condition to marginally unacceptable LOS D (a delay in excess of 45 seconds, the midpoint of LOS D), or unacceptable LOS E or F in the future Build condition. The above sliding scale is applicable only if the proposed action is projected to generate five or more vehicle trips through the analysis lane group in the peak hour.

PARKING CONDITIONS ASSESSMENT

The parking analysis identifies the extent to which on-street and off-street parking is available and utilized under existing and future conditions. Typically, this analysis encompasses a study area within a ¼ mile of the project site. If necessary, this area could be extended to ½ mile to

identify additional parking supply. The analysis, which takes into consideration anticipated changes in area parking supply and demand, provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from the proposed action.

According to the *CEQR Technical Manual*, the inability of the proposed action or the surrounding area to accommodate projected future parking demands within the Manhattan CBD would generally be considered a parking shortfall, but is not deemed a significant impact.

TRAFFIC SAFETY EVALUATION

An evaluation of traffic safety is necessary for locations within the traffic study area that have been identified as high accident locations, where five or more pedestrian/bicycle accidents in any year in the most recent three-year period were recorded. For these locations, accident trends were identified to determine whether projected vehicular and pedestrian/bicycle traffic would further impact safety at these locations or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts is often subjective and depends largely on the type of area where a proposed action is anticipated to occur. For example, in busy Manhattan midtown and downtown areas, where vehicular and pedestrian/bicycle activities are high and motorists and pedestrians/bicycles are acclimated to travel under congested conditions, it is unlikely that significant safety impacts would be determined even if the proposed action is anticipated to generate a substantial amount of vehicular and pedestrian/bicycle traffic. Five study area intersections were identified as high pedestrian/bicycle accident locations in the 2004 to 2007 period and are discussed in Section H, below.

C. EXISTING CONDITIONS

STUDY AREA INTERSECTION AND ROADWAY CHARACTERISTICS

The traffic study area is located in West Midtown and the Upper West Side of Manhattan. The roadway system surrounding the project site is configured in a grid system of north-south avenues and east-west cross-town streets. Columbus and Amsterdam Avenues are one-way arterials with five to six lanes (including parking lanes). Amsterdam Avenue serves northbound traffic and continues as Tenth Avenue south of West 60th Street. Columbus Avenue serves southbound traffic and continues as Ninth Avenue south of West 60th Street. Broadway, a two-way arterial with four lanes in each direction (including parking lanes), is aligned in the northwest to southeast direction and intersects the study area at its northeastern corner.

West 57th Street, a major cross-town street, operates with three lanes in each direction, although bus movements and parking limit the use of both curb lanes. West 65th Street is an eastbound street that provides access to the Upper East Side via a traverse road through Central Park. West 58th Street is also an eastbound street that traverses eastward just south of Columbus Circle. Other study area cross-town streets terminate at Broadway, Central Park West, or Columbus Circle.

All 15 analysis locations are controlled by pre-timed traffic signals with 90-second cycle lengths. One of these intersections, where Broadway crosses West 65th Street and Columbus Avenue, is a six-legged intersection with access to the Lincoln Center frontage road where pick-up and drop-off traffic is active during the pre-theater and late evening hours.

TRAFFIC VOLUMES

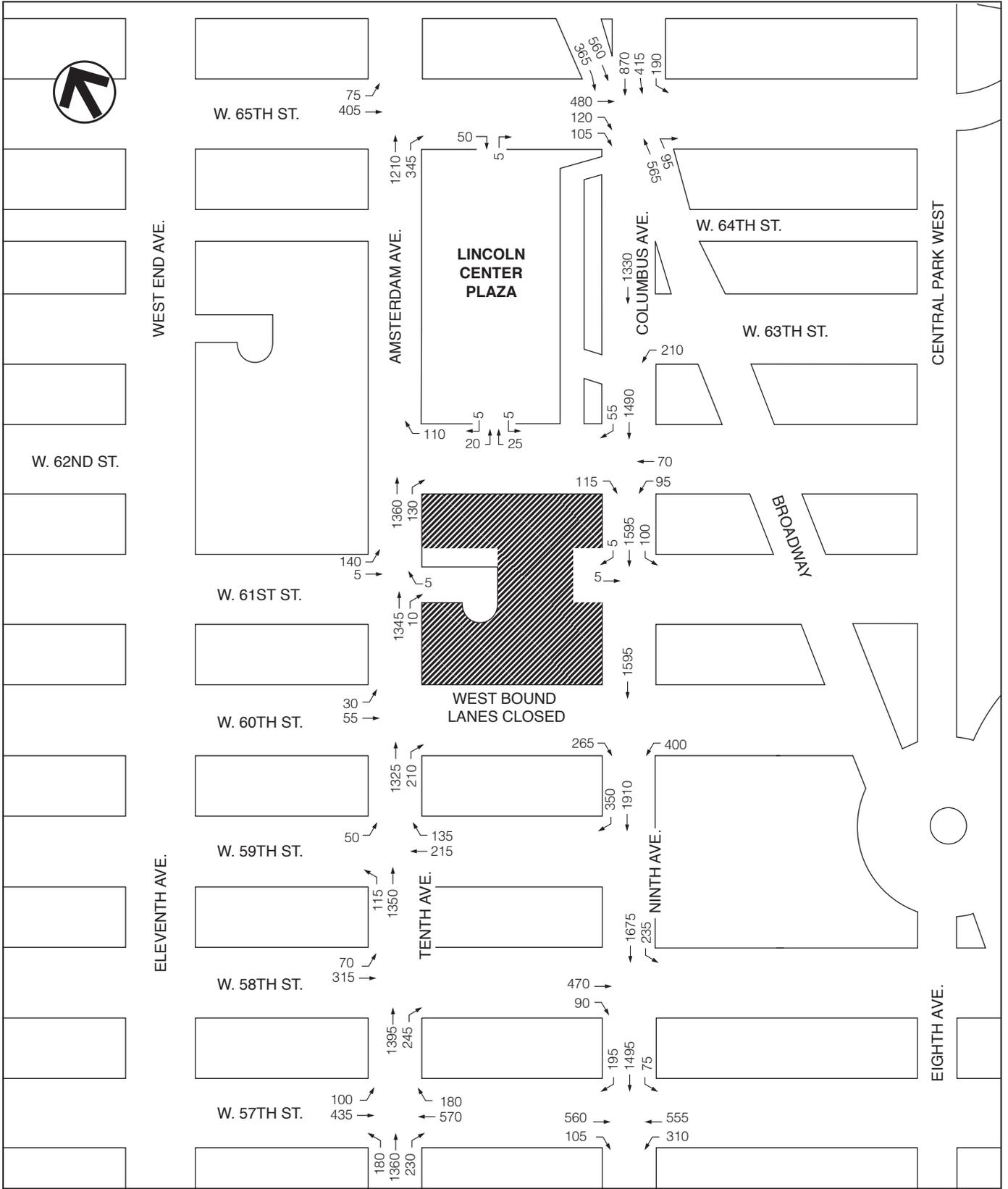
Existing traffic volumes in the study area were based on traffic data collected in early November 2006. Automated traffic recorders (ATRs) were placed at key locations for a full week to identify temporal and daily traffic variations. Manual turning movement and vehicle classification counts were conducted at study area intersections during the weekday morning, midday, late afternoon, and evening hours. Balanced traffic volumes were increased by 0.5 percent to yield baseline year 2007 volumes. Traffic volumes developed from other on-going studies for major projects in the area were reviewed to ensure consistency in baseline traffic volumes. An inventory of the analyzed intersections was performed to determine traffic signal timings, phasing, and cycle lengths, street and curbside signage, pavement markings, and lane dimensions for the calculation of street capacities. Official signal timing data were also obtained from the New York City Department of Transportation (NYCDOT) for HCM analysis input.

Figures 15-2, through 15-5 show the existing traffic volumes for the weekday AM, midday, PM and pre-theater peak hours, which are 8:00 to 9:00 AM, 1:00 to 2:00 PM, 5:30 to 6:30 PM, and 7:00 to 8:00 PM, respectively. These hours of existing traffic correspond with the peak hours of project-generated trips, and have therefore been selected as the analysis periods for the impact assessment of the proposed action.

Peak hour volumes on Columbus Avenue range from 1,150 to 2,285 vehicles per hour (vph). Volumes on Amsterdam Avenue range from 1,155 to 1,935 vph. On Broadway, northbound and southbound lanes carry volumes ranging from 565 to 800 vph and 755 to 1,100 vph, respectively. Peak hour volumes on eastbound and westbound West 57th Street vary from 415 to 665 vph and 710 to 950 vph, respectively. Eastbound traffic volumes on West 65th Street range from 365 to 765 vph, while volumes on other cross-streets, excluding dead-end blocks, range from 50 to 450 vph during the analysis hours.

LEVEL OF SERVICE

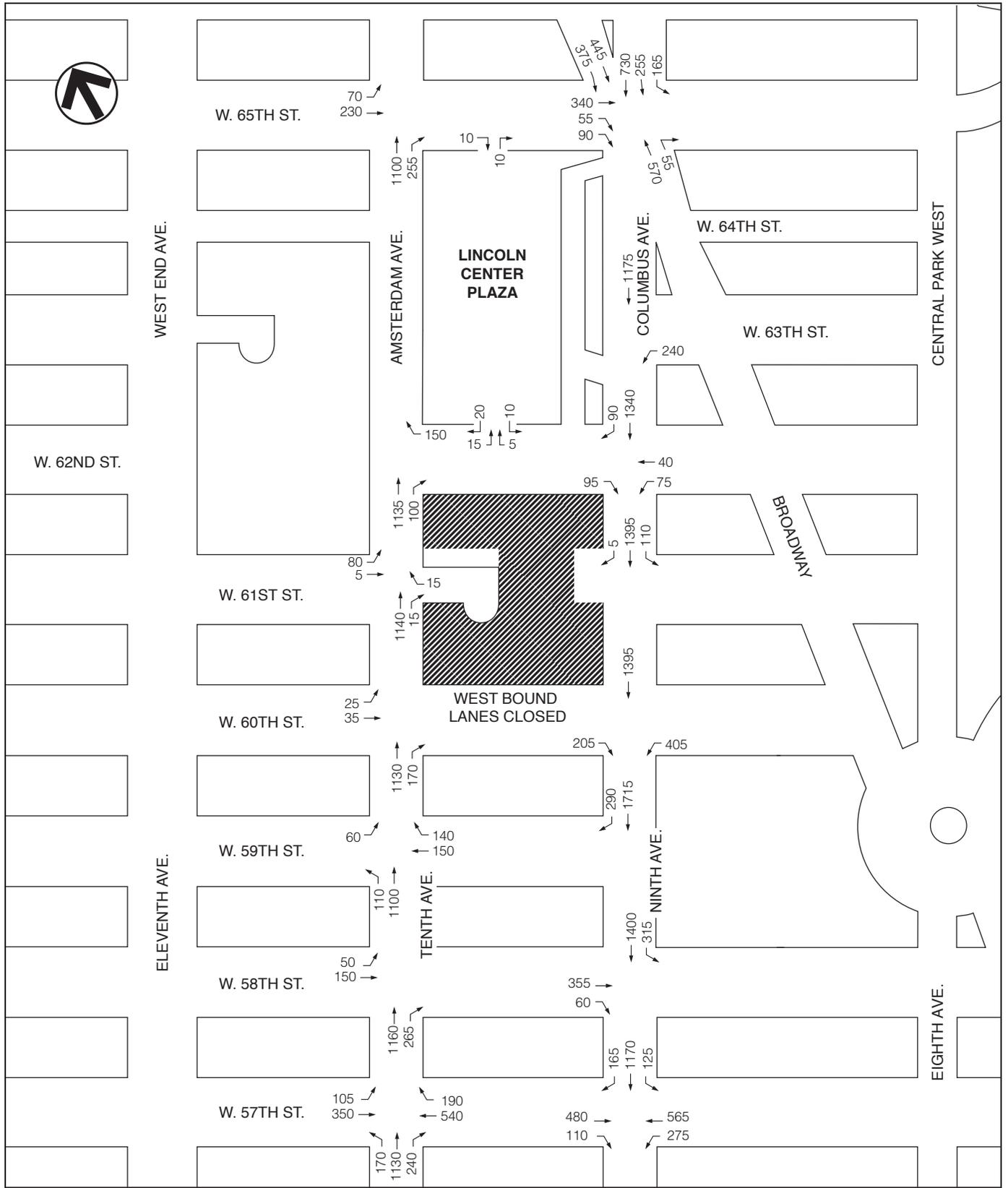
The capacity analysis results for the study area intersections are presented in Table 15-13. Locations with notable service constraints, those operating at mid-LOS D (45.0 seconds of delay) or worse and/or having v/c ratios of 0.90 or greater, are described below.



Project Site

NOT TO SCALE

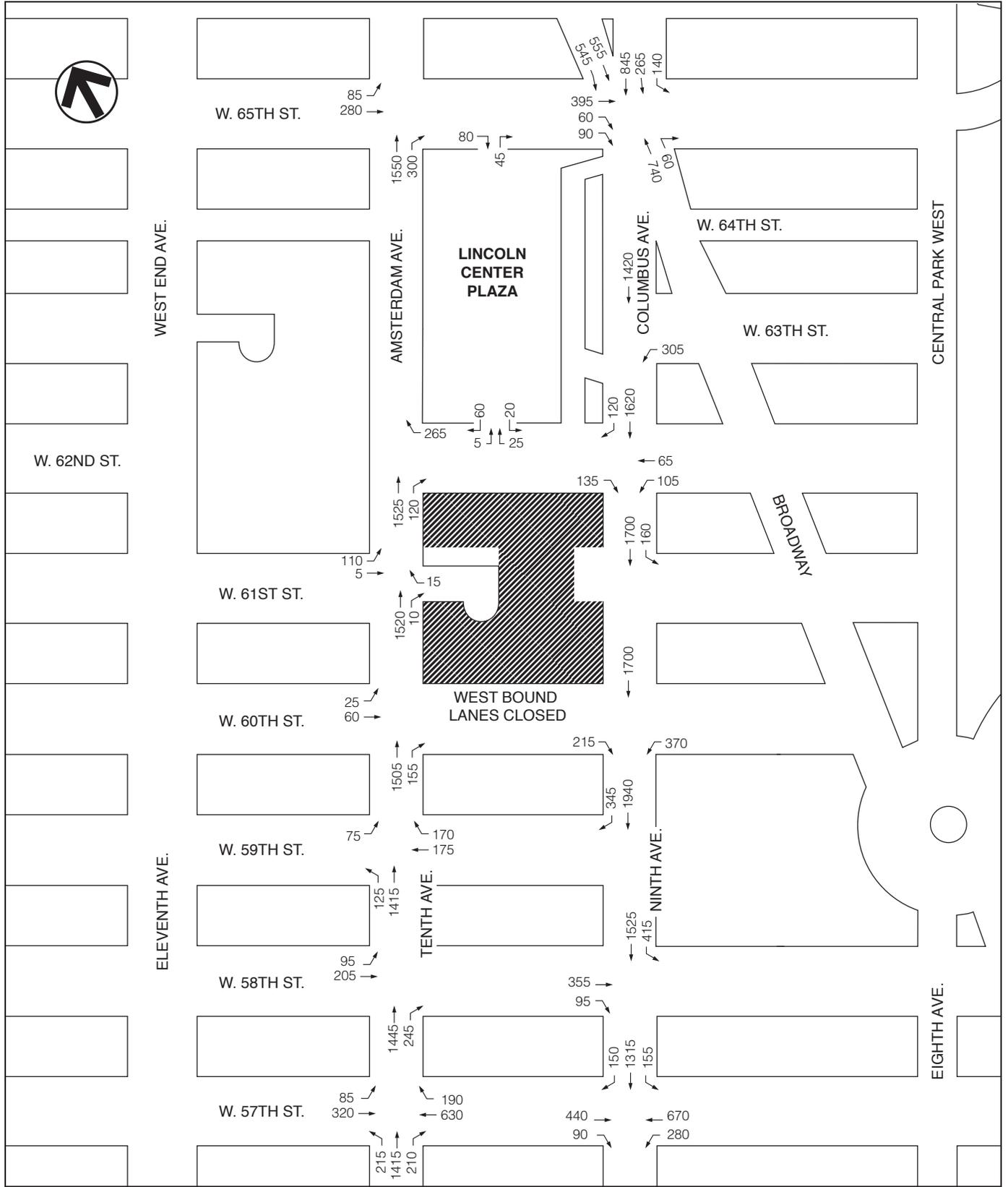
Figure 15-2
2007 Existing Traffic Volumes
AM Peak Hour



NOT TO SCALE

Project Site

Figure 15-3
2007 Existing Traffic Volumes
Midday Peak Hour



NOT TO SCALE

 Project Site

Figure 15-4
 2007 Existing Traffic Volumes
 PM Peak Hour

Table 15-13
2007 Existing Conditions Level of Service Analysis

Int./ Appr.	AM Peak				Midday Peak				PM Peak				Pre-Theater Peak			
	Ln Grp	V/C	Delay (spv)	LOS	Ln Grp	V/C	Delay (spv)	LOS	Ln Grp	V/C	Delay (spv)	LOS	Ln Grp	V/C	Delay (spv)	LOS
Tenth Avenue and West 57th Street																
EB	LT	1.05	75.5	E	LT	1.00	66.7	E	LT	0.76	33.3	C	LT	0.88	43.3	D
WB	TR	0.88	35.4	D	TR	0.87	37.0	D	TR	0.91	40.4	D	TR	0.99	54.6	D
NB	LT	0.77	18.9	B	LTR	0.75	16.1	B	L	0.46	17.6	B	LTR	0.86	19.4	B
	R	0.59	20.3	C					TR	0.70	14.9	B				
INT.			34.1	C			31.0	C			24.2	C			32.2	C
Tenth Avenue and West 58th Street																
EB	LT	0.56	27.5	C	LT	0.30	23.2	C	LT	0.41	24.7	C	LT	0.38	24.3	C
NB	T	0.50	8.9	A	TR	0.63	10.4	B	TR	0.69	11.2	B	TR	0.73	11.8	B
	R	0.53	16.8	B												
INT.			13.7	B			12.0	B			13.1	B			13.4	B
Amsterdam Avenue and West 59th Street																
EB	L	0.39	29.4	C	L	0.37	28.1	C	L	0.47	31.6	C	L	0.63	40.2	D
WB	T	0.54	28.4	C	T	0.41	25.1	C	T	0.42	25.4	C	T	0.47	26.4	C
	R	0.58	33.2	C	R	0.65	36.3	D	R	0.65	35.9	D	R	0.53	30.5	C
NB	LT	0.62	11.0	B	LT	0.56	10.2	B	L	0.33	13.6	B	LT	0.68	11.7	B
									T	0.56	10.1	B				
INT.			15.3	B			15.0	B			14.7	B			15.6	B
Amsterdam Avenue and West 60th Street																
EB	LT	0.25	22.6	C	LT	0.21	22.1	C	LT	0.22	22.0	C	LT	0.19	21.7	C
NB	T	0.51	9.6	A	TR	0.57	10.3	B	TR	0.65	11.2	B	TR	0.70	12.0	B
	R	0.49	16.6	B												
INT.			11.3	B			11.0	B			11.8	B			12.4	B
Amsterdam Avenue and West 61st Street																
EB	LT	0.64	35.0	C	LT	0.32	25.0	C	LT	0.42	26.6	C	LT	0.31	24.3	C
WB	R	0.03	20.4	C	R	0.09	21.3	C	R	0.07	20.9	C	R	0.09	21.3	C
NB	T	0.51	9.0	A	TR	0.48	8.8	A	TR	0.54	9.2	A	TR	0.59	9.8	A
	R	0.02	9.0	A												
INT.			12.4	B			10.1	B			11.0	B			10.9	B
Amsterdam Avenue and West 62nd Street																
WB	R	0.43	27.6	C	R	0.60	33.1	C	R	0.76	39.9	D	R	0.84	47.0	D
NB	T	0.54	9.3	A	TR	0.51	9.1	A	TR	0.60	9.9	A	TR	0.67	10.8	B
	R	0.26	11.6	B												
INT.			10.9	B			12.2	B			14.3	B			16.0	B
Amsterdam Avenue and West 65th Street																
EB	LT	0.56	25.2	C	LT	0.40	22.5	C	LT	0.44	23.0	C	LT	0.40	22.4	C
NB	T	0.50	10.9	B	TR	0.66	13.0	B	TR	0.75	14.5	B	TR	0.79	15.5	B
	R	0.75	27.5	C												
INT.			17.0	B			14.7	B			16.0	B			16.6	B

Table 15-13 (cont'd)
2007 Existing Conditions Level of Service Analysis

Int./ Appr.	AM Peak				Midday Peak				PM Peak				Pre-Theater Peak			
	Ln Grp	V/C	Delay (spv)	LOS	Ln Grp	V/C	Delay (spv)	LOS	Ln Grp	V/C	Delay (spv)	LOS	Ln Grp	V/C	Delay (spv)	LOS
Ninth Avenue and West 57th Street																
EB	T	0.93	56.0	E	T	0.73	37.8	D	T	0.73	38.8	D	T	0.74	39.5	D
	R	0.74	58.9	E	R	0.69	52.2	D	R	0.60	46.4	D	R	0.81	66.3	E
WB	DefL	1.05	86.2	F	DefL	0.95	55.8	E	DefL	0.85	39.2	D	DefL	0.77	31.9	C
	T	1.05	74.9	E	T	1.05	74.7	E	T	1.05	73.3	E	T	1.05	74.8	E
SB	L	0.24	21.6	C	LTR	1.05	67.2	E	L	0.50	27.4	C	LTR	1.00	50.5	D
	TR	1.05	65.4	E					T	0.73	26.9	C				
									R	0.55	29.8	C				
INT.			66.3	E			62.4	E			40.1	D			52.9	D
Ninth Avenue and West 58th Street																
EB	T	1.05	84.5	F	T	0.89	51.4	D	T	0.76	37.0	D	T	0.82	41.3	D
	R	0.39	26.9	C	R	0.27	24.0	C	R	0.35	25.5	C	R	0.27	23.8	C
SB	L	0.58	19.2	B	LT	0.81	14.7	B	L	1.05	78.8	E	LT	0.75	13.2	B
	T	0.64	11.1	B					T	0.57	10.2	B				
INT.			26.5	C			21.0	C			26.5	C			18.2	B
Columbus Avenue and West 59th Street																
SB	TR	0.90	18.5	B	TR	0.85	15.8	B	T	0.71	11.9	B	TR	0.80	13.9	B
									R	.50	16.0	B				
INT.			18.5	B			15.8	B			12.6	B			13.9	B
Columbus Avenue and West 60th Street																
EB	R	1.05	107.2	F	R	1.05	112.0	F	R	1.05	110.8	F	R	0.96	88.5	F
WB	L	1.05	92.2	F	L	1.05	94.0	F	L	1.04	91.7	F	L	0.89	59.8	E
SB	TR	0.81	25.0	C	TR	0.76	23.6	C	TR	0.88	28.1	C	TR	0.79	24.2	C
INT.			47.0	D			48.4	D			46.3	D			35.7	D
Columbus Avenue and West 61st Street																
EB	TR	0.04	20.4	C	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.06	20.7	C
SB	L	0.19	10.7	B	LTR	0.57	9.6	A	LTR	0.70	11.2	B	LTR	0.60	9.9	A
	TR	0.56	9.4	A												
INT.			9.6	A			9.6	A			11.2	B			10.0	B
Columbus Avenue and West 62nd Street																
EB	R	0.35	24.8	C	R	0.28	23.6	C	R	0.49	28.4	C	R	0.28	23.9	C
WB	LT	0.43	26.3	C	LT	0.32	24.2	C	LT	0.44	26.9	C	LT	0.39	25.9	C
SB	TR	0.65	10.4	B	TR	0.74	11.9	B	TR	0.68	10.8	B	TR	0.70	11.1	B
INT.			12.8	B			13.4	B			13.4	B			12.6	B
Columbus Avenue and West 63rd Street																
WB	L	0.30	23.1	C	L	0.32	23.4	C	L	0.57	28.2	C	L	0.31	23.6	C
SB	T	0.48	8.7	A	T	0.46	8.6	A	T	0.50	8.8	A	T	0.51	8.9	A
INT.			10.9	B			11.2	B			12.5	B			10.6	B
Broadway, Columbus Avenue* and West 65th Street																
EB	TR	0.74	37.3	D	TR	0.48	30.6	C	TR	0.64	33.9	C	TR	0.66	34.6	C
	R	0.62	39.3	D	R	0.47	33.9	C	R	0.46	35.1	D	R	0.52	36.9	D
NB	TR	0.84	42.1	D	TR	0.77	37.6	D	TR	0.92	49.1	D	TR	0.91	47.2	D
SB	T	1.00	62.7	E	T	0.94	50.7	D	T	1.05	75.5	E	T	1.05	76.2	E
SB*	L	0.74	45.4	D	L	0.66	40.0	D	L	0.53	33.6	C	L	0.65	38.5	D
	T	0.84	35.5	D	T	0.68	30.7	C	T	0.75	32.0	C	T	1.05	72.6	E
INT.			44.3	D			38.0	D			49.1	D			61.1	E
Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service * = SB Columbus Avenue approach at Broadway/Columbus and West 65th Street (SB approach without notation is Broadway)																

AM PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound left-through movement operates at LOS E with 75.5 seconds per vehicle (spv) of delay and a v/c ratio of 1.05.
- *Ninth Avenue and West 57th Street:* The eastbound through movement operates at LOS E with 56.0 spv of delay and a v/c ratio of 0.93. The eastbound right turn movement operates at LOS E with 58.9 spv of delay and a v/c ratio of 0.74. The westbound defacto left-turn movement operates at LOS F with 86.2 spv of delay and a v/c ratio of 1.05, while the through movement operates at LOS E with 74.9 spv of delay and a v/c ratio of 1.05. The southbound through-right movement operates at LOS E with 65.4 spv of delay and a v/c ratio of 1.05.
- *Ninth Avenue and West 58th Street:* The eastbound through movement operates at LOS F with 84.5 spv of delay and a v/c ratio of 1.05.
- *Columbus Avenue and West 60th Street:* The eastbound right turn movement operates at LOS F with 107.2 spv of delay and a v/c ratio of 1.05. The westbound left turn movement operates at LOS F with 92.2 spv of delay and a v/c ratio of 1.05.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the southbound approach operates at LOS E with 62.7 spv of delay and a v/c ratio of 1.00. Along Columbus Avenue, the southbound left turn movement operates at LOS D with 45.4 spv of delay and a v/c ratio of 0.74.

MIDDAY PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound left-through movement operates at LOS E with 66.7 spv of delay and a v/c ratio of 1.00.
- *Ninth Avenue and West 57th Street:* The eastbound right turn movement operates at LOS D with 52.2 spv of delay and a v/c ratio of 0.69. The westbound defacto left-turn movement operates at LOS E with 55.8 spv of delay and a v/c ratio of 0.95, while the through movement operates at LOS E with 74.7 spv of delay and a v/c ratio of 1.05. The southbound left-through-right movement operates at LOS E with 67.2 spv of delay and a v/c ratio of 1.05.
- *Ninth Avenue and West 58th Street:* The eastbound through movement operates at LOS D with 51.4 spv of delay and a v/c ratio of 0.89.
- *Columbus Avenue and West 60th Street:* The eastbound right turn movement operates at LOS F with 112.0 spv of delay and a v/c ratio of 1.05. The westbound left turn movement operates at LOS F with 94.0 spv of delay and a v/c ratio of 1.05.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the southbound approach operates at LOS D with 50.7 spv of delay and a v/c ratio of 0.94.

PM PEAK HOUR

- *Ninth Avenue and West 57th Street:* The eastbound right turn movement operates at LOS D with 46.4 spv of delay and a v/c ratio of 0.60. The westbound through movement operates at LOS E with 73.3 spv of delay and a v/c ratio of 1.05.
- *Ninth Avenue and West 58th Street:* The southbound exclusive left turn movement operates at LOS E with 78.8 spv of delay and a v/c ratio of 1.05.

- *Columbus Avenue and West 60th Street:* The eastbound right turn movement operates at LOS F with 110.8 spv of delay and a v/c ratio of 1.05. The westbound left turn movement operates at LOS F with 91.7 spv of delay and a v/c ratio of 1.04.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the northbound approach operates at LOS E with 49.1 spv of delay and a v/c ratio of 0.92, while the southbound approach operates at LOS E with 75.5 spv of delay and a v/c ratio of 1.05.

