

3.3 TRAFFIC AND PARKING

INTRODUCTION

This chapter examines the potential for impacts on traffic and parking associated with the proposed action. As described in detail in the “Future with the Proposed Action” discussion in Chapter 2.0, the proposed action would create opportunities for new housing development on underutilized and vacant land near transit, and would create capacity for much-needed office and commercial space surrounding the corridor’s civic uses. Under the latest reasonable worst-case development scenario (RWCDS), the proposed rezoning action would result in the following net increase in development on 11 projected development sites along the 161st Street Corridor:

Additional Development Due to Proposed Action **

Retail	SF	42,004
Office	SF	306,011
Community Facility	SF	10
Residential	DU	594
Parking	Spaces	311

** See Chapter 2.0 for further details

The traffic study area was selected to include the intersections most likely to be used by concentrations of project-generated vehicles traveling to and from the proposed development sites. As shown in Figure 3.3-1, the traffic study area is focused along the E. 161st Street corridor, from Melrose Avenue on the east to the Major Deegan Expressway (MDE) on the west. Other intersections included in the analysis are E. 153rd Street and River Avenue and two intersections along E. 149th Street – at River Avenue and the Grand Concourse.

As discussed later in this chapter, the proposed action condition is projected to generate net increments of 244 vehicle trips during the weekday AM peak hour (7:30 to 8:30 a.m.), 115 vehicle trips during the weekday midday peak hour (1:00 to 2:00 p.m.), 294 vehicle trips during the weekday PM peak hour (5:00 to 6:00 p.m.), and 97 trips during the Saturday midday peak hour (12:00 to 1:00 PM) - relative to the No-Action condition. Because the incremental vehicle trips generated by the proposed action in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours exceed the 50 vehicle-trips/peak hour threshold for a detailed analysis as established in the *CEQR Technical Manual*, detailed traffic impact analyses are provided in this EIS for all four time periods.

Any examination of traffic in this area must acknowledge the localized but large influence of Yankee games. Therefore, the potential for traffic impacts was examined in two separate parts: for the typical weekday and Saturday peak hours without a Yankee game (“Non-Game Day”) and also a targeted analysis of intersections during typical weekday and Saturday peak hours during which Yankee games were scheduled (“Game Day”). The Non-Game Day analysis for 28 intersections in the study area focused on four peak hours mentioned above: weekday AM, weekday midday, weekday PM, and Saturday midday. The Game Day analysis targeted 22 key intersections in the study area and focused on the pre-game peak hours on Yankee game days: the weekday PM and Saturday midday peak hours.

The following sections describe both the Non-Game Day and the targeted Game Day analyses. First the year 2008 existing traffic conditions in the study area are described. Year 2018 future conditions without the proposed action (the “No-Action condition,” assuming the existing zoning), are described next. The change in travel demand resulting from the proposed action is then projected and added to No-Action conditions to develop the year 2018 future with the proposed action (“2018 Action”) condition. Included in all future conditions analyses (for both No-Action and Action conditions) are planned changes to the study area’s transportation facilities, and increases in traffic demand due to background growth and new developments in and around the study area that are projected to occur by the year 2018. Potential significant impacts, if any, from action-generated trips are then identified and described in detail.

3.3.1 NON-GAME DAY TRAFFIC

EXISTING CONDITIONS

As shown in Figure 3.3-1, the traffic study area for the Non-Game Day analysis consists of 28 intersections to be analyzed for the weekday AM, midday and PM peak hours and the Saturday midday peak hour. The 28 intersections selected for analysis are those that are expected to accommodate the highest concentrations of added vehicular traffic as a result of the proposed action. Existing traffic volumes for these locations were developed based on a combination of field counts conducted in May and June 2008, as well as data from the *Lower Concourse Rezoning EIS*, a parallel study being conducted by the New York City Department of City Planning that overlaps two study intersections along E. 149th Street. The data collection effort also included vehicle classification counts and travel time surveys (to determine vehicle speeds for the air quality assessment). Intersection signal timings were provided by New York City Department of Transportation (NYCDOT) and verified in the field.

Figures 3.3-2 through 3.3-5 show the traffic volumes at each of the 28 study intersections during the weekday AM, midday and PM and Saturday midday peak hours under year 2008 existing traffic conditions.

Street Network

The study area roadway network along the E. 161st Street Corridor in the Bronx (see Figure 3.3-1) reflects the interaction of a broad east-west arterial (E. 161st Street) and its service roadways with a series of important north-south arterials (Grand Concourse, Morris and Melrose Avenues, etc.). Connection to two major transportation facilities – the Macombs Dam Bridge to Manhattan (in the E. 161st Street area) and to the MDE (at both E. 149th and E. 161st Street) create numerous intersections and ramp areas carrying often high traffic volumes during peak travel periods. A mixture of major land uses like Yankee Stadium, Franz Sigel Park, Concourse Plaza and the Metro-North Railroad tracks create large gaps in the network, especially in the east-west direction, focusing more of the traffic onto E. 161st Street and other east-west connectors. The study area includes two major, two-way, east-west arteries, as follows:

E. 161st Street is a two-way, east-west roadway that serves as the principal east-west arterial within the study area, from its connections to the MDE and Macombs Dam Bridge on the west to Melrose Avenue on the east. From that point eastward, it follows a relatively discontinuous path, eventually ending in the vicinity of Prospect Avenue. Within the study area, it typically includes two travel lanes and a parking lane in each direction, with curbside parking in various segments on both sides. To reduce congested and pedestrian/vehicular conflicts, E. 161st Street goes beneath three north-south roadways – the Grand Concourse, Walton Avenue and the Macombs Dam Bridge connector roadway – with connections provided by one-way North and South Service Roads. E. 161st Street accommodates portions of the Bx6 and Bx13 bus routes within the study area, and is a key access roadway to the Metro-North Railroad station at Melrose Avenue and the No. 4, B and D subway lines at E. 161st adjacent to Yankee Stadium.

E. 149th Street serves as a major east-west arterial across the southern portions of the Bronx, extending from the Bruckner Expressway on the east and westward to connect with the MDE and then across the 145th Street Bridge into Manhattan. Within the study area, E. 149th Street connects the Hub area to the west to the MDE and then across the 145th Street Bridge to Manhattan. It generally carries two travel lanes in each direction with curbside parking on portions of both sides, and accommodates a portion of the Bx19 bus route within the study area with connections to the No. 2, 4 and 5 subway lines at the Grand Concourse and 3rd Avenue (Hub) stations.

The more important north-south roadways in the study area include the following:

Melrose Avenue is a two-way, north-south local street that extends between the intersection of Park, Brook and Webster Avenues with E. 165th Street to the north to the Hub area of the Bronx to the south. Its direct two-way connection between these important travel nodes, its role as a bus route (Bx2 and Bx41), and its path through an area that has grown substantially in recent years all add to its importance to the community and to the volume of traffic in both directions. Melrose Avenue carries two travel lanes in each direction with curbside parking along portions of both sides of the roadway.

Morris Avenue is an important north-south roadway connecting to the 3rd Avenue Bridge to Manhattan in the south and ending in the Jerome Park area in the northwestern section of the Bronx. Within the project study area, it handles a portion of the Bx32 bus route and generally carries traffic in one lane in each direction with parking on both sides along most of these sections.

Grand Concourse is one of the Bronx's most important and historic arterials, extending virtually the entire length of the borough, from E. 138th Street in the south to the Moshulu Parkway in the north. Within the study area, it has the highest north-west volumes of any of the area's north-south arterials, but only intersects with the north and south service roads of E. 161st Street (the main roadway of which passes beneath the Grand Concourse). The Bx1 and Bx2 bus routes to Manhattan (over the Madison Avenue Bridge) utilize the Grand Concourse south of E. 161st Street. A relatively wide roadway

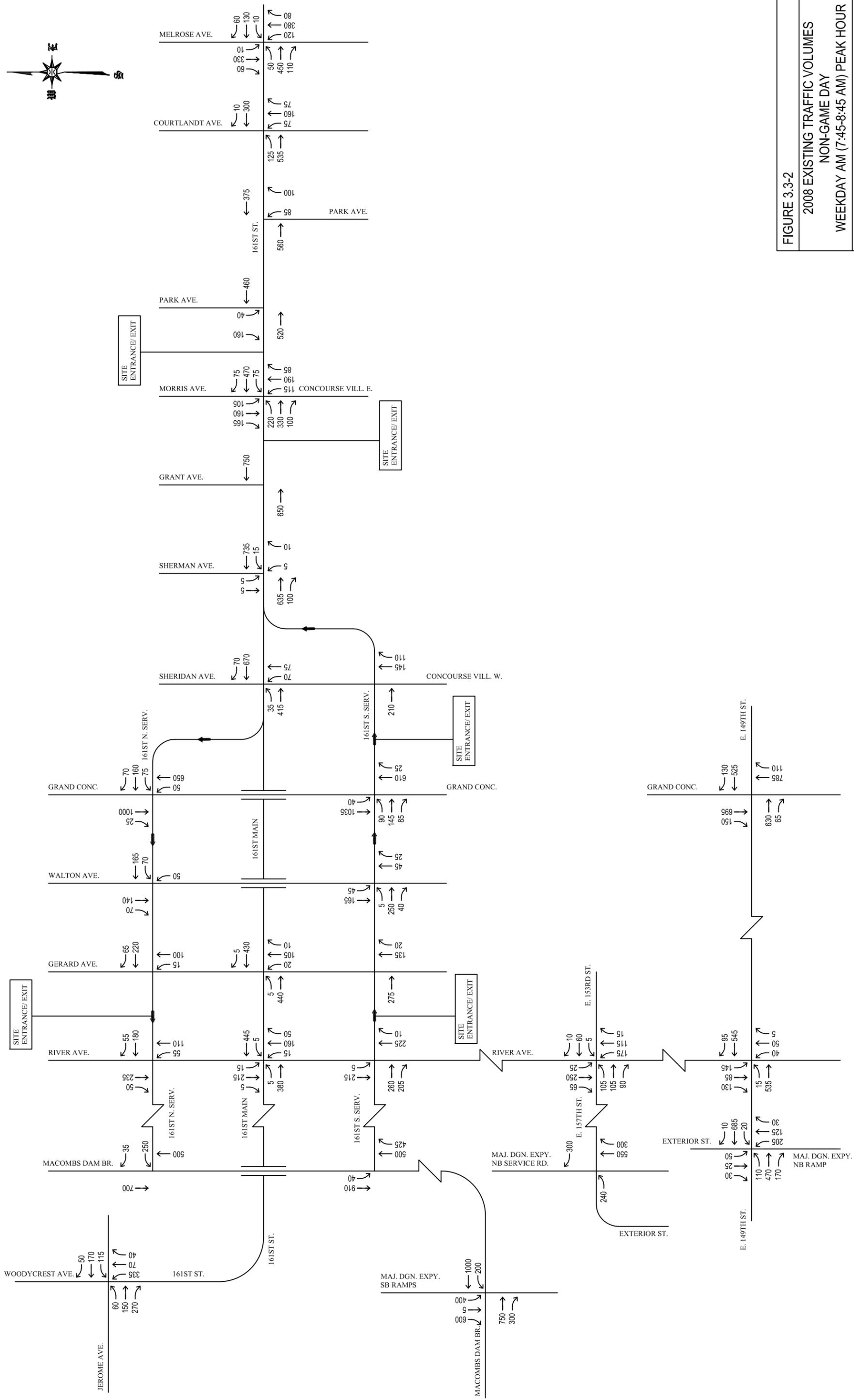


FIGURE 3.3-2

2008 EXISTING TRAFFIC VOLUMES
 NON-GAME DAY
 WEEKDAY AM (7:45-8:45 AM) PEAK HOUR
 161st STREET REZONING EIS
 BRONX, NY

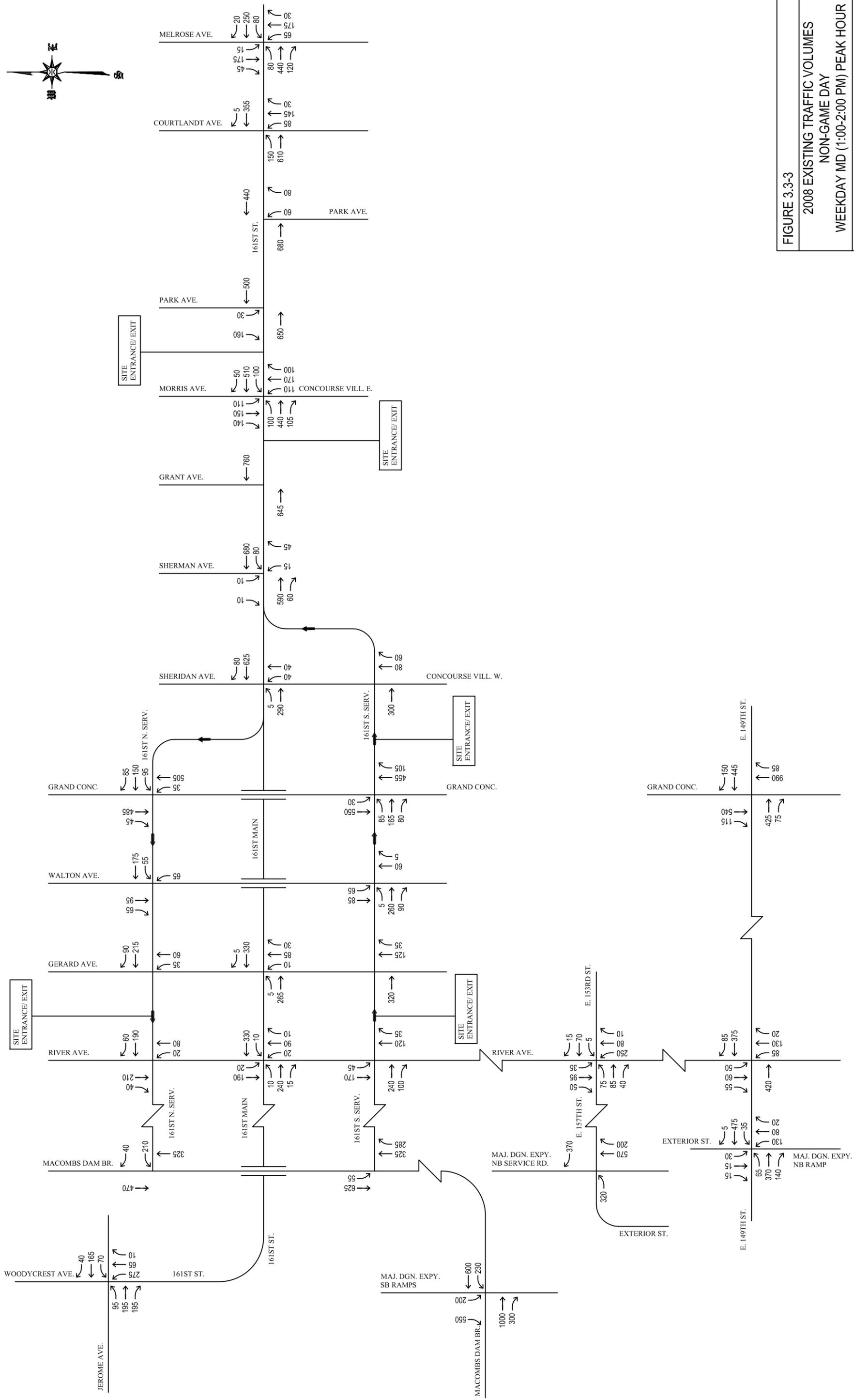


FIGURE 3.3-3

2008 EXISTING TRAFFIC VOLUMES
 NON-GAME DAY
 WEEKDAY MD (1:00-2:00 PM) PEAK HOUR
 161st STREET REZONING EIS
 BRONX, NY

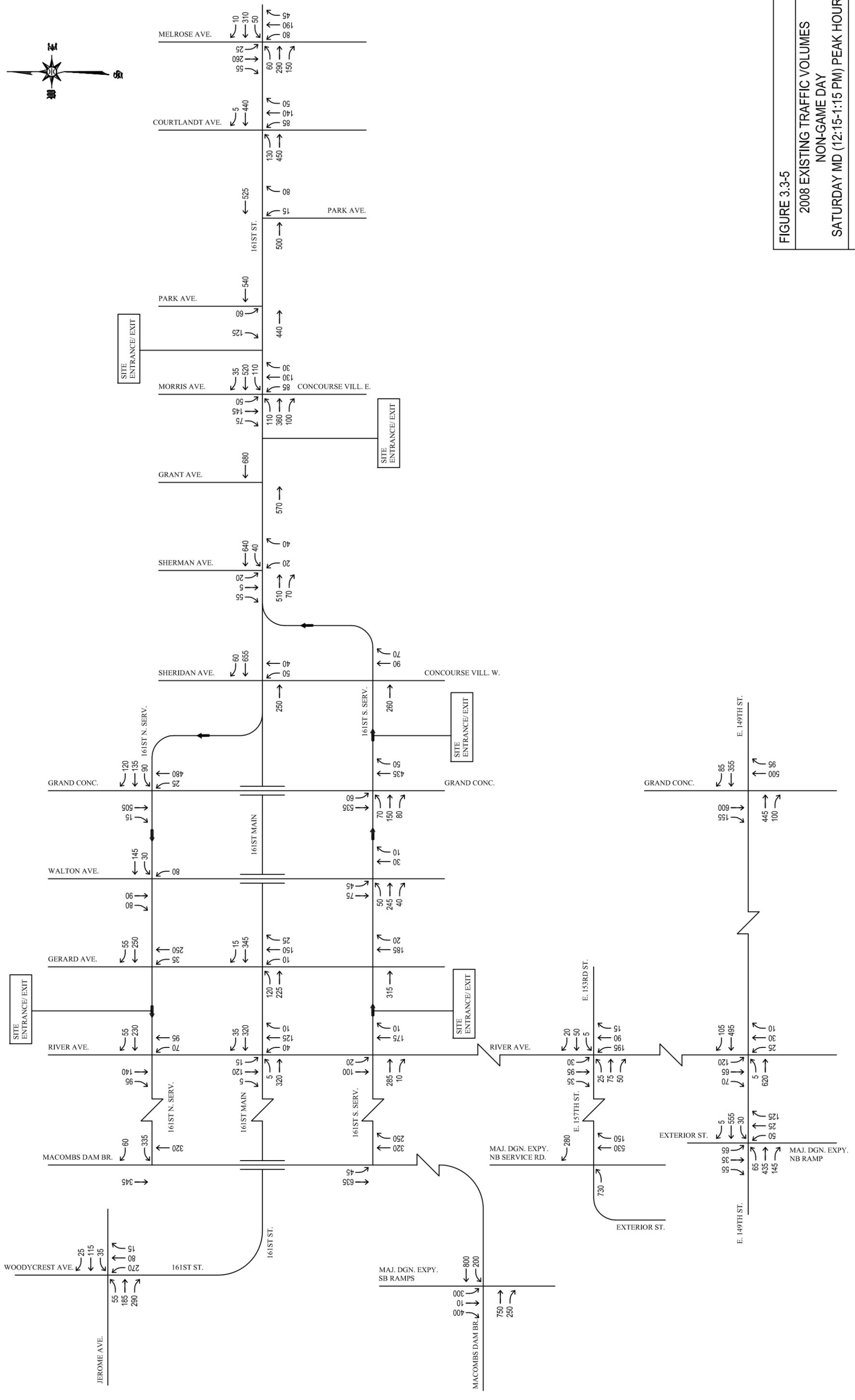


FIGURE 3.3-5

2008 EXISTING TRAFFIC VOLUMES
 NON-GAME DAY
 SATURDAY MD (12:15-1:15 PM) PEAK HOUR
 161st STREET REZONING EIS
 BRONX, NY

over its entire length, it carries 2-3 lanes in both directions within the study area, with parking in various portions of both sides of the street.

River Avenue, which extends from Jerome Avenue on the north to E. 149th Street and the 145th Street Bridge to Manhattan on the south, is the fourth busiest north-south local arterial in the study area. It provides access to Yankee Stadium and to the No. 4, B and D subway lines which run in a viaduct over this roadway within the study area. It intersects with both the main lanes and north/south service roads of E. 161st Street, and generally carries 1-2 lanes of traffic in both directions, with traffic flows complicated by the transit viaduct's supporting columns in many areas.

Capacity Analysis

The capacity analyses for the study area intersections are based on the methodologies described in the *2000 Highway Capacity Manual (HCM)* and were conducted using *Highway Capacity Software Plus (HCS+)* Release 5.21. Data collected in the field for these analyses included vehicle turning movement and classification counts on each approach, lane configurations and lane widths on each approach, signal timing parameters and phasing sequences for signalized intersections, curbside parking regulations, and various other physical and operational characteristics. The signal phasing sequences and timing plans used in the analyses of each signalized intersection were obtained from the NYCDOT and verified in the field.

For signalized intersections, the *HCM* methodology calculates volume-to-capacity (v/c) ratios and delays (seconds per vehicle) for lane groups/ movements and approaches. The v/c ratio represents the ratio of traffic volumes on the approach to the approach's vehicle-carrying capacity. At v/c ratios between 0.95 and 1.00, traffic volumes approach capacity and delays to motorists could become substantial. Volume-to-capacity ratios exceeding 1.00 indicate saturated conditions, typically characterized by long delays and building queues.

The *HCM* methodology also expresses the quality of flow for individual lane groups and approaches in terms of level-of-service (LOS) based on the average control delay that motorists experience when traveling through the intersection. Control delay includes delays associated with acceleration, deceleration, and queue move-up time, in addition to stopped delay at the intersection. For signalized intersections, LOS ranges on a letter-grade scale from "A" (average control delays of 10 seconds or less per vehicle) to "F" (average control delays exceeding 80 seconds per vehicle).

For unsignalized intersections, the *HCM* methodology assumes that major street through and right-turning traffic is unaffected by turning movements from the minor street. Left-turns from the major street are assumed to be affected by the opposing (oncoming) major street traffic flow. Minor street traffic movements are affected by all of the conflicting higher-priority movements described above.