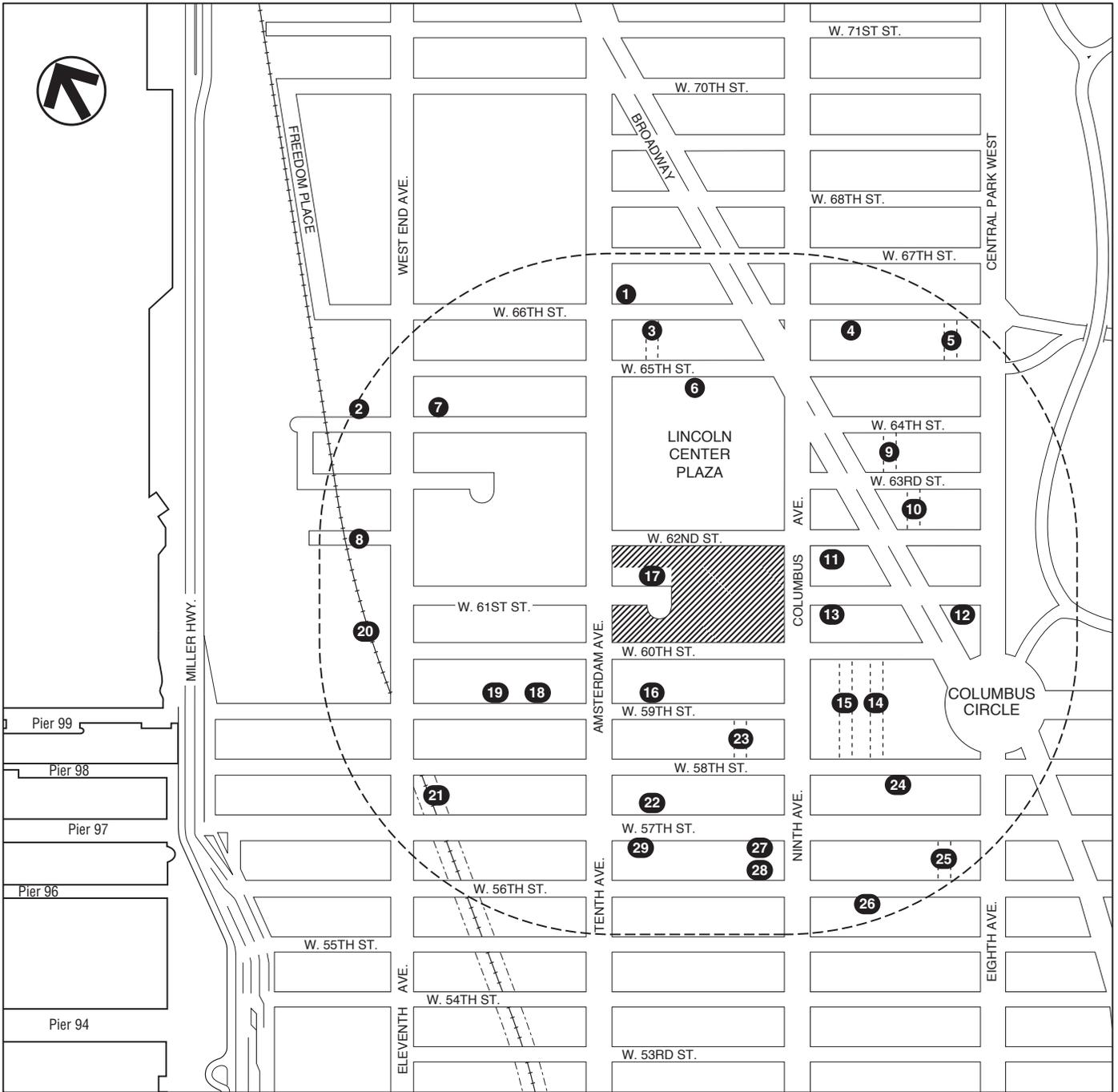
PRE-THEATER PEAK HOUR

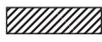
- *Tenth Avenue and West 57th Street:* The westbound approach operates at LOS D with 54.6 spv of delay and a v/c ratio of 0.99.
- *Amsterdam Avenue and West 62nd Street:* The westbound right turn movement operates at LOS D with 47.0 spv of delay and a v/c ratio of 0.84.
- *Ninth Avenue and West 57th Street:* The eastbound right-turn movement operates at LOS E with 66.3 spv of delay and a v/c ratio of 0.81. The westbound through movement operates at LOS E with 74.8 spv of delay and a v/c ratio of 1.05. The southbound left turn movement operates at LOS D with 50.5 spv of delay and a v/c ratio of 1.00.
- *Columbus Avenue and West 60th Street:* The eastbound right turn movement operates at LOS F with 88.5 spv of delay and a v/c ratio of 0.96. The westbound left turn movement operates at LOS E with 59.8 spv of delay and a v/c ratio of 0.89.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway the northbound approach operates at LOS D with 47.2 spv of delay and a v/c ratio of 0.91, while the southbound approach operates at LOS E with 76.2 spv of delay and a v/c ratio of 1.05. Along Columbus Avenue, the southbound through movement operates at LOS E with 72.6 spv of delay and a v/c ratio of 1.05.

PARKING SUPPLY AND UTILIZATION

A survey of off-street public parking facilities within ¼-mile of the project site was conducted in April 2004 and updated in June 2007 to assess their capacities and approximate utilization rates (see Figure 15-6 and Table 15-14). Based on this survey, there are 29 public garages and lots in the area with a combined capacity of 8,075 spaces. Currently, these facilities are 36, 77, 54, and 22 percent utilized, with 5,187, 1,863, 3,741, and 5,567 available spaces during the morning, midday, pre-theater and overnight time periods, respectively.

There is also a supply of on-street parking spaces in the study area, along the avenues and cross-town streets. During the morning and evening commuter peak periods, some of these spaces along the major travel corridors are restricted to facilitate more efficient traffic flow. A survey of on-street parking regulations was conducted in October 2008, as summarized in Figure 15-7 and Table 15-15. Based on field observations, on-street parking conditions in the area are at or near capacity during most of the day.



-  Project Site Boundary
-  Study Area Boundary (1/4-Mile Perimeter)
-  Off-Street Parking Facilities

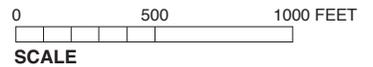
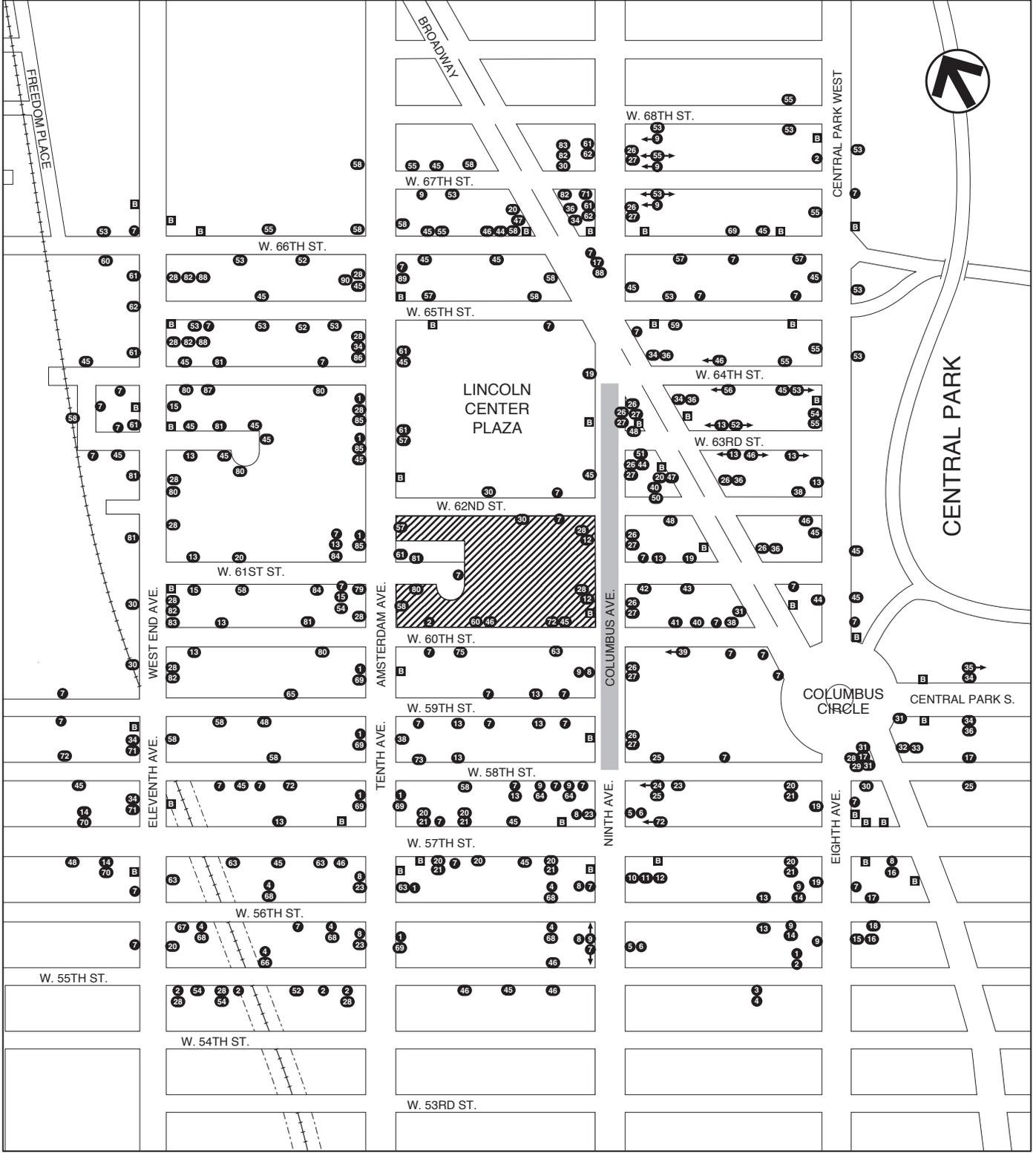


Figure 15-6
Off-Street Parking Facilities



Project Site

Parking Regulation

Bus Stop

New Parking Regulations have come into Effect since the 2007 Physical Inventory was Gathered



Figure 15-7
On-Street Parking Regulations

Table 15-14

2007 Existing Conditions Off-Street Parking Utilization

Company Name	Address	License No.	Capacity	Utilization Rate (%)				Utilized Spaces				Available Spaces			
				AM	MD	P/T	O/N	AM	MD	P/T	O/N	AM	MD	P/T	O/N
1 165 W.66th St Parking Corp.	165 W.66th St	368337	77	20	50	75	28	15	39	58	22	62	38	19	55
2 Icon Parking	101 West End Ave.	1061198	166	25	85	30	30	42	141	50	50	124	25	116	116
3 Performance Parking Corp.	127-137 Amsterdam	858712	375	60	95	70	50	225	300	263	188	150	75	112	187
4 Icon Parking	2 Lincoln Plaza	1127924	80	80	85	80	80	64	68	64	64	16	12	16	16
5 10 W.65th St Parking Corp.	10 W.65th St	883451	195	45	80	80	50	88	156	156	98	107	39	39	97
6 Lincoln Center Park & Lock	140 W.65th St	1079021	721	26	72	53	28	187	519	382	202	534	202	339	519
7 Icon Parking	110 West End Ave	761016	106	40	90	70	40	42	95	74	42	64	11	32	64
8 West End Towers Garage	35-101 West End Ave	948832	441	35	70	50	15	154	309	221	66	287	132	220	375
9 Edison Parking Management	1900-1916 Broadway	1213869	400	25	70	50	25	100	280	200	100	300	120	200	300
10 Edison Parking Management	1886-1896 Broadway	1200481	75	30	90	65	25	23	68	49	19	52	7	26	56
11 Garage Management Corp.	44 W.62nd St	1013719	143	45	80	25	28	64	114	36	40	79	29	107	103
12 Eagle Trump International	1 Central Park West	1125528	88	30	85	65	20	26	75	57	18	62	13	31	70
13 Prior Parking LLC	40-50 W.61st St	1033066	205	30	90	66	30	62	185	135	62	143	20	70	143
14 Central Parking System	10 Columbus Circle	1105005	662	20	68	25	15	132	450	166	99	530	212	496	563
15 Central Parking System	910-924 9th Ave	1113135	318	50	61	62	40	159	194	197	127	159	124	121	191
16 John Jay College Parking	425 W.59th St	813398	125	15	70	40	15	19	88	50	19	106	37	75	106
17 LHL Parking Corp.	161 W.61st St	898520	100	50	85	80	28	50	85	80	28	50	15	20	72
18 Concerto Garage Corp.	200 W.60th St	884653	265	20	70	40	25	53	186	106	66	212	79	159	199
19 Propark America	515 W.59th St	1171649	190	20	55	40	15	38	105	76	29	152	85	114	161
20 Central Parking System	115 West End Ave	964023	1,850	40	95	61	28	740	1,758	1,122	518	1,110	92	728	1,332
21 Kinney Systems	838-852 11th Ave	1137953	84	85	80	75	35	71	67	63	29	13	17	21	55
22 Effective Parking LLC	435 W.57th St	368157	55	60	40	45	20	33	22	25	11	22	33	30	44
23 Columbus Place Garage	1 Columbus Place	960635	294	20	70	50	50	59	206	147	147	235	88	147	147
24 Icon Parking	330 W.58th St	1118641	95	65	90	60	50	62	86	57	48	33	9	38	47
25 Champion Parking	316-328 W.57th St	1093313	372	15	60	35	15	56	223	130	56	316	149	242	316
26 330 W.56th Street Corp.	330 W.56th St	1234691	115	20	45	45	28	23	52	52	32	92	63	63	83
27 Sydney Parking LLC	408 W.57th St	1113944	80	80	70	60	30	64	56	48	24	16	24	32	56
28 Epsilon Parking	409 W.56th St	1195834	20	50	100	25	Closed	10	20	5	-	10	0	15	-
29 Apex Parking LLC	440 W.57th St	368300	378	60	70	70	75	227	265	265	284	151	113	113	94
Total			8,075	36	77	54	22	2,888	6,212	4,334	2,488	5,187	1,863	3,741	5,567

Source: Survey conducted by AKRF, Inc. in July 2004, updated June 2007; NYC Department of City Planning.

**Table 15-15
On-Street Parking Regulations**

No.	Regulation	No.	Regulation
1	NS 7AM-10AM, 4PM-7PM, Mon-Fri	47	1-Hr Parking 8:30AM-10PM Except Sun
2	NP 7AM-7PM Mon-Fri	48	NP 8AM-6PM Except Sun
3	NS 8AM-9:30AM, 1PM-7PM, Mon-Fri	49	NP 9AM-9:30AM Mon & Thurs.
4	NP 8AM-7PM Mon-Fri	50	1-Hr Parking 9AM-Midnight Except Sun
5	NS 7AM-10AM, 4PM-7PM Except Sun	51	NS 7AM-10AM Including Sun
6	1-Hr Parking 10AM-4PM Except Sun	52	NS 7AM-4PM School Days
7	NS Anytime	53	NS 8AM-9:30AM Tue & Fri
8	NS 4PM-7PM Except Sun	54	NP 7AM-4PM School Days
9	1-Hr Parking 9AM-7PM Except Sun	55	NS 8AM-9:30AM Mon & Thur
10	NS 7AM-10AM Except Sun	56	NP 8AM-7PM Except Sun
11	NS 6AM-6PM Wed & Sat Except Farmers Market	57	NS Except TLU
12	NP 7AM-7PM Except Sun	58	NS Anytime (Temporary Construction Regulation)
13	NP 8AM-6PM Mon-Fri	59	NS 7AM-11PM Including Sun
14	NP 8:30AM-9AM Except Sun	60	NS Anytime Except AV (Police Only), 3 Hr Limit
15	NS 4PM-Midnight Except Sun	61	NS 7AM-10AM Mon-Fri
16	NS Except CV MP 3-Hr Limit 7AM-4PM Except Sun	62	1-Hr Parking 10AM-7PM Mon-Fri, 9AM-7PM Sat
17	NS 7AM-7PM Except Sun	63	NS Anytime Except AV
18	NS Except AV – NYSTED 7AM-7PM	64	NP 8AM-9AM Except Sun
19	NS Anytime Taxi Stand	65	NP 8AM-Midnight Including Sun
20	NP 8AM-8:30AM Except Sun	66	NS 5PM-7PM Mon-Fri
21	1-Hr Parking 8:30AM-7PM Except Sun	67	2-Hr Parking 8:30AM-7PM Except Sun
22	NS Except CV MP 3-Hr Limit Including Sun	68	No Standing 8AM-9:30AM Mon-Fri
23	1-Hr Parking 9AM-4PM Except Sun	69	1-Hr Parking 10AM-4PM Mon-Fri, 9AM- 7PM Sat
24	NS Except Taxis 7AM-7PM Mon-Fri	70	2-Hr Parking 9AM-7PM Except Sun
25	NS Except CV, MP 3-Hr Limit Except Sun 7AM-7PM	71	2-Hr Parking 8AM-7PM Except Sun
26	NP 7AM-7:30AM Except Sun	72	NS 7AM-7PM Mon-Fri Except AV, 3-Hr Limit, Dr.s Veh
27	1-Hr Parking 7:30AM-7PM Except Sun	73	NS 7AM-7PM Mon-Fri Except AV
28	NS 4PM-7PM Mon-Fri	74	1-Hr Parking 9AM-4PM Mon-Fri
29	Other Times, NS Except TLU Mon-Fri	75	NS Anytime Except AV, Prof. Children's School Faculty
30	NS Bus Layover Area	76	NP 8AM-5PM Mon-Fri
31	No Stopping Anytime	77	1-Hr Parking 10AM-7PM Except Sun
32	NP 8AM-10AM Except Sun	78	1-Hr Parking 9AM-4PM Mon-Fri, 9AM-7PM Sat
33	1-Hr Parking 10AM-10PM Except Sun	79	2-Hr Parking 9AM-4PM Mon-Fri, 9AM-7PM Sat
34	NP 7:30AM-8AM Except Sun	80	NP 9AM-10:30AM Tue & Fri
35	2-Hr Parking 8AM-10PM Except Sun	81	NP 9AM-10:30AM Mon & Thur
36	1-Hr Parking 8AM-10PM Except Sun	82	NP 7:30AM-8AM Mon, Tue, Thur, Fri
37	NS Except Taxis 8AM-6PM Mon-Fri	83	1-Hr Parking 8AM-7PM Except Sunday
38	NS 7AM-7PM Mon-Fri	84	NS Except AV – Ambulette
39	NS Except CV MP 3-Hr Limit 8AM-6PM Mon-Fri	85	2-Hr Parking 10AM-7PM Mon-Fri, 9AM-7PM Saturday
40	NS Except AV – US Mail 7AM-7PM	86	2-Hr Parking 8AM-4PM Mon-Fri, 8AM-7PM Saturday
41	NS Except CV MP 3-Hr Limit 7AM-6PM Mon-Fri	87	NS – Access-A-Ride Bus Stop
42	NS Except TLU 8AM-6PM Mon-Fri	88	1-Hr Parking 8AM-4PM Mon-Fri, 8AM-7PM Saturday
43	NS Except AV – Parks Dept Vehicles 8AM-6PM	89	NS Anytime Except AV – Fire Department
44	NS Anytime Hotel Loading Zone	90	NS – Fire Zone
45	NP Anytime	91	NS Except Farmers Mkt Vehicles 6AM-7PM Thur-Sat
46	NS Except TLU 7AM-7PM Mon-Fri		
Notes:	NP = No Parking; NS = No Standing; MP = Metered Parking; AV = Authorized Vehicles; CV = Commercial Vehicles; TLU = Truck Loading & Unloading; Sun = Sunday; Mon = Monday; Tue = Tuesday; Wed = Wednesday; Thu = Thursday; Fri = Friday; Sat = Saturday		
Sources:	Surveys conducted by AKRF, Inc.; October 22, 2008		

D. THE FUTURE WITHOUT THE PROPOSED ACTION—2014

Traffic and parking conditions in the future without the proposed action were assessed to establish a baseline, or the “No Build” condition, against which to evaluate the potential project impacts. The No Build analysis focuses on conditions in 2014, the year during which the first phase of the proposed action would be completed. As described in Chapter 2, “Land Use, Zoning, and Public Policy,” a number of developments within or just outside of the traffic and land use study areas were identified, independent of the proposed action. Among these, several

are currently under construction and expected to be occupied by 2014. In addition, within the Fordham University superblock, bounded by Columbus and Amsterdam Avenues, and West 60th and West 62nd Streets, underdeveloped land is available on the western edge of the block for as-of-right development of residential uses. The new trips associated with these No Build projects were also incorporated into the future baseline conditions.

TRAFFIC

Future 2014 No Build peak hour traffic levels were estimated by first applying a background growth of 0.50 percent per year (as recommended by the *CEQR Technical Manual*), for a total of 3.5 percent by 2014. Trips generated by each of the No Build projects were developed based on information provided in approved studies and standard references, such as the *CEQR Technical Manual*, Pushkarev and Zupan's *Urban Space for Pedestrians*, and the U.S. census database. The estimated vehicle trips were then assigned to the study area analysis locations. Some of the No Build projects that are expected to generate a notable number of trips through the study area analysis locations include the Riverside South (Riverside Center) development, 770 Eleventh Avenue, the New York City Department of Sanitation's improvements at the West 59th Street Marine Transfer Station, Durst West 57th Street Towers, 2 West End Avenue, the Algin on West 61st Street, 1880 Broadway, and Sites 19 and 35 from the Hudson Yards Rezoning.

A number of expected roadway changes were also incorporated into the No Build condition, as detailed below:

- Currently, West 60th Street between Amsterdam and Columbus Avenues is closed to westbound traffic, due to the construction of an access shaft for New York City's Third Water Tunnel. In addition, the signal at West 60th Street and Columbus Avenue has been changed from a two-phase cycle to a three-phase cycle. Since the shaft project is scheduled for completion before 2014, the No Build analysis includes a restoration of traffic flow and signal timing to their original conditions.
- The existing conditions analysis accounts for traffic patterns prior to the closure of the northbound exit ramp from the Henry Hudson Parkway onto West 72nd Street. This exit ramp was closed in the fall of 2007 to provide access for Riverside Boulevard in the Riverside South project. For the No Build condition analysis, affected traffic volumes were redistributed based on the findings presented in the 2003 Technical Memorandum "Environmental Effects of Closure of the West 72nd Street Exit Ramp of the Joe DiMaggio Highway (Route 9A)."
- West 61st Street is currently a one-way eastbound roadway between West End and Amsterdam Avenues and is expected to be changed to one-way westbound in conjunction with the Riverside South project. This direction change has been incorporated into the No Build condition analysis.
- The 2008 on-street parking survey mentioned above indicated that parking regulations along the east curb of Columbus Avenue between West 58th and West 63rd Streets have changed. During the AM and PM peak hours, one hour parking is currently permitted in place of earlier No Standing 7-10 AM and 4-7 PM parking regulations. These changes were incorporated into the future conditions analyses for these time periods.
- The Lincoln Center Promenade is being reconfigured to enhance off-road drop-off activities and reduce vehicular/pedestrian conflicts. Among the various modifications, the existing exit

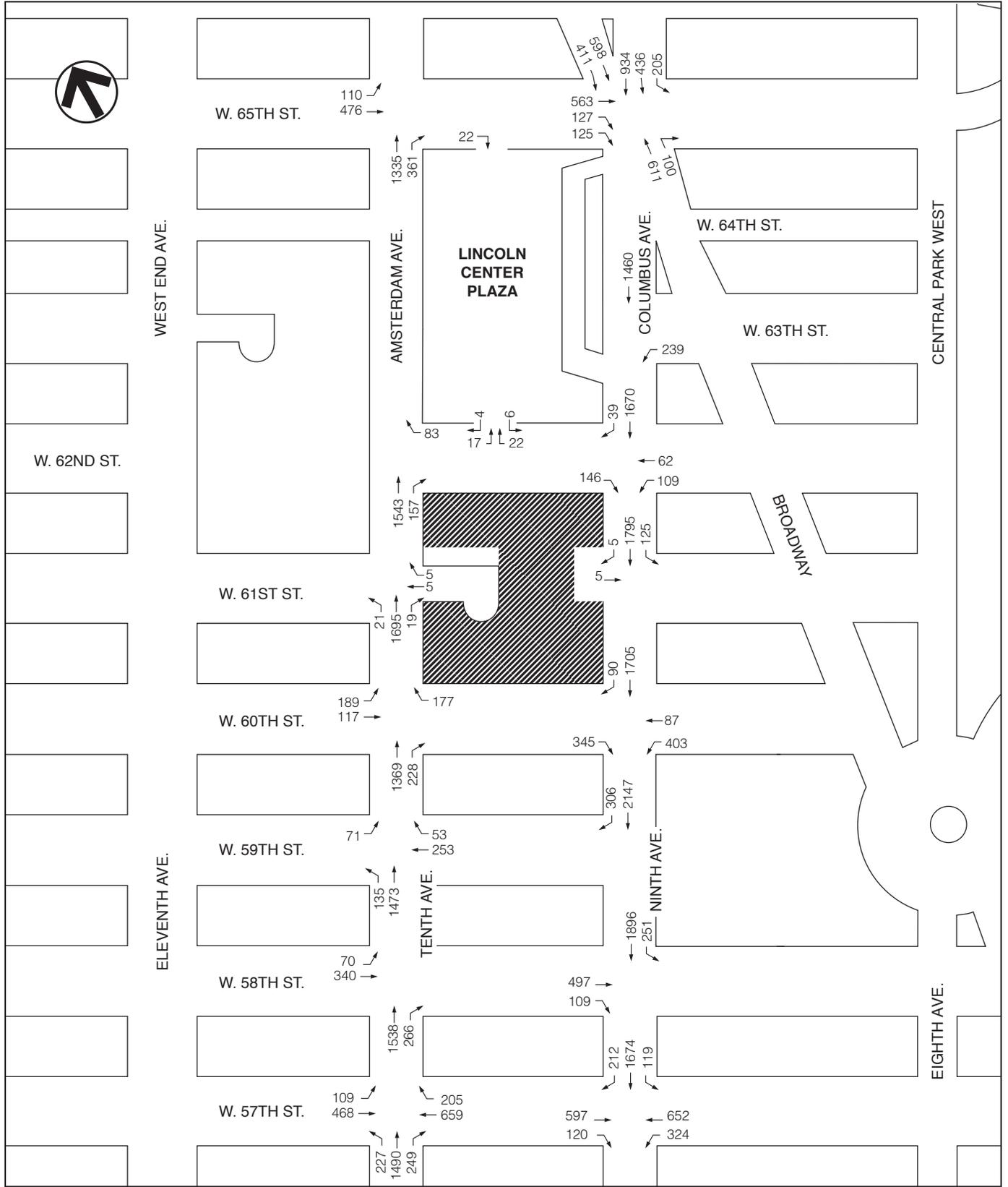
driveway onto West 62nd Street would be eliminated to prevent frequent vehicular and pedestrian conflicts caused by motorists attempting to make left turns onto West 62nd Street. The future conditions analyses were revised to account for vehicles at this location being rerouted to the newly consolidated driveway on Columbus Avenue just north of West 62nd Street.

With regard to the as-of-right residential developments, 876 dwelling units were assumed for worst-case analysis. However, under the existing zoning and restrictions, these units would be constructed without accessory parking, which is not desirable in the current market. Therefore, while the associated trips would be incorporated into the future No Build condition, the manner by which the trips are distributed within the study area network is expected to be different under the future Build condition, which assumes the attainment of certain height and setback waivers, and Special Permits for on-site accessory parking. Tables 15-16 and 15-17 provide summaries of the travel demand assumptions and trip estimates for these as-of-right developments.

Figures 15-8 through 15-11 present the future 2014 No Build traffic volumes for the AM, midday, PM, and pre-theater peak analysis hours.

Table 15-16
Travel Demand Assumptions for As-of-Right Condominium Developments

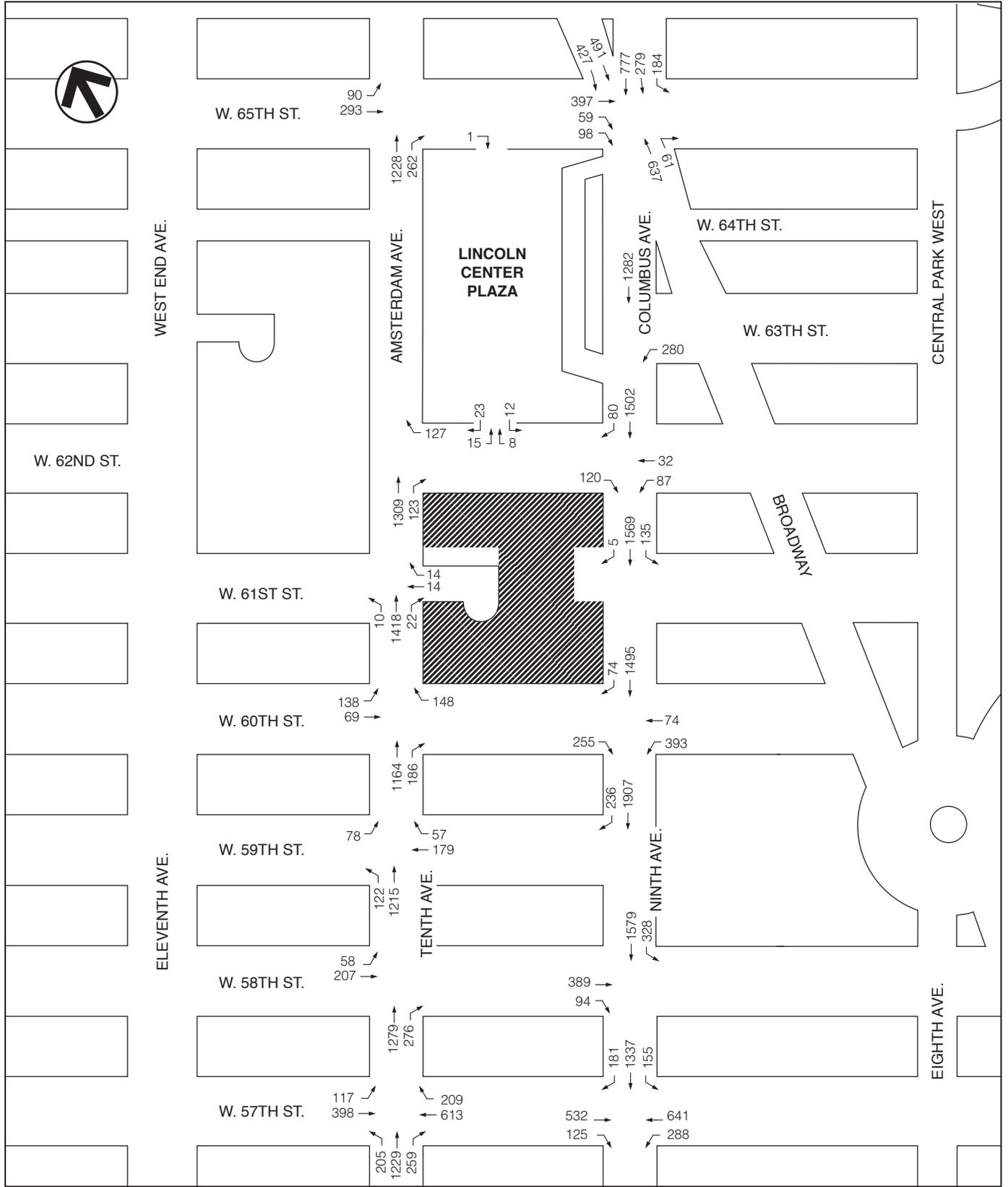
Daily Trip Rates (1,2)			
Person Trips		8.075 / Unit	
Truck Trips		0.03 / Unit	
Modal Split (3)			
		<u>AM/MD/PM/PT</u>	
Auto		9.2%	
Taxi		6.1%	
Subway		42.0%	
Bus		9.0%	
Shuttle		0.0%	
Walk Only		33.3%	
Dorm Based		<u>0.0%</u>	
Total		100%	
Vehicle Occupancy (3,4)			
Auto		1.13	
Taxi		1.40	
Temporal Distribution (4,5)			
	<u>Total</u>	<u>In</u>	<u>Out</u>
AM Peak Hour	9.1%	15.0%	85.0%
Midday Peak Hour	4.7%	50.0%	50.0%
PM Peak Hour	10.7%	70.0%	30.0%
Pre-Theater Peak Hour	8.3%	85.0%	15.0%
Delivery Trip Distribution (In/Out) (2)			
AM Peak Hour		9.7%	
Midday Peak Hour		9.1%	
PM Peak Hour		5.1%	
Pre-Theater Peak Hour		0.0%	
Source:			
(1) CEQR Technical Manual, 2001			
(2) Motor Trucks in the Metropolis (1969), Wilbur Smith Associates			
(3) Tracts 139, 145, 147, 149 and 155, 2000 US Census Data			
(4) River Center FEIS (CEQR No. 96DCP005M), January 1999			
(5) Pushkarev & Zapan, Urban Space for Pedestrians (1975)			



NOT TO SCALE

Project Site

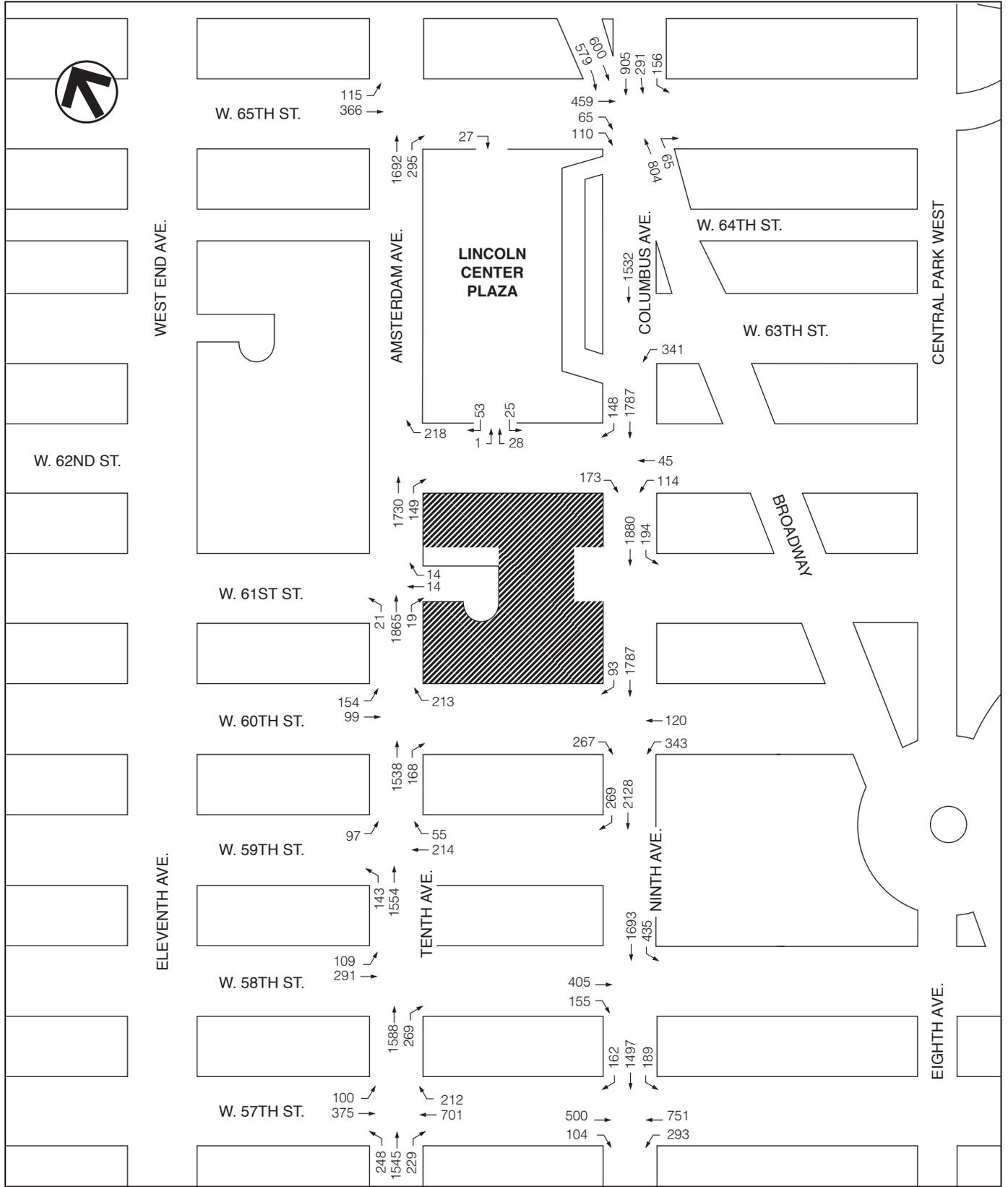
Figure 15-8
2014 No Build Traffic Volumes
AM Peak Hour



NOT TO SCALE

Project Site

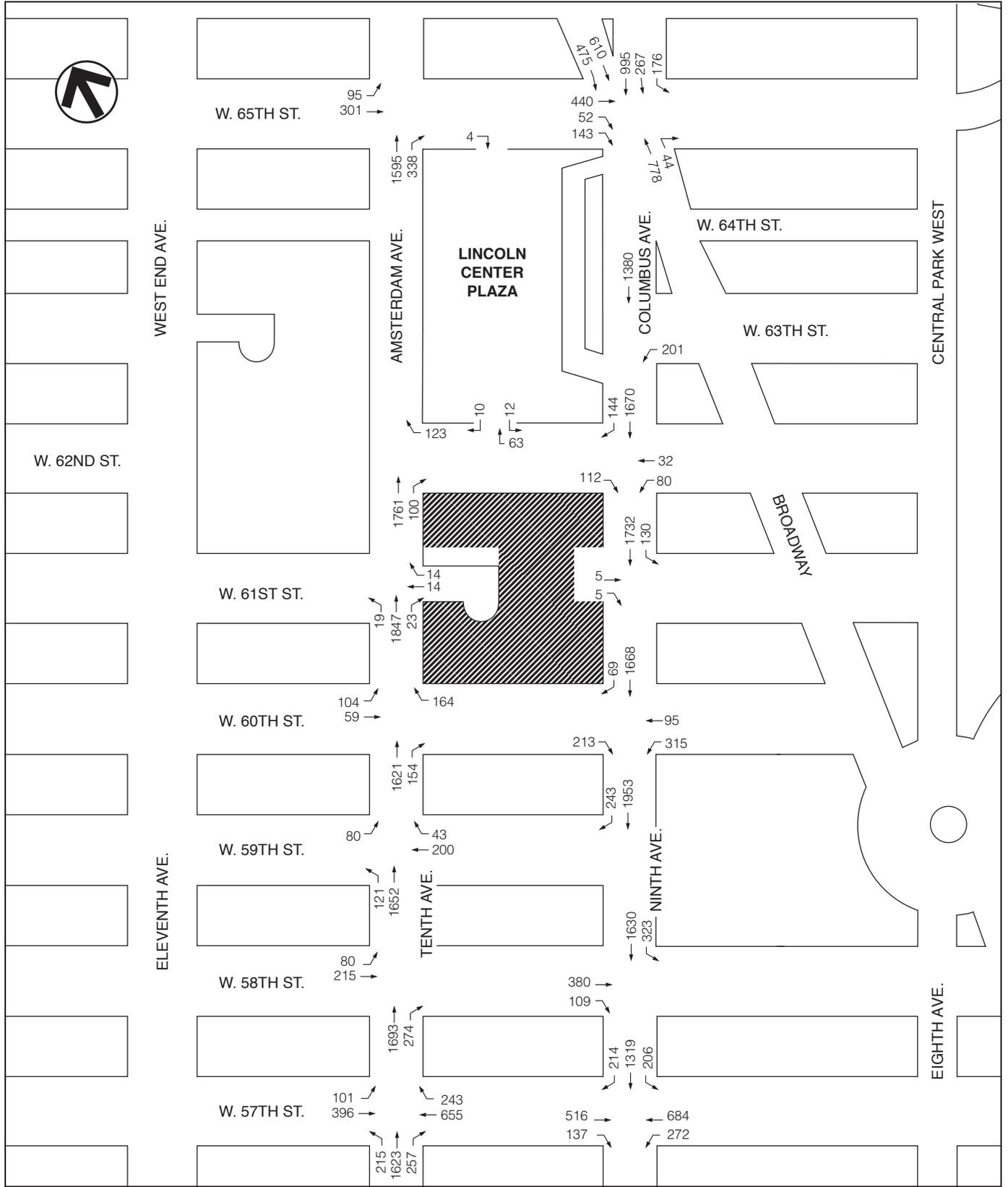
Figure 15-9
2014 No Build Traffic Volumes
Midday Peak Hour



NOT TO SCALE

Project Site

Figure 15-10
2014 No Build Traffic Volumes
PM Peak Hour



NOT TO SCALE

Project Site

Figure 15-11
2014 No Build Traffic Volumes
Pre-Theater Peak Hour

Table 15-17

Trip Generation for As-of-Right Condominium Developments

Analysis Hour and Use	Person Trips by Mode																
	Auto		Taxi		Subway		Bus		Shuttle		Walk Only		Dorm Based		Total		
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM Peak																	
North Tower	3	16	2	10	13	72	3	15	0	0	9	59	0	0	30	172	202
East Tower	4	21	3	14	17	97	4	21	0	0	13	78	0	0	41	231	272
South Tower	2	13	2	9	11	60	2	13	0	0	8	49	0	0	25	144	169
Total	9	50	7	33	41	229	9	49	0	0	30	186	0	0	96	547	643
Midday Peak																	
North Tower	5	5	3	3	22	22	5	5	0	0	17	17	0	0	52	52	104
East Tower	6	6	4	4	29	29	6	6	0	0	25	25	0	0	70	70	140
South Tower	4	4	3	3	18	18	4	4	0	0	15	15	0	0	44	44	88
Total	15	15	10	10	69	69	15	15	0	0	57	57	0	0	166	166	332
PM Peak																	
North Tower	15	7	10	4	70	30	15	6	0	0	56	24	0	0	166	71	237
East Tower	21	9	14	6	94	40	20	9	0	0	75	32	0	0	224	96	320
South Tower	13	6	9	4	59	25	13	5	0	0	46	20	0	0	140	60	200
Total	49	22	33	14	223	95	48	20	0	0	177	76	0	0	530	227	757
Pre-Theater Peak																	
North Tower	14	3	10	2	66	12	14	3	0	0	53	8	0	0	157	28	185
East Tower	19	3	13	2	89	16	19	3	0	0	71	13	0	0	211	37	248
South Tower	12	2	8	1	55	10	12	2	0	0	45	8	0	0	132	23	155
Total	45	8	31	5	210	38	45	8	0	0	169	29	0	0	500	88	588

Analysis Hour and Use	Vehicle Trips by Type								
	Auto		Taxi		Delivery		Total		
	In	Out	In	Out	In	Out	In	Out	Total
AM Peak									
North Tower	3	14	7	7	1	1	11	22	33
East Tower	4	19	11	11	1	1	16	31	47
South Tower	2	12	6	6	1	1	9	19	28
Total	9	45	24	24	3	3	36	72	108
Midday Peak									
North Tower	4	4	3	3	1	1	8	8	16
East Tower	5	5	4	4	1	1	10	10	20
South Tower	4	4	3	3	1	1	8	8	16
Total	13	13	10	10	3	3	26	26	52
PM Peak									
North Tower	13	6	7	7	0	0	20	13	33
East Tower	19	8	10	10	1	1	30	19	49
South Tower	12	5	6	6	0	0	18	11	29
Total	44	19	23	23	1	1	68	43	111
Pre-Theater Peak									
North Tower	12	3	7	7	0	0	19	10	29
East Tower	17	3	9	9	0	0	26	12	38
South Tower	11	2	6	6	0	0	17	8	25
Total	40	8	22	22	0	0	62	30	92

LEVEL OF SERVICE

Table 15-18 presents a comparison of the existing and 2014 No Build service conditions for the study area intersections. The following are the notable changes in LOS at the analyzed intersections:

AM PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from LOS E with a delay of 75.5 spv and a v/c ratio of 1.05 to LOS F with a delay of 107.9 spv and a v/c ratio of 1.14.
- *Amsterdam Avenue and West 60th Street:* The eastbound left-through movement would deteriorate from LOS C with a delay of 22.6 spv and a v/c ratio of 0.25 to LOS E with a delay of 77.0 spv and a v/c ratio of 1.01. The westbound right turn movement, closed under existing conditions would operate at LOS D with 48.6 spv of delay and a v/c ratio of 0.82.
- *Ninth Avenue and West 57th Street:* The eastbound through movement would deteriorate within LOS E from a delay of 56.0 spv and a v/c ratio of 0.93 to a delay of 68.3 spv and a v/c ratio of 0.99. The eastbound right movement would deteriorate within LOS E from a delay of 58.9 spv and a v/c ratio of 0.74 to a delay of 72.2 spv and a v/c ratio of 0.83. The westbound through movement would deteriorate from LOS E to a delay of 74.9 spv and a v/c ratio of 1.05 to LOS F with a delay of 119.2 spv and a v/c ratio of 1.18.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate within LOS F from a delay of 84.5 spv and a v/c ratio of 1.05 to a delay of 104.3 spv and a v/c ratio of 1.11.
- *Columbus Avenue and West 60th Street:* The eastbound right movement would deteriorate within LOS F from a delay of 107.2 spv and a v/c ratio of 1.05 to a delay of 179.6 spv and a v/c ratio of 1.28.
- *Columbus Avenue/Broadway and West 65th Street:* The eastbound through-right movement would deteriorate within LOS D from a delay of 37.3 spv and a v/c ratio of 0.74 to a delay of 47.0 spv and a v/c ratio of 0.88. The eastbound right turn movement would deteriorate within LOS D from a delay of 39.3 spv and a v/c ratio of 0.62 to a delay of 50.8 spv and a v/c ratio of 0.77. The southbound Broadway approach would deteriorate within LOS E from a delay of 62.7 spv and a v/c ratio of 1.00 to a delay of 74.2 spv and a v/c ratio of 1.05. The southbound Columbus Avenue left movement approach would deteriorate within LOS D from a delay of 45.4 spv and a v/c ratio of 0.74 to a delay of 49.0 spv and a v/c ratio of 0.78.

MIDDAY PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from LOS E with a delay of 66.7 spv and a v/c ratio of 1.00 to LOS F with a delay of 131.4 spv and a v/c ratio of 1.19. The westbound approach would deteriorate within LOS D from a delay of 37.0 spv and a v/c ratio of 0.87 to a delay of 52.6 spv and a v/c ratio of 0.98.

- *Amsterdam Avenue and West 60th Street:* The eastbound left-through movement would deteriorate from LOS C with a delay of 22.1 spv and a v/c ratio of 0.21 to LOS D with a delay of 45.2 spv and a v/c ratio of 0.82.
- *Ninth Avenue and West 57th Street:* The eastbound right-turn movement would deteriorate from LOS D with a delay of 52.2 spv and a v/c ratio of 0.69 to LOS E with a delay of 62.5 spv and a v/c ratio of 0.79. The westbound defacto left turn movement would deteriorate within LOS E with a delay of 55.8 spv and a v/c ratio of 0.95 to a delay of 79.9 spv and a v/c ratio of 1.04. The westbound through movement would deteriorate from LOS E with a delay of 74.7 spv and a v/c ratio of 1.05 to LOS F with a delay of 127.1 spv and a v/c ratio of 1.20. The southbound approach would deteriorate from LOS E with a delay of 67.2 spv and a v/c ratio of 1.05 to LOS F with a delay of 128.3 spv and a v/c ratio of 1.21.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate from LOS D with a delay of 51.4 spv and a v/c ratio of 0.89 to LOS E with a delay of 67.2 spv and a v/c ratio of 0.98.
- *Columbus Avenue and West 60th Street:* The eastbound right movement would deteriorate within LOS F from a delay of 112.0 spv and a v/c ratio of 1.05 to a delay of 100.7 spv and a v/c ratio of 1.06.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the southbound approach would deteriorate from LOS D with a delay of 50.7 spv and a v/c ratio of 0.94 to LOS E with a delay of 63.5 spv and a v/c ratio of 1.01.

PM PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound left-through approach would deteriorate from LOS C with a delay of 33.3 spv and a v/c ratio of 0.76 to LOS D with a delay of 52.2 spv and a v/c ratio of 0.94. The westbound through-right approach would deteriorate within LOS D from a delay of 40.4 spv and a v/c ratio of 0.91 to a delay of 52.3 spv and a v/c ratio of 0.99.
- *Ninth Avenue and West 57th Street:* The eastbound right-turn movement would deteriorate within LOS D with a delay of 46.4 spv and a v/c ratio of 0.60 with a delay of 53.6 spv and a v/c ratio of 0.70. The westbound through movement would deteriorate from LOS E with a delay of 73.3 spv and a v/c ratio of 1.05 to LOS F with a delay of 108.4 spv and a v/c ratio of 1.15.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate within LOS D with a delay of 37.0 spv and a v/c ratio of 0.76 with a delay of 46.2 spv and a v/c ratio of 0.87.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the northbound approach would deteriorate within LOS D with a delay of 49.1 spv and a v/c ratio of 0.92 with a delay of 54.0 spv and a v/c ratio of 0.96. Along Broadway, the southbound approach would deteriorate from LOS E with a delay of 75.5 spv and a v/c ratio of 1.05 to LOS F with a delay of 84.3 spv and a v/c ratio of 1.08.

PRE-THEATER EVENING PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from LOS D with a delay of 43.3 spv and a v/c ratio of 0.88 to LOS F with a delay of 82.8 spv

and a v/c ratio of 1.06. The westbound approach would deteriorate from LOS D with a delay of 54.6 spv and a v/c ratio of 0.99 to LOS E with a delay of 77.9 spv and a v/c ratio of 1.07.

- *Tenth Avenue and West 59th Street:* The eastbound approach would deteriorate from LOS D with a delay of 40.2 spv and a v/c ratio of 0.63 to LOS E with a delay of 62.4 spv and a v/c ratio of 0.82.
- *Ninth Avenue and West 57th Street:* The eastbound right-turn movement would deteriorate within LOS E from a delay of 66.3 spv and a v/c ratio of 0.81 to a delay of 79.6 spv and a v/c ratio of 0.89. The westbound through movement would deteriorate from LOS E with a delay of 74.8 spv and a v/c ratio of 1.05 to LOS F with a delay of 106.9 spv and a v/c ratio of 1.14. The southbound approach would deteriorate from LOS D with a delay of 50.5 spv and a v/c ratio of 1.00 to LOS E to a delay of 90.0 spv and a v/c ratio of 1.12.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate within LOS D from a delay of 41.3 spv and a v/c ratio of 0.82 to a delay of 54.9 spv and a v/c ratio of 0.93.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the northbound approach would deteriorate within LOS D with a delay of 49.4 spv and a v/c ratio of 0.94 to a delay of 82.4 spv and a v/c ratio of 1.08. Along Broadway, the southbound approach would deteriorate from LOS E with a delay of 76.2 spv and a v/c ratio of 1.05 to LOS F with a delay of 82.4 spv and a v/c ratio of 1.08. Along Columbus Avenue, the southbound through movement would deteriorate within LOS E from a delay of 72.6 spv and a v/c ratio of 1.05 to a delay of 100.0 spv and a v/c ratio of 1.13.

Table 15-18

Comparison of 2007 Existing and 2014 No Build Conditions Level of Service Analysis

Int./App.	AM Peak								Midday Peak								PM Peak								Pre-Theater Peak							
	2007 Existing				2014 No Build				2007 Existing				2014 No Build				2007 Existing				2014 No Build				2007 Existing				2014 No Build			
	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS
Tenth Avenue and West 57th Street																																
EB	LT	1.05	75.5	E	LT	1.14	107.9	F	LT	1.00	66.7	E	LT	1.19	131.4	F	LT	0.76	33.3	C	LT	0.94	52.2	D	LT	0.88	43.3	D	LT	1.06	82.8	F
WB	TR	0.88	35.4	D	TR	0.96	44.2	D	TR	0.87	37.0	D	TR	0.98	52.6	D	TR	0.91	40.4	D	TR	0.99	52.3	D	TR	0.99	54.6	D	TR	1.07	77.9	E
NB	LT	0.77	18.9	B	LT	0.90	26.5	C	LTR	0.75	16.1	B	LTR	0.82	18.3	B	L	0.46	17.6	B	L	0.54	20.3	C	LTR	0.86	19.4	B	LTR	0.93	24.2	C
INT.	R	0.59	20.3	C	R	0.68	25.8	C									TR	0.70	14.9	B	TR	0.78	17.4	B								
			34.1	C			46.4	D			31.0	C			48.9	D			24.2	C			31.7	C			32.2	C			46.9	D
Tenth Avenue and West 58th Street																																
EB	LT	0.56	27.5	C	LT	0.59	28.3	C	LT	0.30	23.2	C	LT	0.39	24.5	C	LT	0.41	24.7	C	LT	0.54	27.0	C	LT	0.38	24.3	C	LT	0.50	26.3	C
NB	T	0.50	8.9	A	T	0.55	9.4	A	TR	0.63	10.4	B	TR	0.69	11.2	B	TR	0.69	11.2	B	TR	0.76	12.4	B	TR	0.73	11.8	B	TR	0.79	13.0	B
INT.	R	0.53	16.8	B	R	0.58	18.2	B			12.0	B			13.1	B			13.1	B			14.9	B			13.4	B			15.1	B
			13.7	B			14.2	B																								
Amsterdam Avenue and West 59th Street																																
EB	L	0.39	29.4	C	L	0.61	42.0	D	L	0.37	28.1	C	L	0.49	32.4	C	L	0.47	31.6	C	L	0.67	44.6	D	L	0.63	40.2	D	L	0.82	62.4	E
WB	T	0.54	28.4	C	T	0.63	31.5	C	T	0.41	25.1	C	T	0.47	25.8	C	T	0.42	25.4	C	T	0.51	27.6	C	T	0.47	26.4	C	T	0.53	28.1	C
NB	R	0.58	33.2	C	R	0.23	23.0	C	R	0.65	36.3	D	R	0.25	22.7	C	R	0.65	35.9	D	R	0.21	22.5	C	R	0.53	30.5	C	R	0.18	22.0	C
INT.	LT	0.62	11.0	B	LT	0.68	11.9	B	LT	0.56	10.2	B	LT	0.63	11.8	B	L	0.33	13.6	B	L	0.39	14.5	B	LT	0.68	11.7	B	LT	0.73	12.6	B
			15.3	B			16.1	B			15.0	B			14.8	B			14.7	B			14.6	B			15.6	B			17.2	B
Amsterdam Avenue and West 60th Street																																
EB	LT	0.25	22.6	C	LT	1.01	77.0	E	LT	0.21	22.1	C	LT	0.82	45.2	D	LT	0.22	22.0	C	LT	0.72	35.8	D	LT	0.19	21.7	C	LT	0.57	29.6	C
WB	R	0.54	28.4	C	R	0.82	48.6	D	TR	0.57	10.3	B	R	0.66	35.0	C	TR	0.65	11.2	B	R	0.66	34.7	C	TR	0.70	12.0	B	R	0.64	33.7	C
NB	T	0.51	9.6	A	T	0.52	9.8	A	TR	0.59	10.6	B	TR	0.59	10.6	B	TR	0.65	11.2	B	TR	0.67	11.5	B	TR	0.70	12.0	B	TR	0.72	12.4	B
INT.	R	0.49	16.6	B	R	0.53	17.7	B			11.0	B			18.4	B			11.8	B			16.9	B			12.4	B			16.0	B
			11.3	B			26.4	C																								
Amsterdam Avenue and West 61st Street																																
EB	LT	0.64	35.0	C	TR	0.03	20.4	C	LT	0.32	25.0	C	TR	0.09	21.0	C	LT	0.42	26.6	C	TR	0.08	20.9	C	LT	0.31	24.3	C	TR	0.10	21.1	C
WB	R	0.03	20.4	C	TR	0.65	10.6	B	R	0.09	21.3	C	TR	0.54	9.2	A	R	0.07	20.9	C	TR	0.54	9.2	A	R	0.09	21.3	C	TR	0.59	9.8	A
NB	T	0.51	9.0	A	TR	0.65	10.6	B	TR	0.48	8.8	A	LTR	0.61	10.0+	B	L	0.05	9.3	A	L	0.05	9.3	A	TR	0.59	9.8	A	LTR	0.70	11.3	B
INT.	R	0.02	9.0	A	R	0.04	9.2	A			10.1	B			10.3	B			11.0	B			10.9	B			10.9	B			11.5	B
			12.4	B			10.7	B																								
Amsterdam Avenue and West 62nd Street																																
WB	R	0.43	27.6	C	R	0.32	25.1	C	R	0.60	33.1	C	R	0.51	29.8	C	R	0.76	39.9	D	R	0.63	32.7	C	R	0.84	47.0	D	R	0.50	28.7	C
NB	T	0.54	9.3	A	T	0.61	10.0+	B	TR	0.51	9.1	A	TR	0.60	10.0-	A	TR	0.60	9.9	A	TR	0.68	11.0	B	TR	0.67	10.8	B	TR	0.75	12.1	B
INT.	R	0.26	11.6	B	R	0.32	12.4	B			12.2	B			11.9	B			14.3	B			13.4	B			16.0	B			13.5	B
			10.9	B			11.0	B																								
Amsterdam Avenue and West 65th Street																																
EB	LT	0.56	25.2	C	LT	0.69	28.4	C	LT	0.40	22.5	C	LT	0.50	24.3	C	LT	0.44	23.0	C	LT	0.58	25.5	C	LT	0.40	22.4	C	LT	0.52	24.3	C
NB	T	0.50	10.9	B	T	0.55	11.4	B	TR	0.66	13.0	B	TR	0.72	14.1	B	TR	0.75	14.5	B	TR	0.80	15.7	B	TR	0.79	15.5	B	TR	0.83	16.5	B
INT.	R	0.75	27.5	C	R	0.79	29.9	C			14.7	B			16.2	B			16.0	B			17.7	B			16.6	B			18.0	B
			17.0	B			18.7	B																								
Ninth Avenue and West 57th Street																																
EB	T	0.93	56.0	E	T	0.99	68.3	E	T	0.73	37.8	D	T	0.81	41.7	D	T	0.73	38.8	D	T	0.83	44.2	D	T	0.74	39.5	D	T	0.83	44.2	D
WB	R	0.74	58.9	E	R	0.83	72.2	E	R	0.69	52.2	D	R	0.79	62.5	E	R	0.60	46.4	D	R	0.70	53.6	D	R	0.81	66.3	E	R	0.89	79.6	E
SB	DefL	1.05	86.2	F	DefL	1.01	74.6	E	DefL	0.95	55.8	E	DefL	1.04	79.9	E	DefL	0.85	39.2	D	DefL	0.89	44.9	D	DefL	0.77	31.9	C	DefL	0.84	39.3	D
INT.	T	1.05	74.9	E	T	1.18	119.2	F	T	1.05	74.7	E	T	1.20	127.1	F	T	1.05	73.3	E	T	1.15	108.4	F	T	1.05	74.8	E	T	1.14	106.9	F
	LT	0.24	21.6	C	L	0.40	26.8	C	LTR	1.05	67.2	E	LTR	1.21	128.3	F	L	0.50	27.4	C	L	0.64	33.6	C	LTR	1.00	50.5	D	LTR	1.12	90.0	F
	TR	1.05	65.4	E	T	1.00	50.0	D																								
					R	0.89	61.3	E			62.4	E			107.7	F			40.1	D			51.6	D			52.9	D			81.9	F
			66.3	E			68.5	E																								
Ninth Avenue and West 58th Street																																
EB	T	1.05	84.5	F	T	1.11	104.3	F	T	0.89	51.4	D	T	0.98	67.2	E	T	0.76	37.0	D	T	0.87	46.2	D	T	0.82	41.3	D	T	0.93	54.9	D
SB	R	0.39	26.9	C	R	0.47	29.4	C	R	0.27	24.0	C	R	0.42	27.7	C	R	0.35	25.5	C	R	0.57	32.3	C	R	0.27	23.8	C	R	0.46	28.3	C
INT.	L	0.58	19.2	B	LT	0.91	18.8	B	LT	0.81	14.7	B	LT	0.89	18.4	B	L	1.05	78.8	E	LT	0.93	21.0	C	LT	0.75	13.2	B	LT	0.82	14.7	B
	T	0.64	11.1	B			34.8	C			21.0	C			26.5	C			10.2	B			25.2	C			18.2	B			22.2	C
			26.5	C																												