As with signalized intersections, the *HCM* methodology for unsignalized intersections expresses the quality of flow in terms of both v/c ratio and a letter-grade LOS, with LOS based on the average control delay experienced by motorists making left-turns from the major street or turns

from the minor street approach. However, the relationships between delay and LOS for unsignalized intersections are different from those for signalized intersections, primarily because motorists expect different levels of performance from these two types of intersections. For unsignalized intersections, LOS ranges from “A” (average control delays of 10 seconds or less per vehicle) to “F” (average control delays exceeding 50 seconds per vehicle).

Table 3.3-1 shows the relationships between average control delay and LOS for signalized and unsignalized intersections using the *HCM* methodologies. Levels-of-service “A”, “B” and “C” generally represent extremely favorable to fair levels of traffic flow. At LOS “D”, delays increase and the influence of congestion becomes noticeable. LOS “E” is considered to be the limit of acceptable delay for most motorists. LOS “F” is considered to be unacceptable to most motorists, with traffic flow at, or exceeding, the capacity of the roadway. (A poor delay associated with a relatively low v/c ratio may indicate an inadequate traffic signal setting.) For the purposes of this study, a signalized approach or lane group operating at LOS “E” or “F” was classified as congested. For unsignalized intersections, an approach (or lane group) operating at LOS “E” or “F” is also classified as congested.

Table 3.3-1: Level-of-Service Criteria

Level-of-Service	Average Control Delay (seconds per vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Source: 2000 Highway Capacity Manual.

Based on the existing traffic volumes shown in Figures 3.3-2 through 3.3-5, intersection capacity analyses were conducted according to the *HCM* methodologies described above. Table 3.3-2 shows the results of the existing traffic conditions capacity analyses at the 28 study intersections during the weekday AM, midday and PM weekday peak hours and in the Saturday midday peak. Existing traffic conditions along the four major study area corridors are described more fully below.

It is important to note that the intersections of 149th St/Exterior/River and 149th/Grand Concourse are also analyzed as part of *Lower Concourse Rezoning EIS*. The weekday AM and PM peak hours for that study are essentially the same as the weekday AM and PM peak hours for this study. However, because that project encompasses a different geography, the weekday and Saturday midday peak hours are significantly different. Therefore, the capacity analysis results for those peak hours may or may not be the same for both studies, although they will certainly be very close.

Table 3.3-2
Year 2008 Non-Game Day Existing Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)			Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)			Weekday PM Peak Hour (5:00 to 6:00 p.m.)			Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
SIGNALIZED INTERSECTIONS														
1. 161st Street at Jerome Avenue	EB	L	0.24	19.7	B	0.32	20.9	C	0.45	24.2	C	0.17	18.2	B
		TR	0.46	20.5	C	0.43	20.1	C	0.45	20.4	C	0.45	20.4	C
		T	----	----	----	----	----	----	----	----	----	----	----	----
	WB	R	----	----	----	----	----	----	----	----	----	----	----	----
		L	0.50	27.2	C	0.29	21.2	C	0.28	21.2	C	0.16	18.7	B
		TR	0.52	23.2	C	0.24	17.8	B	0.31	18.6	B	0.32	19.2	B
	NB	LT	0.34	14.7	B	0.27	14.0	B	0.47	16.3	B	0.26	13.9	B
		R	0.12	12.9	B	0.03	12.0	B	0.07	12.5	B	0.03	12.0	B
Overall			19.3	B	17.9	B	18.6	B	17.8	B	17.8	B		
2. 161st Street N. Service Road at Macombs Dam Br. Approach	WB	L	0.46	25.7	C	0.39	24.3	C	0.55	27.8	C	0.65	30.1	C
		R	0.13	20.8	C	0.14	21.0	C	0.14	21.0	C	0.19	21.5	C
	NB	T	0.32	11.3	B	0.21	10.3	B	0.21	10.3	B	0.19	10.1	B
		T	0.47	12.8	B	0.31	11.2	B	0.41	12.2	B	0.19	10.2	B
Overall			14.5	B	13.7	B	15.3	B	17.5	B	17.5	B		
4. 161st Street N. Service Road at River Avenue	WB	TR	0.22	14.7	B	0.24	14.9	B	0.31	15.7	B	0.37	11.3	B
	NB	LT	0.42	7.5	A	0.19	5.0	A	0.34	6.0	A	0.57	12.7	B
	SB	TR	0.60	28.2	C	0.52	25.9	C	0.58	27.5	C	0.70	29.3	C
	Overall			18.7	B	17.9	B	17.3	B	17.5	B	17.5	B	
5. 161st Street Main Road at River Avenue	EB	LTR	0.30	15.5	B	0.21	14.6	B	0.19	14.4	B	0.34	10.8	B
	WB	LTR	0.34	15.9	B	0.28	15.2	B	0.42	16.7	B	0.29	10.4	B
	NB	LTR	0.43	6.9	A	0.24	5.3	A	0.49	7.8	A	0.48	8.9	A
	SB	LTR	0.39	6.2	A	0.34	5.8	A	0.35	5.9	A	0.31	7.0	A
Overall			12.3	B	11.5	B	12.7	B	9.8	A	9.8	A		
6. 161st Street S. Service Road at River Avenue	EB	TR	0.46	17.6	B	0.33	15.8	B	0.40	16.7	B	0.71	16.6	B
	NB	TR	0.53	26.5	C	0.37	23.2	C	0.65	30.5	C	0.70	31.0	C
	SB	LT	0.35	5.9	A	0.38	6.3	A	0.33	5.9	A	0.26	6.5	A
	Overall			16.9	B	14.5	B	18.6	B	18.2	B	18.2	B	
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.19	6.3	A	0.21	6.5	A	0.29	7.0	A	0.23	8.3	A
	NB	LT	0.29	19.1	B	0.24	18.5	B	0.50	22.3	C	0.55	10.4	B
	Overall			9.8	A	9.1	A	11.6	B	9.4	A	9.4	A	
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.26	6.7	A	0.16	6.1	A	0.17	6.2	A	0.35	9.4	A
		DefL	----	----	----	----	----	----	----	----	----	----	----	
		T	----	----	----	----	----	----	----	----	----	----	----	
	WB	TR	0.23	6.6	A	0.18	6.2	A	0.29	6.9	A	0.25	8.4	A
		LTR	0.37	20.3	C	0.39	20.7	C	0.53	23.0	C	0.34	8.1	A
Overall			8.6	A	9.0	A	10.1	B	8.7	A	8.7	A		
9. 161st Street S. Service Road at Gerard Avenue	EB	T	0.22	6.5	A	0.25	6.7	A	0.27	6.8	A	0.27	8.6	A
	NB	TR	0.54	35.1	D	0.61	38.0	D	0.86	55.8	E	0.51	19.0	B
	Overall			15.5	B	15.9	B	24.6	C	12.7	B	12.7	B	
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.14	9.8	A	0.14	9.8	A	0.18	10.1	B	0.16	10.6	B
	NB	L	0.27	18.6	B	0.31	18.6	B	0.61	25.7	C	0.24	8.7	A
	SB	TR	0.81	50.1	D	0.64	38.4	D	0.73	43.2	D	0.61	25.9	C
	Overall			28.9	C	22.0	C	24.7	C	16.3	B	16.3	B	
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.28	10.9	B	0.36	11.8	B	0.36	11.8	B	0.27	11.4	B
	NB	TR	0.28	28.0	C	0.24	27.2	C	0.42	30.4	C	0.16	16.3	B
	SB	L	0.23	17.2	B	0.33	18.4	B	0.21	17.3	B	0.11	7.2	A
		T	0.43	12.3	B	0.22	10.0	A	0.38	11.6	B	0.14	2.8	A
	Overall			14.0	B	14.2	B	15.4	B	10.2	B	10.2	B	
12. 161st Street N. Service Road at Grand Concourse	WB	LTR	0.31	22.5	C	0.32	20.2	C	0.38	23.5	C	0.37	20.9	C
	NB	L	0.41	8.8	A	0.16	4.5	A	0.26	4.0	A	0.11	4.2	A
		T	0.45	2.8	A	0.37	3.9	A	0.55	3.3	A	0.36	3.8	A
	SB	T	0.33	18.8	B	0.17	19.2	B	0.23	17.6	B	0.19	19.5	B
		R	0.05	16.5	B	0.09	19.2	B	0.12	17.4	B	0.03	18.5	B
Overall			13.9	B	13.5	B	12.5	B	14.2	B	14.2	B		
13. 161st Street S. Service Road at Grand Concourse	EB	LTR	0.31	22.4	C	0.30	19.8	B	0.33	22.7	C	0.27	19.4	B
	NB	TR	0.36	19.3	B	0.38	21.9	C	0.50	21.5	C	0.27	20.5	C
	SB	L	0.18	3.0	A	0.13	4.5	A	0.13	3.0	A	0.22	5.1	A
		T	0.45	2.5	A	0.26	3.3	A	0.33	2.1	A	0.25	3.3	A
Overall			11.3	B	14.6	B	14.7	B	13.2	B	13.2	B		
14.&15. 161st Street at Concourse Village West/ Sheridan Avenue	EB (Main)	LT	0.57	15.4	B	0.34	11.9	B	0.35	11.9	B	0.37	12.7	B
	EB (Service)	T	0.12	9.6	A	0.17	10.0	B	0.16	10.0	A	0.19	10.8	B
	WB	TR	0.41	12.2	B	0.38	11.9	B	0.50	13.3	B	0.52	13.7	B
		R	0.12	10.4	B	0.14	10.5	B	0.16	10.7	B	0.14	11.4	B
	NB	LTR	0.27	21.3	C	0.15	20.0	C	0.26	21.2	C	0.14	10.5	B
		Overall			14.1	B	12.2	B	13.5	B	12.5	B	12.5	B

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-2
Year 2008 Non-Game Day Existing Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)			Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)			Weekday PM Peak Hour (5:00 to 6:00 p.m.)			Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
16. 161st Street at Sherman Avenue	EB	TR	0.43	8.1	A	0.37	7.5	A	0.36	7.5	A	0.37	8.8	A
	WB	LT	0.51	9.0	A	0.72	13.3	B	0.62	10.7	B	0.50	10.1	B
	NB	L	0.08	26.8	C	0.24	29.4	C	0.27	30.5	C	0.10	15.1	B
		R	0.03	26.1	C	0.15	27.6	C	0.11	27.1	C	0.16	15.6	B
	SB	LTR	0.06	25.7	C	0.19	28.0	C	0.68	44.6	D	0.32	17.1	B
Overall				9.0	A		12.3	B		13.1	B		10.5	B
17. 161st Street at Grant Avenue	EB	T	0.40	12.1	B	0.40	12.1	B	0.40	12.1	B	0.35	11.6	B
	WB	T	0.51	13.5	B	0.51	13.6	B	0.59	14.8	B	0.42	12.4	B
	Overall				12.9	B		12.9	B		13.7	B		12.0
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	0.77	32.9	C	----	----	----	----	----	----	----	----	----
		LTR	0.68	19.7	B	0.55	15.0	B	0.93	36.4	D	0.51	10.4	B
	WB	LTR	0.56	14.7	B	0.56	15.3	B	0.92	32.4	C	0.55	11.0	B
	NB	LTR	0.93	56.1	E	0.81	35.9	D	0.91	51.7	D	0.81	33.9	C
	SB	LTR	0.96	61.3	E	0.85	39.1	D	0.97	64.3	E	0.81	33.0	C
Overall				34.3	C		23.2	C		42.2	D		18.4	B
19. 161st Street at Park Avenue West	EB	T	0.38	12.0	B	0.47	13.1	B	0.47	13.1	B	0.36	8.8	A
	WB	T	0.30	1.7	A	0.33	1.8	A	0.44	2.2	A	0.35	1.5	A
	SB	LR	0.66	33.4	C	0.62	31.7	C	0.89	53.1	D	0.58	23.0	C
	Overall				12.2	B		12.0	B		16.2	B		8.0
20. 161st Street at Park Avenue East	EB	T	0.40	2.0	A	0.48	2.4	A	0.51	2.6	A	0.40	1.7	A
	WB	T	0.24	10.6	B	0.28	10.9	B	0.56	11.9	B	0.33	8.5	A
	NB	LR	0.63	32.8	C	0.50	28.3	C	0.34	47.8	D	0.38	18.9	B
	Overall				10.2	B		8.5	A		13.8	B		6.3
21. 161st Street at Courtlandt Avenue	EB	LT	0.58	15.2	B	0.70	18.0	B	0.90	29.2	C	0.51	10.5	B
	WB	TR	0.22	10.5	B	0.25	10.7	B	0.36	11.7	B	0.33	8.5	A
	NB	LTR	1.05	87.7	F	0.80	40.4	D	0.99	69.4	E	0.81	34.0	C
	Overall				35.8	D		21.3	C		33.2	C		15.5
22. 161st Street at Melrose Avenue	EB	LTR	0.52	24.0	C	0.65	27.7	C	0.86	38.2	D	0.51	24.2	C
	WB	LTR	0.19	19.0	B	0.46	23.6	C	0.59	26.3	C	0.39	22.0	C
	NB	LTR	1.03	77.0	E	0.48	24.6	C	0.75	34.4	C	0.76	36.6	D
		L	----	----	----	----	----	----	----	----	----	----	----	----
		TR	----	----	----	----	----	----	----	----	----	----	----	----
	SB	LTR	0.64	28.9	C	0.45	23.9	C	0.57	26.9	C	0.61	28.1	C
Overall				41.0	D		25.6	C		32.7	C		27.3	C
23. Macombs Dam Bridge at Major Deegan Expy. (I-87) Southbound Ramps	EB	TR	0.83	29.7	C	0.93	34.0	C	0.74	26.0	C	0.89	33.5	C
	WB	L	0.79	38.0	D	0.88	52.1	D	0.75	30.9	C	0.85	47.9	D
		T	0.56	15.8	B	0.33	12.9	B	0.47	14.4	B	0.44	14.1	B
	SB	LTR	0.83	31.1	C	0.62	24.4	C	0.66	25.3	C	0.58	23.6	C
	Overall				26.3	C		28.3	C		22.7	C		26.6
24. E. 157th Street at Major Deegan Expy. (I-87) Northbound Off-Ramp	NEB	L	0.31	25.9	C	0.37	26.7	C	0.52	27.8	C	0.92	46.8	D
	WB	R	0.57	34.1	C	0.61	34.8	C	0.62	33.7	C	0.61	34.3	C
	NB	T	1.05	85.8	F	1.04	80.3	F	1.04	79.0	E	1.05	83.3	F
		R	0.61	33.9	C	0.37	27.8	C	0.21	24.5	C	0.29	25.8	C
Overall				53.0	D		50.5	D		47.6	D		53.5	D
25. E. 153rd Street at River Avenue	EB	LTR	0.62	29.0	C	0.40	23.8	C	0.30	22.1	C	0.33	16.5	B
	WB	LTR	0.18	20.7	C	0.26	22.0	C	0.43	25.0	C	0.25	15.8	B
	NB	LTR	0.67	21.0	C	0.63	18.9	B	0.78	25.4	C	0.53	12.3	B
		DefL	----	----	----	----	----	----	----	----	----	----	----	----
		TR	----	----	----	----	----	----	----	----	----	----	----	----
	SB	LTR	0.56	15.3	B	0.38	12.9	B	0.46	13.9	B	0.26	8.5	A
Overall				20.9	C		18.8	B		21.7	C		12.9	B
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	EB	LTR	0.80	37.5	D	0.61	30.6	C	1.05	77.1	E	0.67	32.0	C
		L	----	----	----	----	----	----	----	----	----	----	----	
		TR	----	----	----	----	----	----	----	----	----	----	----	
	WB	LTR	0.61	30.6	C	0.46	27.4	C	0.72	34.2	C	0.46	27.2	C
		L	----	----	----	----	----	----	----	----	----	----	----	
		TR	----	----	----	----	----	----	----	----	----	----	----	
	NB (Exterior)	LTR	----	----	----	0.61	46.5	D	0.57	44.6	D	0.15	37.0	D
		DefL	0.46	51.4	D	----	----	----	----	----	----	----	----	
		TR	0.24	38.9	D	----	----	----	----	----	----	----	----	
	NB (Ramp)	LTR	----	----	----	----	----	----	----	----	----	0.46	43.0	D
		DefL	1.05	119.8	F	0.70	57.7	E	0.69	55.3	E	----	----	----
		TR	0.78	62.0	E	0.49	46.6	D	0.61	49.7	D	----	----	----
	SB (Ext)	LTR	0.77	66.3	E	0.31	41.5	D	0.35	43.2	D	0.83	72.3	E
DefL		----	----	----	----	----	----	----	----	----	----	----		
T		----	----	----	----	----	----	----	----	----	----	----		
SB (River)	R	----	----	----	----	----	----	----	----	----	----	----		
	L	0.67	55.2	E	0.33	42.9	D	0.51	50.4	D	0.53	47.6	D	
	TR	0.83	63.0	E	0.41	42.3	D	0.48	44.1	D	0.39	41.7	D	
Overall				50.4	D		36.9	D		57.0	E		37.3	D
28. E. 149th Street at Grand Concourse	EB	TR	0.72	36.9	D	0.51	28.8	C	0.72	36.7	D	0.53	29.1	C
	WB	TR	0.65	34.5	C	0.56	29.8	C	0.75	37.6	D	0.38	26.3	C
	NB	TR	0.39	16.5	B	0.53	20.8	C	0.57	19.1	B	0.32	17.7	B
	SB	TR	0.38	16.3	B	0.35	18.1	B	0.44	17.2	B	0.41	18.9	B
Overall				25.2	C		23.5	C		26.3	C		22.2	C
UNSIGNALIZED INTERSECTIONS														
3. 161st Street S. Service Road at Macombs Dam Br. Approach*	NB	TR	----	----	----	----	----	----	----	----	----	----	----	----
	SB	LT	0.08	11.0	B	0.08	9.4	A	0.10	9.7	A	0.06	9.2	A

* - Intersection of 161st Street at Macombs Dam Bridge is unsignalized in Existing condition, but signalized in all future conditions.

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn

v/c = volume-to-capacity ratio, LOS = Level-of-Service

E. 161st Street Corridor

The study intersections along the E. 161st Street corridor include signalized intersections from Jerome Avenue and the access ramps to the Macombs Dam Bridge on the west to Melrose Avenue on the east. A summary of traffic operations at each of the study intersections along the E. 161st Street corridor is provided below:

- E. 161st Street/Jerome Avenue – The eastbound and westbound approaches currently operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour. The northbound approach currently operates at LOS “B” during these same four peak hours.
- E. 161st Street N. Service Road at Macombs Dam Br. Approach – The eastbound, westbound and northbound approaches all currently operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- E. 161st Street N. Service Road at River Avenue – The westbound through-right movement currently operates at LOS “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour. The northbound left-through movement currently operates at LOS “A” or “B” during the four peak hours, while the southbound through-right movement currently operates at LOS “C” during those periods..
- E. 161st Street Main Road at River Avenue – The eastbound and westbound approaches both currently operate at LOS “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, while the northbound and southbound approaches currently operate at LOS “A” during those periods..
- E. 161st Street S. Service Road at River Avenue – The eastbound, northbound and southbound approaches currently operate at LOS “A,” “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- E. 161st Street N. Service Road at Gerard Avenue – The westbound and northbound approaches both currently operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, except for the northbound approach in the PM peak, when LOS “C” conditions currently exist..
- E. 161st Street Main Road at Gerard Avenue – The eastbound and westbound approaches both currently operate at LOS “A” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach currently operates at LOS “C” in the three weekday peaks and LOS “A” in the Saturday midday peak hour.
- E. 161st Street S. Service Road at Gerard Avenue – The eastbound approach currently operates at LOS “A” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach currently operates at LOS “D” in the weekday AM and midday peak hours, LOS “E” in the PM peak hour and LOS “B” in the Saturday midday peak hour.

- E. 161st Street N. Service Road at Walton Avenue – The westbound approach currently operates at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach operates at LOS “B” or “C” in the three weekday peak hours and LOS “A” in the Saturday midday peak hour, and the southbound approach operates at LOS “D” in the three weekday peak hours and LOS “C” in the Saturday midday peak hour.
- E. 161st Street S. Service Road at Walton Avenue – The eastbound and northbound approaches currently operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach turning movements operate at LOS “A” or “B” in all four peak hours..
- E. 161st Street N. Service Road at Grand Concourse – The westbound and northbound approaches both currently operate at LOS “C” and “A” respectively during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS “B” during all four peak periods.
- E. 161st Street S. Service Road at Grand Concourse – The eastbound and northbound approaches both currently operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS “A” during all four peak periods.
- E. 161st at Concourse Village West/Sheridan Avenue – The eastbound main and service road approaches both currently operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound approach operates at LOS “B” in all four peak periods, and the northbound approach operates at LOS “B” or “C” in all four peak periods.
- E. 161st Street at Sherman Avenue – The eastbound and westbound approaches both currently operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach operates at LOS “C” in the three weekday peak periods and LOS “B” in the Saturday midday peak, the southbound approach operates at LOS “C” in the weekday AM and midday peak periods, LOS “D” in the PM peak and LOS “B” in the Saturday midday peak period.
- E. 161st Street at Grant Avenue – The eastbound and westbound approaches both currently operate at LOS “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- E. 161st Street at Concourse Village East/Morris Avenue – The eastbound approach currently operates at LOS “B” or “C” during the weekday AM and midday peaks and the Saturday midday peak, and LOS “D” in the PM peak hour, the westbound approach operates at LOS “B” or “C” in the four peak hours, the northbound approach operates at LOS “E” in the weekday AM peak, LOS “D” in the weekday midday and PM peaks, and LOS “C” in the Saturday midday peak hour, and the southbound approach operates at

LOS “E” in the weekday AM and PM peaks, LOS “D” in the weekday midday peak, and LOS “C” in the Saturday midday peak hour

- E. 161st Street at Park Avenue West – The eastbound and westbound approaches both currently operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS “C” in the weekday AM and midday peaks and the Saturday midday peak and LOS “D” in the weekday PM peak hour.
- E. 161st Street at Park Avenue East – The eastbound and westbound approaches both currently operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS “C” in the weekday AM and midday peaks, LOS “D” in the PM peak and LOS “B” in the Saturday midday peak hour..
- E. 161st Street at Courtlandt Avenue – The eastbound approach operates at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound approach operates at LOS “A” or “B” in the four peak periods, and the northbound approach operates at LOS “F” in the weekday AM peak, LOS “D” in the weekday midday peak, LOS “E” in the PM peak, and LOS “C” in the Saturday midday peak.
- E. 161st Street at Melrose Avenue – The eastbound approach currently operates at LOS “C” in the weekday AM and midday peaks and the Saturday midday peak, and LOS “D” in the PM peak hour, the westbound approach operates at LOS “B” or “C” in the four peak periods, the northbound approach operates at LOS “E” in the weekday AM peak, LOS “C” in the weekday midday and PM peaks, and LOS “D” in the Saturday midday peak, and the southbound approach operates at LOS “C” in all four peak periods.
- Macombs Dam Bridge at MDE (I-87) Southbound Ramps – The eastbound approaches currently operates at LOS “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound left approach operates at LOS “D” in the weekday AM and midday peaks and the Saturday midday peak and LOS “C” in the PM peak, the westbound through movement operates at LOS “B” in all four peak periods, and the southbound approach operates at LOS “C” in all four peak periods.

Additional Analysis Locations

- E. 157th Street at MDE (I-87) Northbound Off-Ramp – The north/eastbound approach currently operates at LOS “C” in the weekday AM, midday and PM peak hours and LOS “D” in the Saturday midday peak hour, the westbound approach operates at LOS “C” in all four peak periods, the northbound through movement operates at LOS “E” or “F” in all four peak periods, and the northbound right movement operates at LOS “C” in all four peak periods.

- E. 153rd Street at River Avenue – The eastbound, westbound and northbound approaches currently operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach operates at LOS “A” or “B” in the four peak periods..
- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp – the eastbound approach operates at LOS “D” during the weekday AM peak, LOS “C” in the midday and Saturday midday peak hours and LOS “E” in the PM peak period, the westbound approach operates at LOS “C” in all four peak periods, the northbound Exterior Street approach operates at LOS “D” in all four peak periods, the northbound ramp approach operates at LOS “E/F” in the weekday AM peak and LOS “D/E” in the midday and PM peaks, the southbound approach operates at LOS “E” in the weekday AM and Saturday midday peaks and LOS “D” in the midday and PM peak periods, and the southbound (River Ave.) approach operates at LOS “E” in the weekday AM peak, and LOS “D” in the midday, PM and Saturday midday peak periods.
- E. 149th Street at Grand Concourse – The eastbound and westbound approaches both currently operate at LOS “C” or “D” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches both operate at LOS “B” or “C” in the four peak periods..
- E. 161st Street S. Service Road at Macombs Dam Br. Approach (unsignalized under existing conditions but signalized under all future conditions) – the northbound and southbound approaches to this presently unsignalized intersection currently operate at LOS “A” or “B during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.

FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

In the future without the proposed action, the existing zoning controls would remain in place and as-of-right development would be expected to occur on some of the 11 projected development sites. As presented in the RWCDS discussion in Chapter 2.0 (“Project Description”), it is expected that on the 11 projected development sites, the following additional development would occur under existing zoning over the 2008 to 2018 period:

As-of-Right Development: No-Action Conditions**

Retail	SF	(4,289)
Office	SF	-
Community Facility	SF	11,720
Residential	DU	295
Parking	Spaces	-

** See Chapter 2.0 for further details

During the 2008 to 2018 period, it is also expected that transportation demands in the study area would change due to specific development projects in the area, as well as general background growth over time. In order to forecast these future demands without the proposed rezoning action, an annual growth rate of 0.5 percent (0.5%) was applied to the existing traffic volumes (in accordance with recommendations described in the *CEQR Technical Manual*), and traffic volumes associated with the specific development projects (“soft sites”) described below were added to the adjusted traffic volumes (see Tables 3.3-4A and 3.3-4B) to arrive at 2018 No-Action traffic volumes. In addition, where appropriate, mitigation measures associated with these soft sites were also incorporated into the transportation analyses.

The following are the known projects that will be considered in the analysis of the future without the proposed actions. Projects generally within one-half mile of the rezoning area were initially considered. However, only those projects that would add more than 50 vehicular trips within the study area in any peak hour were included in the No-Action analysis. Further details on these projects are included in Chapter 2.0 of this EIS:

- 580 River Avenue: 500 residential units.
- Mott Haven Campus: four school facilities at 3001 Concourse Village East -- two 550-seat high schools, one 575-seat combined intermediate and high school, and one 550-seat charter school.
- The Gateway Center at the Bronx Terminal Market: 2,600-space parking garage and approximately one million square feet of retail space; bordered by East 153rd Street, Major Deegan Expressway, and Cromwell Avenue.
- Lower Concourse Rezoning: proposed rezoning of a 30-block area surrounding the lower end of the Grand Concourse, map a new waterfront park, establish a Waterfront Access Plan, make the provisions of Inclusionary Zoning applicable in the area, and other related actions; bounded by the Harlem River to the west, E. 149th Street to the north, Morris and Lincoln Avenues to the east, and the Major Deegan Expressway to the south, with a development potential for 3,414 dwelling units, 571,162 sq. ft. of new retail space, 164,285 sq. ft. of new hotel space (combined for a total of 735,447 sq. ft.), an increase of 63,700 of community facility space, and a net reduction of 598,351 sq. ft. of office space and a net reduction of 308,872 sq. ft. of industrial space.
- Boricua College: 750 residential units, 50,000 sq. ft. of retail space, and a 120,000 sq. ft. college tower.

Figures 3.3-6 through 3.3-9 show the projected year 2018 No-Action traffic volumes at each study intersection during the weekday AM, midday and PM peak hours and the Saturday midday peak hour, respectively, for the Non-Game Day analysis.

Besides generating additional traffic, some of the above projects, namely the Bronx Terminal Market EIS and Yankee Stadium EIS, recommend improvements which were considered in the

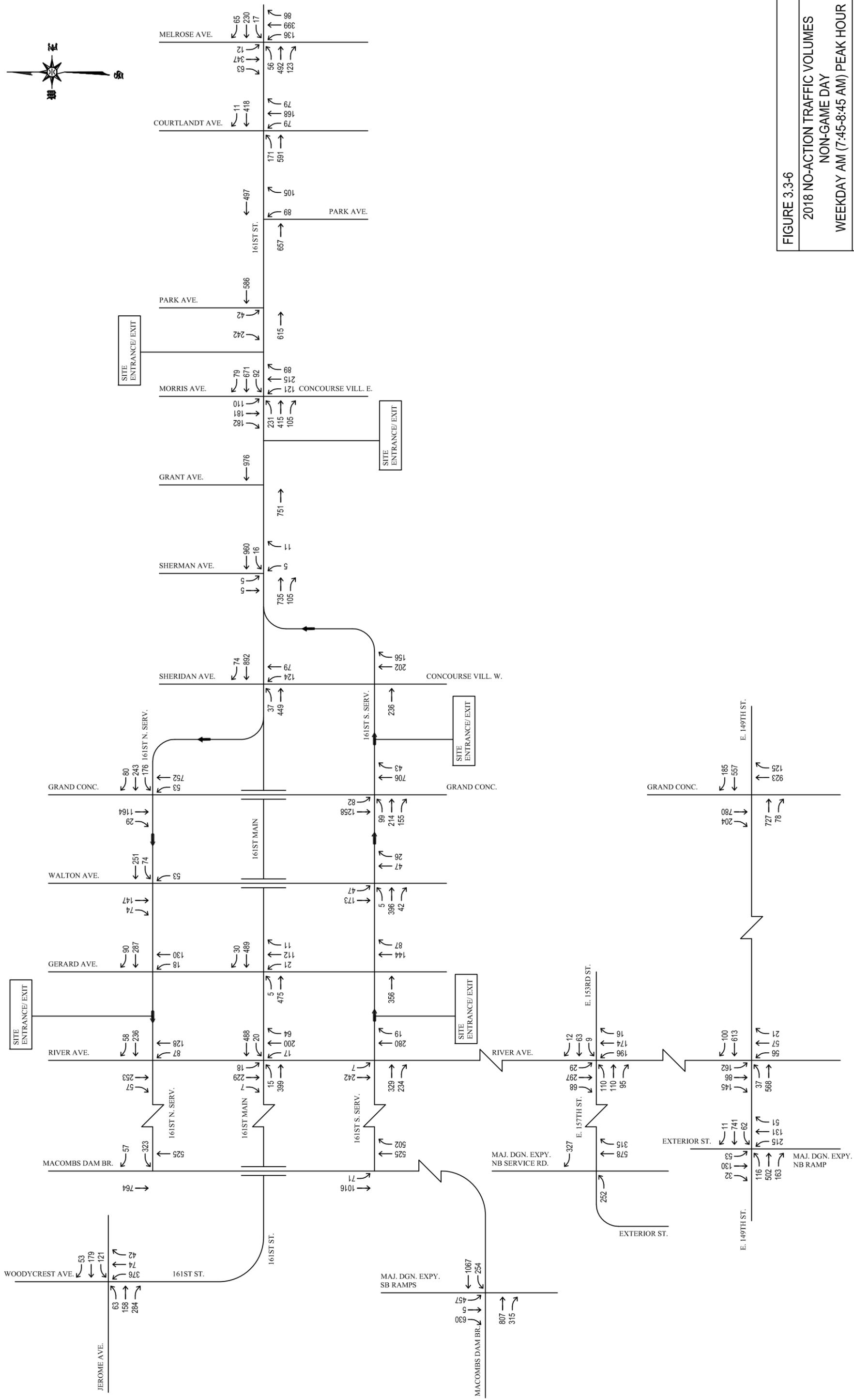


FIGURE 3.3-6

2018 NO-ACTION TRAFFIC VOLUMES
 NON-GAME DAY
 WEEKDAY AM (7:45-8:45 AM) PEAK HOUR
 161st STREET REZONING EIS
 BRONX, NY

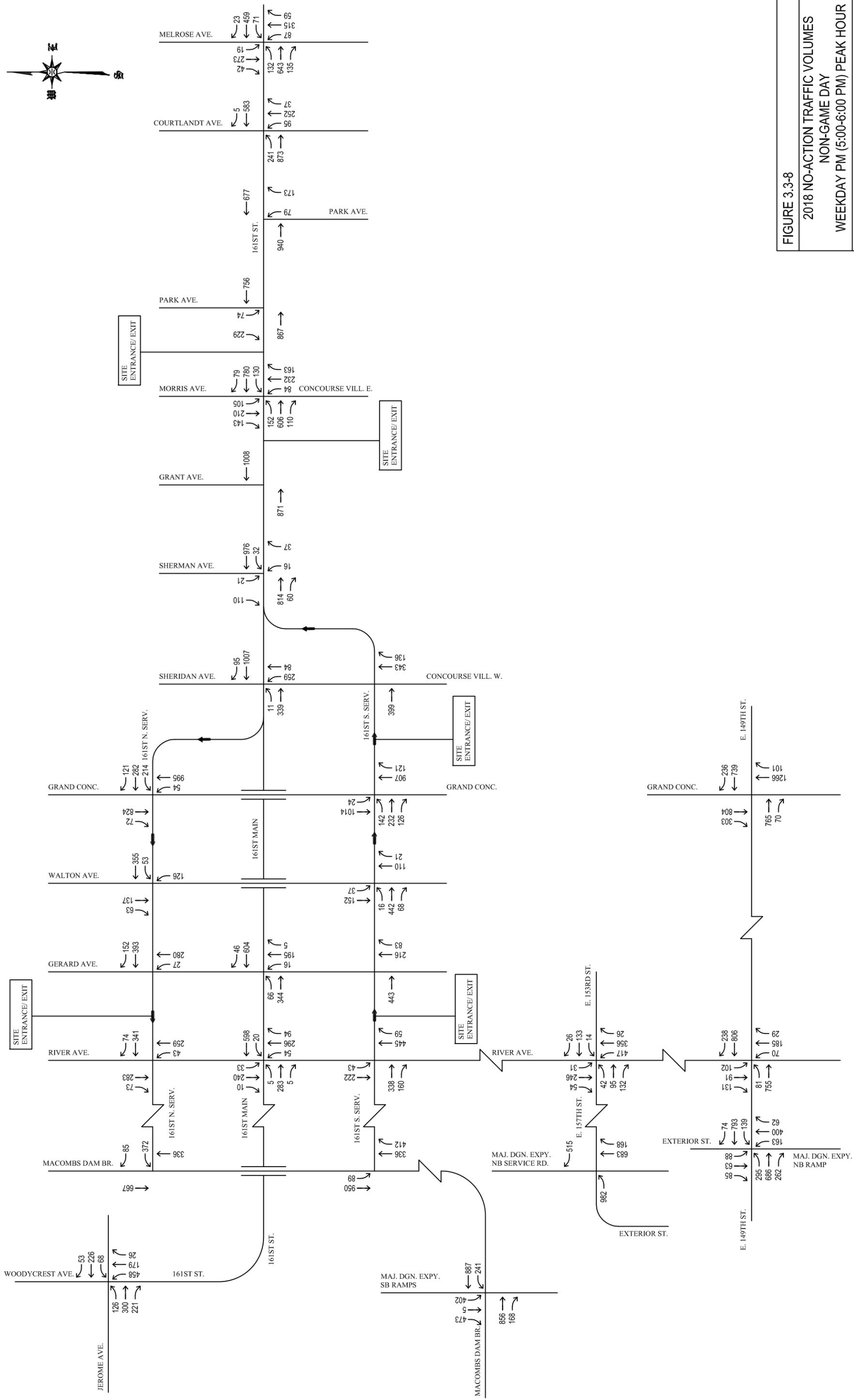


FIGURE 3.3-8

2018 NO-ACTION TRAFFIC VOLUMES
 NON-GAME DAY
 WEEKDAY PM (5:00-6:00 PM) PEAK HOUR

161st STREET REZONING EIS
 BRONX, NY

No Action condition, and carried over to the future Action condition. These improvements are described below:

- E. 161st Street/Jerome Avenue – A right-turn lane will be added on the Jerome Avenue eastbound approach. The eastbound approach will provide one left-turn lane, two through lanes and one right-turn lane for future operation.
- E. 161st Street S. Service Road at Macombs Dam Br. Approach – The current unsignalized intersection will be upgraded to a signalized intersection.
- E. 161st Street at River Avenue – Parking will be prohibited on northbound approach, and signal timing will be optimized.
- E. 161st Street N. Service Road at Walton Avenue –The Walton Avenue southbound approach will become a two-lane approach.
- E. 157th Street at MDE (I-87) Northbound Off-Ramp –The northbound and northeastbound approaches will share the same phase. Signal phase will be changed to combine the unconflicting E. 157th Street northeastbound left-turn and the I-87 off-ramp northbound through movements together.
- E. 153rd Street at River Ave. –The signal timing will be optimized during the PM period.
- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp– Intersection geometry and signal timing will be improved. A left-turn lane will be provided on eastbound and westbound approaches, respectively. A right-turn lane will be added on the Exterior Street southbound approach.

Capacity Analysis

Based on the No-Action traffic volumes shown in Figures 3.3-6 through 3.3-9, intersection capacity analyses were conducted according to the *HCM* methodologies. Table 3.3-3 shows the v/c ratios, average control delays, and levels-of-service under year 2018 No-Action conditions, and compares those results to those under 2008 Existing conditions during each peak hour. As shown in Table 3.3-3, presently congested locations generally become worse, while there would be some newly congested locations in the study area. Overall, under No-Action conditions, of the 28 intersections studied for the Non-Game Day analysis, there would be:

- Seven intersections with one or more congested movements during the weekday AM peak hour (versus five under existing conditions);
- Two intersections during the weekday midday peak hour (versus two under existing conditions);
- Eight intersections during the weekday PM peak hour (versus four under existing conditions); and
- Two intersections during the Saturday midday peak hour (versus two under existing conditions).

Table 3.3-3
Comparison of Non-Game Day 2008 Existing and 2018 No-Action Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)						Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)						Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)					
			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
SIGNALIZED INTERSECTIONS																										
1. 161st Street at Jerome Avenue	EB	L	0.24	19.7	B	0.27	20.5	C	0.32	20.9	C	0.41	23.3	C	0.45	24.2	C	0.63	32.9	C	0.17	18.2	B	0.19	18.6	B
		TR	0.46	20.5	C	----	----	----	0.43	20.1	C	----	----	----	0.45	20.4	C	----	----	----	0.45	20.4	C	----	----	----
		T	----	----	----	0.16	16.9	B	----	----	----	0.24	17.8	B	----	----	----	0.30	18.4	B	----	----	----	0.28	18.2	B
		R	----	----	----	0.63	27.4	C	----	----	----	0.48	23.2	C	----	----	----	0.50	23.7	C	----	----	----	0.58	25.1	C
	WB	L	0.50	27.2	C	0.35	21.3	C	0.29	21.2	C	0.24	19.6	B	0.28	21.2	C	0.25	20.0	B	0.16	18.7	B	0.13	17.8	B
		TR	0.52	23.2	C	0.55	23.9	C	0.24	17.8	B	0.50	22.8	C	0.31	18.6	B	0.65	27.1	C	0.32	19.2	B	0.33	19.4	B
		R	0.34	14.7	B	0.36	14.9	B	0.27	14.0	B	0.29	14.2	B	0.47	16.3	B	0.52	17.0	B	0.26	13.9	B	0.29	14.1	B
NB	LT	0.12	12.9	B	0.12	13.0	B	0.03	12.0	B	0.03	12.1	B	0.07	12.5	B	0.08	12.5	B	0.03	12.0	B	0.03	12.0	B	
	R	0.12	12.9	B	0.12	13.0	B	0.03	12.0	B	0.03	12.1	B	0.07	12.5	B	0.08	12.5	B	0.03	12.0	B	0.03	12.0	B	
Overall			19.3	B		20.0	B		17.9	B		19.0	B		18.6	B		21.5	C		17.8	B		18.7	B	
2. 161st Street N. Service Road at Macombs Dam Br. Approach	WB	L	0.46	25.7	C	0.60	28.9	C	0.39	24.3	C	0.45	25.5	C	0.55	27.8	C	0.69	32.0	C	0.65	30.1	C	0.74	33.6	C
		R	0.13	20.8	C	0.20	21.8	C	0.14	21.0	C	0.21	22.0	C	0.14	21.0	C	0.30	23.4	C	0.19	21.5	C	0.27	22.5	C
	NB	T	0.32	11.3	B	0.34	11.4	B	0.21	10.3	B	0.22	10.4	B	0.21	10.3	B	0.22	10.4	B	0.19	10.1	B	0.20	10.2	B
		T	0.47	12.8	B	0.51	13.4	B	0.31	11.2	B	0.34	11.5	B	0.41	12.2	B	0.45	12.6	B	0.19	10.2	B	0.21	10.3	B
	Overall			14.5	B		15.8	B		13.7	B		14.4	B		15.3	B		17.2	B		17.5	B		19.2	B
4. 161st Street N. Service Road at River Avenue	WB	TR	0.22	14.7	B	0.34	21.0	C	0.24	14.9	B	0.33	20.9	C	0.31	15.7	B	0.48	23.0	C	0.37	11.3	B	0.45	13.5	B
	NB	LT	0.42	7.5	A	0.48	4.6	A	0.19	5.0	A	0.26	2.1	A	0.34	6.0	A	0.47	3.5	A	0.57	12.7	B	0.91	34.8	C
	SB	TR	0.60	28.2	C	0.53	20.6	C	0.52	25.9	C	0.49	19.8	B	0.58	27.5	C	0.62	22.9	C	0.70	29.3	C	0.84	35.9	D
	Overall			18.7	B		16.6	B		17.9	B		16.7	B		17.3	B		17.7	B		17.5	B		26.7	C
5. 161st Street Main Road at River Avenue	EB	LTR	0.30	15.5	B	0.44	22.3	C	0.21	14.6	B	0.29	20.3	C	0.19	14.4	B	0.29	20.3	C	0.34	10.8	B	0.42	12.7	B
	WB	LTR	0.34	15.9	B	0.49	22.9	C	0.28	15.2	B	0.42	21.9	C	0.42	16.7	B	0.59	24.6	C	0.29	10.4	B	0.37	12.3	B
	NB	LTR	0.43	6.9	A	0.44	3.1	A	0.24	5.3	A	0.38	2.7	A	0.49	7.8	A	0.74	8.2	A	0.48	8.9	A	1.01	42.7	D
	SB	LTR	0.39	6.2	A	0.35	2.4	A	0.34	5.8	A	0.34	2.3	A	0.35	5.9	A	0.42	2.9	A	0.31	7.0	A	0.46	6.6	A
	Overall			12.3	B		15.1	B		11.5	B		13.1	B		12.7	B		15.4	B		9.8	A		21.1	C
6. 161st Street S. Service Road at River Avenue	EB	TR	0.46	17.6	B	0.70	28.0	C	0.33	15.8	B	0.48	23.0	C	0.40	16.7	B	0.60	25.3	C	0.71	16.6	B	0.91	29.2	C
	NB	TR	0.53	26.5	C	0.46	19.0	B	0.37	23.2	C	0.41	18.3	B	0.65	30.5	C	0.79	29.8	C	0.70	31.0	C	0.90	41.0	D
	SB	LT	0.35	5.9	A	0.34	2.3	A	0.38	6.3	A	0.40	2.7	A	0.33	5.9	A	0.44	3.2	A	0.26	6.5	A	0.54	8.4	A
	Overall			16.9	B		19.9	B		14.5	B		15.9	B		18.6	B		22.3	C		18.2	B		29.3	C
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.19	6.3	A	0.25	6.7	A	0.21	6.5	A	0.24	6.6	A	0.29	7.0	A	0.38	7.7	A	0.23	8.3	A	0.26	8.5	A
	NB	LT	0.29	19.1	B	0.37	20.2	C	0.24	18.5	B	0.33	19.6	B	0.50	22.3	C	0.77	31.3	C	0.55	10.4	B	0.72	14.2	B
	Overall			9.8	A		10.3	B		9.1	A		9.9	A		11.6	B		15.6	B		9.4	A		11.6	B
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.26	6.7	A	0.27	6.8	A	0.16	6.1	A	0.25	6.7	A	0.17	6.2	A	0.42	8.4	A	0.35	9.4	A	----	----	----
		DefLT	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
		T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	0.57	16.1
	WB	TR	0.23	6.6	A	0.24	6.6	A	0.18	6.2	A	0.20	6.4	A	0.29	6.9	A	0.37	7.5	A	0.25	8.4	A	0.28	8.6	A
		LTR	0.37	20.3	C	0.39	20.5	C	0.39	20.7	C	0.41	21.1	C	0.53	23.0	C	0.56	23.6	C	0.34	8.1	A	0.36	8.2	A
Overall			8.6	A		8.7	A		9.0	A		9.1	A		10.1	B		10.6	B		8.7	A		10.2	B	
9. 161st Street S. Service Road at Gerard Avenue	EB	TR	0.22	6.5	A	0.28	6.9	A	0.25	6.7	A	0.31	7.1	A	0.27	6.8	A	0.35	7.4	A	0.27	8.6	A	0.34	9.2	A
	NB	TR	0.54	35.1	D	1.01	87.3	F	0.61	38.0	D	0.64	39.3	D	0.86	55.8	E	1.20	149.4	F	0.51	19.0	B	0.54	19.6	B
	Overall			15.5	B		36.2	D		15.9	B		15.6	B		24.6	C		59.3	F		12.7	B		12.8	B
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.14	9.8	A	0.20	10.2	B	0.14	9.8	A	0.16	10.0	A	0.18	10.1	B	0.25	10.6	B	0.16	10.6	B	0.21	10.9	B
	NB	L	0.27	18.6	B	0.24	17.4	B	0.31	18.6	B	0.28	17.6	B	0.61	25.7	C	0.55	22.4	C	0.24	8.7	A	0.22	8.1	A
	SB	TR	0.81	50.1	D	0.40	28.8	C	0.64	38.4	D	0.31	27.6	C	0.73	43.2	D	0.36	28.2	C	0.61	25.9	C	0.30	17.2	B
	Overall			28.9	C		18.3	B		22.0	C		17.5	B		24.7	C		18.2	B		16.3	B		12.7	B
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.28	10.9	B	0.41	12.2	B	0.36	11.8	B	0.43	12.5	B	0.36	11.8	B	0.49	13.3	B	0.27	11.4	B	0.33	11.9	B
	NB	TR	0.28	28.0	C	0.30	28.2	C	0.24	27.2	C	0.27	27.8	C	0.42	30.4	C	0.49	31.9	C	0.16	16.3	B	0.29	18.0	B
	SB	L	0.23	17.2	B	0.24	17.4	B	0.33	18.4	B	0.35	18.9	B	0.21	17.3	B	0.23	17.7	B	0.11	7.2	A	0.13	7.5	A
		T	0.43	12.3	B	0.45	12.5	B	0.22	10.0	A	0.23	10.1	B	0.38	11.6	B	0.40	11.8	B	0.14	2.8	A	0.14	2.8	A
	Overall			14.0	B		14.3	B		14.2	B		14.7	B		15.4	B		16.2	B		10.2	B		11.3	B
12. 161st Street N. Service Road at Grand Concourse	WB	LTR	0.31	22.5	C	0.49	25.4	C	0.32	20.2	C	0.40	21.3	C	0.38	23.5	C	0.62	28.3	C	0.37	20.9	C	0.51	23.3	C
	NB	L	0.41	8.8	A	0.55	16.8	B	0.16	4.5	A	0.18	4.9	A	0.26	4.0	A</									