Table 15-18 (cont'd)

Comparison of 2007 Existing and 2014 No Build Conditions Level of Service Analysis

Int./ App.	AM Peak								Midday Peak								PM Peak								Pre-Theater Peak											
	2007 Existing				2014 No Build				2007 Existing				2014 No Build				2007 Existing				2014 No Build				2007 Existing				2014 No Build							
	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS				
Ninth Avenue and West 59th Street																																				
SB	TR	0.90	18.5	B	TR	0.99	29.3	C	TR	0.85	15.8	B	TR	0.90	18.5	B	T	0.71	11.9	B	T	0.80	14.0	B	TR	0.80	13.9	B	TR	0.83	14.8	B				
																	R	0.50	16.0	B	R	0.39	13.4	B												
INT.			18.5	B			29.3	C			15.8	B			18.5	B																14.8	B			
Columbus Avenue and West 60th Street																																				
EB	R	1.05	107.2	F	R	1.28	179.6	F	R	1.05	112.0	F	R	1.06	100.7	F	R	1.05	110.8	F	R	0.98	77.1	E	R	0.96	88.5	F	R	0.80	46.1	D				
WB	L	1.05	92.2	F	L	0.78	43.9	D	L	1.05	94.0	F	L	0.72	39.1	D	L	1.04	91.7	F	L	0.66	35.5	D	L	0.89	59.8	E	L	0.58	31.8	C				
					LT	0.80	43.6	D					LT	0.72	37.6	D					L	0.67	34.0	C				LT	0.55	29.8	C					
SB	TR	0.81	25.0	C	TR	0.71	11.4	B	TR	0.76	23.6	C	TR	0.63	10.4	B	TR	0.88	28.1	C	TR	0.73	11.7	B	TR	0.79	24.2	C	TR	0.64	10.3	B				
INT.			47.0	D			39.7	D			48.4	D			27.3	C			46.3	D			22.5	C			35.7	D			17.3	B				
Columbus Avenue and West 61st Street																																				
EB	TR	0.04	20.4	C	TR	0.04	20.4	C	TR	0.00	20.0	B	TR	0.06	20.7	C	TR	0.06	20.7	C																
SB	L	0.19	10.7	B	LTR	0.72	11.6	B	LTR	0.57	9.6	A	LTR	0.65	10.6	B	LTR	0.70	11.2	B	LTR	0.79	12.8	B	LTR	0.60	9.9	A	LTR	0.67	10.7	B				
INT.			0.56	9.4	A						9.6	A			10.6	B							12.8	B			10.0	B			10.8	B				
Columbus Avenue and West 62nd Street																																				
EB	R	0.35	24.8	C	R	0.45	26.7	C	R	0.28	23.6	C	R	0.35	24.8	C	R	0.49	28.4	C	R	0.63	33.1	C	R	0.28	23.9	C	R	0.39	26.1	C				
WB	LT	0.43	26.3	C	LT	0.45	26.8	C	LT	0.32	24.2	C	LT	0.34	24.5	C	LT	0.44	26.9	C	LT	0.43	26.8	C	LT	0.39	25.9	C	LT	0.37	25.6	C				
SB	TR	0.65	10.4	B	TR	0.74	11.8	B	TR	0.74	11.9	B	TR	0.81	13.5	B	TR	0.68	10.8	B	TR	0.75	12.1	B	TR	0.70	11.1	B	TR	0.79	13.0	B				
INT.			12.8	B			14.2	B			13.4	B			14.9	B			13.4	B			14.9	B			12.6	B			14.3	B				
Columbus Avenue and West 63rd Street																																				
WB	L	0.30	23.1	C	L	0.34	23.6	C	L	0.32	23.4	C	L	0.38	24.1	C	L	0.57	28.2	C	L	0.64	29.9	C	L	0.31	23.6	C	L	0.36	24.3	C				
SB	T	0.48	8.7	A	T	0.54	9.3	A	T	0.46	8.6	A	T	0.50	8.9	A	T	0.50	8.8	A	T	0.54	9.2	A	T	0.51	8.9	A	T	0.54	9.2	A				
INT.			10.9	B			11.6	B			11.2	B			11.8	B			12.5	B			13.2	B			10.6	B			11.1	B				
Broadway, Columbus Avenue* and West 65th Street																																				
EB	TR	0.74	37.3	D	TR	0.88	47.0	D	TR	0.48	30.6	C	TR	0.58	33.3	C	TR	0.64	33.9	C	TR	0.77	39.6	D	TR	0.66	34.6	C	TR	0.78	40.2	D				
	R	0.62	39.3	D	R	0.77	50.8	D	R	0.47	33.9	C	R	0.54	37.2	D	R	0.46	35.1	D	R	0.57	40.4	D	R	0.52	36.9	D	R	0.57	40.2	D				
NB	TR	0.84	42.1	D	TR	0.87	42.9	D	TR	0.77	37.6	D	TR	0.82	39.4	D	TR	0.92	49.1	D	TR	0.96	54.0	D	TR	0.91	47.2	D	TR	0.94	49.4	D				
SB	T	1.00	62.7	E	T	1.05	74.2	E	T	0.94	50.7	D	T	1.01	63.5	E	T	1.05	75.5	E	T	1.08	84.3	F	T	1.05	76.2	E	T	1.08	82.4	F				
SB*	L	0.74	45.4	D	L	0.78	49.0	D	L	0.66	40.0	D	L	0.72	43.5	D	L	0.53	33.6	C	L	0.58	35.2	D	L	0.65	38.5	D	L	0.68	39.9	D				
	T	0.84	35.5	D	T	0.90	39.0	D	T	0.68	30.7	C	T	0.73	31.8	C	T	0.75	32.0	C	T	0.81	34.1	C	T	0.81	34.1	C	T	1.05	72.6	E	T	1.13	100.0	F
INT.			44.3	D			50.6	D			38.0	D			43.0	D			49.1	D			54.0	D			61.1	E			72.5	E				
Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service * = SB Columbus Avenue approach at Broadway/Columbus and West 65th Street (SB approach without notation is Broadway)																																				

PARKING SUPPLY AND UTILIZATION

The utilization of off-street parking facilities in the study area would increase as a result of the area's background growth in traffic (3.5 percent over existing by 2014) and additional demand generated by nearby developments. Based on currently available information, several parking garages on West End Avenue and West 59th Street are expected to be displaced by the Riverside South project, which is undergoing the preparation of a Supplemental Environmental Impact Statement for its current development program. At the same time, five other public parking garages are anticipated to be completed, one of which would be Riverside South, (for parcel N). As shown in Table 15-19, the overall parking capacity in the area would decrease to 7,329 spaces. The corresponding peak period utilization rates would increase to approximately 41, 82, 61, and 38 percent (with 4,306, 1,316, 2,856, and 4,502 available spaces) during the AM, midday, pre-theater, and overnight hours, respectively.

Table 15-19

2014 No Build Condition Off-Street Parking Utilization

Company Name	Address	License No.	Capacity	Utilization Rate (%)				Utilized Spaces				Available Spaces			
				AM	MD	P/T	O/N	AM	MD	P/T	O/N	AM	MD	P/T	O/N
1 165 W.66th St Parking Corp.	165 W.66th St	368337	77	21	52	78	30	16	40	60	23	61	37	17	54
2 Icon Parking	101 West End Ave	1061198	166	26	88	31	31	43	146	52	52	123	20	114	114
3 Performance Parking Corp.	127-137 Amsterdam	858712	375	62	83	73	52	233	311	272	195	142	64	103	180
4 Icon Parking	2 Lincoln Plaza	1127924	80	83	88	83	83	66	70	66	66	14	10	14	14
5 10 W.65th St Parking Corp.	10 W.65th St	883451	195	47	83	83	52	91	161	161	101	104	34	34	94
6 Lincoln Center Park & Lock	140 W.65th St	1079021	721	27	74	55	29	194	537	395	209	527	184	326	512
7 Icon Parking	110 West End Ave	761016	106	41	92	73	41	43	98	77	43	63	8	29	63
8 West End Towers Garage	35-101 West End Ave	948832	441	41	85	60	19	182	375	264	84	259	66	177	357
9 Edison Parking Management	1900-1916 Broadway	1213869	400	26	73	52	26	104	290	207	104	296	110	193	296
10 Edison Parking Management	1886-1896 Broadway	1200481	75	32	93	68	27	24	70	51	20	51	5	24	55
11 Garage Management Corp.	44 W.62nd St	1013719	143	46	83	26	29	66	118	37	41	77	25	106	102
12 Eagle Trump International	1 Central Park West	1125528	88	31	89	67	22	27	78	59	19	61	10	29	69
13 Prior Parking LLC	40-50 W.61st St	1033066	205	31	93	68	31	64	191	140	64	141	14	65	141
14 Central Parking System	10 Columbus Circle	1105005	662	54	100	67	54	358	662	441	358	304	0	221	304
15 Central Parking System	910-924 9th Ave	1113135	318	85	93	100	79	269	297	318	252	49	21	0	66
16 John Jay College Parking	425 W.59th St	813398	125	16	73	42	16	20	91	52	20	105	34	73	105
17 LHL Parking Corp.	161 W.61st St	898520	100	52	88	83	29	52	88	83	29	48	12	17	71
18 Concerto Garage Corp.	200 W.60th St	884653	265	26	85	49	29	68	225	130	77	197	40	135	188
19 Propark America	515 W.59th St	1171649	190	26	69	49	19	49	132	94	37	141	58	96	153
20 Central Parking System	115 West End Ave	964023	Closed	-	-	-	-	-	-	-	-	-	-	-	-
21 Kinney Systems	838-852 11th Ave	1137953	84	92	93	85	39	77	78	71	33	7	6	13	51
22 Effective Parking LLC	435 W.57th St	368157	55	62	42	47	20	34	23	26	11	21	32	29	44
23 1 Columbus Place Garage	1 Columbus Place	960635	294	21	72	52	52	61	213	152	152	233	81	142	142
24 Icon Parking	330 W.58th St	1118641	95	67	94	62	53	64	89	59	50	31	6	36	45
25 Champion Parking	316-328 W.57th St	1093313	372	16	65	40	16	58	240	148	58	314	132	224	314
26 330 W.56th Street Corp.	330 W.56th St	1234691	115	21	47	47	29	24	54	54	33	91	61	61	82
27 Sydney Parking LLC	408 W.57th St	1113944	80	83	73	63	31	66	58	50	25	14	22	30	55
28 Epsilon Parking	409 W.56th St	1195834	20	50	100	25	Closed	10	20	5	-	10	0	15	-
29 Apex Parking LLC	440 W.57th St	368300	378	67	85	80	81	254	320	303	307	124	58	75	71
Element Condominium			190	37	86	59	32	71	163	113	60	119	27	77	130
Algin West 61st Street			160	37	86	59	31	59	137	94	50	101	23	66	110
15 Central Park West			162	32	74	51	28	52	120	83	45	110	42	79	117
Riverside South (Parcel N)			442	38	88	60	32	168	389	267	142	274	53	175	300
2 West End Avenue			150	37	86	59	31	56	129	89	47	94	21	61	103
Total			7,329	41	82	61	38	3,023	6,013	4,473	2,807	4,306	1,316	2,856	4,502

E. PROBABLE IMPACTS OF THE PROPOSED ACTION—2014

The assessment of potential adverse impacts associated with the proposed action begins with and builds on the future No Build condition described in the preceding section. As with the future No Build evaluation, 2014 is used as the analysis year for assessing project impacts, reflecting the time when the Phase I campus expansion elements are anticipated for completion.

Under the proposed action, the first phase of construction would result in new academic and dormitory facilities, which include a new Law School, a new Student Center, and new dormitory buildings containing 695 new beds. The 876 residential units (which would occupy three buildings in the future No Build condition) would be located in two towers on the western edge of the project site and would include accessory parking. In total, Phase I of proposed action would add 360 accessory parking spaces in two garages to the project site. The northern garage, accessible via West 62nd Street, would contain 155 spaces for the University’s use and 68 spaces for the north residential building. The southern garage, accessible via West 61st Street, would contain 137 spaces for the south residential building.

TRIP GENERATION

Phase I of the proposed action would result in 34, 580, 553, and 332 new person-trips during the AM, midday, PM, and pre-theater peak hours, respectively. Including truck deliveries, the corresponding vehicle-trip increments are 31, 68, 78, and 36 vehicles. There would be no new trips associated with the on-site residential buildings. However, in contrast to the No Build

condition, 78 percent of the faculty and 54 percent of the residential vehicle trips associated with these buildings would be accommodated on site within the accessory garages.

TRIP DISTRIBUTION

Origin and destination patterns for project-generated vehicular trips were based on local traffic patterns, travel characteristics developed from the on-line survey of University faculty, administrators, and staff, and the locations of major employment centers and residential uses. Based on this information, approximately 40 percent of the projected vehicle-trips were assumed to orient to or from the north, 25 percent to or from the south along Amsterdam Avenue, 20 percent to or from the west, and 15 percent to or from the east.

VEHICLE TRIP ASSIGNMENT

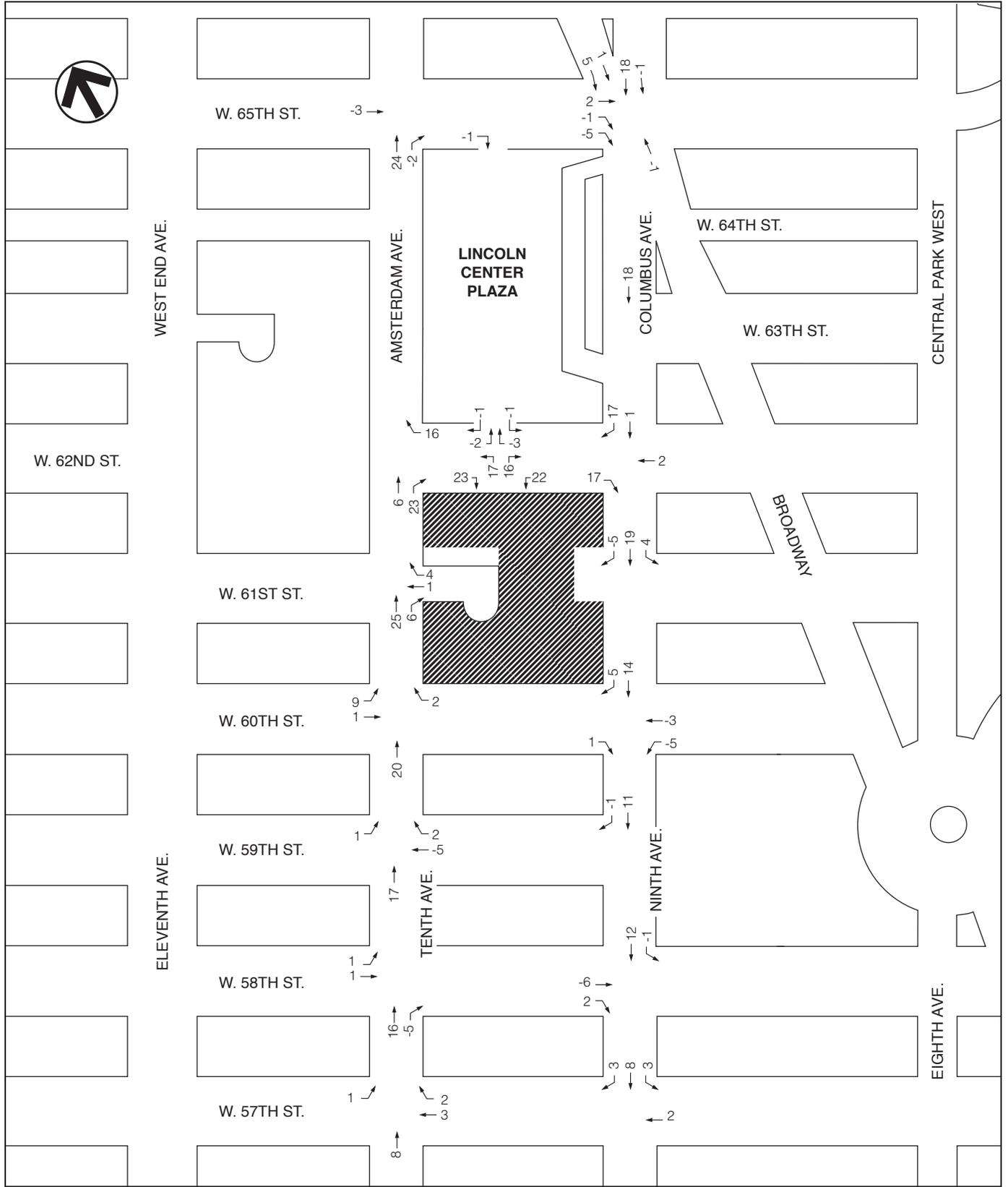
Using the above trip distribution, auto trips were assigned to study area intersections based on logical routes of travel. Seventy-eight percent of the auto trips associated with University faculty, administrators, staff, and visitors were assigned to the on-site parking garage, which is accessible from the north side of the campus along West 62nd Street between Columbus and Amsterdam Avenues. Those made by students were assigned to nearby parking garages and to on-street spaces. Taxi pick-up and drop-off trips were assigned to the project site's block faces, and delivery vehicles were routed to and from the project site via NYCDOT-designated truck routes and docked on the north and south sides of the campus superblock, along West 62nd and West 60th Streets, respectively.

Vehicle-trips associated with the on-site residential buildings were already incorporated as part of the future No Build condition. However, the accessory parking made possible with the proposed action necessitated a rerouting of 54 percent of these trips to the corresponding garage entrances along West 61st and West 62nd Streets.

LEVEL OF SERVICE

Figures 15-12 through 15-15 present the project-generated 2014 traffic volumes for the AM, midday, PM, and pre-theater peak analysis hours, respectively. Within the study area, peak hour traffic volumes would generally experience increases along the primary access and egress routes to the project site. The intersections of West 62nd Street at Amsterdam and Columbus Avenues would incur the highest incremental increases in traffic volumes. However, some intersections would experience decreases in traffic volume on individual movements as a result of the rerouting of vehicles that currently park off-site to the on-site accessory parking garages. The 2014 Build AM, midday, PM, and pre-theater peak hour traffic volumes are shown in Figures 15-16 through 15-19.

Capacity and level-of-service analyses were performed for the study area intersections using the projected Build condition peak hour traffic volumes. Since the 2014 AM and pre-theater peak hour trip generation estimates are below the CEQR threshold of 50 vehicle trips, any impacts identified in the level-of-service analysis would not be considered significant. While it is not required to present the analysis results for these time periods, summaries of the operating conditions were prepared for completeness. Table 15-20 presents a comparison of the 2014 No Build and Build service levels for these intersections. Based on the criteria presented in the *CEQR Technical Manual* and discussed previously, significant adverse impacts are identified by the "+" symbol in the analysis summary table.

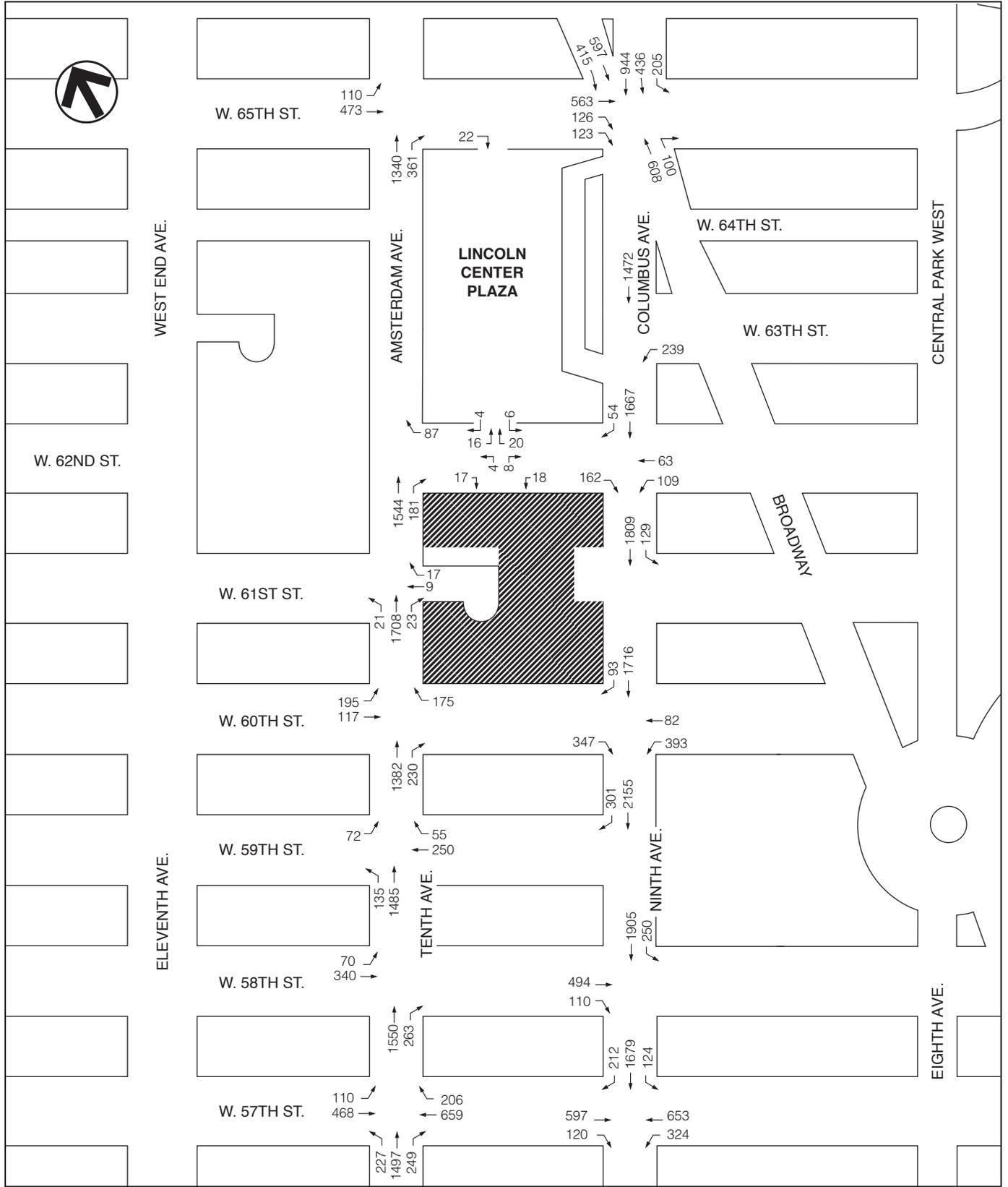


NOT TO SCALE

 Project Site

NOTE: Vehicle trips were assigned at available off- and on-street parking locations

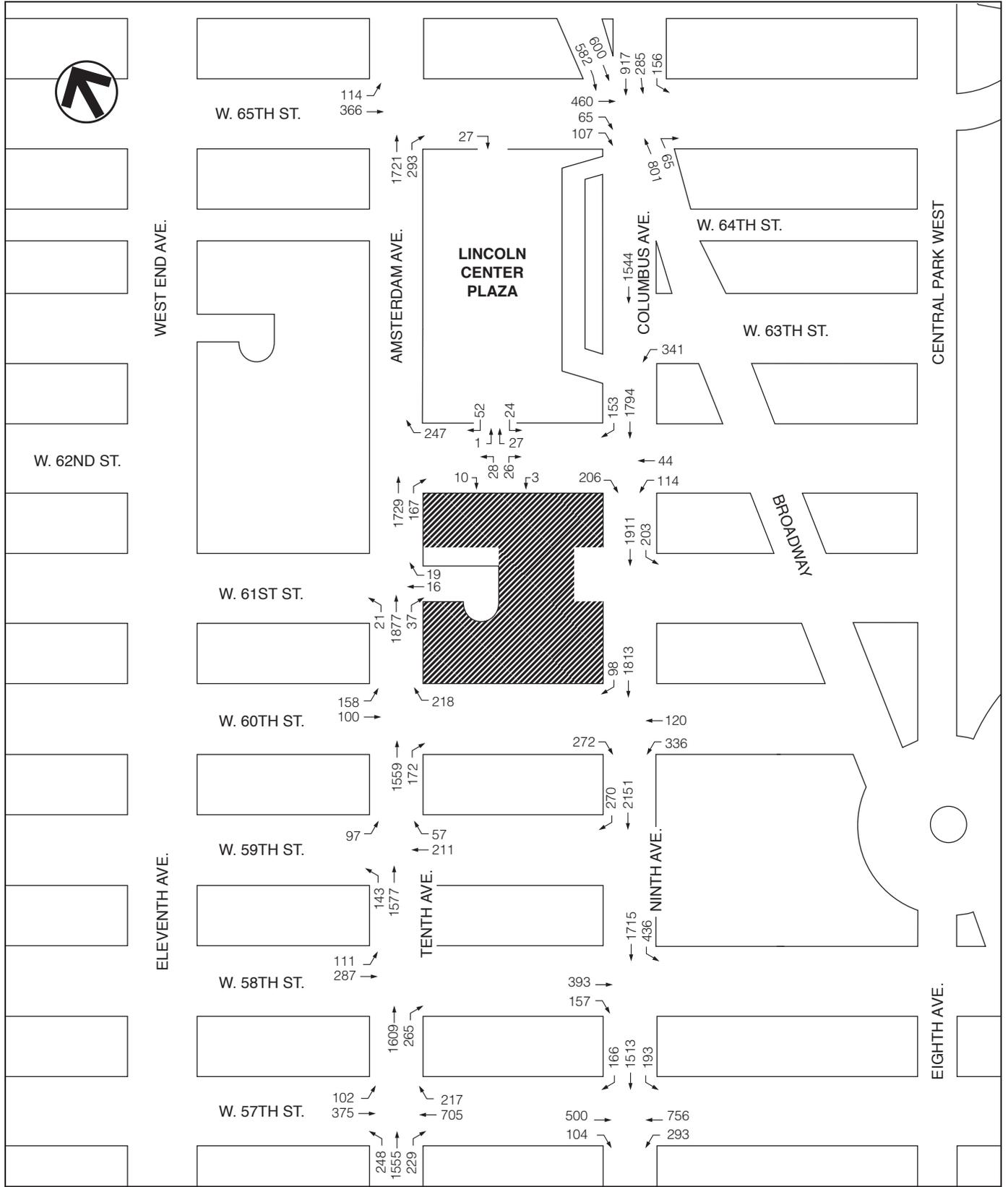
Figure 15-13
2014 Project Generated Traffic Volumes
Midday Peak Hour