Table 3.3-3
 Comparison of Non-Game Day 2008 Existing and 2018 No-Action Traffic Conditions
 161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)						Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)						Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)					
			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
16. 161st Street at Sherman Avenue	EB	TR	0.43	8.1	A	0.48	8.7	A	0.37	7.5	A	0.41	7.9	A	0.36	7.5	A	0.48	8.6	A	0.37	8.8	A	0.44	9.4	A
		WB	0.51	9.0	A	0.66	11.3	B	0.72	13.3	B	0.84	18.4	B	0.62	10.7	B	0.74	13.5	B	0.50	10.1	B	0.58	11.2	B
	NB	L	0.08	26.8	C	0.08	26.8	C	0.24	29.4	C	0.26	30.0	C	0.27	30.5	C	0.41	36.3	D	0.10	15.1	B	0.12	15.4	B
		R	0.03	26.1	C	0.04	26.1	C	0.15	27.6	C	0.15	27.6	C	0.11	27.1	C	0.12	27.2	C	0.16	15.6	B	0.17	15.7	B
	SB	LTR	0.06	25.7	C	0.06	25.7	C	0.19	28.0	C	0.47	35.0	C	0.68	44.6	D	1.25	175.5	F	0.32	17.1	B	0.64	25.7	C
Overall			9.0	A	10.5	B	12.3	B	15.8	B	13.1	B	30.6	C	10.5	B	12.4	B	12.4	B	12.4	B	12.4	B	12.4	B
17. 161st Street at Grant Avenue	EB	T	0.40	12.1	B	0.47	12.9	B	0.40	12.1	B	0.45	12.7	B	0.40	12.1	B	0.54	13.9	B	0.35	11.6	B	0.41	12.3	B
		WB	0.51	13.5	B	0.66	16.2	B	0.51	13.6	B	0.58	14.7	B	0.59	14.8	B	0.68	16.7	B	0.42	12.4	B	0.48	13.1	B
	Overall			12.9	B	14.8	B	12.9	B	13.8	B	13.7	B	15.4	B	12.0	B	12.7	B	12.7	B	12.7	B	12.7	B	12.7
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	0.77	32.9	C	1.14	122.4	F	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		TR	0.68	19.7	B	0.82	26.6	C	0.55	15.0	B	0.65	17.1	B	0.93	36.4	D	1.28	155.4	F	0.51	10.4	B	0.61	11.9	B
	WB	LTR	0.56	14.7	B	0.76	19.8	B	0.56	15.3	B	0.67	17.6	B	0.92	32.4	C	1.23	131.7	F	0.55	11.0	B	0.66	12.8	B
		L	0.93	56.1	E	1.04	83.2	F	0.81	35.9	D	0.87	41.5	D	0.91	51.7	D	1.02	74.0	E	0.81	33.9	C	0.87	40.3	D
	SB	LTR	0.96	61.3	E	1.07	91.6	F	0.85	39.1	D	0.91	46.6	D	0.97	64.3	E	1.09	99.5	F	0.81	33.0	C	0.86	38.9	D
Overall			34.3	C	54.3	D	23.2	C	26.5	C	42.2	D	126.0	F	18.4	B	21.9	C	21.9	C	21.9	C	21.9	C	21.9	C
19. 161st Street at Park Avenue West	EB	T	0.38	12.0	B	0.45	12.8	B	0.47	13.1	B	0.53	14.0	B	0.47	13.1	B	0.63	15.7	B	0.36	8.8	A	0.44	9.5	A
		WB	0.30	1.7	A	0.38	2.0	A	0.33	1.8	A	0.37	1.9	A	0.44	2.2	A	0.49	2.5	A	0.35	1.5	A	0.41	1.7	A
	SB	LR	0.66	33.4	C	0.93	60.4	E	0.62	31.7	C	0.69	34.8	C	0.89	53.1	D	1.01	78.6	E	0.58	23.0	C	0.63	24.9	C
		Overall			12.2	B	18.7	B	12.0	B	12.8	B	16.2	B	21.8	C	8.0	A	8.6	A	8.6	A	8.6	A	8.6	A
20. 161st Street at Park Avenue East	EB	T	0.40	2.0	A	0.46	2.3	A	0.48	2.4	A	0.54	2.8	A	0.51	2.6	A	0.66	3.8	A	0.40	1.7	A	0.48	2.0	A
		WB	0.24	10.6	B	0.31	11.3	B	0.28	10.9	B	0.32	11.3	B	0.56	11.9	B	0.43	12.5	B	0.33	8.5	A	0.38	8.9	A
	NB	LR	0.63	32.8	C	0.70	36.2	D	0.50	28.3	C	0.53	29.1	C	0.34	47.8	D	0.88	53.3	D	0.38	18.9	B	0.39	19.3	B
		Overall			10.2	B	11.0	B	8.5	A	8.8	A	13.8	B	14.2	B	6.3	A	6.5	A	6.5	A	6.5	A	6.5	A
21. 161st Street at Courtlandt Avenue	EB	LT	0.58	15.2	B	0.76	20.0	C	0.70	18.0	B	0.81	22.2	C	0.90	29.2	C	1.01	49.9	D	0.51	10.5	B	0.60	11.9	B
		WB	0.22	10.5	B	0.30	11.2	B	0.25	10.7	B	0.30	11.1	B	0.36	11.7	B	0.41	12.3	B	0.33	8.5	A	0.39	9.0	A
	NB	LTR	1.05	87.7	F	1.11	106.5	F	0.80	40.4	D	0.84	44.2	D	0.99	69.4	E	1.04	82.8	F	0.81	34.0	C	0.85	37.6	D
		Overall			35.8	D	40.8	D	21.3	C	24.0	C	33.2	C	46.0	D	15.5	B	16.6	B	16.6	B	16.6	B	16.6	B
22. 161st Street at Melrose Avenue	EB	LTR	0.52	24.0	C	0.58	25.4	C	0.65	27.7	C	0.77	32.4	C	0.86	38.2	D	1.11	98.9	F	0.51	24.2	C	0.64	27.3	C
		WB	0.19	19.0	B	0.28	20.3	C	0.46	23.6	C	0.57	26.3	C	0.59	26.3	C	0.74	32.0	C	0.39	22.0	C	0.51	24.2	C
	NB	LTR	1.03	77.0	E	1.16	123.4	F	0.48	24.6	C	0.54	26.4	C	0.75	34.4	C	0.85	42.5	D	0.76	36.6	D	0.88	48.9	D
		L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	SB	LTR	0.64	28.9	C	0.69	30.5	C	0.45	23.9	C	0.49	24.9	C	0.57	26.9	C	0.62	28.5	C	0.61	28.1	C	0.66	29.9	C
Overall			41.0	D	54.5	D	25.6	C	28.7	C	32.7	C	60.5	E	27.3	C	31.8	C	31.8	C	31.8	C	31.8	C	31.8	C
23. Macombs Dam Bridge at Major Deegan Expy. (I-87) Southbound Ramps	EB	TR	0.83	29.7	C	0.89	33.4	C	0.93	34.0	C	0.98	42.6	D	0.74	26.0	C	0.79	27.7	C	0.89	33.5	C	0.95	39.7	D
		WB	0.79	38.0	D	1.00	79.6	E	0.88	52.1	D	0.98	74.2	E	0.75	30.9	C	0.97	68.8	E	0.85	47.9	D	0.97	73.7	E
	SB	T	0.56	15.8	B	0.60	16.4	B	0.33	12.9	B	0.35	13.1	B	0.47	14.4	B	0.51	14.9	B	0.44	14.1	B	0.47	14.4	B
		LTR	0.83	31.1	C	0.90	35.9	D	0.62	24.4	C	0.67	25.5	C	0.66	25.3	C	0.72	26.8	C	0.58	23.6	C	0.63	24.4	C
Overall			26.3	C	32.3	C	28.3	C	34.2	C	22.7	C	27.0	C	26.6	C	21.4	C	21.4	C	21.4	C	21.4	C	21.4	C
24. E. 157th Street at Major Deegan Expy. (I-87) Northbound Off-Ramp	NEB	L	0.31	25.9	C	---	---	---	0.37	26.7	C	---	---	---	0.52	27.8	C	---	---	---	0.92	46.8	D	---	---	---
		WB	0.57	34.1	C	0.41	15.9	B	0.61	34.8	C	0.47	16.4	B	0.62	33.7	C	0.50	16.0	B	0.61	34.3	C	0.54	16.8	B
	NB	T	1.05	85.8	F	0.37	11.0	B	1.04	80.3	F	0.49	12.0	B	1.04	79.0	E	0.62	12.8	B	1.05	83.3	F	0.83	17.4	B
		R	0.61	33.9	C	0.40	12.5	B	0.37	27.8	C	0.24	10.7	B	0.21	24.5	C	0.14	9.2	A	0.29	25.8	C	0.20	9.7	A
Overall			53.0	D	12.5	B	50.5	D	13.0	B	47.6	D	13.4	B	53.5	D	16.8	B	16.8	B	16.8	B	16.8	B	16.8	B
25. E. 153rd Street at River Avenue	EB	LTR	0.62	29.0	C	0.65	30.0	C	0.40	23.8	C	0.53	26.5	C	0.30	22.1	C	0.92	63.4	E	0.33	16.5	B	0.60	21.3	C
		WB	0.18	20.7	C	0.21	21.1	C	0.26	22.0	C	0.31	22.8	C	0.43	25.0	C	0.79	51.7	D	0.25	15.8	B	0.33	16.9	B
	NB	LTR	0.67	21.0	C	---	---	---	0.63	18.9	B	---	---	---	0.78	25.4	C	---	---	---	0.53	12.3	B	---	---	---
		DefL	---	---	---	0.70	27.2	C	---	---	---	0.87	37.8	D	---	---	---	0.98	49.3	D	---	---	---	0.81	25.1	C
	SB	TR	---	---	---	0.28	11.8	B	---	---	---	0.26	11.6	B	---	---	---	0.45	8.5	A	---	---	---	0.56	12.4	B
		LTR	0.56	15.3	B	0.64	17.1	B	0.38	12.9	B	0.48														

**Table 3.3-3
Comparison of Non-Game Day 2008 Existing and 2018 No-Action Traffic Conditions
161st Street Rezoning - Bronx, NY**

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)						Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)						Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)					
			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
UNSIGNALIZED INTERSECTIONS*																										
3. 161st Street S. Service Road at Macombs Dam Br. Approach*	NB	TR	----	----	----	0.71	17.2	B	----	----	----	0.46	12.9	B	----	----	----	0.52	13.6	B	----	----	----	0.44	12.6	B
	SB	LT	0.08	11.0	B	0.58	1.2	A	0.08	9.4	A	0.37	0.6	A	0.10	9.7	A	0.52	1.0	A	0.06	9.2	A	0.36	0.5	A
	Overall					8.7	A					6.1	A					6.0	A					5.9	A	

* - Intersection of 161st Street at Macombs Dam Bridge is unsignalized in Existing condition, but signalized in all future conditions.
 NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
 L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn
 v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-4A
 Estimated Peak Hour Person-Trip Generation Characteristics by Development Site
 161st Street Rezoning - Bronx, New York
 NO-ACTION CONDITIONS

Site #1a													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Retail (local)	5,000	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	32	195	98	232	
Office	39,000	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	83	105	96	9	
TOTALS =	0	0			TOTAL PERSON-TRIPS =				115	300	195	241	

Site #1b													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Retail (local)	9,778	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	62	381	192	453	
Residential	73,022	73	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	54	28	63	41	
TOTALS =	73	73			TOTAL PERSON-TRIPS =				116	409	256	495	

Site #2a													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Retail (local)	7,702	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	49	300	152	357	
Residential	57,537	58	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	43	22	50	33	
TOTALS =	58	58			TOTAL PERSON-TRIPS =				92	322	202	390	

Site #2b													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Retail (local)	5,000	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	32	195	98	232	
Office	6,000	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	13	16	15	1	
TOTALS =	0	0			TOTAL PERSON-TRIPS =				45	211	113	233	

Site #3													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ³				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Retail (local)	40,000	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	254	1,558	787	1,854	
TOTALS =	0	0			TOTAL PERSON-TRIPS =				254	1,558	787	1,854	

Site #4													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Office	201,500	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	428	544	497	48	
TOTALS =	0	0			TOTAL PERSON-TRIPS =				428	544	497	48	

Site #5													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Retail (local)	4,070	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	26	159	80	189	
Community Facility ⁴	4,070	0	44.7 trips per 1,000 gross square-foot	26.6 trips per 1,000 gross square-foot	4.0%	9.0%	5.0%	10.0%	7	16	9	11	
Residential	26,400	26	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	19	10	22	15	
TOTALS =	26	26			TOTAL PERSON-TRIPS =				52	185	112	214	

Site #6													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Community Facility ⁴	7,650	0	44.7 trips per 1,000 gross square-foot	26.6 trips per 1,000 gross square-foot	4.0%	9.0%	5.0%	10.0%	14	31	17	20	
Residential	26,824	27	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	20	10	23	15	
TOTALS =	27	27			TOTAL PERSON-TRIPS =				34	41	40	36	

Site #7													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Residential	25,112	25	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	22	14	
TOTALS =	25	25			TOTAL PERSON-TRIPS =				18	9	22	14	

Site #8													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Residential	25,112	25	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	22	14	
TOTALS =	25	25			TOTAL PERSON-TRIPS =				18	9	22	14	

Site #9													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Residential	25,112	25	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	22	14	
TOTALS =	25	25			TOTAL PERSON-TRIPS =				18	9	22	14	

Site #10													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Residential	16,629	17	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	12	6	15	10	
TOTALS =	17	17			TOTAL PERSON-TRIPS =				12	6	15	10	

Site #11													
Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics				
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD	
Residential	23,543	24	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	18	9	21	14	
TOTALS =	24	24			TOTAL PERSON-TRIPS =				18	9	21	14	

629,061	300								1,220	3,613	2,301	3,577
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Footnotes:
 1 = All person-trip rates as per CEQR Technical Manual.
 2 = Residential and Office temporal distributions as per CEQR Technical Manual.
 3 = Retail temporal distributions as per "125th Street Rezoning and Other Actions EIS".
 4 = Person-trip generation rate and temporal distribution follow "Health Club" as per CEQR Technical Manual.

Table 3.3-4B
Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site
161st Street Rezoning - Bronx, New York
NO-ACTION CONDITIONS

Site #1a

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{2,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	5,000	0	32	195	98	232	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	1	1	7	3	3	3	2	2	8	4	4
Pass-by Trip Reduction ⁵ =																							0	0	0	2	1	1	1	0	0	2	1	1
Net New Trips =																							1	1	1	5	2	2	2	1	1	6	3	3
Office	39,000	0	83	105	96	9	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	21	20	1	7	7	0	25	1	23	2	0	2
TOTALS =	44,000	0	115	300	195	241																22	21	1	12	9	3	27	2	25	8	3	5	

Site #1b

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	9,778	0	62	381	192	453	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2	1	1	13	6	6	6	3	3	15	8	8
Pass-by Trip Reduction ⁵ =																							0	0	0	3	2	2	2	1	1	4	2	2
Net New Trips =																							2	1	1	10	5	5	5	2	2	11	6	6
Residential	73,022	73	54	28	63	41	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	8	1	7	2	0	2	10	7	3	4	3	1
TOTALS =	82,800	73	116	409	256	495																10	2	8	12	5	7	14	9	5	15	8	7	

Site #2a

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	7,702	0	49	300	152	357	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2	1	1	10	5	5	5	3	3	12	6	6
Pass-by Trip Reduction ⁵ =																							0	0	0	3	1	1	1	1	1	3	1	1
Net New Trips =																							2	1	1	8	4	4	4	2	2	9	4	4
Residential	57,537	58	43	22	50	33	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	7	1	6	2	0	2	8	5	2	3	2	1
TOTALS =	65,239	58	92	322	202	390																8	2	6	9	4	5	11	7	4	12	6	5	

Site #2b

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{2,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	5,000	0	32	195	98	232	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	1	1	7	3	3	3	2	2	8	4	4
Pass-by Trip Reduction ⁵ =																							0	0	0	2	1	1	1	0	0	2	1	1
Net New Trips =																							1	1	1	5	2	2	2	1	1	6	3	3
Office	6,000	0	13	16	15	1	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	3	3	0	1	1	0	4	0	4	0	0	0
TOTALS =	11,000	0	45	211	113	233																4	4	1	6	3	2	6	1	5	6	3	3	

Site #3

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ³								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	40,000	0	254	1,558	787	1,854	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	9	4	4	52	26	26	26	13	13	62	31	31
Pass-by Trip Reduction ⁵ =																							0	0	0	13	7	7	7	3	3	16	8	8
Net New Trips =																							9	4	4	39	20	20	20	10	10	47	23	23
TOTALS =	40,000	0	254	1,558	787	1,854																9	4	4	39	20	20	20	10	10	47	23	23	

Site #4

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ²								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Office	201,500	0	428	544	497	48	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	110	105	4	36	34	1	128	6	121	12	1	12
TOTALS =	201,500	0	428	544	497	48																110	105	4	36	34	1	128	6	121	12	1	12	

Site #5

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,2,3,4}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	4,070	0	26	159	80	189	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	0	0	5	3	3	3	1	1	6	3	3
Pass-by Trip Reduction ⁵ =																							0	0	0	1	1	1	1	0	0	2	1	1
Net New Trips =																							1	0	0	4	2	2	2	1	1	5	2	2
Community Facility	4,070	0	7	16	9	11	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	0	1	0	1	1	1	0	1	1	0
Residential	26,400	26																																

Table 3.3-4B
 Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site
 161st Street Rezoning - Bronx, New York
 NO-ACTION CONDITIONS

Site #6

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,4}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Community Facility	7,650	0	14	31	17	20	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	1	2	1	1	2	1	0	2	1	0
Residential	26,824	27	20	10	23	15	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	3	1	0	1	4	2	1	1	1	0
TOTALS =	34,474	27	34	41	40	36																	4	1	3	3	1	2	5	4	1	3	2	1

Site #7

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	25,112	25	18	9	22	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
TOTALS =	25,112	25	18	9	22	14																	3	0	2	1	0	1	3	2	1	1	1	0

Site #8

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	25,112	25	18	9	22	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
TOTALS =	25,112	25	18	9	22	14																	3	0	2	1	0	1	3	2	1	1	1	0

Site #9

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	25,112	25	18	9	22	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
TOTALS =	25,112	25	18	9	22	14																	3	0	2	1	0	1	3	2	1	1	1	0

Site #10

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	16,629	17	12	6	15	10	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	2	0	2	1	0	0	2	2	1	1	1	0
TOTALS =	16,629	17	12	6	15	10																	2	0	2	1	0	0	2	2	1	1	1	0

Site #11

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{6,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential	23,543	24	18	9	21	14	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	3	0	2	1	0	1	3	2	1	1	1	0
TOTALS =	23,543	24	18	9	21	14																	3	0	2	1	0	1	3	2	1	1	1	0

629,061 300 1,220 3,613 2,301 3,577 185 142 43 127 80 47 233 55 178 116 55 61

Footnotes:
 1 = Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).
 2 = Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).
 3 = Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS".
 4 = Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS".
 5 = 25% pass-by and linked-trip reduction assumed for retail trips during weekday MD and PM peak hours. No pass-by reduction for retail assumed for weekday AM peak hour.
 6 = Vehicle occupancy rates (Auto = 1.65 / Taxi = 1.4) as per "125th Street Rezoning and Related Actions EIS".
 7 = Directional Splits (In%/Out%): Residential AM (15/85) PM (70/30), Retail AM (50/50) PM (50/50), Office AM (96/4) PM (5/95), and Community Facility AM (41/59) PM (75/25), from Pushkarev & Zupan, "Urban Space for Pedestrians," (1975).

Newly congested intersections, as well as those where current congestion would no longer occur under the 2018 No-Action Condition, are discussed below.

Newly Congested Intersections

Along the E. 161st Street corridor, there would be three newly congested intersections:

- E. 161st Street S. Service Road at Gerard Avenue – Weekday AM and PM peaks.
- E. 161st Street at Concourse Village East/Morris Avenue – Weekday AM and PM peaks.
- E. 161st Street at Park Avenue West – Weekday AM and PM peaks.
- E. 161st Street at Melrose Avenue – Weekday PM peak.
- Macombs Dam Bridge at MDE (I-87) Southbound Ramps – Weekday AM, Midday, PM and Saturday midday peaks.
- E. 153rd Street at River Avenue – Weekday PM peak.
- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp– Weekday AM, Midday and Saturday midday peaks.

Existing Congested Locations No Longer Congested under No-Action Conditions

- E. 157th Street at MDE (I-87) Northbound Off-Ramp – Weekday AM, Midday, PM and Saturday midday peaks.

Traffic operations within the study area under the 2018 No-Action Condition are described more fully below.

E. 161st Street Corridor

- E. 161st Street/Jerome Avenue – The eastbound and westbound approaches would operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operate at LOS “B” during these same four peak hours.
- E. 161st Street N. Service Road at Macombs Dam Br. Approach – The westbound approach would operate at LOS “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches would operate at LOS “B” during the four peak periods.
- E. 161st Street N. Service Road at River Avenue – The westbound approach would operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS “A” in the three weekday peaks and LOS “C” in the Saturday midday peak, and the southbound approach would operate at LOS “B” or “C” in the three weekday peaks and at LOS “D” in the Saturday midday peak period.

- E. 161st Street Main Road at River Avenue – The eastbound and westbound approaches would both operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches would operate at LOS “A” during all four peak periods with the exception of the Saturday midday peak, when the northbound approach would operate at LOS “D.”
- E. 161st Street S. Service Road at River Avenue – The eastbound approach would operate at LOS “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS “B” or “C” in the three weekday peaks and at LOS “D” in the Saturday midday peak, and the southbound approach would operate at LOS “A” in all four peak periods.
- E. 161st Street N. Service Road at Gerard Avenue – The westbound approach would operate at LOS “A” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operate at LOS “B” or “C” in all four peak periods.
- E. 161st Street Main Road at Gerard Avenue – The eastbound and westbound approaches would both operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operate at LOS “C” in the three weekday peaks and LOS “A” in the Saturday midday peak hour.
- E. 161st Street S. Service Road at Gerard Avenue – The eastbound approach would operate at LOS “A” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound approach would operate at LOS “F” in the weekday AM peak, LOS “D” in the midday peak hour, LOS “F” in the PM peak hour and LOS “B” in the Saturday midday peak hour.
- E. 161st Street N. Service Road at Walton Avenue – The westbound approach would operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS “B” in the weekday AM and midday peak hours, LOS “C” in the PM peak and LOS “A” in the Saturday midday peak hour, and the southbound approach would operate at LOS “C” in the three weekday peak hours and LOS “B” in the Saturday midday peak hour.
- E. 161st Street S. Service Road at Walton Avenue – The eastbound and northbound approaches would both operate at LOS “B” or “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operate at LOS “A” or “B” in all four peak hours..
- E. 161st Street N. Service Road at Grand Concourse – The westbound approach would operate at LOS “C” respectively during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the northbound and southbound approaches would operate at LOS “A” or “B” during all four peak periods.

- E. 161st Street S. Service Road at Grand Concourse – The eastbound and northbound approaches would both operate at LOS “C” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operate at LOS “A” during all four peak periods.
- E. 161st at Concourse Village West/Sheridan Avenue – The eastbound main and service road approaches would both operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the westbound approach would operate at LOS “B” in all four peak periods, and the northbound approach would operate at LOS “B” or “C” in all four peak periods.
- E. 161st Street at Sherman Avenue – The eastbound and westbound approaches would both operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, the northbound approach would operate at LOS “C” in the weekday AM and midday peaks and LOS “B” or “C” in the PM and Saturday midday peak periods, with the exception of the northbound left movement, which would operate at LOS “D” in the PM peak period.
- E. 161st Street at Grant Avenue – The eastbound and westbound approaches would both operate at LOS “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.
- E. 161st Street at Concourse Village East/Morris Avenue – The eastbound approach would operate at LOS “B” during the weekday and Saturday midday peaks, and LOS “F” in the weekday AM and PM peak hours, the westbound approach would operate at LOS “B” in all peak hours except the weekday PM peak (LOS “F”), the northbound approach would operate at LOS “F” and “E” in the weekday AM and PM peaks, respectively and at LOS “D” in the weekday and Saturday midday peaks, and the southbound approach would operate at LOS “F” in the weekday AM and PM peaks and at LOS “D” in the weekday and Saturday midday peaks.
- E. 161st Street at Park Avenue West – The eastbound and westbound approaches would operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operate at LOS “E” in the weekday AM and PM peaks and at LOS “B” or “C” in the weekday and Saturday midday peaks.
- E. 161st Street at Park Avenue East – The eastbound and westbound approaches both would operate at LOS “A” or “B” during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour, and the southbound approach would operate at LOS “D” in the weekday AM and PM peaks and at LOS “C” in the weekday and Saturday midday peaks.
- E. 161st Street at Courtlandt Avenue – The eastbound approach would operate at LOS “B” or “C” during the weekday AM and midday and Saturday midday peaks and at LOS “D” in the PM peak hour, the westbound approach would operate at LOS “A” or “B” in

the four peak periods, and the northbound approach would operate at LOS “F” in the weekday AM and PM peaks and LOS “D” in the weekday and Saturday midday peaks.

- E. 161st Street at Melrose Avenue – The eastbound approach would operate at LOS “C” in the weekday AM and midday peaks and the Saturday midday peak, and LOS “F” in the PM peak hour, the westbound approach would operate at LOS “C” in the four peak periods, the northbound approach would operate at LOS “F” in the weekday AM peak, LOS “C” in the weekday midday peak and LOS “D” in the PM and Saturday midday peak, and the southbound approach would operate at LOS “C” in all four peak periods.
- Macombs Dam Bridge at MDE (I-87) Southbound Ramps – The eastbound approach would operate at LOS “C” during the weekday AM and PM peak hours and at LOS “D” in the weekday and Saturday midday peak hours, the westbound left approach would operate at LOS “E” in all four peak periods, and the southbound approach would operate at LOS “D” in the weekday AM peak and LOS “C” in the other three peak periods.

Additional Analysis Locations

- E. 157th Street at MDE (I-87) Northbound Off-Ramp – all approaches to this intersection would operate at LOS “A” or “B” in the four peak periods.
- E. 153rd Street at River Avenue – The eastbound and westbound approaches would operate at LOS “B” or “C” during the weekday AM, midday and Saturday midday peak hours and at LOS “E” or “F” in the PM peak hour, the northbound approach would operate at LOS “B” or “C” in the weekday and Saturday midday peak hours and at LOS “D” in the weekday midday or PM peak periods, and the southbound approach would operate at LOS “A” or “B” in all four peak periods.
- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp
 - Weekday AM peak hour. The eastbound and westbound approaches would operate at LOS “C”. The northbound Exterior Street, MDE northbound off-ramp and southbound River Avenue would operate at LOS “F”, while the southbound Exterior Street would operate at LOS “D”. The intersection would operate at an overall LOS “E”.
 - Weekday midday peak hour. The eastbound and westbound approaches would operate at LOS “C” and “D”, respectively. The northbound Exterior Street, MDE northbound off-ramp and southbound River Avenue would operate at LOS “F”, “E” and “E”, respectively, while the southbound Exterior Street would operate at LOS “D”. The intersection would operate at an overall LOS “D”.
 - Weekday PM peak hour. The eastbound and westbound approaches would operate at LOS “E” and “C”, respectively, while the eastbound and westbound left-turn movements are projected to operate at LOS “F”. The northbound Exterior Street, MDE northbound off-ramp, southbound Exterior Street and southbound River Avenue would operate at LOS “F”. The intersection would operate at an overall LOS “F”.

- Saturday midday peak hour. The eastbound and westbound approaches would operate at LOS “C”. The northbound Exterior Street, MDE northbound off-ramp, southbound Exterior Street and southbound River Avenue would operate at LOS “F”, “E”, “F” and “E”, respectively. The intersection would operate at an overall LOS “E”.
- E. 149th Street at Grand Concourse – The eastbound and westbound approaches would both operate at LOS “D” during the weekday AM peak, LOS “C” in the weekday and Saturday midday peaks, and LOS “D” in the PM peak hour, and the northbound and southbound approaches would both operate at LOS “B” or “C” in the four peak periods.
- E. 161st Street S. Service Road at Macombs Dam Br. Approach (unsignalized in 2008 but signalized by 2018) – the northbound and southbound approaches would operate at LOS “A” or “B during the weekday AM, midday and PM peak hours and in the Saturday midday peak hour.

FUTURE WITH THE PROPOSED ACTION

As noted at the beginning of this chapter and discussed in greater detail in Chapter 2.0 of this document, 11 projected development sites have been identified and are analyzed herein for their potential as the RWCDS to impact future traffic conditions. The proposed action would result in a net increase of 594 residential dwelling units (DUs), 42,004 sq. ft. of retail space, 306,011 sq. ft. of office space, and 10 sq. ft. of community facility space.

Trip Generation and Assignment

Trip generation was calculated separately for each land use component related to the proposed action. Under the proposed action, the No-Action land uses on the 11 development sites would be redeveloped in the future in accordance with the land use plan under the Action scenario. As a result, the trip generation analysis takes credit for vehicle trips generated by No-Action land uses that would be displaced.

Tables 3.3-4A and 3.3-4B show the transportation planning assumptions used to estimate the projected person and vehicle trips under the No-Action condition, including the sizes of each land use, weekday and Saturday daily trip generation rates, temporal distributions, modal splits, and in/out splits. Tables 3.3-5A and 3.3-5B show the corresponding transportation planning assumptions and person and vehicle trips for the Action condition. Table 3.3-6 compares the resulting vehicle trip generation characteristics under No-Action and Action conditions to determine the vehicle trip increments during each of the four peak hours for the Non-Game Day analysis. As shown in Table 3.3-6, the proposed action condition is projected to generate net vehicle trip increments of:

- 244 vehicle trips during the weekday AM peak hour, 7:30 to 8:30 AM);
- 115 vehicle trips during the weekday midday peak hour (1:00 to 2:00 PM);
- 294 vehicle trips during the weekday PM peak hour (5:00 to 6:00 PM); and
- 97 vehicle trips during the Saturday midday peak hour (1:00 to 2:00 PM).

Table 3.3-5A
Estimated Peak Hour Person-Trip Generation Characteristics by Development Site
161st Street Rezoning - Bronx, New York
ACTION CONDITIONS

Site #1

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	28,983	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	184	1,129	570	1,344
Office	34,455	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	73	93	85	8
Residential	244,595	245	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	180	93	212	138
TOTALS =		245			TOTAL PERSON-TRIPS =				437	1,315	867	1,490

Site #2

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	22,840	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	145	890	449	1,059
Office	23,813	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	51	64	59	6
Residential	214,936	215	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	158	82	186	122
TOTALS =		215			TOTAL PERSON-TRIPS =				354	1,036	694	1,186

Site #3

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	17,000	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	108	662	335	788
Residential	153,000	153	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	112	58	132	86
TOTALS =		153			TOTAL PERSON-TRIPS =				220	720	467	875

Site #4

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	33,000	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	210	1,285	649	1,530
Office	495,216	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	1,052	1,337	1,221	119
TOTALS =		0			TOTAL PERSON-TRIPS =				1,262	2,622	1,871	1,649

Site #5

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	7,480	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	48	291	147	347
Office	0	0	18 trips per 1,000 gross square-foot	1.6 trips per 1,000 gross square-foot	11.8%	15.0%	13.7%	15.0%	0	0	0	0
Community Facility ⁴	7,480	0	44.7 trips per 1,000 gross square-foot	26.6 trips per 1,000 gross square-foot	4.0%	9.0%	5.0%	10.0%	13	30	17	20
Residential	45,760	46	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	34	17	40	26
TOTALS =		46			TOTAL PERSON-TRIPS =				95	339	204	393

Site #6

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ^{2,3}				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Retail (local)	4,250	0	205 trips per 1,000 gross square-foot	488 trips per 1,000 gross square-foot	3.1%	19.0%	9.6%	9.5%	27	166	84	197
Community Facility ⁴	4,250	0	44.7 trips per 1,000 gross square-foot	26.6 trips per 1,000 gross square-foot	4.0%	9.0%	5.0%	10.0%	8	17	9	11
Residential	33,000	33	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	24	13	29	19
TOTALS =		33			TOTAL PERSON-TRIPS =				59	195	122	227

Site #7

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	39,420	39	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	29	15	34	22
TOTALS =		39			TOTAL PERSON-TRIPS =				29	15	34	22

Site #8

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	39,420	39	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	29	15	34	22
TOTALS =		39			TOTAL PERSON-TRIPS =				29	15	34	22

Site #9

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	39,420	39	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	29	15	34	22
TOTALS =		39			TOTAL PERSON-TRIPS =				29	15	34	22

Site #10

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	34,805	35	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	26	13	30	20
TOTALS =		35			TOTAL PERSON-TRIPS =				26	13	30	20

Site #11

Land Use	Size (sq. ft.)	No. of Dwelling Units	Weekday Daily Person-Trip Rate ¹	Saturday Person-Trip Rate	Temporal Distribution (%) ²				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	SAT MD	Weekday AM	Weekday MD	Weekday PM	SAT MD
Residential	49,277	49	8.075 per dwelling unit	8.075 per dwelling unit	9.1%	4.7%	10.7%	7.0%	36	19	42	28
TOTALS =		49			TOTAL PERSON-TRIPS =				36	19	42	28

1,572,400 893

2,574 6,303 4,397 5,933

Footnotes:

- 1 = All person-trip rates as per CEQR Technical Manual.
- 2 = Residential and Office temporal distributions as per CEQR Technical Manual.
- 3 = Retail temporal distributions as per "125th Street Rezoning and Other Actions EIS".
- 4 = Person-trip generation rate and temporal distribution following "Health Club" as per CEQR Technical Manual.

Table 3.3-5B
 Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site
 161st Street Rezoning - Bronx, New York
 ACTION CONDITIONS

Site #1

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,2,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{5,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	28,983	0	184	1,129	570	1,344	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	6	3	3	38	19	19	19	10	10	45	23	23
Pass-by Trip Reduction ⁵ =																							0	0	0	9	5	5	5	2	2	11	6	6
Net New Trips =																							6	3	3	28	14	14	14	7	7	34	17	17
Office	34,455	0	73	93	85	8	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	19	18	1	6	6	0	22	1	21	2	0	2
Residential	244,595	245	180	93	212	138	24.0%	1.3%	47.8%	0.6%	13.3%	8.9%	3.9%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	28	4	24	8	1	7	33	23	10	12	8	4
TOTALS =	308,033	245	437	1,315	867	1,490																	53	25	28	43	21	21	69	31	38	48	25	23

Site #2

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,2,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{5,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	22,840	0	145	890	449	1,059	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	5	2	2	30	15	15	15	8	8	36	18	18
Pass-by Trip Reduction ⁵ =																							0	0	0	7	4	4	4	2	2	9	4	4
Net New Trips =																							5	2	2	22	11	11	11	6	6	27	13	13
Office	23,813	0	51	64	59	6	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	13	12	1	4	4	0	15	1	14	1	0	1
Residential	214,936	215	158	82	186	122	24.0%	1.3%	47.8%	0.6%	13.3%	8.9%	3.9%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	25	4	21	7	1	6	29	20	9	11	7	3
TOTALS =	261,589	215	354	1,036	694	1,186																	42	19	24	34	16	17	55	27	29	39	21	18

Site #3

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{5,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	17,000	0	108	662	335	788	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	4	2	2	22	11	11	11	6	6	26	13	13
Pass-by Trip Reduction ⁵ =																							0	0	0	6	3	3	3	1	1	7	3	3
Net New Trips =																							4	2	2	17	8	8	8	4	4	20	10	10
Residential	153,000	153	112	58	132	86	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	17	3	15	5	1	4	20	14	6	8	5	2
TOTALS =	170,000	153	220	720	467	875																	21	4	16	22	9	13	29	18	10	27	15	12

Site #4

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{2,3}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{5,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	33,000	0	210	1,285	649	1,530	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	7	4	4	43	22	22	22	11	11	51	26	26
Pass-by Trip Reduction ⁵ =																							0	0	0	11	5	5	5	3	3	13	6	6
Net New Trips =																							7	4	4	32	16	16	16	8	8	38	19	19
Office	495,216	0	1,052	1,337	1,221	119	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	270	259	11	88	85	4	313	16	298	31	2	29
TOTALS =	528,216	0	1,262	2,622	1,871	1,649																	277	263	14	121	101	20	330	24	306	69	21	48

Site #5

Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,2,3,4}								Estimated Mode Split (MD & Res-SAT) ^{2,3}								Estimated Vehicle-Trip Generation Characteristics ^{5,7}											
			Weekday AM	Weekday MD	Weekday PM	SAT MD	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Weekday AM			Weekday MD			Weekday PM			SAT MD		
																							Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Retail (local)	7,480	0	48	291	147	347	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2	1	1	10	5	5	5	2	2	12	6	6
Pass-by Trip Reduction ⁵ =																							0	0	0	2	1	1	1	1	1	3	1	1
Net New Trips =																							2	1	1	7	4	4	4	2	2	9	4	4
Office	0	0	0	0	0	0	40.0%	2.0%	28.0%	3.0%	15.0%	9.0%	3.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	0	0	0	0	0	0	0	0	0	0	0	0
Community Facility	7,480	0	13	30	17	20	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	1	2	1	1	1	1	1	1	1	0
Residential	45,760	46	34	17	40	26	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	5	1	4	2	0	1	6	4	2	2	2	1
TOTALS =	60,720	46	95	339	204	393																	8	2	6	11	5	6	11	7	4	13	7	5

**Table 3.3-5B
Estimated Peak Hour Vehicle-Trip Generation Characteristics by Development Site
161st Street Rezoning - Bronx, New York
ACTION CONDITIONS**

Site #6		Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ^{1,2,3,4}							Estimated Mode Split (MD & Res-SAT) ^{2,3}							Estimated Vehicle-Trip Generation Characteristics ^{5,7}													
					Weekday			SAT MD															Weekday AM			Weekday MD			Weekday PM			SAT MD				
					AM	MD	PM		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Retail (local)	4,250	0	27	166	84	197	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	2.0%	3.0%	6.0%	0.0%	6.0%	83.0%	0.0%	100.0%	1	0	0	6	3	3	3	1	1	7	3	3
		Pass-by Trip Reduction ⁵ =																							0	0	0	1	1	1	1	0	0	2	1	1
		Net New Trips =																							1	0	0	4	2	2	2	1	1	5	2	2
		Community Facility	4,250	0	8	17	9	11	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	0.0%	100.0%	5.0%	5.0%	10.0%	0.0%	5.0%	75.0%	0.0%	100.0%	1	0	0	1	0	1	1	1	0	1	1	0
		Residential	33,000	33	24	13	29	19	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	3	1	0	1	4	3	1	2	1	0
TOTALS =			41,500	33	59	195	122	227																5	1	4	6	3	4	7	5	3	8	4	3	

Site #7		Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹							Estimated Mode Split (MD & Res-SAT) ^{2,3}							Estimated Vehicle-Trip Generation Characteristics ^{5,7}													
					Weekday			SAT MD															Weekday AM			Weekday MD			Weekday PM			SAT MD				
					AM	MD	PM		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Residential	39,420	39	29	15	34	22	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	4	1	0	1	5	4	2	2	1	1
TOTALS =			39,420	39	29	15	34	22																4	1	4	1	0	1	5	4	2	2	1	1	

Site #8		Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹							Estimated Mode Split (MD & Res-SAT) ^{2,3}							Estimated Vehicle-Trip Generation Characteristics ^{5,7}													
					Weekday			SAT MD															Weekday AM			Weekday MD			Weekday PM			SAT MD				
					AM	MD	PM		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Residential	39,420	39	29	15	34	22	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	4	1	0	1	5	4	2	2	1	1
TOTALS =			39,420	39	29	15	34	22																4	1	4	1	0	1	5	4	2	2	1	1	

Site #9		Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹							Estimated Mode Split (MD & Res-SAT) ^{2,3}							Estimated Vehicle-Trip Generation Characteristics ^{5,7}													
					Weekday			SAT MD															Weekday AM			Weekday MD			Weekday PM			SAT MD				
					AM	MD	PM		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Residential	39,420	39	29	15	34	22	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	4	1	0	1	5	4	2	2	1	1
TOTALS =			39,420	39	29	15	34	22																4	1	4	1	0	1	5	4	2	2	1	1	

Site #10		Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹							Estimated Mode Split (MD & Res-SAT) ^{2,3}							Estimated Vehicle-Trip Generation Characteristics ^{5,7}													
					Weekday			SAT MD															Weekday AM			Weekday MD			Weekday PM			SAT MD				
					AM	MD	PM		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Residential	34,805	35	26	13	30	20	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	4	1	3	1	0	1	5	3	1	2	1	1
TOTALS =			34,805	35	26	13	30	20																4	1	3	1	0	1	5	3	1	2	1	1	

Site #11		Land Use	Size (sq. ft.)	No. of Dwelling Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, PM, SAT) ¹							Estimated Mode Split (MD & Res-SAT) ^{2,3}							Estimated Vehicle-Trip Generation Characteristics ^{5,7}													
					Weekday			SAT MD															Weekday AM			Weekday MD			Weekday PM			SAT MD				
					AM	MD	PM		Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Auto	Taxi	Subway	Railroad	Bus	Walk	Other	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
		Residential	49,277	49	36	19	42	28	24.0%	1.0%	48.0%	1.0%	13.0%	9.0%	4.0%	100.0%	12.0%	2.0%	51.0%	2.0%	11.0%	18.0%	4.0%	100.0%	5	1	5	2	0	1	6	5	2	2	2	1
TOTALS =			49,277	49	36	19	42	28																5	1	5	2	0	1	6	5	2	2	2	1	

			1,572,400	893	2,574	6,303	4,397	5,933																429	318	111	243	156	86	528	131	397	213	101	112
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Footnotes:
1 = Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).
2 = Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).
3 = Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS".
4 = Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS".
5 = 25% pass-by and linked-trip reduction assumed for retail trips during weekday MD and PM peak hours. No pass-by reduction for retail assumed for weekday AM peak hour.
6 = Vehicle occupancy rates (Auto = 1.65 / Taxi = 1.4) as per "125th Street Rezoning and Related Actions EIS".
7 = Directional Splits (In%/Out%): Residential AM (15/85) PM (70/30), Retail AM (50/50) PM (50/50), Office AM (96/4) PM (5/95), and Community Facility AM (41/59) PM (75/25), from Pushkarev & Zupan, "Urban Space for Pedestrians," (1975).