NOT TO SCALE

 Project Site

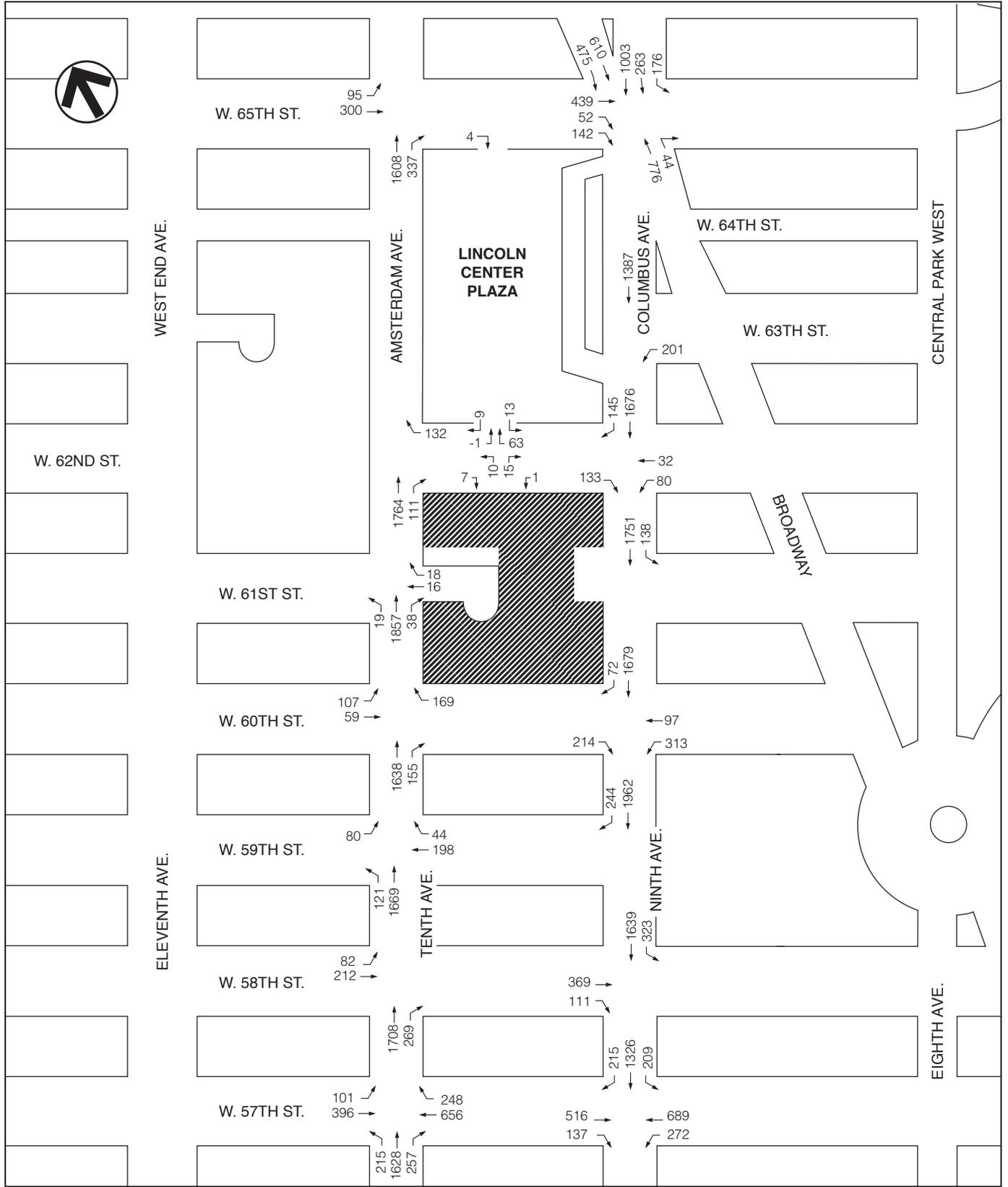
Figure 15-16
2014 Build Traffic Volumes
AM Peak Hour



Project Site

NOT TO SCALE

Figure 15-18
2014 Build Traffic Volumes
PM Peak Hour



 Project Site

NOT TO SCALE

Figure 15-19
2014 Build Traffic Volumes
Pre-Theater Peak Hour

Table 15-20

Comparison of 2014 No Build and Build Conditions Level of Service Analysis

Int./ App.	AM Peak								Midday Peak								PM Peak								Pre-Theater Peak							
	2014 No Build				2014 Build				2014 No Build				2014 Build				2014 No Build				2014 Build				2014 No Build				2014 Build			
	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS
Tenth Avenue and West 57th Street																																
EB	LT	1.14	107.9	F	LT	1.15	109.3	F	LT	1.19	131.4	F	LT	1.20	134.0	F	LT	0.94	52.2	D	LT	0.96	55.9	E	LT	1.06	82.8	F	LT	1.06	84.2	F
WB	TR	0.96	44.2	D	TR	0.96	44.4	D	TR	0.98	52.6	D	TR	0.98	53.9	D	TR	0.99	52.3	D	TR	1.00	54.8	D	TR	1.07	77.9	E	TR	1.08	81.3	F
NB	LT	0.90	26.5	C	LT	0.90	26.8	C	LTR	0.82	18.3	B	LTR	0.83	18.5	B	L	0.54	20.3	C	L	0.54	20.3	C	LTR	0.93	24.2	C	LTR	0.93	24.4	C
	R	0.68	25.8	C	R	0.68	25.8	C					TR	0.78	17.4	B	TR	0.78	17.5	B												
INT.		46.4	D		46.8	D			48.9	D			49.8	D			31.7	C					32.9	C		46.9	D			48.2	D	
Tenth Avenue and West 58th Street																																
EB	LT	0.59	28.3	C	LT	0.59	28.3	C	LT	0.39	24.5	C	LT	0.39	24.6	C	LT	0.54	27.0	C	LT	0.53	26.9	C	LT	0.50	26.3	C	LT	0.50	26.3	C
NB	T	0.55	9.4	A	T	0.56	9.4	A	TR	0.69	11.2	B	TR	0.69	11.3	B	TR	0.76	12.4	B	TR	0.76	12.5	B	TR	0.79	13.0	B	TR	0.79	13.0	B
	R	0.58	18.2	B	R	0.57	18.0	B																								
INT.		14.2	B		14.2	B			13.1	B			13.2	B			14.9	B			14.9	B			15.1	B			15.1	B		
Amsterdam Avenue and West 59th Street																																
EB	L	0.61	42.0	D	L	0.61	42.1	D	L	0.49	32.4	C	L	0.49	32.3	C	L	0.67	44.6	D	L	0.67	44.2	D	L	0.82	62.4	E	L	0.82	61.5	E
WB	T	0.63	31.5	C	T	0.63	31.2	C	T	0.47	25.8	C	T	0.46	25.4	C	T	0.51	27.6	C	T	0.51	27.4	C	T	0.53	28.1	C	T	0.53	27.9	C
	R	0.23	23.0	C	R	0.23	23.2	C	R	0.25	22.7	C	R	0.26	22.9	C	R	0.21	22.5	C	R	0.22	22.7	C	R	0.18	22.0	C	R	0.19	22.1	C
NB	LT	0.68	11.9	B	LT	0.69	12.0	B	LT	0.63	11.8	B	LT	0.64	11.9	B	L	0.39	14.5	B	L	0.39	14.5	B	LT	0.73	12.6	B	LT	0.74	12.7	B
																	T	0.61	10.7	B	T	0.62	10.8	B								
INT.		16.1	B		16.1	B			14.8	B			14.8	B			14.6	B			14.6	B			17.2	B			17.2	B		
Amsterdam Avenue and West 60th Street																																
EB	LT	1.01	77.0	E	LT	1.03	84.2	F	LT	0.82	45.2	D	LT	0.86	50.2	D+	LT	0.72	35.8	D	LT	0.73	36.9	D	LT	0.57	29.6	C	LT	0.58	30.0	C
WB	R	0.82	48.6	D	R	0.81	47.5	D	R	0.66	35.0	C	R	0.66	35.4	D	R	0.66	34.7	C	R	0.68	35.4	D	R	0.64	33.7	C	R	0.66	34.5	C
NB	T	0.52	9.8	A	T	0.53	9.8	A	TR	0.59	10.6	B	TR	0.60	10.7	B	TR	0.67	11.5	B	TR	0.68	11.6	B	TR	0.72	12.4	B	TR	0.73	12.5	B
	R	0.53	17.7	B	R	0.53	17.8	B																								
INT.		26.4	C		27.6	C			18.4	B			19.5	B			16.9	B			17.2	B			16.0	B			16.2	B		
Amsterdam Avenue and West 61st Street																																
EB																																
WB	TR	0.03	20.4	C	TR	0.09	21.1	C	TR	0.09	21.0	C	TR	0.11	21.3	C	TR	0.08	20.9	C	TR	0.10	21.2	C	TR	0.10	21.1	C	TR	0.12	21.4	C
NB	LT	0.65	10.6	B	LT	0.66	10.7	B	LTR	0.61	10.0+	B	LTR	0.62	10.2	B	L	0.05	9.3	A	L	0.05	9.3	A	LTR	0.70	11.3	B	LTR	0.72	11.5	B
	R	0.04	9.2	A	R	0.04	9.3	A									TR	0.67	10.7	B	TR	0.68	10.9	B								
INT.		10.7	B		10.9	B			10.3	B			10.5	B			10.9	B			11.1	B			11.5	B			11.7	B		
Amsterdam Avenue and West 62nd Street																																
WB	R	0.32	25.1	C	R	0.34	25.5	C	R	0.51	29.8	C	R	0.58	32.0	C	R	0.63	32.7	C	R	0.71	36.6	D	R	0.50	28.7	C	R	0.54	29.8	C
NB	T	0.61	10.0+	B	T	0.61	10.1	B	TR	0.60	10.0-	A	TR	0.61	10.2	B	TR	0.68	11.0	B	TR	0.69	11.1	B	TR	0.75	12.1	B	TR	0.76	12.3	B
	R	0.32	12.4	B	R	0.37	13.1	B																								
INT.		11.0	B		11.2	B			11.9	B			12.5	B			13.4	B			14.2	B			13.5	B			13.8	B		
Amsterdam Avenue and West 65th Street																																
EB	LT	0.69	28.4	C	LT	0.68	28.3	C	LT	0.50	24.3	C	LT	0.50	24.2	C	LT	0.58	25.5	C	LT	0.58	25.5	C	LT	0.52	24.3	C	LT	0.52	24.3	C
NB	T	0.55	11.4	B	T	0.56	11.5	B	TR	0.72	14.1	B	TR	0.73	14.3	B	TR	0.80	15.7	B	TR	0.81	16.0	B	TR	0.83	16.5	B	TR	0.83	16.6	B
	R	0.79	29.9	C	R	0.79	29.9	C																								
INT.		18.7	B		18.7	B			16.2	B			16.3	B			17.7	B			17.9	B			18.0	B			18.1	B		
Ninth Avenue and West 57th Street																																
EB	T	0.99	68.3	E	T	0.99	68.3	E	T	0.81	41.7	D	T	0.81	41.7	D	T	0.83	44.2	D	T	0.83	44.2	D	T	0.83	44.2	D	T	0.83	44.2	D
	R	0.83	72.2	E	R	0.83	72.2	E	R	0.79	62.5	E	R	0.79	62.5	E	R	0.70	53.6	D	R	0.70	53.6	D	R	0.89	79.6	E	R	0.89	79.6	E
WB	DefL	1.01	74.6	E	DefL	1.01	74.6	E	DefL	1.04	79.9	E	DefL	1.04	79.9	E	DefL	0.89	44.9	D	DefL	0.89	44.9	D	DefL	0.84	39.3	D	DefL	0.84	39.3	D
	T	1.18	119.2	F	T	1.18	119.9	F	T	1.20	127.1	F	T	1.20	128.4	F	T	1.15	108.4	F	T	1.16	111.3	F	T	1.14	106.9	F	T	1.15	110.0	F
SB	L	0.40	26.8	C	L	0.42	27.2	C	LTR	1.21	128.3	F	LTR	1.22	133.5	F+	L	0.64	33.6	C	L	0.65	34.1	C	LTR	1.12	90.0	F	LTR	1.13	92.9	F
	T	1.00	50.0	D	T	1.00	50.7	D									T	0.86	32.0	C	T	0.87	32.5	C								
	R	0.89	61.3	E	R	0.89	61.3	E									R	0.62	33.9	C	R	0.63	34.5	C								
INT.		68.5	E		68.8	E			107.7	F			110.7	F			51.6	D			52.4	D			81.9	F			84.1	F		
Ninth Avenue and West 58th Street																																
EB	T	1.11	104.3	F	T	1.10	102.1	F	T	0.98	67.2	E	T	0.96	64.0	E	T	0.87	46.2	D	T	0.84	43.5	D	T	0.93	54.9	D	T	0.90	50.5	D
	R	0.47	29.4	C	R	0.48	29.6	C	R	0.42	27.7	C	R	0.42	28.0	C	R	0.57	32.3	C	R	0.58	32.6	C	R	0.46	28.3	C	R	0.47	28.6	C
SB	LT	0.91	18.8	B	LT	0.91	19.0	B	LT	0.89	18.4	B	LT	0.90	18.6	B	LT	0.93	21.0	C	LT	0.94	22.0	C	LT	0.82	14.7	B	LT	0.82	14.8	B
INT.		34.8	C		34.4	C			26.5	C			26.1	C			25.2	C			25.5	C			22.2	C			21.4	C		

Table 15-20 (cont'd)

Comparison of 2014 No Build and Build Conditions Level of Service Analysis

Int./ App.	AM Peak								Midday Peak								PM Peak								Pre-Theater Peak																
	2014 No Build				2014 Build				2014 No Build				2014 Build				2014 No Build				2014 Build				2014 No Build				2014 Build												
	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	Ln	Grp	V/C	Dly (spv)	LOS	
Ninth Avenue and West 59th Street																																									
SB	TR	0.99	29.3	C	TR	0.99	29.7	C	TR	0.90	18.5	B	TR	0.90	18.8	B	T	0.80	14.0	B	T	0.81	14.3	B	TR	0.83	14.8	B	TR	0.83	14.9	B									
INT.			29.3	C				29.7	C			18.5	B			18.8	B			13.9	B			14.2	B			14.8	B			14.9	B								
Columbus Avenue and West 60th Street																																									
EB	R	1.28	179.6	F	R	1.29	182.4	F	R	1.06	100.7	F	R	1.06	101.8	F	R	0.98	77.1	E	R	1.00	82.1	F+	R	0.80	46.1	D	R	0.80	46.4	D									
WB	L	0.78	43.9	D	L	0.76	42.3	D	L	0.72	39.1	D	L	0.71	38.5	D	L	0.66	35.5	D	L	0.65	34.8	C	L	0.58	31.8	C	L	0.58	31.7	C									
LT	0.80	43.6	D	LT	0.77	41.3	D	LT	0.72	37.6	D	LT	0.71	36.8	D	LT	0.67	34.0	C	LT	0.66	33.6	C	LT	0.55	29.8	C	LT	0.56	29.8	C										
SB	TR	0.71	11.4	B	TR	0.71	11.5	B	TR	0.63	10.4	B	TR	0.64	10.5	B	TR	0.73	11.7	B	TR	0.74	11.9	B	TR	0.64	10.3	B	TR	0.65	10.4	B									
INT.			39.7	D			39.7	C			27.3	C			27.2	C			22.5	C			23.1	C			17.3	B			17.3	B									
Columbus Avenue and West 61st Street																																									
EB	TR	0.04	20.4	C					TR	0.00	20.0	B					TR	0.00	20.0	B				TR	0.06	20.7	C														
SB	LTR	0.72	11.6	B	LT	0.73	11.6	B	LTR	0.65	10.6	B	LT	0.66	10.6	B	LTR	0.79	12.8	B	LT	0.80	13.1	B	LTR	0.67	10.7	B	LT	0.68	10.8	B									
INT.			11.6	B			11.6	B			10.6	B			10.6	B			12.8	B			13.1	B			10.8	B			10.8	B									
Columbus Avenue and West 62nd Street																																									
EB	R	0.45	26.7	C	R	0.50	27.8	C	R	0.35	24.8	C	R	0.40	25.8	C	R	0.63	33.1	C	R	0.75	39.3	D	R	0.39	26.1	C	R	0.46	27.7	C									
WB	LT	0.45	26.8	C	LT	0.45	26.8	C	LT	0.34	24.5	C	LT	0.34	24.5	C	LT	0.43	26.8	C	LT	0.43	26.7	C	LT	0.37	25.6	C	LT	0.37	25.6	C									
SB	TR	0.74	11.8	B	TR	0.75	12.0	B	TR	0.81	13.5	B	TR	0.82	14.0	B	TR	0.75	12.1	B	TR	0.76	12.2	B	TR	0.79	13.0	B	TR	0.80	13.1	B									
INT.			14.2	B			14.6	B			14.9	B			15.4	B			14.9	B			15.9	B			14.3	B			14.6	B									
Columbus Avenue and West 63rd Street																																									
WB	L	0.34	23.6	C	L	0.34	23.6	C	L	0.38	24.1	C	L	0.38	24.1	C	L	0.64	29.9	C	L	0.64	29.9	C	L	0.36	24.3	C	L	0.36	24.3	C									
SB	T	0.54	9.3	A	T	0.55	9.4	A	T	0.50	8.9	A	T	0.51	9.0	A	T	0.54	9.2	A	T	0.55	9.3	A	T	0.54	9.2	A	T	0.54	9.2	A									
INT.			11.6	B			11.6	B			11.8	B			11.8	B			13.2	B			13.3	B			11.1	B			11.1	B									
Broadway, Columbus Avenue* and West 65th Street																																									
EB	TR	0.88	47.0	D	TR	0.88	47.0	D	TR	0.58	33.3	C	TR	0.59	33.4	C	TR	0.77	39.6	D	TR	0.77	39.6	D	TR	0.78	40.2	D	TR	0.78	40.1	D									
	R	0.77	50.8	D	R	0.76	49.8	D	R	0.54	37.2	D	R	0.52	36.4	D	R	0.57	40.4	D	R	0.56	39.9	D	R	0.57	40.2	D	R	0.57	40.2	D									
NB	TR	0.87	42.9	D	TR	0.86	42.7	D	TR	0.82	39.4	D	TR	0.82	39.3	D	TR	0.96	54.0	D	TR	0.96	53.4	D	TR	0.94	49.4	D	TR	0.93	48.9	D									
SB	T	1.05	74.2	E	T	1.05	75.4	E	T	1.01	63.5	E	T	1.01	65.3	E	T	1.08	84.3	F	T	1.09	85.2	F	T	1.08	82.4	F	T	1.08	82.4	F									
SB*	L	0.78	49.0	D	L	0.79	49.3	D	L	0.72	43.5	D	L	0.72	43.5	D	L	0.58	35.2	D	L	0.58	35.2	D	L	0.68	39.9	D	L	0.68	39.9	D									
	T	0.90	39.0	D	T	0.91	39.6	D	T	0.73	31.8	C	T	0.75	32.1	C	T	0.81	34.1	C	T	0.82	34.2	C	T	1.13	100.0	F	T	1.13	101.2	F									
INT.			50.6	D			51.0	D			43.0	D			43.5	D			54.0	D			54.2	D			72.5	E			71.1	E									

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service
 * = SB Columbus Avenue approach at Broadway/Columbus and West 65th Street (SB approach without notation is Broadway)

SIGNIFICANT IMPACTS

Adverse traffic impacts were identified at two intersections during the AM peak hour, two intersections during the midday peak hour, no intersection during the PM peak hour, and two intersections during the pre-theater peak hour. While the numerical analysis results for the AM and pre-theater peak hours would meet the CEQR criteria for significant impacts, the impacts identified are not considered significant since, as stated above, the peak hour trip generation estimates for these time periods are below the CEQR minimum threshold of 50 vehicle trips. In addition, midday impacts at one lane group are not considered significant because the project-generated peak hour traffic volumes at the affected lane group are fewer than five vehicles. Hence, significant adverse impacts were predicted for only one intersection during the midday peak hour, as detailed below:

AM Peak Hour

- *Amsterdam Avenue and West 60th Street:* The eastbound approach would worsen from LOS E with a delay of 77.0 spv to LOS F with a delay of 84.2 (7.2) spv. However, since the peak hour trip generation estimate for this time period is below the CEQR minimum threshold of 50 vehicle trips, the projected impact is not considered significant.
- *Columbus Avenue and West 60th Street:* The eastbound approach would worsen within LOS F and increase in average delay from 179.6 to 182.4 (2.8) spv. However, since the peak hour

trip generation estimate for this time period is below the CEQR minimum threshold of 50 vehicle trips, the projected impact is not considered significant.

Midday Peak Hour

- *Tenth Avenue and West 57th Street:* The eastbound approach would worsen within LOS F and increase in average delay from 131.4 to 134.0 (2.6) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant.
- *Amsterdam Avenue and West 60th Street:* The eastbound approach would worsen within LOS D and increase in average delay from 45.2 to 50.2 (5.0) spv. This projected increase in delay constitutes a significant adverse impact.
- *Ninth Avenue and West 57th Street:* The westbound through movement would worsen within LOS F and increase in average delay from 127.1 to 128.4 (1.3) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant. The southbound approach would worsen within LOS F and increase in average delay from 128.3 to 133.5 (5.2) spv. This projected increase in delay constitutes a significant adverse impact.

PM Peak Hour

- *Columbus Avenue and West 60th Street:* The eastbound right turn movement would worsen from LOS E with a delay of 77.1 spv to LOS F with a delay of 82.1 (5.0) spv. This projected increase in delay constitutes a significant adverse impact.

Pre-Theater Peak Hour

- *Ninth Avenue and West 57th Street:* The westbound through movement would worsen within LOS F and increase in average delay from 106.9 to 110.0 (3.1) spv. However, since the peak hour trip generation estimate for this time period is below the CEQR minimum threshold of 50 vehicle trips, the projected impact is not considered significant.

Potential measures to mitigate the identified traffic impact during the midday peak hour are discussed in Chapter 20, "Mitigation."

PARKING SUPPLY AND UTILIZATION

With the proposed accessory parking facilities in place, the parking demand on the area's off-street parking facilities is expected to decrease compared to the No Build condition. As shown in Table 15-21, the overall utilization rates of the off-street parking facilities in the study area would decrease to 39, 80, 58, and 36 percent, with 4,494, 1,500, 3,072, and 4,706 spaces available, during the AM, midday, pre-theater and overnight time periods, respectively.

**Table 15-21
2014 Build Condition Off-Street Parking Utilization**

Company Name	Address	License No.	Capacity	Utilization Rate (%)				Utilized Spaces				Available Spaces			
				AM	MD	P/T	O/N	AM	MD	P/T	O/N	AM	MD	P/T	O/N
1 165 W.66th St Parking Corp.	165 W.66th St	368337	77	21	52	78	30	16	40	60	23	61	37	17	54
2 Icon Parking	101 West End Ave	1061198	166	26	88	31	31	43	146	52	52	123	20	114	114
3 Performance Parking Corp.	127-137 Amsterdam	858712	375	62	83	73	52	233	311	272	195	142	64	103	180
4 Icon Parking	2 Lincoln Plaza	1127924	80	83	88	83	83	66	70	66	66	14	10	14	14
5 10 W.65th St Parking Corp.	10 W.65th St	883451	195	47	83	83	52	91	161	161	101	104	34	34	94
6 Lincoln Center Park & Lock	140 W.65th St	1079021	721	26	72	55	29	191	529	394	209	530	192	327	512
7 Icon Parking	110 West End Ave	761016	106	41	92	73	41	43	98	77	43	63	8	29	63
8 West End Towers Garage	35-101 West End Ave	948832	441	41	85	60	19	182	325	264	84	259	66	177	357
9 Edison Parking Management	1900-1916 Broadway	1213869	400	26	73	52	26	104	290	207	104	296	110	193	296
10 Edison Parking Management	1886-1896 Broadway	1200481	75	32	93	68	27	24	70	51	20	51	5	24	55
11 Garage Management Corp.	44 W.62nd St	1013719	143	45	80	26	29	65	115	37	41	78	28	106	102
12 Eagle Trump International	1 Central Park West	1125528	88	31	89	67	22	27	78	59	19	61	10	29	69
13 Prior Parking LLC	40-50 W.61st St	1033066	205	30	91	68	31	62	187	140	64	143	18	65	141
14 Central Parking System	10 Columbus Circle	1105005	662	36	82	44	33	236	546	292	219	426	116	370	443
15 Central Parking System	910-924 9th Ave	1113135	318	67	76	78	59	212	242	249	187	106	76	69	131
16 John Jay College Parking	425 W.59th St	813398	125	15	74	42	16	19	92	53	20	106	33	72	105
17 LHL Parking Corp.	161 W.61st St	898520	100	52	88	83	29	52	88	83	29	48	12	17	71
18 Concerto Garage Corp.	200 W.60th St	884653	265	26	85	49	29	68	225	130	77	197	40	135	188
19 Propark America	515 W.59th St	1171649	190	26	69	49	19	49	132	94	37	141	58	96	153
20 Central Parking System	115 West End Ave	964023	Closed	-	-	-	-	-	-	-	-	-	-	-	-
21 Kinney Systems	838-852 11th Ave	1137953	84	92	93	85	39	77	78	71	33	7	6	13	51
22 Effective Parking LLC	435 W.57th St	368157	55	62	42	47	20	34	23	26	11	21	32	29	44
23 1 Columbus Place Garage	1 Columbus Place	960635	294	20	73	52	52	59	214	154	152	235	80	140	142
24 Icon Parking	330 W.58th St	1118641	95	67	94	62	53	64	89	59	50	31	6	36	45
25 Champion Parking	316-328 W.57th St	1093313	372	16	65	40	16	58	240	148	58	314	132	224	314
26 330 W.56th Street Corp.	330 W.56th St	1234691	115	21	47	47	29	24	54	54	33	91	61	61	82
27 Sydney Parking LLC	408 W.57th St	1113944	80	83	73	63	31	66	58	50	25	14	22	30	55
28 Epsilon Parking	409 W.56th St	1195834	20	50	100	25	Closed	10	20	5	-	10	0	15	-
29 Apex Parking LLC	440 W.57th St	368300	378	67	85	80	81	254	320	303	307	124	58	75	71
Element Condominium			190	37	86	59	32	71	163	113	60	119	27	77	130
Algin West 61st Street			160	37	86	59	31	59	137	94	50	101	23	66	110
15 Central Park West			162	32	74	51	28	52	120	83	45	110	42	79	117
Riverside South (Parcel N)			442	38	88	60	32	168	389	267	142	274	53	175	300
2 West End Avenue			150	37	86	59	31	56	129	89	47	94	21	61	103
Total			7,329	39	80	58	36	2,835	5,829	4,257	2,603	4,494	1,500	3,072	4,706

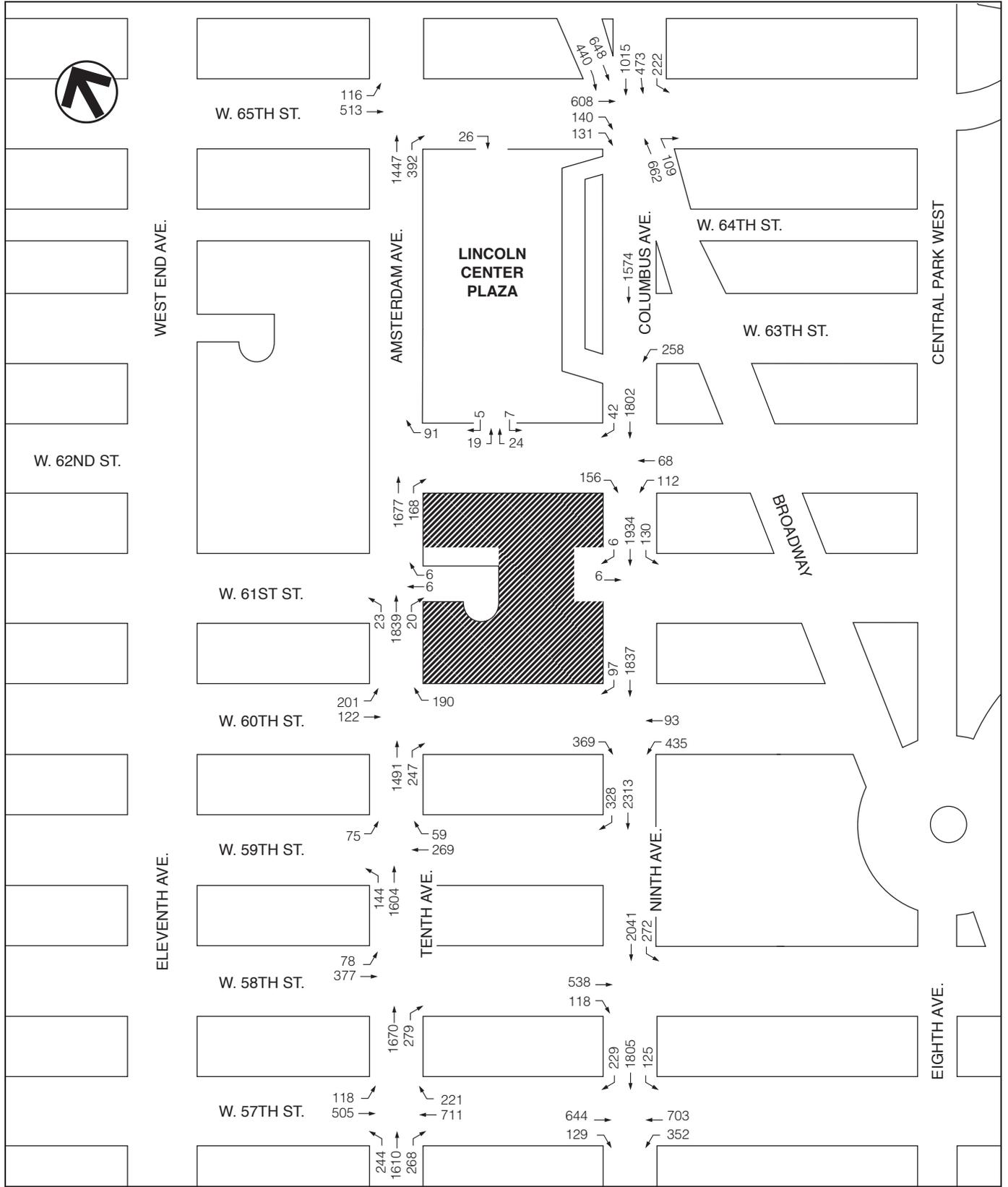
THE FUTURE WITHOUT THE PROPOSED ACTION—2032

Using the same methodology employed for the 2014 No Build analysis, traffic and parking conditions in 2032 without the proposed action, which do not account for completed project development under the 2014 Build condition, were analyzed to establish the future baseline condition, against which to evaluate the potential impacts associated with the full build-out of the proposed campus expansion.