The resulting vehicle trips were assigned to the study area based on their anticipated origins and destinations, using the most direct routes to and from each of the 11 projected development sites. Figures 3.3-10 to 3.3-13 show incremental traffic assignments generated by the proposed action – essentially the difference on each affected intersection approach between the 2018 No-Action and 2018 Action Conditions traffic volumes during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. The total traffic volumes under the 2018 Action Condition are depicted in Figures 3.3-14 to 3.3-17 for each of the four peak hours.

Capacity Analysis and Determination of Traffic Impacts

Based on the Action condition traffic volumes shown in Figures 3.3-14 through 3.3-17, intersection capacity analyses were conducted according to the *HCM* methodologies. According to the thresholds established in the *CEQR Technical Manual*, the following situations represent significant traffic impacts:

- 1) A No-Action LOS “A”, “B” or “C” that deteriorates to mid-LOS “D” or worse under the Action condition is considered significant. (The *CEQR Technical Manual* further states that for a No-Action LOS “A”, “B” or “C”, which declines to mid-LOS “D” or worse under the Action condition, mitigation to mid-LOS “D” is required.)
- 2) For a No-Action mid-LOS “D”, an increase of five or more seconds of delay in a lane group under the Action condition is considered significant.
- 3) For No-Action LOS “E”, an increase of four or more seconds of delay in a lane group under the Action condition is considered significant.
- 4) For No-Action LOS “F”, an increase of three or more seconds of delay in a lane group under the Action condition is considered significant. However, if the delay exceeds 120 seconds under the No-Action condition, an increase of 1.0 second in delay is considered significant, unless the proposed action would generate fewer than five vehicles through that lane group during the peak hour under consideration.

Table 3.3-7 shows the v/c ratios, average control delays, and levels-of-service under year 2018 Action conditions, and compares those results to those under 2018 No-Action conditions during each peak hour, and then notes (with an “X” in the “Impact?” column) any movements or approaches that are projected to experience a significant traffic impact based on the *CEQR* criteria described above. As shown in Table 3.3-7, and summarized in Table 3.3-8 below, there would be the following number of intersections with one or more significantly adversely impacted movements during each of the Non-Game Day peak hours analyzed:

- Four intersections during the weekday AM peak hour;
- No intersections during the weekday midday peak hour;
- Five intersections during the weekday PM peak hour; and
- Two intersections during the Saturday midday peak hour.