TRAFFIC

Future 2032 No Build peak hour traffic levels were estimated by first applying a background growth of 0.50 percent per year, for a total of 12.5 percent by 2032. Trips associated with the No Build projects described for the “Future without the Proposed Action—2014,” as well as projected traffic from Sites 15 and 16 of the Hudson Yards Rezoning, were then superimposed onto these baseline volumes to arrive at the future 2032 No Build peak hour traffic networks.

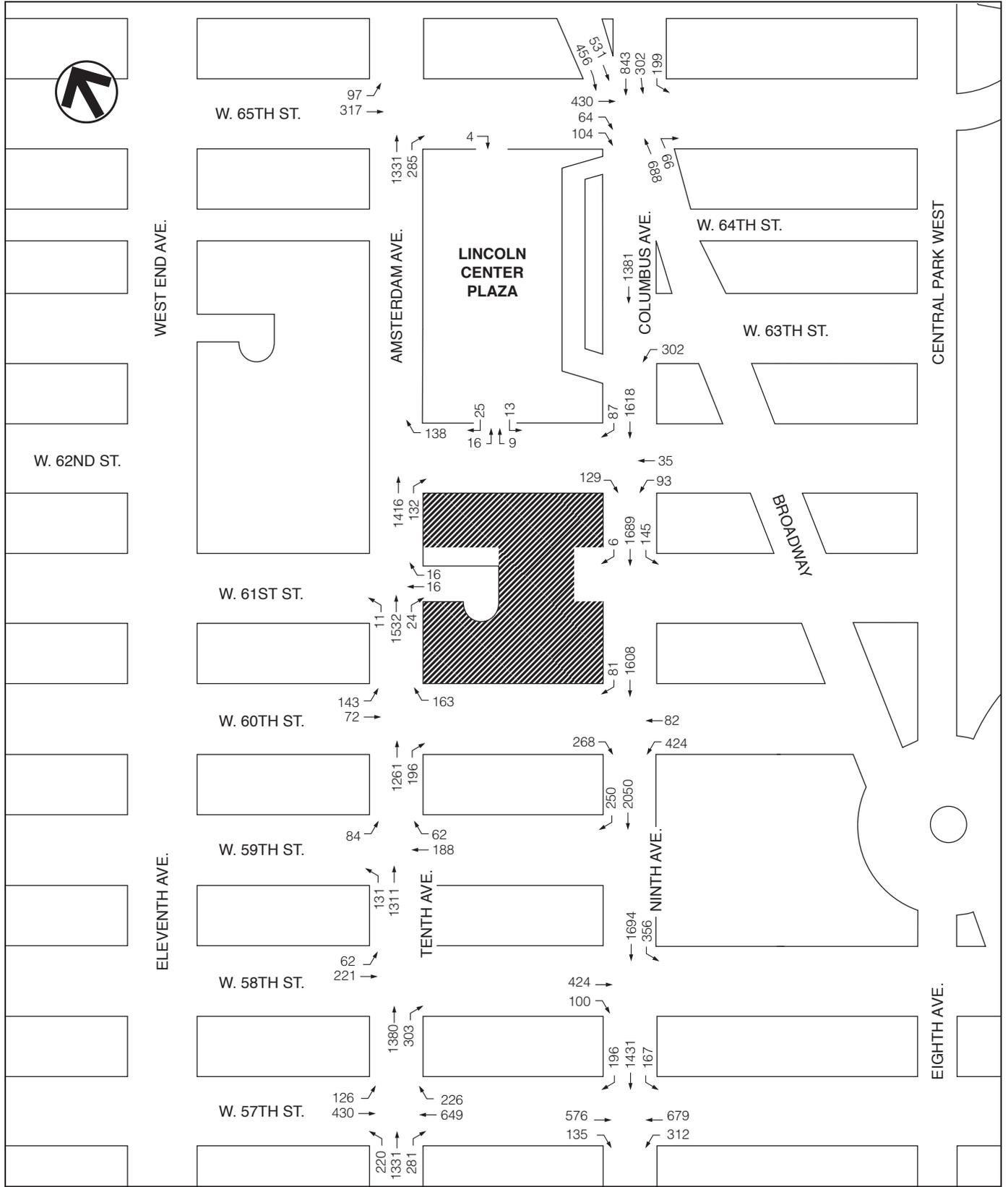
Figures 15-20 through 15-23 present the future 2032 No Build traffic volumes for the AM, midday, PM, and pre-theater peak analysis hours.



NOT TO SCALE

Project Site

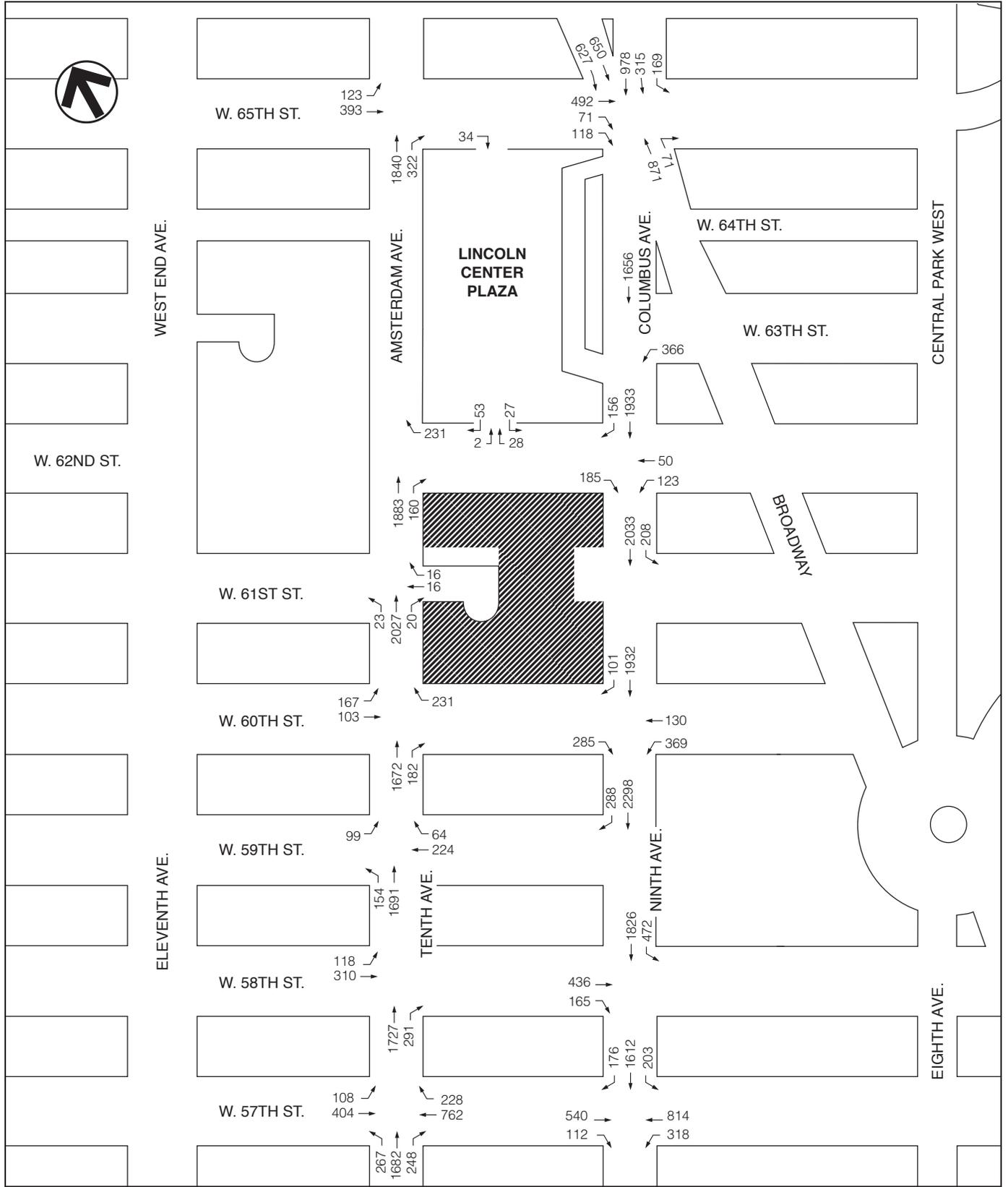
Figure 15-20
2032 No Build Traffic Volumes
AM Peak Hour



 Project Site

NOT TO SCALE

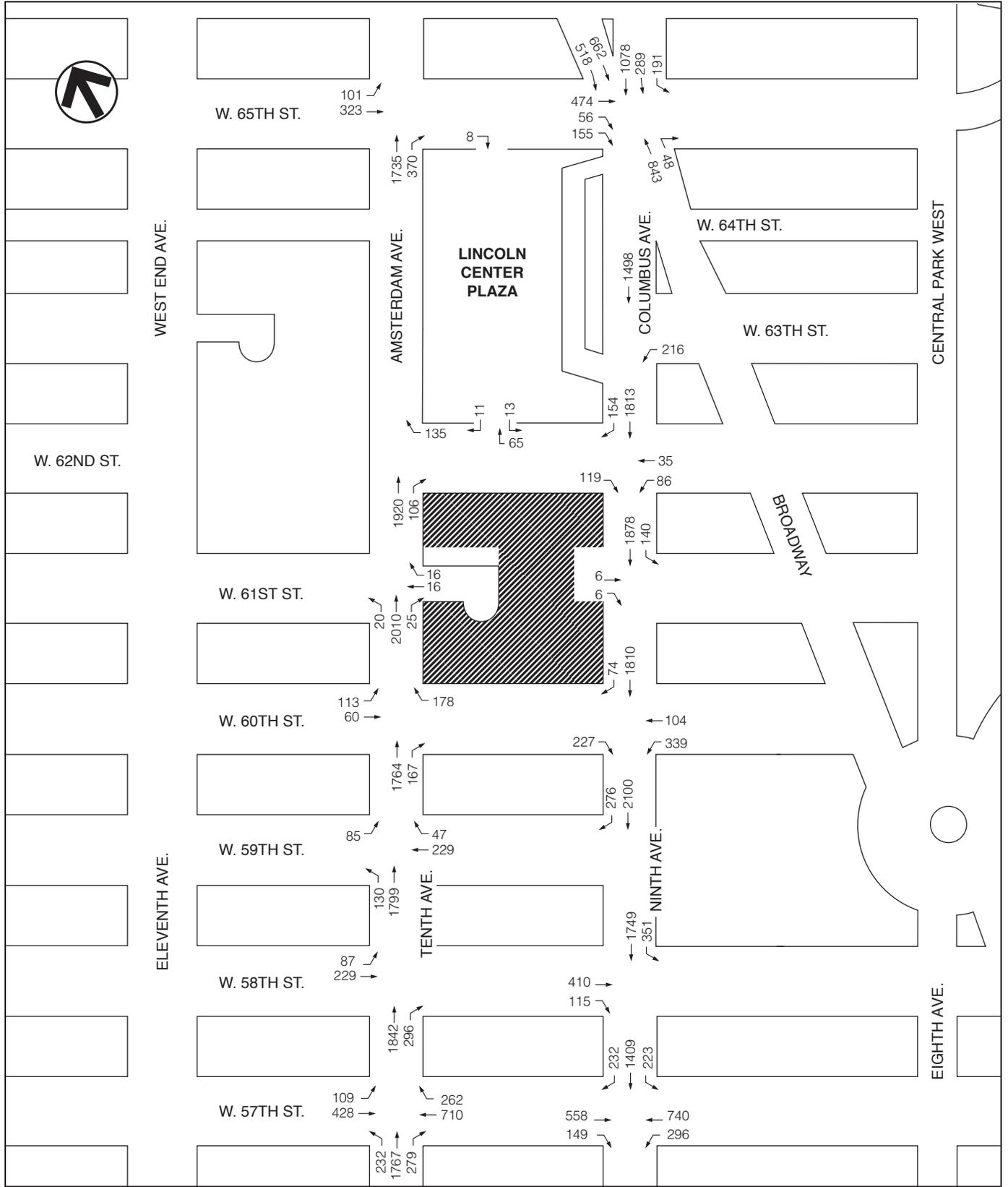
Figure 15-21
2032 No Build Traffic Volumes
Midday Peak Hour



NOT TO SCALE

 Project Site

Figure 15-22
 2032 No Build Traffic Volumes
 PM Peak Hour



Project Site

NOT TO SCALE

Figure 15-23
2032 No Build Traffic Volumes
Pre-Theater Peak Hour

LEVEL OF SERVICE

Table 15-22 presents a comparison of the existing and 2032 No Build service conditions for the study area intersections. The following are the notable changes in LOS at the analyzed intersections:

AM PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from LOS E with a delay of 75.5 spv and a v/c ratio of 1.05 to LOS F with a delay of 162.3 spv and a v/c ratio of 1.28. The westbound approach would deteriorate from LOS D with a delay of 35.4 spv and a v/c ratio of 0.88 to LOS E with a delay of 62.5 spv and a v/c ratio of 1.03.
- *Amsterdam Avenue and West 59th Street:* The eastbound approach would deteriorate from LOS C with a delay of 29.4 spv and a v/c ratio of 0.39 to LOS D with a delay of 47.9 and a v/c ratio of 0.67.
- *Amsterdam Avenue and West 60th Street:* The eastbound approach would deteriorate from LOS C with a delay of 22.6 spv and a v/c ratio of 0.25 to LOS F with a delay of 93.5 spv and a v/c ratio of 1.06. The westbound right-turn movement, closed under existing conditions would operate at LOS E with 56.4 spv of delay and a v/c ratio of 0.88.
- *Ninth Avenue and West 57th Street:* The eastbound through movement would deteriorate from LOS E with a delay of 56.0 spv and a v/c ratio of 0.93 to LOS F with a delay of 90.8 spv and a v/c ratio of 1.07. The eastbound right-turn movement would deteriorate from LOS E with a delay of 58.9 spv and a v/c ratio of 0.74 to LOS F with a delay of 84.1 spv and a v/c ratio of 0.90. The westbound de-facto left-turn movement would deteriorate within LOS F from a delay of 86.2 spv and a v/c ratio of 1.05 to a delay of 102.6 spv and a v/c ratio of 1.10. The westbound through movement would deteriorate from LOS E with a delay of 74.9 and a v/c ratio of 1.05 to LOS F with a delay of 156.9 spv and a v/c ratio of 1.27. The southbound through-right movement would deteriorate within LOS E from a delay of 65.4 and a v/c ratio of 1.05 to a through movement operating with a delay of 74.0 spv and a v/c ratio of 1.07 and a right-turn movement operating with a delay of 75.2 spv and a v/c ratio of 0.96.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate within LOS F from a delay of 84.5 spv and a v/c ratio of 1.05 to a delay of 139.4 spv and a v/c ratio of 1.20.
- *Ninth Avenue and West 59th Street:* The southbound approach would deteriorate from LOS B with a delay of 19.4 spv and a v/c ratio of 0.92 to LOS D with a delay of 52.2 spv and a v/c ratio of 1.07.
- *Columbus Avenue and West 60th Street:* The eastbound approach would deteriorate within LOS F from a delay of 107.2 spv and a v/c ratio of 1.05 to a delay of 216.2 spv and a v/c ratio of 1.37. The westbound left-turn movement would deteriorate from LOS F with a delay of 92.2 and a v/c ratio of 1.05 to a left-turn movement operating at LOS D with a delay of 50.4 spv and a v/c ratio of 0.84 and a left-through movement operating at LOS D with a delay of 50.1 spv and a v/c ratio of 0.86.

Table 15-22

Comparison of 2007 Existing and 2032 No Build Conditions Level of Service Analysis

Int./ App.	AM Peak								Midday Peak								PM Peak								Pre-Theater Peak										
	2007 Existing				2032 No Build				2007 Existing				2032 No Build				2007 Existing				2032 No Build				2007 Existing				2032 No Build						
	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly	LOS	Ln	V/C	Dly
Tenth Avenue and West 57th Street																																			
EB	LT	1.05	75.5	E	LT	1.28	162.3	F	LT	1.00	66.7	E	DefL	1.67	373.4	F	LT	0.76	33.3	C	DefL	1.44	281.1	F	LT	0.88	43.3	D	DefL	1.46	291.7	F			
													T	1.11	101.6	F					T	0.90	47.8	D					T	0.99	67.1	E			
WB	TR	0.88	35.4	D	TR	1.03	62.5	E	TR	0.87	37.0	D	TR	1.04	70.0	E	TR	0.91	40.4	D	TR	1.07	75.6	E	TR	0.99	54.6	D	TR	1.16	111.0	F			
NB	LT	0.77	18.9	B	LT	0.97	35.3	D	LTR	0.75	16.1	B	LTR	0.89	21.6	C	L	0.46	17.6	B	L	0.58	21.4	C	LTR	0.86	19.4	B	LTR	1.01	38.5	D			
	R	0.59	20.3	C	R	0.73	28.5	C									TR	0.70	14.9	B	TR	0.85	19.7	B											
INT.			34.1	C			65.8	E				31.0	C			62.2	E				24.2	C			45.2	D			32.2	C			68.3	E	
Tenth Avenue and West 58th Street																																			
EB	LT	0.56	27.5	C	LT	0.66	30.0	C	LT	0.30	23.2	C	LT	0.41	24.9	C	LT	0.41	24.7	C	LT	0.58	27.8	C	LT	0.38	24.3	C	LT	0.54	27.0	C			
NB	T	0.50	8.9	A	T	0.60	9.9	A	TR	0.63	10.4	B	TR	0.74	12.2	B	TR	0.69	11.2	B	TR	0.82	14.0	B	TR	0.73	11.8	B	TR	0.85	15.1	B			
	R	0.53	16.8	B	R	0.60	19.1	B																											
INT.			13.7	B			15.1	B			12.0	B			14.1	B			13.1	B			16.4	B			13.4	B			16.9	B			
Amsterdam Avenue and West 59th Street																																			
EB	L	0.39	29.4	C	L	0.67	47.9	D	L	0.37	28.1	C	L	0.54	35.1	D	L	0.47	31.6	C	L	0.70	47.6	D	L	0.63	40.2	D	L	0.94	87.2	F			
WB	T	0.54	28.4	C	T	0.67	33.1	C	T	0.41	25.1	C	T	0.49	26.3	C	T	0.42	25.4	C	T	0.54	28.2	C	T	0.47	26.4	C	T	0.61	30.5	C			
	R	0.58	33.2	C	R	0.25	23.5	C	R	0.65	36.3	D	R	0.27	23.1	C	R	0.65	35.9	D	R	0.24	23.1	C	R	0.53	30.5	C	R	0.20	22.3	C			
NB	LT	0.62	11.0	B	LT	0.74	13.0	B	LT	0.56	10.2	B	LT	0.68	12.5	B	L	0.33	13.6	B	L	0.41	15.1	B	LT	0.68	11.7	B	LT	0.80	14.0	B			
																	T	0.56	10.1	B	T	0.67	11.4	B											
INT.			15.3	B			17.4	B			15.0	B			15.5	B			14.7	B			15.3	B			15.6	B			20.0-	B			
Amsterdam Avenue and West 60th Street																																			
EB	LT	0.25	22.6	C	LT	1.06	93.5	F	LT	0.21	22.1	C	LT	0.85	48.5	D	LT	0.22	22.0	C	LT	0.77	39.1	D	LT	0.19	21.7	C	LT	0.60	30.9	C			
WB					R	0.88	56.4	E					R	0.72	39.0	D					R	0.72	37.8	D					R	0.69	36.4	D			
NB	T	0.51	9.6	A	T	0.57	10.3	B	TR	0.57	10.3	B	TR	0.64	11.1	B	TR	0.65	11.2	B	TR	0.73	12.4	B	TR	0.70	12.0	B	TR	0.79	13.7	B			
	R	0.49	16.6	B	R	0.57	19.0	B																											
INT.			11.3	B			30.1	C			11.0	B			19.7	B			11.8	B			18.3	B			12.4	B			17.4	B			
Amsterdam Avenue and West 61st Street																																			
EB	LT	0.64	35.0	C					LT	0.32	25.0	C					LT	0.42	26.6	C					LT	0.31	24.3	C							
WB	R	0.03	20.4	C	TR	0.04	20.4	C	R	0.09	21.3	C	TR	0.10	21.2	C	R	0.07	20.9	C	TR	0.09	21.0	C	R	0.09	21.3	C	TR	0.11	21.3	C			
NB	T	0.51	9.0	A	LT	0.71	11.5	B	TR	0.48	8.8	A	LTR	0.66	10.7	B	TR	0.54	9.2	A	L	0.05	9.4	A	TR	0.59	9.8	A	LTR	0.77	12.4	B			
	R	0.02	9.0	A	R	0.04	9.2	A													TR	0.73	11.6	B											
INT.			12.4	B			11.5	B			10.1	B			10.9	B			11.0	B			11.7	B			10.9	B			12.6	B			
Amsterdam Avenue and West 62nd Street																																			
WB	R	0.43	27.6	C	R	0.35	25.8	C	R	0.60	33.1	C	R	0.56	31.3	C	R	0.76	39.9	D	R	0.66	34.4	C	R	0.84	47.0	D	R	0.55	30.1	C			
NB	T	0.54	9.3	A	T	0.66	10.7	B	TR	0.51	9.1	A	TR	0.65	10.6	B	TR	0.60	9.9	A	TR	0.74	12.0	B	TR	0.67	10.8	B	TR	0.82	13.6	B			
	R	0.26	11.6	B	R	0.34	12.7	B																											
INT.			10.9	B			11.7	B			12.2	B			12.6	B			14.3	B			14.4	B			16.0	B			15.0	B			
Amsterdam Avenue and West 65th Street																																			
EB	LT	0.56	25.2	C	LT	0.74	30.1	C	LT	0.40	22.5	C	LT	0.55	25.1	C	LT	0.44	23.0	C	LT	0.62	26.4	C	LT	0.40	22.4	C	LT	0.56	25.0	C			
NB	T	0.50	10.9	B	T	0.60	12.0	B	TR	0.66	13.0	B	TR	0.79	15.5	B	TR	0.75	14.5	B	TR	0.87	18.3	B	TR	0.79	15.5	B	TR	0.90	19.9	B			
	R	0.75	27.5	C	R	0.86	36.4	D																											
INT.			17.0	B			20.5	C			14.7	B			17.5	B			16.0	B			20.0-	B			16.6	B			20.8	C			
Ninth Avenue and West 57th Street																																			
EB	T	0.93	56.0	E	T	1.07	90.8	F	T	0.73	37.8	D	T	0.87	46.9	D	T	0.73	38.8	D	T	0.89	50.4	D	T	0.74	39.5	D	T	0.89	50.4	D			
	R	0.74	58.9	E	R	0.90	84.1	F	R	0.69	52.2	D	R	0.85	71.3	E	R	0.60	46.4	D	R	0.75	58.6	E	R	0.81	66.3	E	R	0.96	95.8	F			
WB	DefL	1.05	86.2	F	DefL	1.10	102.6	F	DefL	0.95	55.8	E	DefL	1.17	125.4	F	DefL	0.85	39.2	D	DefL	1.00	70.8	E	DefL	0.77	31.9	C	DefL	0.94	57.6	E			
	T	1.05	74.9	E	T	1.27	156.9	F	T	1.05	74.7	E	T	1.27	155.9	F	T	1.05	73.3	E	T	1.25	147.6	F	T	1.05	74.8	E	T	1.24	144.3	F			
SB	L	0.24	21.6	C	L	0.42	27.3	C	LTR	1.05	67.2	E	LTR	1.30	166.8	F	L	0.50	27.4	C	L	0.68	35.9	D	LTR	1.00	50.5	D	LTR	1.20	124.2	F			
	TR	1.05	65.4	E	TR	1.07	74.0	E									T	0.73	26.9	C	T	0.92	36.5	D											
					R	0.96	75.2	E								R	0.55	29.8	C	R	0.67	36.6	D												
INT.			66.3	E			93.5	F			62.4	E			138.4	F			40.1	D			65.2	E			52.9	D			110.3	F			
Ninth Avenue and West 58th Street																																			
EB	T	1.05	84.5	F	T	1.20	139.4	F	T	0.89	51.4	D	T	1.07	91.5	F	T	0.76	37.0	D	T	0.93	56.0	E	T	0.82	41.3	D	T	1.00	70.7	E			
	R	0.39	26.9	C	R	0.51	30.8	C	R	0.27	24.0	C	R	0.44	28.6	C	R	0.35	25.5	C	R	0.61	34.0	C	R	0.27	23.8	C	R	0.48	29.1	C			
SB	L	0.58	19.2	B	LT	0.98	27.0	C	LT	0.81	14.7	B	LT	0.96	25.2	C	L	1.05	78.8	E	LT	1.01	34.2	C	LT	0.75	13.2	B	LT	0.88	17.2	B			
	T	0.64	11.1	B												T	0.57	10.2	B																
INT.			26.5	C			47.7	D			21.0	C			36.0	D			26.5	C			37.3	D			18.								

Table 15-22 (cont'd)

Comparison of 2007 Existing and 2032 No Build Conditions Level of Service Analysis

Int./ App.	AM Peak								Midday Peak								PM Peak								Pre-Theater Peak								
	2007 Existing				2032 No Build				2007 Existing				2032 No Build				2007 Existing				2032 No Build				2007 Existing				2032 No Build				
	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	Ln	Dly	LOS	Grp	
Ninth Avenue and West 59th Street																																	
SB	TR	0.90	18.5	B	TR	1.07	52.2	D	TR	0.85	15.8	B	TR	0.97	25.3	C	T	0.71	11.9	B	T	0.87	16.2	B	TR	0.80	13.9	B	TR	0.90	17.7	B	
INT.			18.5	B			52.2	D			15.8	B			25.3	C				12.6	B			15.9	B			13.9	B			17.7	B
Columbus Avenue and West 60th Street																																	
EB	R	1.05	107.2	F	R	1.37	216.2	F	R	1.05	112.0	F	R	1.11	118.0	F	R	1.05	110.8	F	R	1.05	95.6	F	R	0.96	88.5	F	R	0.85	51.9	D	
WB	L	1.05	92.2	F	L	0.84	50.4	D	L	1.05	94.0	F	L	0.78	43.3	D	L	1.04	91.7	F	L	0.71	38.4	D	L	0.89	59.8	E	L	0.62	33.6	C	
			LT	0.86	50.1	D					LT	0.81	44.1	D								LT	0.72	36.6	D			LT	0.60	31.2	C		
SB	TR	0.81	25.0	C	TR	0.76	12.4	B	TR	0.76	23.6	C	TR	0.68	11.1	B	TR	0.88	28.1	C	TR	0.79	12.9	B	TR	0.79	24.2	C	TR	0.69	11.1	B	
INT.			47.0	D			46.3	D			48.4	D			30.8	C				46.3	D			25.7	C			35.7	D			18.6	B
Columbus Avenue and West 61st Street																																	
EB	TR	0.04	20.4	C	TR	0.05	20.5	C	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.06	20.7	C	TR	0.08	20.9	C	
SB	L	0.19	10.7	B	LTR	0.78	12.6	B	LTR	0.57	9.6	A	LTR	0.70	11.3	B	LTR	0.70	11.2	B	LTR	0.85	14.5	B	LTR	0.60	9.9	A	LTR	0.72	11.5	B	
INT.			TR	0.56	9.4	A					9.6	A			11.3	B						14.5	B			10.0	B			11.7	B		
Columbus Avenue and West 62nd Street																																	
EB	R	0.35	24.8	C	R	0.48	27.4	C	R	0.28	23.6	C	R	0.37	25.3	C	R	0.49	28.4	C	R	0.67	35.0	C	R	0.28	23.9	C	R	0.41	26.6	C	
WB	LT	0.43	26.3	C	LT	0.47	27.3	C	LT	0.32	24.2	C	LT	0.36	24.9	C	LT	0.44	26.9	C	LT	0.47	27.6	C	LT	0.39	25.9	C	LT	0.40	26.3	C	
SB	TR	0.65	10.4	B	TR	0.80	13.1	B	TR	0.74	11.9	B	TR	0.87	15.7	B	TR	0.68	10.8	B	TR	0.81	13.4	B	TR	0.70	11.1	B	TR	0.86	15.0	B	
INT.			12.8	B			15.3	B			13.4	B			16.9	B				13.4	B			16.2	B			12.6	B			16.2	B
Columbus Avenue and West 63rd Street																																	
WB	L	0.30	23.1	C	L	0.37	24.0	C	L	0.32	23.4	C	L	0.41	24.6	C	L	0.57	28.2	C	L	0.68	31.4	C	L	0.31	23.6	C	L	0.39	24.7	C	
SB	T	0.48	8.7	A	T	0.59	9.8	A	T	0.46	8.6	A	T	0.54	9.3	A	T	0.50	8.8	A	T	0.59	9.6	A	T	0.51	8.9	A	T	0.59	9.7	A	
INT.			10.9	B			12.0	B			11.2	B			12.2	B				12.5	B			13.9	B			10.6	B			11.5	B
Broadway, Columbus Avenue* and West 65th Street																																	
EB	TR	0.74	37.3	D	TR	0.92	52.5	D	TR	0.48	30.6	C	TR	0.63	34.5	C	TR	0.64	33.9	C	TR	0.83	43.0	D	TR	0.66	34.6	C	TR	0.84	44.2	D	
			R	0.62	39.3	D					R	0.58	38.6	D								R	0.62	42.8	D			R	0.52	36.9	D		
NB	TR	0.84	42.1	D	TR	0.94	51.8	D	TR	0.77	37.6	D	TR	0.89	44.4	D	TR	0.92	49.1	D	TR	1.04	74.0	E	TR	0.91	47.2	D	TR	1.01	65.3	E	
SB	T	1.00	62.7	E	T	1.13	103.6	F	T	0.94	50.7	D	T	1.08	86.8	F	T	1.05	75.5	E	T	1.17	119.8	F	T	1.05	76.2	E	T	1.17	119.0	F	
SB*	L	0.74	45.4	D	L	0.83	54.1	D	L	0.66	40.0	D	L	0.76	46.8	D	L	0.53	33.6	C	L	0.62	36.7	D	L	0.65	38.5	D	L	0.72	42.7	D	
INT.			T	0.84	35.5	D					T	0.68	30.7	C								T	0.88	37.4	D			T	1.22	138.7	F		
			44.3	D			64.5	E			38.0	D			51.1	D						49.1	D			61.1	E			98.8	F		

Notes: L = Left Turn, T = Through, R = Right Turn, Defl. = Defacto Left Turn; LOS = Level of Service
 * = SB Columbus Avenue approach at Broadway/Columbus and West 65th Street (SB approach without notation is Broadway)

- Columbus Avenue/Broadway and West 65th Street:* The eastbound through-right movement would deteriorate within LOS D from a delay of 37.3 spv and a v/c ratio of 0.74 to a delay of 52.5 spv and a v/c ratio of 0.92. The eastbound right-turn movement would deteriorate from LOS D with a delay of 39.3 spv and a v/c ratio of 0.62 to LOS E with a delay of 64.1 spv and a v/c ratio of 0.88. Along Broadway, the northbound approach would deteriorate within LOS D from a delay of 42.1 spv and a v/c ratio of 0.84 to a delay of 51.8 spv and a v/c ratio of 0.94. Along Broadway, the southbound approach would deteriorate from LOS E with a delay of 62.7 spv and a v/c ratio of 1.00 to LOS F with a delay of 103.6 spv and a v/c ratio of 1.13. Along Columbus Avenue, the southbound left-turn movement would deteriorate within LOS D with a delay of 45.4 spv and a v/c ratio of 0.73 to a delay of 54.1 spv and a v/c ratio of 0.83. The southbound through movement would deteriorate within LOS D from a delay of 35.5 spv and a v/c ratio of 0.84 to a delay of 49.3 spv and a v/c ratio of 0.98.

MIDDAY PEAK HOUR

- Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from a left-through movement operating at LOS E, with a delay of 66.7 spv and a v/c ratio of 1.00 to a de-facto left-turn operating at LOS F with a delay of 373.4 spv and a v/c ratio of 1.67, and a through movement operating at LOS F with a delay of 101.6 spv and a v/c ratio of 1.11. The westbound approach would deteriorate from LOS D with a delay of 37.0 spv and a v/c ratio of 0.87 to LOS E with a delay of 70.7 spv and a v/c ratio of 1.04.

- *Amsterdam Avenue and West 60th Street:* The eastbound approach would deteriorate from LOS C with a delay of 22.1 spv and a v/c ratio of 0.21 to LOS D with a delay of 48.5 spv and a v/c ratio of 0.85.
- *Ninth Avenue and West 57th Street:* The eastbound through movement would deteriorate within LOS D from a delay of 37.8 spv and a v/c ratio of 0.73 to a delay of 46.9 spv and a v/c ratio of 0.87. The eastbound right-turn movement would deteriorate from LOS D with a delay of 52.2 spv and a v/c ratio of 0.69 to LOS F with a delay of 71.3 spv and a v/c ratio of 0.85. The westbound de-facto left-turn movement would deteriorate from LOS E with a delay of 55.8 spv and a v/c ratio of 0.95 to LOS F with a delay of 125.4 spv and a v/c ratio of 1.17. The westbound through movement would deteriorate from LOS E with a delay of 74.7 spv and a v/c ratio of 1.05 to LOS F with a delay of 155.9 spv and a v/c ratio of 1.27. The southbound approach would deteriorate from LOS E with a delay of 67.2 spv and a v/c ratio of 1.05 to LOS F with a delay of 166.8 spv and a v/c ratio of 1.30.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate from LOS D with a delay of 51.4 spv and a v/c ratio of 0.89 to LOS F with a delay of 91.5 spv and a v/c ratio of 1.07.
- *Columbus Avenue and West 60th Street:* The eastbound approach would deteriorate within LOS F from a delay of 112.0 spv and a v/c ratio of 1.05 to a delay of 118.0 spv and a v/c ratio of 1.11.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the southbound approach would deteriorate from LOS D with a delay of 50.7 spv and a v/c ratio of 0.94 to LOS F with a delay of 86.8 spv and a v/c ratio of 1.08. Along Columbus Avenue, the southbound left-turn movement would deteriorate within LOS D from a delay of 40.0 spv and a v/c ratio of 0.66 to a delay of 46.8 spv and a v/c ratio of 0.76.

PM PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from a left-through movement operating at LOS C, with a delay of 33.3 spv and a v/c ratio of 0.76 to a de-facto left-turn operating at LOS F with a delay of 281.8 spv and a v/c ratio of 1.44, and a through movement operating at LOS D with a delay of 47.8 spv and a v/c ratio of 0.90. The westbound approach would deteriorate from LOS D with a delay of 40.4 spv and a v/c ratio of 0.91 to LOS E with a delay of 75.6 spv and a v/c ratio of 1.07.
- *Amsterdam Avenue and West 59th Street:* The eastbound approach would deteriorate from LOS C with a delay of 31.6 spv and a v/c ratio of 0.47 to LOS D with a delay of 47.6 and a v/c ratio of 0.70.
- *Ninth Avenue and West 57th Street:* The eastbound through movement would deteriorate within LOS D from a delay of 38.8 spv and a v/c ratio of 0.73 to a delay of 50.4 spv and a v/c ratio of 0.89. The eastbound right-turn movement would deteriorate from LOS D with a delay of 46.4 spv and a v/c ratio of 0.60 to LOS E with a delay of 58.6 spv and a v/c ratio of 0.75. The westbound de-facto left-turn movement would deteriorate from LOS D with a delay of 39.2 spv and a v/c ratio of 0.85 to LOS E with a delay of 70.8 spv and a v/c ratio of 1.00. The westbound through movement would deteriorate from LOS E with a delay of 73.3 spv and a v/c ratio of 1.05 to LOS F with a delay of 147.6 spv and a v/c ratio of 1.25.
- *Ninth Avenue and West 58th Street:* The eastbound through movement would deteriorate within LOS D from a delay of 37.0 spv and a v/c ratio of 0.76 to a delay of 56.0 spv and a v/c ratio of 0.93.

- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the northbound approach would deteriorate from LOS D with a delay of 49.1 spv and a v/c ratio of 0.92 to LOS E with a delay of 74.0 spv and a v/c ratio of 1.04, while the southbound approach would deteriorate from LOS E with a delay of 75.5 spv and a v/c ratio of 1.05 to LOS F with a delay of 119.8 spv and a v/c ratio of 1.17.

PRE-THEATER PEAK HOUR

- *Tenth Avenue and West 57th Street:* The eastbound approach would deteriorate from a left-through movement operating at LOS D, with a delay of 43.3 spv and a v/c ratio of 0.88 to a de-facto left-turn operating at LOS F with a delay of 291.7 spv and a v/c ratio of 1.46, and a through movement operating at LOS E with a delay of 67.1 spv and a v/c ratio of 0.99. The westbound approach would deteriorate from LOS D with a delay of 54.6 spv and a v/c ratio of 0.99 to LOS F with a delay of 111.0 spv and a v/c ratio of 1.16.
- *Amsterdam Avenue and West 59th Street:* The eastbound left-turn movement would deteriorate from LOS D with a delay of 40.2 spv and a v/c ratio of 0.63 to LOS F with a delay of 87.2 spv and a v/c ratio of 0.94.
- *Ninth Avenue and West 57th Street:* The eastbound through movement would deteriorate within LOS D from a delay of 39.5 spv and a v/c ratio of 0.74 to a delay of 50.4 spv and a v/c ratio of 0.89. The eastbound right-turn movement would deteriorate from LOS E with a delay of 66.3 spv and a v/c ratio of 0.81 to LOS F with a delay of 95.8 spv and a v/c ratio of 0.96. The westbound de-facto left turn movement would deteriorate from LOS C with a delay of 31.9 spv and a v/c ratio of 0.77 to LOS E with a delay of 57.6 spv and a v/c ratio of 0.94. The westbound through movement would deteriorate from LOS E with a delay of 74.8 spv and a v/c ratio of 1.05 to LOS F with a delay of 144.3 spv and a v/c ratio of 1.24. The southbound approach would deteriorate from LOS D with a delay of 50.5 spv and a v/c ratio of 1.00 to LOS F with a delay of 124.2 spv and a v/c ratio of 1.20.
- *Ninth Avenue and West 58th Street:* The eastbound approach would deteriorate from LOS D with a delay of 41.3 spv and a v/c ratio of 0.82 to LOS E with a delay of 70.7 spv and a v/c ratio of 1.00.
- *Columbus Avenue/Broadway and West 65th Street:* Along Broadway, the northbound approach would deteriorate from LOS D with a delay of 47.2 spv and a v/c ratio of 0.91 to LOS E with a delay of 65.3 spv and a v/c ratio of 1.01, while the southbound approach would deteriorate from LOS E with a delay of 76.2 spv and a v/c ratio of 1.05 to LOS F with a delay of 119.0 spv and a v/c ratio of 1.17. Along Columbus Avenue, the southbound through movement would deteriorate from LOS E with a delay of 72.6 spv and a v/c ratio of 1.05 to LOS F with a delay of 138.7 spv and a v/c ratio of 1.22.

PARKING SUPPLY AND UTILIZATION

The utilization of off-street parking facilities in the study area would increase as a result of the area's background growth in traffic (12.5 percent over existing by 2032). As described for the 2014 No Build analysis and summarized in Table 15-23, the overall parking capacity in the area would decrease to 7,329 spaces. The corresponding peak period utilization rates would increase to approximately 45, 91, 67, and 42 percent (with 4,022, 677, 2,429, and 4,258 available spaces) during the AM, midday, pre-theater, and overnight hours, respectively.

**Table 15-23
2032 No Build Condition Off-Street Parking Utilization**

Company Name	Address	License No.	Capacity	Utilization Rate (%)				Utilized Spaces				Available Spaces			
				AM	MD	P/T	O/N	AM	MD	P/T	O/N	AM	MD	P/T	O/N
1 165 W.66th St Parking Corp.	165 W.66th St	368337	77	22	57	84	32	17	44	65	25	60	33	12	52
2 Icon Parking	101 West End Ave	1061198	166	28	96	34	34	47	159	56	56	119	7	110	110
3 Performance Parking Corp.	127-137 Amsterdam	858712	375	67	90	79	57	253	338	296	212	122	37	79	163
4 Icon Parking	2 Lincoln Plaza	1127924	80	90	96	90	90	72	77	72	72	8	3	8	8
5 10 W.65th St Parking Corp.	10 W.65th St	883451	195	51	90	90	56	99	176	176	110	96	19	19	85
6 Lincoln Center Park & Lock	140 W.65th St	1079021	721	29	81	60	31	210	584	430	227	511	137	291	494
7 Icon Parking	110 West End Ave	761016	106	44	100	78	44	47	106	83	47	59	0	23	59
8 West End Towers Garage	35-101 West End Ave	948832	441	44	91	64	20	196	403	284	90	245	38	157	351
9 Edison Parking Management	1900-1916 Broadway	1213869	400	28	90	56	28	113	360	225	113	287	40	175	287
10 Edison Parking Management	1886-1896 Broadway	1200481	75	35	100	73	28	26	75	55	21	49	0	20	54
11 Garage Management Corp.	44 W.62nd St	1013719	143	50	90	50	31	72	128	72	45	71	15	71	98
12 Eagle Trump International	1 Central Park West	1125528	88	33	95	73	23	29	84	64	20	59	4	24	68
13 Prior Parking LLC	40-50 W.61st St	1033066	205	34	100	74	34	70	205	152	70	135	0	53	135
14 Central Parking System	10 Columbus Circle	1105005	662	56	100	69	55	370	662	456	367	292	0	206	295
15 Central Parking System	910-924 9th Ave	1113135	318	89	99	100	83	283	314	318	264	35	4	0	54
16 John Jay College Parking	425 W.59th St	813398	125	17	79	45	17	21	99	56	21	104	26	69	104
17 LHL Parking Corp.	161 W.61st St	898520	100	56	96	90	32	56	96	90	32	44	4	10	68
18 Concerto Garage Corp.	200 W.60th St	884653	265	28	91	52	31	73	241	139	83	192	24	126	182
19 Propark America	515 W.59th St	1171649	190	28	74	53	21	53	141	101	40	137	49	89	150
20 Central Parking System	115 West End Ave	964023	Closed	--	--	--	--	--	--	--	--	--	--	--	--
21 Kinney Systems	838-852 11th Ave	1137953	84	98	93	92	43	82	78	77	36	2	6	7	48
22 Effective Parking LLC	435 W.57th St	368157	55	67	51	51	22	37	28	28	12	18	27	27	43
23 1 Columbus Place Garage	1 Columbus Place	960635	294	22	83	56	56	66	245	165	165	228	49	129	129
24 Icon Parking	330 W.58th St	1118641	95	74	100	67	57	70	95	64	54	25	0	31	41
25 Champion Parking	316-328 W.57th St	1093313	372	17	87	39	17	63	323	146	63	309	49	226	309
26 330 W.56th Street Corp.	330 W.56th St	1234691	115	23	94	51	31	26	108	59	36	89	7	56	79
27 Sydney Parking LLC	408 W.57th St	1113944	80	90	100	68	34	72	80	54	27	8	0	26	53
28 Epsilon Parking	409 W.56th St	1195834	20	55	100	30	Closed	11	20	6	-	9	-	14	-
29 Apex Parking LLC	440 W.57th St	368300	378	73	97	87	88	276	365	327	333	102	13	51	45
Element Condominium			190	46	93	73	38	87	177	138	72	103	13	52	118
Algin West 61st Street			160	46	94	72	37	73	151	115	59	87	9	45	101
15 Central Park West			162	35	80	56	30	57	130	91	49	105	32	71	113
Riverside South (Parcel N)			442	48	95	75	39	211	419	331	174	231	23	111	268
2 West End Avenue			150	46	94	73	37	69	141	109	56	81	9	41	94
Total			7,329	45	91	67	42	3,307	6,652	4,900	3,051	4,022	677	2,429	4,258

F. PROBABLE IMPACTS OF THE PROPOSED ACTION—2032

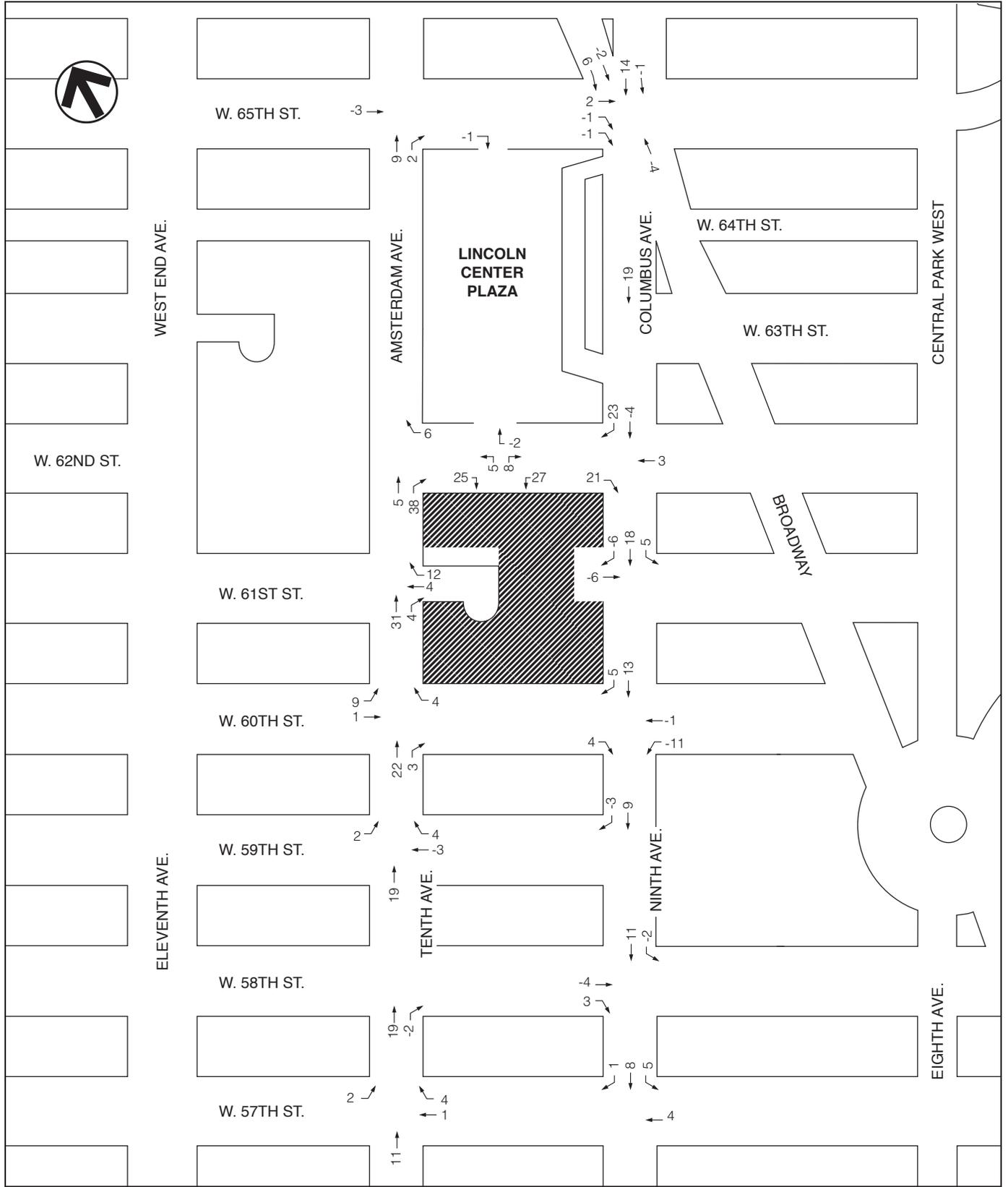
Under the proposed action, the full build-out of the proposed action would result in additional academic space and another dormitory building containing 755 new beds, for a total of 2,300 available beds within the campus. In this final phase of the proposed action, another 110 accessory parking spaces would also be constructed for University use. In total, the full build-out would include 470 new accessory spaces, 265 of which would be dedicated to accommodating Fordham University faculty, administrators, staff, and visitors.

TRIP GENERATION, DISTRIBUTION, AND ASSIGNMENT

Build conditions in 2032 would result in 427, 800, 1,143, and 717 new person-trips during the AM, midday, PM, and pre-theater peak hours, respectively. Including truck deliveries, the corresponding vehicle-trip increments are 50, 100, 130, and 81 vehicles. Using the same patterns established for the 2014 Build analysis, project-generated trips were distributed to various origins and destinations, and assigned to the traffic analysis network.

LEVEL OF SERVICE

Figures 15-24 through 15-27 present the full build-out project-generated traffic volumes for the AM, midday, PM, and pre-theater peak analysis hours, respectively. The 2032 Build AM, midday, PM, and pre-theater peak hour traffic volumes are shown in Figures 15-28 through 15-31.

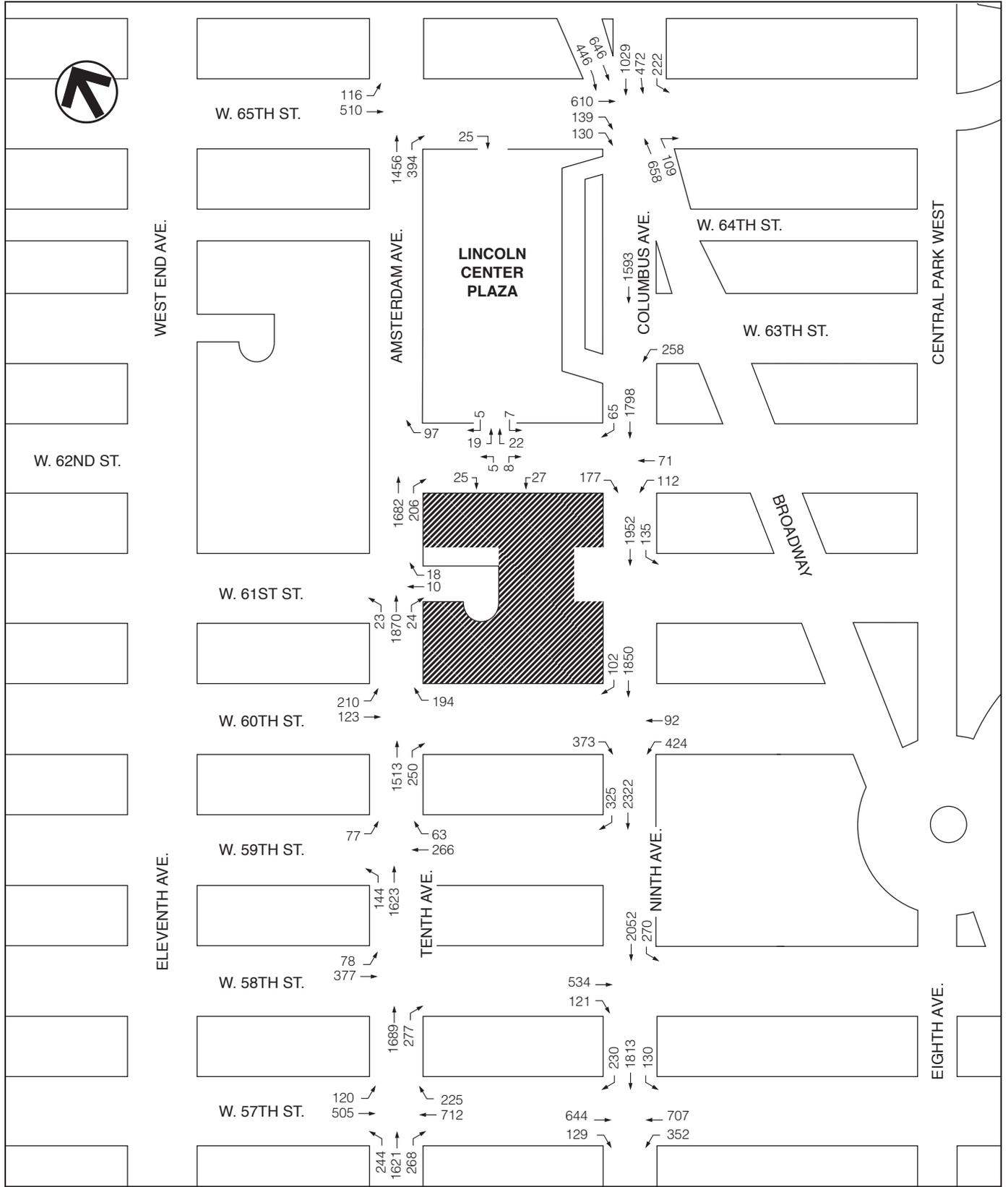


NOT TO SCALE

 Project Site

NOTE: Vehicle trips were assigned at available off- and on-street parking locations

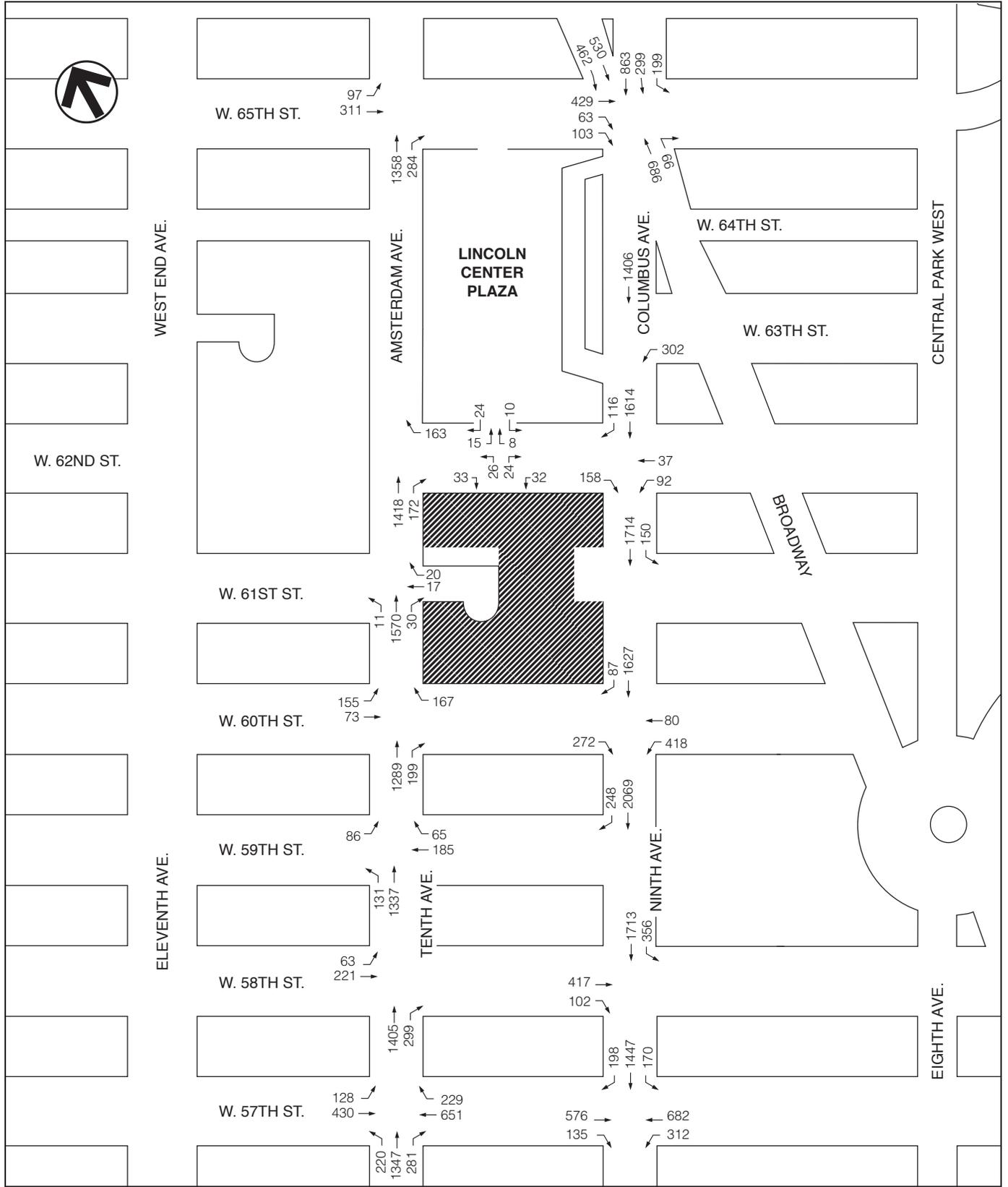
Figure 15-24
2032 Project Generated Traffic Volumes
AM Peak Hour



NOT TO SCALE

 Project Site

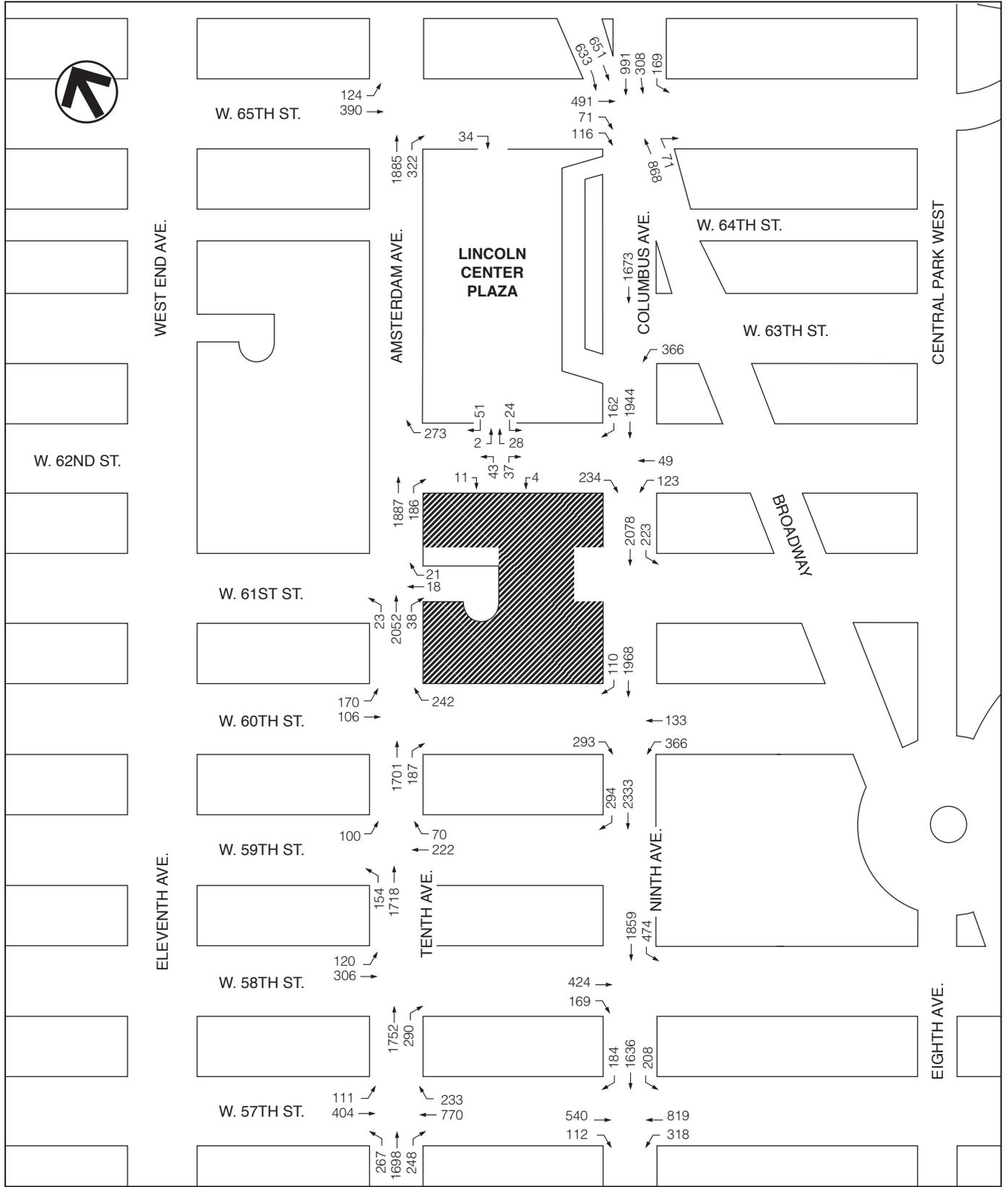
Figure 15-28
 2032 Build Traffic Volumes
 AM Peak Hour