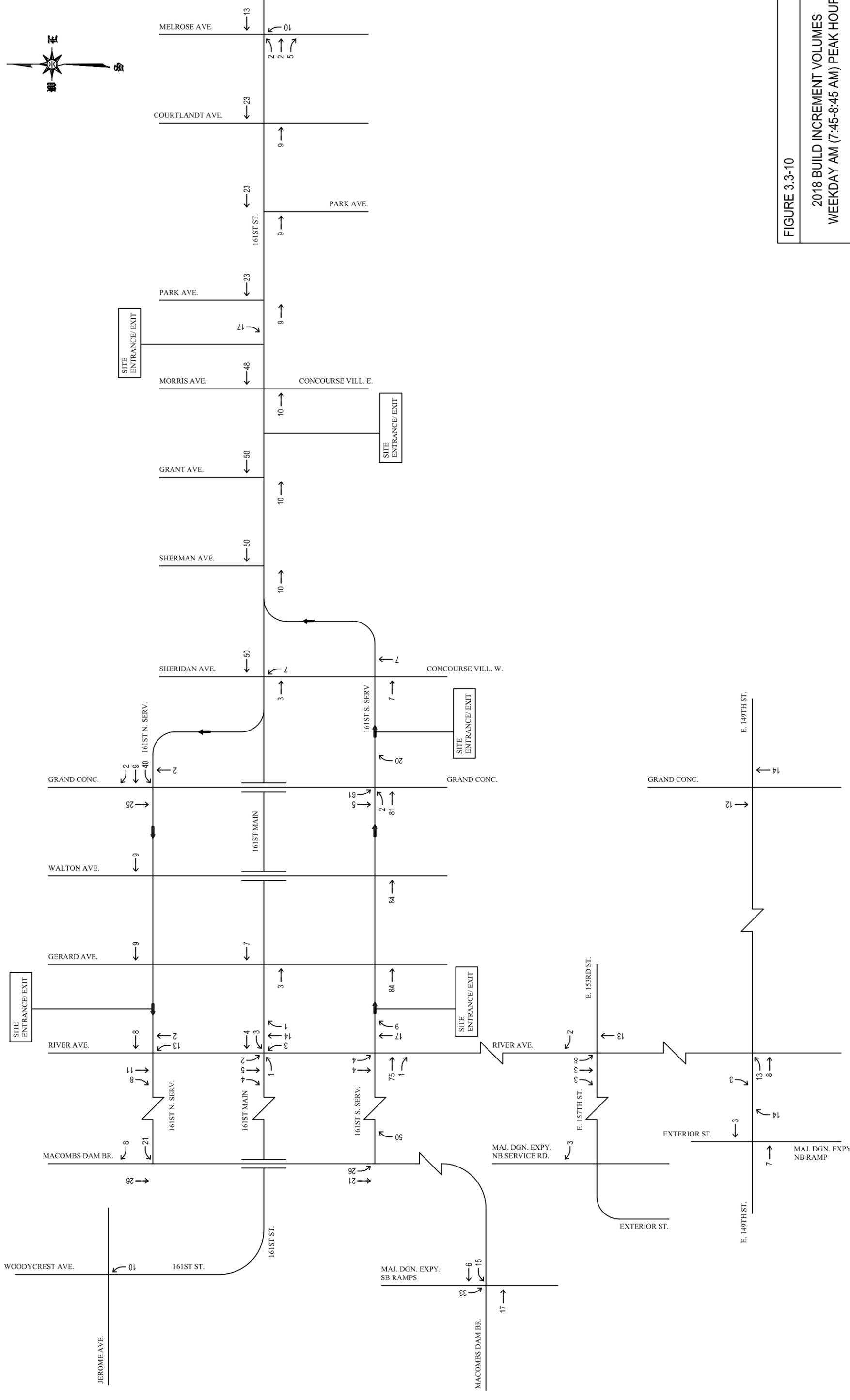


FIGURE 3.3-10

2018 BUILD INCREMENT VOLUMES
WEEKDAY AM (7:45-8:45 AM) PEAK HOUR

161st STREET REZONING EIS
BRONX, NY

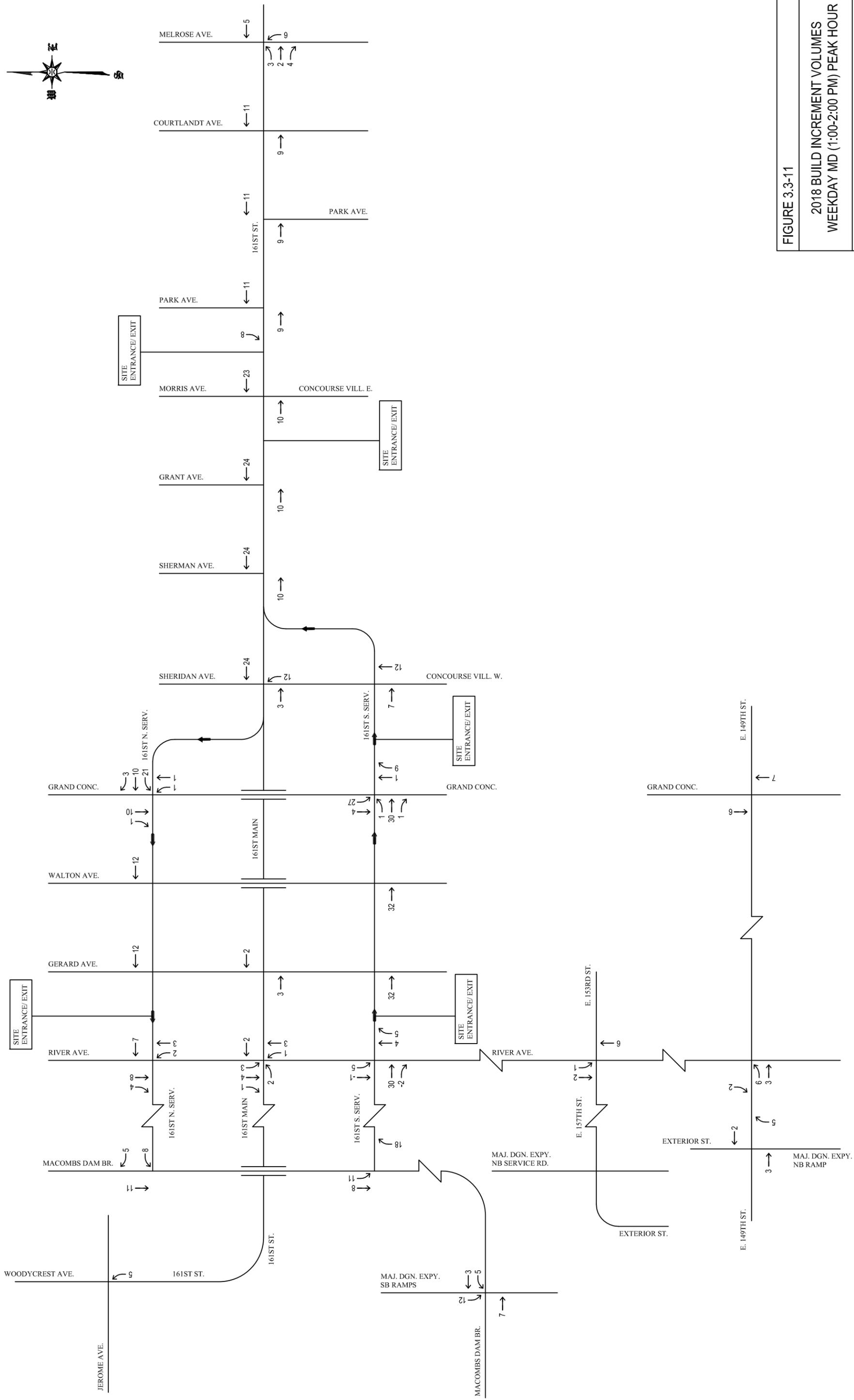


FIGURE 3.3-11

2018 BUILD INCREMENT VOLUMES
WEEKDAY MD (1:00-2:00 PM) PEAK HOUR

161st STREET REZONING EIS
BRONX, NY

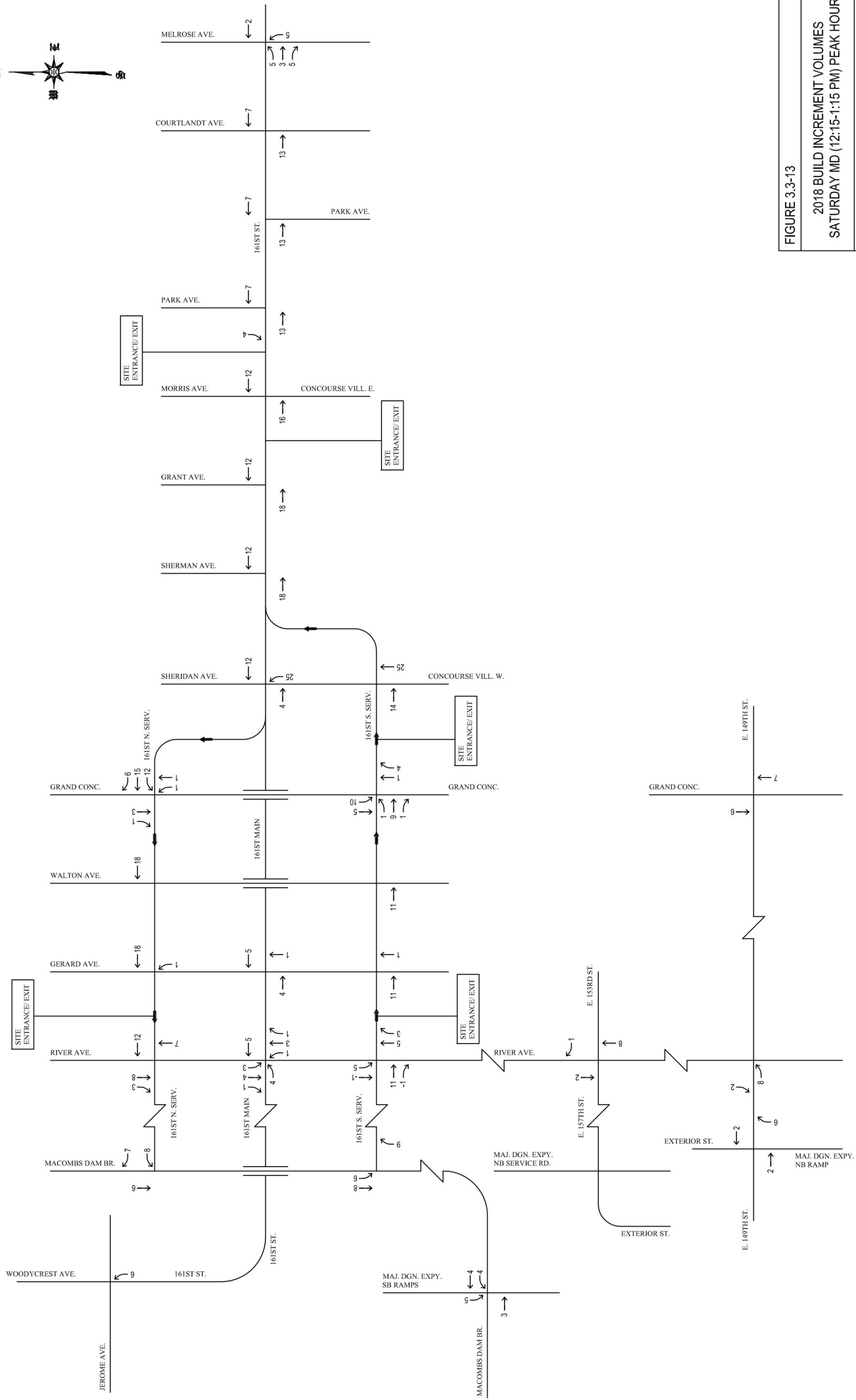


FIGURE 3.3-13

2018 BUILD INCREMENT VOLUMES
SATURDAY MD (12:15-1:15 PM) PEAK HOUR

161st STREET REZONING EIS
BRONX, NY

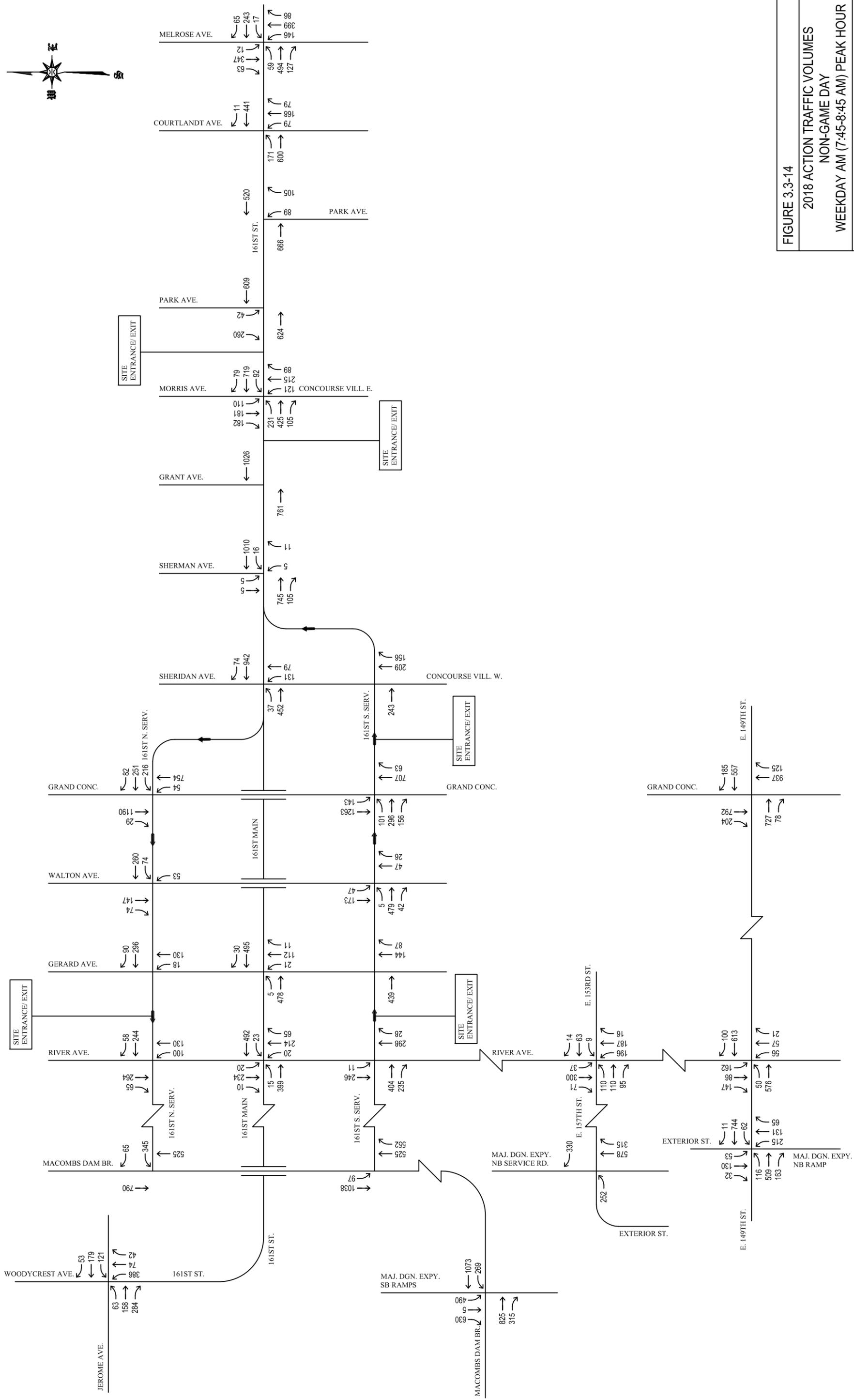


FIGURE 3.3-14

2018 ACTION TRAFFIC VOLUMES
 NON-GAME DAY
 WEEKDAY AM (7:45-8:45 AM) PEAK HOUR
 161st STREET REZONING EIS
 BRONX, NY

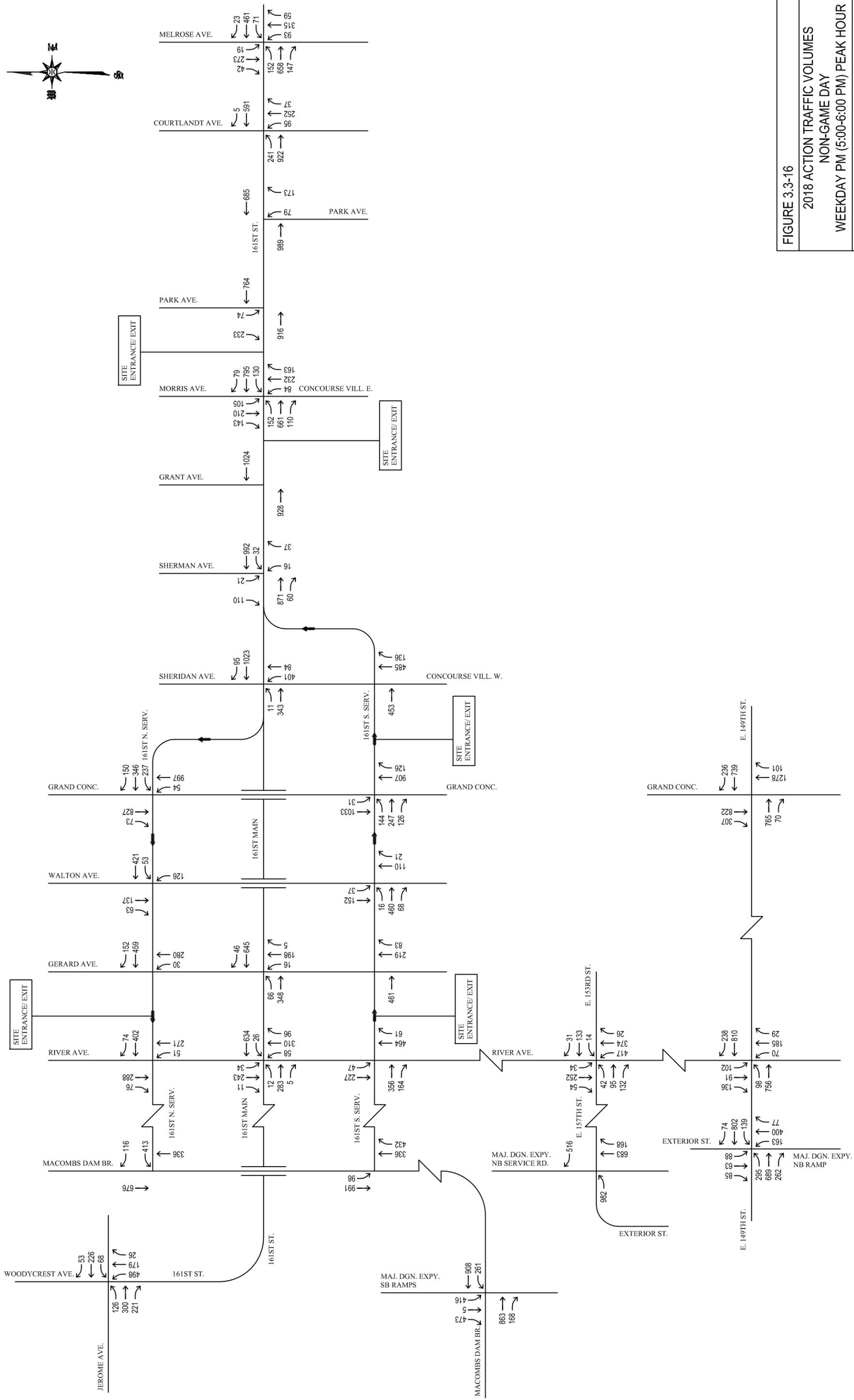


FIGURE 3.3-16

2018 ACTION TRAFFIC VOLUMES
 NON-GAME DAY
 WEEKDAY PM (5:00-6:00 PM) PEAK HOUR
 161st STREET REZONING EIS
 BRONX, NY

Table 3.3-7
Year 2018 Comparison of Non-Game Day Traffic Conditions: No Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)							Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)							Weekday PM Peak Hour (5:00 to 6:00 p.m.)							Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)						
			NO-ACTION			ACTION				Impact?	NO-ACTION			ACTION				Impact?	NO-ACTION			ACTION				Impact?				
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c		Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)		LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS					
SIGNALIZED INTERSECTIONS																														
1. 161st Street at Jerome Avenue	EB	L	0.27	20.5	C	0.27	20.5	C		0.41	23.3	C	0.41	23.3	C		0.63	32.9	C	0.63	32.9	C		0.19	18.6	B	0.19	18.6	B	
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		T	0.16	16.9	B	0.16	16.9	B		0.24	17.8	B	0.24	17.8	B		0.30	18.4	B	0.30	18.4	B		0.28	18.2	B	0.28	18.2	B	
	WB	R	0.63	27.4	C	0.63	27.4	C		0.48	23.2	C	0.48	23.2	C		0.50	23.7	C	0.50	23.7	C		0.58	25.1	C	0.58	25.1	C	
		L	0.35	21.3	C	0.35	21.3	C		0.24	19.6	B	0.24	19.6	B		0.25	20.0	B	0.25	20.0	B		0.13	17.8	B	0.13	17.8	B	
		TR	0.55	23.9	C	0.55	23.9	C		0.50	22.8	C	0.50	22.8	C		0.65	27.1	C	0.65	27.1	C		0.33	19.4	B	0.33	19.4	B	
	NB	LT	0.36	14.9	B	0.37	15.0	B		0.29	14.2	B	0.30	14.2	B		0.52	17.0	B	0.55	17.5	B		0.29	14.1	B	0.29	14.2	B	
R		0.12	13.0	B	0.12	13.0	B		0.03	12.1	B	0.03	12.1	B		0.08	12.5	B	0.08	12.5	B		0.03	12.0	B	0.03	12.0	B		
		Overall		20.0	B		20.0	B			19.0	B		19.0	B			21.5	C		21.2	C			18.7	B		18.6	B	
2. 161st Street N. Service Road at Macombs Dam Br. Approach	WB	L	0.60	28.9	C	0.64	30.1	C		0.45	25.5	C	0.47	25.8	C		0.69	32.4	C	0.76	35.6	D		0.74	33.6	C	0.75	34.4	C	
		R	0.20	21.8	C	0.23	22.2	C		0.21	22.0	C	0.23	22.2	C		0.30	23.0	C	0.42	25.4	C		0.27	22.5	C	0.29	22.9	C	
	NB	T	0.34	11.4	B	0.34	11.4	B		0.22	10.4	B	0.22	10.4	B		0.22	10.4	B	0.22	10.4	B		0.20	10.2	B	0.20	10.2	B	
		SB	T	0.51	13.4	B	0.53	13.6	B		0.34	11.5	B	0.35	11.5	B		0.45	12.6	B	0.45	12.6	B		0.21	10.3	B	0.21	10.3	B
		Overall		15.8	B		16.3	B			14.4	B		14.6	B			17.2	B		18.8	B			19.2	B		19.6	B	
4. 161st Street N. Service Road at River Avenue	WB	TR	0.34	21.0	C	0.35	21.1	C		0.33	20.9	C	0.34	21.0	C		0.48	23.0	C	0.55	24.2	C		0.45	13.5	B	0.46	13.6	B	
		LT	0.48	4.6	A	0.57	6.2	A		0.26	2.1	A	0.27	2.2	A		0.47	3.5	A	0.53	4.3	A		0.91	34.8	C	0.96	43.4	D	
	SB	TR	0.53	20.6	C	0.57	21.5	C		0.49	19.8	B	0.52	20.3	C		0.62	22.9	C	0.63	23.4	C		0.84	35.9	D	0.87	38.9	D	
		Overall		16.6	B		17.4	B			16.7	B		16.9	B			17.7	C		18.6	B			26.9	D		30.1	C	
5. 161st Street Main Road at River Avenue	EB	LTR	0.44	22.3	C	0.44	22.3	C		0.29	20.3	C	0.30	20.4	C		0.29	20.3	C	0.33	20.8	C		0.42	12.7	B	0.43	12.9	B	
		LTR	0.49	22.9	C	0.50	23.0	C		0.42	21.9	C	0.42	22.0	C		0.59	24.6	C	0.64	25.6	C		0.37	12.3	B	0.37	12.3	B	
	NB	LTR	0.44	3.1	A	0.47	3.4	A		0.38	2.7	A	0.39	2.8	A		0.74	8.2	A	0.78	9.6	A		1.01	42.7	D	1.01	44.5	D	
		SB	LTR	0.35	2.4	A	0.37	2.5	A		0.34	2.3	A	0.36	2.4	A		0.42	2.9	A	0.43	2.9	A		0.46	6.6	A	0.48	6.9	A
		Overall		15.1	B		15.0	B			13.1	B		13.1	B			15.4	B		16.4	B			21.1	C		21.6	C	
6. 161st Street S. Service Road at River Avenue	EB	TR	0.70	28.0	C	0.79	31.1	C		0.48	23.0	C	0.51	23.5	C		0.60	25.3	C	0.63	25.8	C		0.91	29.2	C	0.93	32.6	C	
		TR	0.46	19.0	B	0.51	20.0	B		0.41	18.3	B	0.43	18.5	B		0.79	29.8	C	0.82	31.9	C		0.90	41.0	D	0.92	44.1	D	
	SB	LT	0.34	2.3	A	0.34	2.3	A		0.40	2.7	A	0.41	2.8	A		0.44	3.2	A	0.47	3.6	A		0.54	8.4	A	0.59	9.6	A	
		Overall		19.9	B		22.3	C			15.9	B		16.5	B			22.3	C		23.4	C			29.3	C		32.3	C	
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.25	6.7	A	0.26	6.8	A		0.24	6.6	A	0.25	6.7	A		0.38	7.7	A	0.41	8.0	A		0.26	8.5	A	0.28	8.6	A	
		LT	0.37	20.2	C	0.37	20.2	C		0.33	19.6	B	0.33	19.6	B		0.77	31.3	C	0.78	31.7	C		0.72	14.2	B	0.73	14.3	B	
			Overall		10.3	B		10.2	B			9.9	A		9.9	A			15.6	B		15.5	B			11.6	B		11.6	B
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.27	6.8	A	0.28	6.9	A		0.25	6.7	A	0.25	6.8	A		0.42	8.4	A	0.43	8.6	A		---	---	---	---	---	---	
		DefL	---	---	---	---	---	---		---	---	---	---	---	---		---	---	---	---	---	---		0.57	16.1	B	0.57	16.2	B	
		T	---	---	---	---	---	---		---	---	---	---	---	---		---	---	---	---	---	---		0.34	9.6	A	0.35	9.7	A	
	WB	TR	0.24	6.6	A	0.29	7.0	A		0.20	6.4	A	0.20	6.4	A		0.37	7.5	A	0.39	7.7	A		0.28	8.6	A	0.29	8.7	A	
NB		LTR	0.39	20.5	C	0.40	20.6	C		0.41	21.1	C	0.41	21.1	C		0.56	23.6	C	0.57	23.8	C		0.36	8.2	A	0.37	8.2	A	
		Overall		8.7	A		8.8	A			9.1	A		9.1	A			10.6	B		10.7	B			10.2	B		10.3	B	
9. 161st Street S. Service Road at Gerard Avenue	EB	TR	0.28	6.9	A	0.34	7.4	A		0.31	7.1	A	0.33	7.3	A		0.35	7.4	A	0.36	7.5	A		0.34	9.2	A	0.35	9.2	A	
		TR	1.01	87.3	F	1.01	87.3	F		0.64	39.3	D	0.65	39.5	D		1.20	149.4	F	1.21	154.3	F	X	0.54	19.6	B	0.54	19.7	B	
			Overall		36.2	D		32.8	C			15.6	B		15.3	B			59.3	E		60.2	E			12.8	B		12.9	B
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.20	10.2	B	0.20	10.3	B		0.16	10.0	A	0.17	10.0	B		0.25	10.6	B	0.28	11.0	B		0.21	10.9	B	0.22	11.0	B	
		L	0.24	17.4	B	0.24	17.4	B		0.28	17.6	B	0.28	17.6	B		0.55	22.4	C	0.55	22.4	C		0.22	8.1	A	0.22	8.1	A	
	SB	TR	0.40	28.8	C	0.40	28.8	C		0.31	27.6	C	0.31	27.6	C		0.36	28.2	C	0.36	28.2	C		0.30	17.2	B	0.30	17.2	B	
		Overall		18.3	B		18.2	B			17.5	B		17.3	B			18.2	B		17.8	B			12.7	B		12.7	B	
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.41	12.2	B	0.48	13.1	B		0.43	12.5	B	0.45	12.9	B		0.49	13.3	B	0.51	13.5	B		0.33	11.9	B	0.34	12.0	B	
		TR	0.30	28.2	C	0.30	28.2	C		0.27	27.8	C	0.27	27.8	C		0.49	31.9	C	0.49	31.9	C		0.29	18.0	B	0.29	18.0	B	
	SB	L	0.24	17.4	B	0.24	17.4	B		0.35	18.9	B	0.35	18.9	B		0.23	17.7	B	0.23	17.7	B		0.13	7.5	A	0.13	7.5	A	
		T	0.45	12.5	B	0.45	12.5	B		0.23	10.1	B	0.23	10.1	B		0.40	11.8	B	0.40	11.8	B		0.14	2.8	A	0.14	2.8	A	
		Overall		14.3	B		14.7	B			14.7	B		14.8	B			<												

Table 3.3-7
 Year 2018 Comparison of Non-Game Day Traffic Conditions: No Mitigation
 161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)						Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)						Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)									
			NO-ACTION			ACTION			Impact?	NO-ACTION			ACTION			Impact?	NO-ACTION			ACTION			Impact?							
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS								
16. 161st Street at Sherman Avenue	EB	TR	0.48	8.7	A	0.49	8.7	A		0.41	7.9	A	0.41	8.0	A		0.48	8.6	A	0.51	9.0	A		0.44	9.4	A	0.45	9.5	A	
	WB	LT	0.66	11.3	B	0.69	11.9	B		0.84	18.4	B	0.86	19.8	B		0.74	13.5	B	0.76	14.1	B		0.58	11.2	B	0.59	11.3	B	
	NB	L	0.08	26.8	C	0.08	26.8	C		0.26	30.0	C	0.26	30.0	C		0.41	36.3	D	0.41	36.3	D		0.12	15.4	B	0.12	15.4	B	
		R	0.04	26.1	C	0.04	26.1	C		0.15	27.6	C	0.15	27.6	C		0.12	27.2	C	0.12	27.2	C		0.17	15.7	B	0.17	15.7	B	
	SB	LTR	0.06	25.7	C	0.06	25.7	C		0.47	35.0	C	0.47	35.0	C		1.25	175.5	F	1.25	175.5	F		0.64	25.7	C	0.64	25.7	C	
Overall			10.5	B		10.9	B			15.8	B		16.6	B			30.6	C		30.4	C			12.4	B		12.5	B		
17. 161st Street at Grant Avenue	EB	T	0.47	12.9	B	0.47	13.0	B		0.45	12.7	B	0.45	12.8	B		0.54	13.9	B	0.57	14.4	B		0.41	12.3	B	0.43	12.4	B	
	WB	T	0.66	16.2	B	0.69	17.0	B		0.58	14.7	B	0.60	15.0	B		0.68	16.7	B	0.69	17.0	B		0.48	13.1	B	0.49	13.2	B	
	Overall			14.8	B		15.3	B			13.8	B		14.0	B			15.4	B		15.8	B			12.7	B		12.8	B	
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	1.14	122.4	F	1.39	228.2	F	X																					
	TR	0.82	26.6	C	0.83	27.7	C		0.65	17.1	B	0.66	17.5	B		1.28	155.4	F	1.36	189.9	F	X	0.61	11.9	B	0.63	12.2	B		
	WB	LTR	0.76	19.8	B	0.85	24.0	C		0.67	17.6	B	0.69	18.2	B		1.23	131.7	F	1.28	153.4	F	X	0.66	12.8	B	0.67	13.1	B	
	NB	LTR	1.04	83.2	F	1.04	83.2	F		0.87	41.5	D	0.87	41.5	D		1.02	74.0	E	1.02	74.0	E		0.87	40.3	D	0.87	40.3	D	
	SB	LTR	1.07	91.6	F	1.07	91.6	F		0.91	46.6	D	0.91	46.6	D		1.09	99.5	F	1.09	99.5	F		0.86	38.9	D	0.86	38.9	D	
Overall			54.3	D		64.0	F	X			26.5	C		26.6	C			126.0	F		146.4	F	X		21.1	C		21.1	C	
19. 161st Street at Park Avenue West	EB	T	0.45	12.8	B	0.45	12.9	B		0.53	14.0	B	0.54	14.1	B		0.63	15.7	B	0.67	16.4	B		0.44	9.5	A	0.45	9.6	A	
	WB	T	0.38	2.0	A	0.40	2.0	A		0.37	1.9	A	0.38	2.0	A		0.49	2.5	A	0.50	2.5	A		0.41	1.7	A	0.41	1.7	A	
	SB	LR	0.93	60.4	E	0.99	73.0	E	X	0.69	34.8	C	0.72	36.5	D		1.01	78.6	E	1.02	82.2	F		0.63	24.9	C	0.65	25.6	C	
	Overall			18.7	B		21.7	C			12.8	B		13.2	B			21.8	C		22.7	C			8.6	A		8.8	A	
20. 161st Street at Park Avenue East	EB	T	0.46	2.3	A	0.47	2.4	A		0.54	2.8	A	0.55	2.8	A		0.66	3.8	A	0.70	4.2	A		0.48	2.0	A	0.49	2.0	A	
	WB	T	0.31	11.3	B	0.35	11.7	B		0.32	11.3	B	0.33	11.4	B		0.43	12.5	B	0.43	12.5	B		0.38	8.9	A	0.39	8.9	A	
	NB	LR	0.70	36.2	D	0.70	36.2	D		0.53	29.1	C	0.53	29.1	C		0.88	53.3	D	0.88	53.3	D		0.39	19.3	B	0.39	19.3	B	
	Overall			11.0	B		11.0	B			8.8	A		8.8	A			14.2	B		14.2	B			6.5	A		6.5	A	
21. 161st Street at Courtlandt Avenue	EB	LT	0.76	20.0	C	0.77	20.8	C		0.81	22.2	C	0.82	22.9	C		1.01	49.9	D	1.02	50.4	D		0.60	11.9	B	0.61	12.1	B	
	WB	TR	0.30	11.2	B	0.32	11.3	B		0.30	11.1	B	0.31	11.2	B		0.41	12.3	B	0.39	12.1	B		0.39	9.0	A	0.40	9.1	A	
	NB	LTR	1.11	106.5	F	1.11	106.5	F		0.84	44.2	D	0.84	44.2	D		1.04	82.8	F	1.00	71.9	E		0.85	37.6	D	0.85	37.6	D	
	Overall			40.8	D		40.7	D			24.0	C		24.2	C			46.0	D		43.9	D			16.6	B		16.6	B	
22. 161st Street at Melrose Avenue	EB	LTR	0.58	25.4	C	0.59	25.7	C		0.77	32.4	C	0.79	33.6	C		1.11	98.9	F	1.19	130.9	F	X	0.64	27.3	C	0.67	28.3	C	
	WB	LTR	0.28	20.3	C	0.29	20.4	C		0.57	26.3	C	0.58	26.6	C		0.74	32.0	C	0.76	33.2	C		0.51	24.2	C	0.52	24.3	C	
	NB	LTR	1.16	123.4	F	1.21	144.8	F	X	0.54	26.4	C	0.56	26.9	C		0.85	42.5	D	0.87	45.3	D		0.88	48.9	D	0.91	53.2	D	
		L	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
	SB	LTR	0.69	30.5	C	0.69	30.5	C		0.49	24.9	C	0.49	24.9	C		0.62	28.5	C	0.62	28.6	C		0.66	29.9	C	0.66	29.9	C	
Overall			54.5	D		60.9	E	X			28.7	C		29.4	C			60.5	E		75.4	E	X		31.8	C		33.0	C	
23. Macombs Dam Bridge at Major Deegan Expy. (I-87) Southbound Ramps	EB	TR	0.89	33.4	C	0.90	34.5	C		0.98	42.6	D	0.99	43.6	D		0.79	27.7	C	0.79	27.9	C		0.95	38.7	D	0.95	40.0	D	
	WB	T	1.00	79.6	E	1.06	95.7	F	X	0.98	74.2	E	1.00	77.1	E		0.97	68.8	E	1.06	93.8	F	X	0.97	73.7	E	0.99	77.8	E	
	SB	LTR	0.60	16.4	B	0.61	16.5	B		0.35	13.1	B	0.35	13.1	B		0.51	14.9	B	0.52	15.1	B		0.47	14.4	B	0.47	14.5	B	
	Overall			32.3	C		34.4	D			34.2	C		34.9	C			27.0	C		29.5	C			21.4	C		21.4	C	
24. E. 157th Street at Major Deegan Expy. (I-87) Northbound Off-Ramp	NEB	L	-----	-----	-----	-----	-----	-----		-----	-----	-----	-----	-----		-----	-----	-----	-----	-----	-----		-----	-----	-----	-----	-----	-----		
	WB	R	0.41	15.9	B	0.41	16.0	B		0.47	16.4	B	0.47	16.4	B		0.50	16.0	B	0.50	16.0	B		0.54	16.8	B	0.54	16.8	B	
	NB	T	0.37	11.0	B	0.37	11.0	B		0.49	12.0	B	0.49	12.0	B		0.62	12.8	B	0.62	12.8	B		0.83	17.4	B	0.83	17.4	B	
		R	0.40	12.5	B	0.40	12.5	B		0.24	10.7	B	0.24	10.7	B		0.14	9.2	A	0.14	9.2	A		0.20	9.7	A	0.20	9.7	A	
Overall			12.5	B		12.5	B			13.0	B		13.0	B			13.4	B		13.4	B			16.8	B		16.8	B		
25. E. 153rd Street at River Avenue	EB	LTR	0.65	30.0	C	0.65	29.9	C		0.53	26.5	C	0.53	26.5	C		0.92	63.4	E	0.93	65.4	E		0.60	21.3	C	0.60	21.3	C	
	WB	LTR	0.21	21.1	C	0.22	21.2	C		0.31	22.8	C	0.31	22.8	C		0.79	51.7	D	0.82	55.3	E		0.33	16.9	B	0.33	16.9	B	
	NB	LTR	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		DefL	0.70	27.2	C	0.72	28.3	C		0.87	37.8	D	0.87	38.1	D		0.98	49.3	D	0.99	53.1	D		0.81	25.1	C	0.81	25.3	C	
	SB	TR	0.28	11.8	B	0.30	12.0	B		0.26	11.6	B	0.27	11.7	B		0.45	8.5	A	0.47	8.8	A		0.56	12.4	B	0.57	12.7	B	
Overall			21.2	C		21.6	C																							

**Table 3.3-8
 Summary of Non-Game Day Traffic Impacts**

Intersections	Non-Game Day Impacts Designated by 'X'			
	AM	MD	PM	SAT
9. 161st Street S. Service Road at Gerard Avenue			X	
18. 161st Street at Concourse Village East/ Morris Avenue	X		X	
19. 161st Street at Park Avenue West	X			
22. 161st Street at Melrose Avenue	X		X	
23. Macombs Dam Bridge at Major Deegan Expy. (I-87) Southbound Ramps	X		X	X
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp			X	X

These significant adverse impacts are described in more detail below.

E. 161st Street Corridor Impact Locations

- E. 161st Street S. Service Road at Gerard Avenue – During the weekday PM peak hour, delays for vehicles on the northbound approach are projected to increase from 149.4 seconds/vehicle (LOS “F”) under the No-Action condition to 154.3 seconds/vehicle (LOS “F”) under the Action condition
- E. 161st Street at Concourse Village East/Morris Avenue – During the weekday AM peak hour, delays for vehicles on the eastbound *de facto* left turning movement are projected to increase from 122.4 seconds/vehicle (LOS “F”) under the No-Action condition to 228.2 seconds/vehicle (LOS “F”) under the Action condition; on the eastbound through movements in the PM peak hour delays for vehicles are projected to increase from 155.4 seconds/vehicle (LOS “F”) under the No-Action condition to 189.9 seconds/vehicle (LOS “F”) under the Action condition; and on the westbound approach in the PM peak hour delays for vehicles are projected to increase from 131.7 seconds/vehicle (LOS “F”) under the No-Action condition to 153.4 seconds/vehicle (LOS “F”) under the Action condition.
- E. 161st Street at Park Avenue West – During the weekday AM peak hour, delays for vehicles on the eastbound approach are projected to increase from 60.4 seconds/vehicle (LOS “E”) under the No-Action condition to 73.0 seconds/vehicle (LOS “E”) under the Action condition.