NOT TO SCALE

Project Site

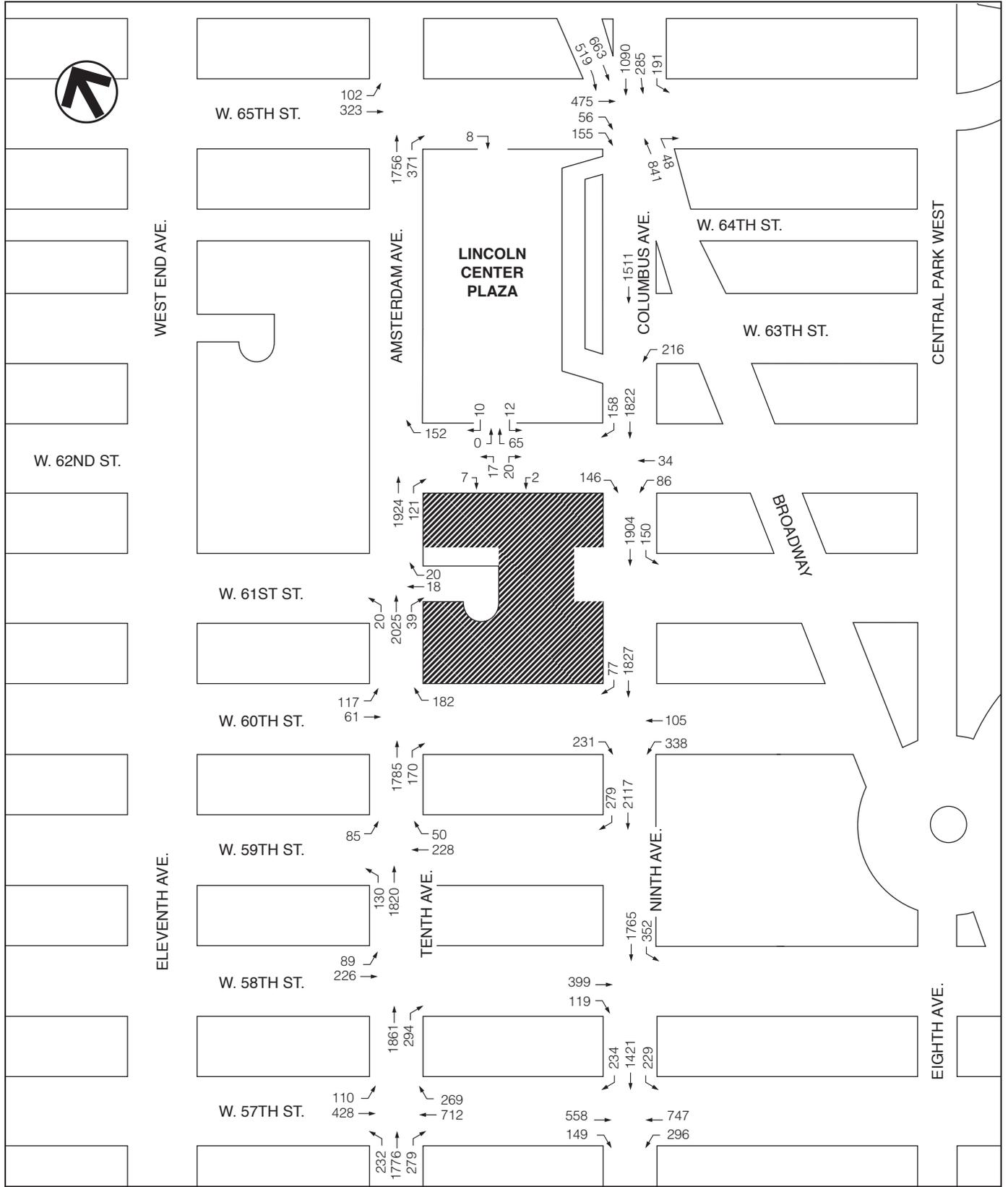
Figure 15-29
2032 Build Traffic Volumes
Midday Peak Hour



Project Site

NOT TO SCALE

Figure 15-30
2032 Build Traffic Volumes
PM Peak Hour



 Project Site

NOT TO SCALE

Figure 15-31
2032 Build Traffic Volumes
Pre-Theater Peak Hour

Table 15-24 (cont'd)
Comparison of 2032 No Build and Build Conditions Level of Service Analysis

Int./ App.	AM Peak						Midday Peak						PM Peak						Pre-Theater Peak													
	2032 No Build			2032 Build			2032 No Build			2032 Build			2032 No Build			2032 Build			2032 No Build			2032 Build										
	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS	Ln Grp	V/C	Dly (spv)	LOS								
Ninth Avenue and West 57th Street																																
EB	T	1.07	90.8	F	T	1.07	90.8	F	T	0.87	46.9	D	T	0.87	46.9	D	T	0.89	50.4	D	T	0.89	50.4	D	T	0.89	50.4	D				
	R	0.90	84.1	F	R	0.90	84.1	F	R	0.85	71.3	E	R	0.85	71.3	E	R	0.75	58.6	E	R	0.75	58.6	E	R	0.96	95.8	F	R	0.96	95.8	F
WB	DefL	1.10	102.6	F	DefL	1.10	102.6	F	DefL	1.17	125.4	F	DefL	1.17	125.4	F	DefL	1.00	70.8	E	DefL	1.00	70.8	E	DefL	0.94	57.6	E	DefL	0.94	57.6	E
	T	1.27	156.9	F	T	1.28	159.6	F	T	1.27	155.9	F	T	1.27	158.6	F	T	1.25	147.6	F	T	1.26	150.6	F+	T	1.24	144.3	F	T	1.25	149.0	F+
SB	L	0.42	27.3	C	L	0.44	27.7	C	LTR	1.30	166.8	F	LTR	1.31	173.8	F+	L	0.68	35.9	D	L	0.70	37.0	D	LTR	1.20	124.2	F	LTR	1.21	129.7	F+
	T	1.07	74.0	E	T	1.08	75.8	E	R	0.96	75.2	E	R	0.96	76.1	E	R	0.92	36.5	D	T	0.94	38.0	D	R	0.67	36.6	D	R	0.70	38.6	D
INT.			93.5	F			94.8	F			138.4	F			142.7	F			65.2	E			66.5	E			110.3	F			114.3	F
Ninth Avenue and West 58th Street																																
EB	T	1.20	139.4	F	T	1.19	135.3	F	T	1.07	91.5	F	T	1.05	85.7	F	T	0.93	56.0	E	T	0.91	51.8	D	T	1.00	70.7	E	T	0.97	64.1	E
	R	0.51	30.8	C	R	0.53	31.4	C	R	0.44	28.6	C	R	0.45	28.9	C	R	0.61	34.0	C	R	0.62	34.7	C	R	0.48	29.1	C	R	0.50	29.6	C
SB	LT	0.98	27.0	C	LT	0.98	27.6	C	LT	0.96	25.2	C	LT	0.97	26.4	C	LT	1.01	34.2	C	LT	1.02	38.3	D	LT	0.88	17.2	B	LT	0.88	17.5	B
	R	0.96	75.2	E	R	0.96	76.1	E			36.0	D			35.9	D			37.3	D			39.9	D			26.9	C			25.8	C
INT.			47.7	D			47.2	D			36.0	D			35.9	D			37.3	D			39.9	D			26.9	C			25.8	C
Ninth Avenue and West 59th Street																																
SB	TR	1.07	52.2	D	TR	1.07	53.2	D	TR	0.97	25.3	C	TR	0.97	26.5	C	T	0.87	16.2	B	T	0.88	16.8	B	TR	0.90	17.7	B	TR	0.90	18.2	B
	R	0.42	13.8	B	R	0.42	13.9	B			25.3	C			26.5	C			15.9	B			16.5	B			17.7	B			18.2	B
INT.			52.2	D			53.2	D			25.3	C			26.5	C			15.9	B			16.5	B			17.7	B			18.2	B
Columbus Avenue and West 60th Street																																
EB	R	1.37	216.2	F	R	1.38	221.9	F	R	1.11	118.0	F	R	1.13	123.0	F	R	1.05	95.6	F	R	1.08	104.6	F+	R	0.85	51.9	D	R	0.86	54.1	D
	L	0.84	50.4	D	L	0.82	47.8	D	L	0.78	43.3	D	L	0.77	42.6	D	L	0.71	38.4	D	L	0.71	38.0	D	L	0.62	33.6	C	L	0.62	33.5	C
WB	LT	0.86	50.1	D	LT	0.84	47.6	D	LT	0.81	44.1	D	LT	0.77	40.7	D	LT	0.72	36.6	D	LT	0.73	36.8	D	LT	0.60	31.2	C	LT	0.60	31.3	C
	TR	0.76	12.4	B	TR	0.77	12.6	B	TR	0.68	11.1	B	TR	0.69	11.3	B	TR	0.79	12.9	B	TR	0.81	13.3	B	TR	0.69	11.1	B	TR	0.70	11.2	B
SB	TR	0.80	13.1	B	TR	0.81	13.5	B	TR	0.87	15.7	B	TR	0.89	16.9	B	TR	0.81	13.4	B	TR	0.82	13.6	B	TR	0.86	15.0	B	TR	0.87	15.3	B
	R	0.48	27.4	C	R	0.54	29.0	C	R	0.37	25.3	C	R	0.46	27.1	C	R	0.67	35.0	C	R	0.85	48.5	D+	R	0.41	26.6	C	R	0.50	28.9	C
WB	LT	0.47	27.3	C	LT	0.48	27.4	C	LT	0.36	24.9	C	LT	0.36	24.9	C	LT	0.47	27.6	C	LT	0.47	27.6	C	LT	0.40	26.3	C	LT	0.40	26.2	C
	TR	0.80	13.1	B	TR	0.81	13.5	B	TR	0.87	15.7	B	TR	0.89	16.9	B	TR	0.81	13.4	B	TR	0.82	13.6	B	TR	0.86	15.0	B	TR	0.87	15.3	B
SB	TR	0.80	13.1	B	TR	0.81	13.5	B	TR	0.87	15.7	B	TR	0.89	16.9	B	TR	0.81	13.4	B	TR	0.82	13.6	B	TR	0.86	15.0	B	TR	0.87	15.3	B
	R	0.48	27.4	C	R	0.54	29.0	C	R	0.37	25.3	C	R	0.46	27.1	C	R	0.67	35.0	C	R	0.85	48.5	D+	R	0.41	26.6	C	R	0.50	28.9	C
INT.			15.3	B			15.9	B			16.9	B			18.1	B			16.2	B			18.2	B			16.2	B			16.7	B
			15.3	B			15.9	B			16.9	B			18.1	B			16.2	B			18.2	B			16.2	B			16.7	B
Columbus Avenue and West 61st Street																																
EB	TR	0.05	20.5	C	TR	0.05	20.5	C	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.08	20.9	C	TR	0.08	20.9	C	TR	0.08	20.9	C
	LTR	0.78	12.6	B	LT	0.78	12.7	B	LTR	0.70	11.3	B	LT	0.71	11.4	B	LTR	0.85	14.5	B	LT	0.87	15.5	B	LTR	0.72	11.5	B	LT	0.74	11.8	B
WB	TR	0.05	20.5	C	TR	0.05	20.5	C	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.08	20.9	C	TR	0.08	20.9	C	TR	0.08	20.9	C
	LTR	0.78	12.6	B	LT	0.78	12.7	B	LTR	0.70	11.3	B	LT	0.71	11.4	B	LTR	0.85	14.5	B	LT	0.87	15.5	B	LTR	0.72	11.5	B	LT	0.74	11.8	B
SB	TR	0.05	20.5	C	TR	0.05	20.5	C	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.00	20.0	B	TR	0.08	20.9	C	TR	0.08	20.9	C	TR	0.08	20.9	C
	LTR	0.78	12.6	B	LT	0.78	12.7	B	LTR	0.70	11.3	B	LT	0.71	11.4	B	LTR	0.85	14.5	B	LT	0.87	15.5	B	LTR	0.72	11.5	B	LT	0.74	11.8	B
INT.			12.7	B			12.7	B			11.3	B			11.4	B			14.5	B			15.5	B			11.7	B			11.8	B
			12.7	B			12.7	B			11.3	B			11.4	B			14.5	B			15.5	B			11.7	B			11.8	B
Columbus Avenue and West 62nd Street																																
EB	R	0.48	27.4	C	R	0.54	29.0	C	R	0.37	25.3	C	R	0.46	27.1	C	R	0.67	35.0	C	R	0.85	48.5	D+	R	0.41	26.6	C	R	0.50	28.9	C
	LT	0.47	27.3	C	LT	0.48	27.4	C	LT	0.36	24.9	C	LT	0.36	24.9	C	LT	0.47	27.6	C	LT	0.47	27.6	C	LT	0.40	26.3	C	LT	0.40	26.2	C
WB	LT	0.47	27.3	C	LT	0.48	27.4	C	LT	0.36	24.9	C	LT	0.36	24.9	C	LT	0.47	27.6	C	LT	0.47	27.6	C	LT	0.40	26.3	C	LT	0.40	26.2	C
	TR	0.80	13.1	B	TR	0.81	13.5	B	TR	0.87	15.7	B	TR	0.89	16.9	B	TR	0.81	13.4	B	TR	0.82	13.6	B	TR	0.86	15.0	B	TR	0.87	15.3	B
SB	TR	0.80	13.1	B	TR	0.81	13.5	B	TR	0.87	15.7	B	TR	0.89	16.9	B	TR	0.81	13.4	B	TR	0.82	13.6	B	TR	0.86	15.0	B	TR	0.87	15.3	B
	R	0.48	27.4	C	R	0.54	29.0	C	R	0.37	25.3	C	R	0.46	27.1	C	R	0.67	35.0	C	R	0.85	48.5	D+	R	0.41	26.6	C	R	0.50	28.9	C
INT.			15.3	B			15.9	B			16.9	B			18.1	B			16.2	B			18.2	B			16.2	B			16.7	B
			15.3	B			15.9	B			16.9	B			18.1	B			16.2	B			18.2	B			16.2	B			16.7	B
Columbus Avenue and West 63rd Street																																
WB	L	0.37	24.0	C	L	0.37	24.0	C	L	0.41	24.6	C	L	0.41	24.6	C	L	0.68	31.4	C	L	0.68	31.4	C	L	0.39	24.7	C	L	0.39	24.7	C
	T	0.59	9.8	A	T	0.59	9.8	A	T	0.54	9.3	A	T	0.55	9.4	A	T	0.59	9.6	A	T											

vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant.

- *Amsterdam Avenue and West 60th Street:* The eastbound approach would worsen within LOS F and increase in average delay from 93.5 to 105.7 (12.2) spv. This projected increase in delay constitutes a significant adverse impact.
- *Ninth Avenue and West 57th Street:* The westbound through movement would worsen within LOS F and increase in average delay from 156.9 to 159.6 (2.7) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant.
- *Columbus Avenue and West 60th Street:* The eastbound right turn movement would worsen within LOS F and increase in average delay from 216.2 to 221.9 (5.7) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant.

Midday Peak Hour

- *Tenth Avenue and West 57th Street:* The eastbound de-facto left turn would worsen within LOS F and increase in average delay from 373.4 to 390.9 (17.5) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant.
- *Amsterdam Avenue and West 60th Street:* The eastbound approach would worsen from LOS D with a delay of 48.5 spv to LOS E with a delay of 56.3 (7.8) spv. This projected increase in delay constitutes a significant adverse impact.
- *Ninth Avenue and West 57th Street:* The westbound through movement would worsen within LOS F and increase in average delay from 155.9 to 158.6 (2.7) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant. The southbound approach would worsen within LOS F and increase in average delay from 166.8 to 173.8 (7.0) spv. This projected increase in delay constitutes a significant adverse impact.
- *Columbus Avenue and West 60th Street:* The eastbound right turn movement would worsen within LOS F and increase in average delay from 118.0 to 123.0 (5.0) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant.

PM Peak Hour

- *Tenth Avenue and West 57th Street:* The eastbound de-facto left turn would worsen within LOS F and increase in average delay from 281.1 to 296.2 (15.1) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant. The westbound approach would worsen from LOS E with a delay of 75.6 spv to LOS F with a delay of 81.0 (5.4) spv. This projected increase in delay constitutes a significant adverse impact.
- *Ninth Avenue and West 57th Street:* The westbound through movement would worsen within LOS F and increase in average delay from 147.6 to 150.6 (3.0) spv. This projected increase in delay constitutes a significant adverse impact.
- *Columbus Avenue and West 60th Street:* The eastbound right turn movement would worsen within LOS F and increase in average delay from 95.6 to 104.6 (9.0) spv. This projected increase in delay constitutes a significant adverse impact.

- *Columbus Avenue and West 62nd Street:* The eastbound right turn movement would worsen from LOS C, with a delay of 35.0- to LOS D with a delay of 48.5 (13.5) spv. This projected increase in delay constitutes a significant adverse impact.

Pre-Theater Peak Hour

- *Tenth Avenue and West 57th Street:* The eastbound de-facto left turn would worsen within LOS F and increase in average delay from 291.7 to 296.7 (5.0) spv. However, since the project vehicle trip increment would be fewer than five vehicles at this lane group, the projected impact is not considered significant. The westbound approach would worsen within LOS F and increase in average delay from 111.0 to 116.4 (5.4) spv. This projected increase in delay constitutes a significant adverse impact.
- *Ninth Avenue and West 57th Street:* The westbound approach would worsen within LOS F and increase in average delay from 144.3 to 149.0 (4.7) spv. The southbound approach would worsen within LOS F and increase in average delay from 124.2 to 129.7 (5.5) spv. These projected increases in delay constitute significant adverse impacts.
- *Broadway/Columbus and West 65th Street:* Along Columbus Avenue southbound through movement would worsen within LOS F and increase in average delay from 138.7 to 141.7 (3.0) spv. This projected increase in delay constitutes a significant adverse impact.

Potential measures to mitigate the identified traffic impacts are discussed in Chapter 20, "Mitigation."

PARKING SUPPLY AND UTILIZATION

Similar to the 2014 Build analysis, the area's off-street parking demand is expected to decrease compared to the No Build condition. As shown in Table 15-25, the overall utilization rates of the off-street parking facilities in the study area would decrease to 42, 88, 64, and 39 percent with 4,217, 861, 2,645, and 4,462 spaces available during the AM, midday, pre-theater, and overnight time periods, respectively.

Table 15-25

2032 Build Condition Off-Street Parking Utilization

Company Name	Address	License No.	Capacity	Utilization Rate (%)				Utilized Spaces				Available Spaces			
				AM	MD	P/T	O/N	AM	MD	P/T	O/N	AM	MD	P/T	O/N
1 165 W.66th St Parking Corp.	165 W.66th St	368337	77	22	57	84	32	17	44	65	25	60	33	12	52
2 Icon Parking	101 West End Ave	1061198	166	28	96	34	34	47	159	56	56	119	7	110	110
3 Performance Parking Corp.	127-137 Amsterdam	858712	375	67	90	79	57	253	338	296	212	122	37	79	163
4 Icon Parking	2 Lincoln Plaza	1127924	80	90	96	90	90	72	77	72	72	8	3	8	8
5 10 W.65th St Parking Corp.	10 W.65th St	883451	195	51	90	90	56	99	176	176	110	96	19	19	85
6 Lincoln Center Park & Lock	140 W.65th St	1079021	721	29	80	59	31	207	576	428	227	514	145	293	494
7 Icon Parking	110 West End Ave	761016	106	44	100	78	44	47	106	83	47	59	0	23	59
8 West End Towers Garage	35-101 West End Ave	948832	441	44	91	64	20	196	403	284	90	245	38	157	351
9 Edison Parking Management	1900-1916 Broadway	1213869	400	28	90	56	28	113	360	225	113	287	40	175	287
10 Edison Parking Management	1886-1896 Broadway	1200481	75	35	100	73	28	26	75	55	21	49	0	20	54
11 Garage Management Corp.	44 W.62nd St	1013719	143	50	87	50	31	71	125	71	45	72	18	72	98
12 Eagle Trump International	1 Central Park West	1125528	88	33	95	73	23	29	84	64	20	59	4	24	68
13 Prior Parking LLC	40-50 W.61st St	1033066	205	33	98	74	34	67	201	152	70	138	4	53	135
14 Central Parking System	10 Columbus Circle	1105005	662	37	82	47	34	245	546	309	228	417	116	353	434
15 Central Parking System	910-924 9th Ave	1113135	318	71	81	78	63	225	259	249	199	93	59	69	119
16 John Jay College Parking	425 W.59th St	813398	125	14	80	47	17	18	100	59	21	107	25	66	104
17 LHL Parking Corp.	161 W.61st St	898520	100	56	96	90	32	56	96	90	32	44	4	10	68
18 Concerto Garage Corp.	200 W.60th St	884653	265	28	91	52	31	73	241	139	83	192	24	126	182
19 Propark America	515 W.59th St	1171649	190	28	74	53	21	53	141	101	40	137	49	89	150
20 Central Parking System	115 West End Ave	964023	Closed	-	-	-	-	-	-	-	-	-	-	-	-
21 Kinney Systems	838-852 11th Ave	1137953	84	98	93	92	43	82	78	77	36	2	6	7	48
22 Effective Parking LLC	435 W.57th St	368157	55	67	51	51	22	37	28	28	12	18	27	27	43
23 1 Columbus Place Garage	1 Columbus Place	960635	294	22	84	56	56	64	246	165	165	230	48	129	129
24 Icon Parking	330 W.58th St	1118641	95	74	100	67	57	70	95	64	54	25	0	31	41
25 Champion Parking	316-328 W.57th St	1093313	372	17	87	39	17	63	323	146	63	309	49	226	309
26 330 W.56th Street Corp.	330 W.56th St	1234691	115	23	94	51	31	26	108	59	36	89	7	56	79
27 Sydney Parking LLC	408 W.57th St	1113944	80	90	100	68	34	72	80	54	27	8	-	26	53
28 Epsilon Parking	409 W.56th St	1195834	20	55	100	30	Closed	11	20	6	-	9	0	14	0
29 Apex Parking LLC	440 W.57th St	368300	378	73	97	87	88	276	365	327	333	102	13	51	45
Element Condominium			190	46	93	73	38	87	177	138	72	103	13	52	118
Algin West 61st Street			160	46	94	72	37	73	151	115	59	87	9	45	101
15 Central Park West			162	35	80	56	30	57	130	91	49	105	32	71	113
Riverside South (Parcel N)			442	48	95	75	39	211	419	331	174	231	23	111	268
2 West End Avenue			150	46	94	73	37	69	141	109	56	81	9	41	94
Total			7,329	42	88	64	39	3,112	6,468	4,684	2,847	4,217	861	2,645	4,462

G. TRAFFIC AND SAFETY

Accident data for the study area intersections were obtained from the New York State Department of Transportation (NYSDOT) for the time period between July 1, 2004 and June 30, 2007. The data obtained quantify the total number of reportable accidents (involving fatality, injury, or more than \$1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of pedestrian- and bicycle-related accidents at each location. According to the *City Environmental Quality Review (CEQR) Technical Manual*, a high pedestrian/bicycle accident location is one where there were five or more pedestrian and bicycle-related accidents in any year of the most recent three-year period for which data are available.

During this period, a total of 79 pedestrian-related accidents and 18 bicycle-related accidents occurred at study area intersections. A rolling total of accident data identifies five study area intersections as high pedestrian and bicycle accident locations in the 2004 to 2007 period. These intersections are: Ninth Avenue at West 57th Street; Ninth Avenue at West 58th Street; Columbus Avenue at West 60th Street; Tenth Avenue at West 57th Street; and Broadway/Columbus Avenue at West 65th Street. Table 15-26 depicts total accident characteristics by intersection during the study period, as well as a breakdown of pedestrian and bicycle accidents by year and location.

**Table 15-26
Accident Data**

Intersection		Accidents by Year											
North-South Roadway	East-West Roadway	Pedestrian				Bicycle				Combined Ped./Bike			
		2004	2005	2006	2007	2004	2005	2006	2007	2004	2005	2006	2007
Amsterdam Ave.	W. 65th Street	0	2	1	1	0	2	1	0	0	4	2	1
Amsterdam Ave.	W. 63rd Street	0	0	0	0	0	0	0	0	0	0	0	0
Amsterdam Ave.	W. 62nd Street	0	0	1	0	0	0	0	1	0	0	1	1
Amsterdam Ave.	W. 61st Street	0	1	0	0	0	0	0	0	0	1	0	0
Amsterdam Ave.	W. 60th Street	0	0	1	0	0	0	0	0	0	0	1	0
Amsterdam Ave.	W. 59th Street	2	1	0	2	0	1	1	0	2	2	1	2
Tenth Ave.	W. 58th Street	0	0	0	0	0	0	0	0	0	0	0	0
* Tenth Ave.	W. 57th Street	5	6	3	5	0	2	2	0	5	8	5	5
Columbus Ave.	W. 63rd Street	0	1	0	0	0	0	1	0	0	1	1	0
Columbus Ave.	W. 62nd Street	0	3	0	1	0	0	0	0	0	3	0	1
Columbus Ave.	W. 61st Street	0	0	0	0	0	0	0	0	0	0	0	0
* Columbus Ave.	W. 60th Street	1	5	1	2	0	0	0	0	1	5	1	2
Columbus Ave.	W. 59th Street	0	1	1	0	0	1	0	0	0	2	1	0
* Ninth Ave.	W. 58th Street	1	4	4	2	0	0	0	0	1	4	4	2
* Ninth Ave.	W. 57th Street	4	5	3	0	0	0	0	0	4	5	3	0
* B'way / Columbus	W. 65th Street	1	4	3	1	0	2	4	0	1	6	7	1

Note: * High vehicular-pedestrian /bicycle accident location.
Broadway and Columbus Ave at 65th is a multi-leg intersection.

Source: NYS DOT

Traffic volumes throughout the study area would increase in the No Build condition, due to background growth and traffic added by specific No Build projects near the study area. Project-generated vehicular volumes are small, and under the Build condition, most of the pedestrian activity generated by the proposed action would not traverse the intersections on West 57th, West 58th, and West 65th Streets. The only high-pedestrian accident location through which a substantial number of project-generated pedestrian trips would traverse is Columbus Avenue at West 60th Street, where there were nine pedestrian-related accidents during the three-year study period. A review of the accident histories at this location indicates that the majority of the pedestrian- and bicycle-related accidents were caused by inattentiveness and driver failure to yield the right of way. Field inspection indicates that the intersection is not equipped with high-visibility crosswalks, and the southern crosswalk markings are badly faded. Since accident descriptions indicate that 55 percent of the pedestrian/bicycle-related accidents during the study period involved westbound left turning vehicles, pedestrian safety at this location could be improved by the installation of clearly marked high-visibility crosswalks.

The intersections at West 57th and West 58th Streets all have some crossing locations without high-visibility crosswalks, and some of the crosswalk markings are faded. Pedestrian/bicycle safety at these locations could also be enhanced by re-painting crosswalk markings and the installation of high-visibility crosswalks. The intersection of Broadway/Columbus Avenue at West 65th Street is equipped with clearly painted high visibility crosswalks at all crossing locations. This multi-legged intersection is controlled by complicated signal phasing, whereby the directions of vehicle approaches can lead to pedestrian confusion. Safety at this location could be enhanced by the installation of signs warning pedestrians to wait for pedestrian signals at all crossing locations, and by providing signs on the eastbound West 65th Street and southbound Columbus Avenue approaches warning turning vehicles to yield to pedestrians. *