- E. 161st Street at Melrose Avenue – During the weekday AM peak hour, delays for vehicles on the northbound approach are projected to increase from 123.4 seconds/vehicle (LOS “F”) under the No-Action condition to 144.8 seconds/vehicle (LOS “F”) under the Action condition; during the weekday PM peak hour, delays for vehicles on the eastbound approach are projected to increase from 98.9 seconds/vehicle (LOS “F”) under the No-Action condition to 130.9 seconds/vehicle (LOS “F”) under the Action condition.
- Macombs Dam Bridge at MDE (I-87) Southbound Ramps – During the weekday AM peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 79.6 seconds/vehicle (LOS “E”) under the No-Action condition to 95.7 seconds/vehicle (LOS “F”) under the Action condition; during the weekday PM peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 68.8 seconds/vehicle (LOS “E”) under the No-Action condition to 93.8 seconds/vehicle (LOS “F”) under the Action condition; during the Saturday midday peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 73.7 seconds/vehicle (LOS “E”) under the No-Action condition to 77.8 seconds/vehicle (LOS “E”) under the Action condition.

Additional Impact Locations

E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp –

During the weekday PM peak hour, delays for vehicles on the eastbound left turn movement are projected to increase from 190.2 seconds/vehicle (LOS “F”) under the No-Action condition to 194.8 seconds/vehicle (LOS “F”) under the Action condition; delays for vehicles on the MDE northbound off-ramp are projected to increase from 119.5 seconds/vehicle (LOS “F”) under the No-Action condition to 131.6 seconds/vehicle (LOS “F”) under the Action condition; and delays for vehicles on the southbound (River Ave.) through-right movement are projected to increase from 132.0 seconds/vehicle (LOS “F”) under the No-Action condition to 138.9 seconds/vehicle (LOS “F”) under the Action condition.

During the Saturday midday peak hour, delays for vehicles on the southbound Exterior Street approach are projected to increase from 604.9 seconds/vehicle (LOS “F”) under the No-Action condition to 632.2 seconds/vehicle (LOS “F”) under the Action condition.

In summary, the traffic analyses in this section for the Non-Game Day analysis demonstrate that the proposed rezoning action would result in significant adverse impacts at a number of locations during one or more of the four analyzed peak hours. Recommended mitigation measures of offset these projected impacts are discussed in Section 3.3.3 of this chapter.

3.3.2 GAME DAY TRAFFIC

EXISTING CONDITIONS

In addition to the Non-Game Day analysis, a targeted Game Day analysis was done for those pre-game peak hours affected by the surge of traffic that accompanies Yankee games. On weekdays, the pre-game peak for night games overlaps the weekday PM peak hour. On weekends, the pre-game peak overlaps the Saturday midday peak hour.

The analysis for the Game-Day was targeted to 22 of the 28 intersections of the study area analyzed under the Non-Game Day scenario. The 22 intersections selected for analysis are those that are expected to accommodate the highest concentrations of added vehicular traffic as a result of the proposed action. As shown in Figure 3.3-1, the 22 intersections analyzed as part of the targeted Game Day analysis include the following (the number indicates that shown in Figure 3.3-1):

- East 161st Street N. Service Road and River Avenue (4)
- East 161st Street Main Road and River Avenue (5)
- East 161st Street S. Service road and River Avenue (6)
- East 161st Street N. Service Road and Gerard Avenue (7)
- East 161st Street Main Road and Gerard Avenue (8)
- East 161st Street S. Service road and Gerard Avenue (9)
- East 161st Street N. Service Road and Walton Avenue (10)
- East 161st Street S. Service Road and Walton Avenue (11)
- East 161st Street N. Service Road and Grand Concourse (12)
- East 161st Street S. Service Road and Grand Concourse (13)
- East 161st Street (main road and both service roads) and Sheridan Avenue/Concourse Village West (14, 15)
- East 161st Street and Sherman Avenue (16)
- East 161st Street and Grant Avenue (17)
- East 161st Street and Morris Avenue/Concourse Village East (18)
- East 161st Street and Park Avenue West (19)
- East 161st Street and Park Avenue East (20)
- East 161st Street and Cortlandt Avenue (21)
- East 161st Street and Melrose Avenue (22)
- East 149th Street and River Avenue/Exterior Street (26, 27)
- East 149th Street and Grand Concourse (28)

Existing traffic volumes for these locations were developed based on the field counts conducted in September 2008 during weekday and Saturday pre-game peak periods. Intersection signal timings were provided by New York City Department of Transportation (NYCDOT) and verified in the field.

Figures 3.3-18 and 3.3-19 show the traffic volumes at each of the 22 game day study intersections during the weekday PM and Saturday midday peak hours under year 2008 existing Game Day traffic conditions.

The street network and capacity analyses methodology are described above.

Based on the existing traffic volumes shown in Figures 3.3-18 and 3.3-19, intersection capacity analyses were conducted according to the *HCM* methodologies described above. Table 3.3-9 shows the results of the existing traffic conditions capacity analyses at the 22 study intersections during the game day weekday PM peak hour and in the Saturday midday peak. Existing traffic conditions along the major study area corridors are described more fully below.

E. 161st Street Corridor

The study intersections for the game day analysis along the E. 161st Street corridor include signalized intersections from Jerome Avenue and the access ramps to the Macombs Dam Bridge on the west to Melrose Avenue on the east. A summary of traffic operations at each of the study intersections along the E. 161st Street corridor is provided below:

- E. 161st Street N. Service Road at River Avenue – The westbound through-right movement currently operates at LOS “B” during both the weekday PM and Saturday midday peak hours; During the weekday PM peak hour, the northbound left-through movement currently operates at LOS “A” and the southbound through-right movement currently operates at LOS “C”. During the Saturday midday peak, the northbound and southbound through movements on River Avenue were closed by police, and the southbound through traffic was diverted to the right-turn movement, which caused a LOS “F” on the southbound approach during the Saturday midday peak hour.
- E. 161st Street Main Road at River Avenue – The eastbound and westbound approaches both currently operate at LOS “B” during the weekday PM peak hour and in the Saturday midday peak hour, while the northbound and southbound approaches currently operate at LOS “A” during the weekday PM peak hour. During the Saturday midday peak, the northbound and southbound through movements on River Avenue were closed by police.
- E. 161st Street S. Service Road at River Avenue – The eastbound approach currently operates at LOS “B” during both the weekday PM and Saturday midday peak hours; and the northbound and southbound approaches currently operate at LOS “C,” and “A”, during the weekday PM peak hour, respectively. During the Saturday midday peak, the northbound and southbound through movements on River Avenue were closed by police.
- E. 161st Street N. Service Road at Gerard Avenue – The westbound and northbound approaches both currently operate at LOS “A” during the weekday PM peak hour and in the Saturday midday peak hour, except for the northbound approach during the PM peak hour, when LOS “C” conditions currently exist.

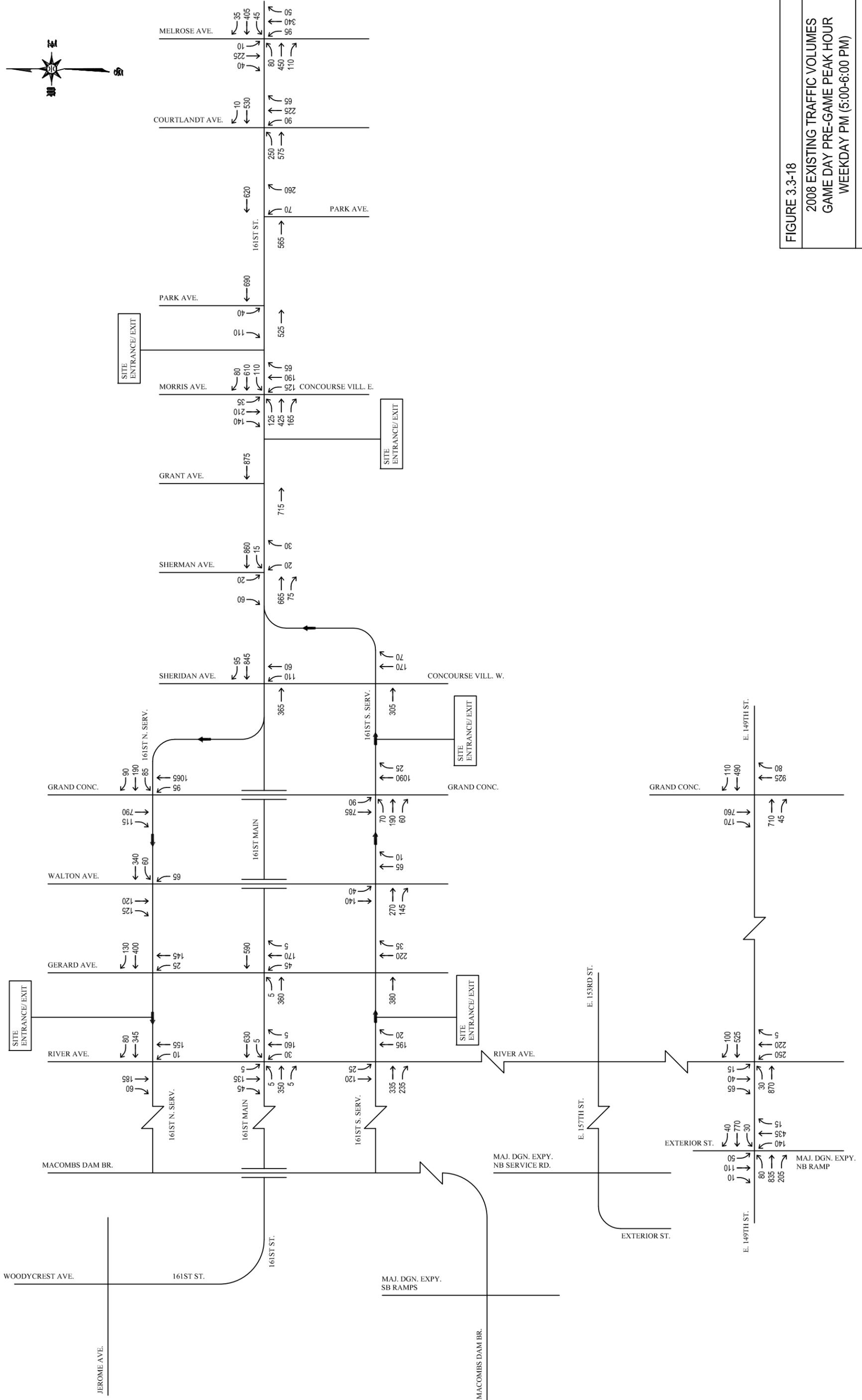
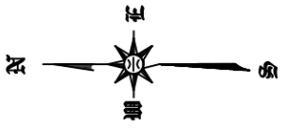
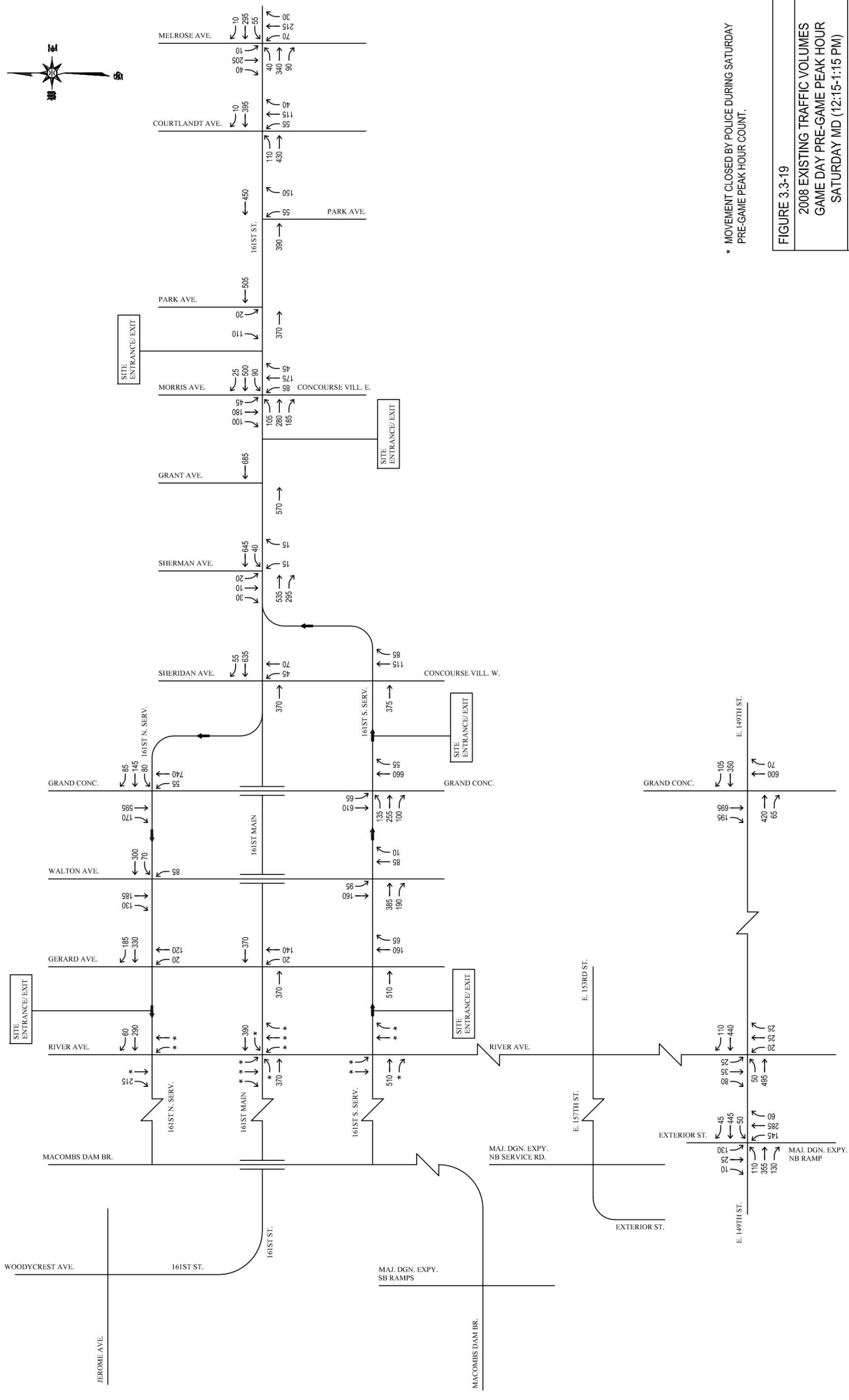
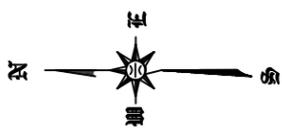


FIGURE 3.3-18

2008 EXISTING TRAFFIC VOLUMES
 GAME DAY PRE-GAME PEAK HOUR
 WEEKDAY PM (5:00-6:00 PM)

161st STREET REZONING EIS
 BRONX, NY



* MOVEMENT CLOSED BY POLICE DURING SATURDAY PRE-GAME PEAK HOUR COUNT.

FIGURE 3.3-19

2008 EXISTING TRAFFIC VOLUMES
 GAME DAY PRE-GAME PEAK HOUR
 SATURDAY MD (12:15-1:15 PM)

161st STREET REZONING EIS
 BRONX, NY

**Table 3.3-9
Year 2008 Game Day Existing Traffic Conditions
161st Street Rezoning - Bronx, NY**

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)			Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
SIGNALIZED INTERSECTIONS								
4. 161st Street N. Service Road at River Avenue	WB	TR	0.45	17.4	B	0.39	11.3	B
	NB	LT	0.31	5.6	A	*	*	*
	SB	TR	0.59	28.2	C	1.03	81.1	F
	Overall			17.9	B		39.4	D
5. 161st Street Main Road at River Avenue	EB	LTR	0.29	15.3	B	0.25	10.0	B
	WB	LTR	0.50	18.0	B	0.31	10.5	B
	NB	LTR	0.41	6.7	A	*	*	*
	SB	LTR	0.34	5.8	A	*	*	*
Overall			13.8	B		10.3	B	
6. 161st Street S. Service Road at River Avenue	EB	TR	0.56	19.1	B	0.44	11.7	B
	NB	TR	0.53	26.1	C	*	*	*
	SB	LT	0.21	5.0	A	*	*	*
	Overall			18.8	B		11.7	B
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.32	7.2	A	0.39	9.5	A
	NB	LT	0.43	21.0	C	0.27	7.3	A
	Overall			10.5	B		9.0	A
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.24	6.6	A	0.25	8.4	A
		DefL	----	----	----	----	----	----
		T	----	----	----	----	----	----
	WB	TR	0.30	7.0	A	0.26	8.5	A
	NB	LTR	0.61	24.7	C	0.29	7.5	A
Overall			10.4	B		8.3	A	
9. 161st Street S. Service Road at Gerard Avenue	EB	T	0.24	6.6	A	0.42	9.8	A
	NB	TR	0.80	48.2	D	0.54	19.9	B
	Overall			22.8	C		12.7	B
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.27	10.8	B	0.29	11.5	B
	NB	L	0.20	17.0	B	0.20	8.1	A
	SB	TR	0.44	29.3	C	0.40	18.1	B
	Overall			18.0	B		13.8	B
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.32	11.3	B	0.58	14.9	B
	NB	TR	0.20	26.6	C	0.22	16.8	B
	SB	L	0.12	15.8	B	0.22	8.1	A
		T	0.30	10.6	B	0.25	3.3	A
	Overall			13.0	B		12.6	B
12. 161st Street N. Service Road at Grand Concourse	WB	LTR	0.36	23.0	C	0.30	19.8	B
	NB	L	0.39	5.8	A	0.19	4.8	A
		T	0.65	3.9	A	0.48	4.4	A
	SB	T	0.27	18.1	B	0.21	19.7	B
		R	0.26	19.2	B	0.28	21.8	C
	Overall			12.6	B		13.6	B
13. 161st Street S. Service Road at Grand Concourse	EB	LTR	0.32	22.5	C	0.47	22.3	C
	NB	TR	0.56	22.4	C	0.57	25.0	C
	SB	L	0.67	22.3	C	0.47	13.4	B
		T	0.34	2.1	A	0.28	3.4	A
	Overall			15.8	B		18.3	B
14.&15. 161st Street at Concourse Village West/ Sheridan Avenue	EB (Main)	LT	0.39	12.3	B	0.48	14.0	B
	EB (Service)	T	0.20	10.2	B	0.30	11.6	B
	WB	TR	0.47	12.8	B	0.46	13.0	B
		R	0.16	10.8	B	0.17	11.8	B
	NB	LTR	0.27	21.3	C	0.24	11.2	B
	Overall			13.3	B		12.6	B

* - Movement closed by police during Saturday pre-game peak hour count.

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-9
Year 2008 Game Day Existing Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)			Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
16. 161st Street at Sherman Avenue	EB	TR	0.46	8.4	A	0.59	11.1	B
	WB	LT	0.50	8.9	A	0.59	11.4	B
	NB	L	0.16	28.5	C	0.09	15.0	B
		R	0.13	27.4	C	0.10	14.9	B
	SB	LTR	0.54	34.4	C	0.25	15.7	B
Overall				11.7	B		11.7	B
17. 161st Street at Grant Avenue	EB	T	0.49	13.2	B	0.35	11.5	B
	WB	T	0.55	14.0	B	0.43	12.5	B
	Overall				13.6	B		12.1
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	----	----	----	----	----	----
		LTR	0.76	20.4	C	0.53	10.7	B
	WB	LTR	0.84	24.8	C	0.54	10.8	B
	NB	LTR	1.05	90.5	F	0.84	37.5	D
	SB	LTR	0.85	41.9	D	0.78	29.9	C
Overall				36.1	D		18.5	B
19. 161st Street at Park Avenue West	EB	T	0.37	11.9	B	0.24	7.8	A
	WB	T	0.50	2.5	A	0.33	1.4	A
	SB	LR	0.47	26.6	C	0.38	18.2	B
	Overall				8.7	A		6.1
20. 161st Street at Park Avenue East	EB	T	0.36	1.8	A	0.27	1.2	A
	WB	T	0.38	11.8	B	0.28	8.1	A
	NB	LR	1.04	85.1	F	0.81	36.9	D
	Overall				25.4	C		12.4
21. 161st Street at Courtlandt Avenue	EB	DefL	----	----	----	----	----	----
		T	----	----	----	----	----	----
		LT	1.05	63.0	E	0.54	10.8	B
	WB	TR	0.38	11.9	B	0.30	8.3	A
	NB	LTR	1.04	82.7	F	0.63	24.4	C
Overall				52.7	D		12.6	B
22. 161st Street at Melrose Avenue	EB	LTR	0.66	28.1	C	0.47	23.2	C
	WB	LTR	0.55	25.1	C	0.37	21.7	C
	NB	LTR	1.05	82.7	F	0.67	30.8	C
		L	----	----	----	----	----	----
		TR	----	----	----	----	----	----
	SB	LTR	0.53	25.7	C	0.48	24.4	C
Overall				41.7	D		24.9	C
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	EB	LTR	1.04	74.2	E	0.83	39.7	D
		L	----	----	----	----	----	----
		TR	----	----	----	----	----	----
	WB	LTR	0.62	31.2	C	0.63	31.1	C
		L	----	----	----	----	----	----
		TR	----	----	----	----	----	----
	NB (Exterior)	LTR	----	----	----	0.19	37.7	D
		DefL	1.04	114.6	F	----	----	----
		TR	0.56	45.9	D	----	----	----
	NB (Ramp)	LTR	1.05	97.1	F	1.05	96.5	F
		DefL	----	----	----	----	----	----
		TR	----	----	----	----	----	----
	SB (Ext)	LTR	----	----	----	----	----	----
DefL		----	----	----	----	----	----	
L		0.53	63.0	E	0.79	101.8	F	
SB (River)	TR	0.48	43.4	D	0.33	40.4	D	
	L	0.09	36.8	D	0.16	38.1	D	
	TR	0.37	41.1	D	0.37	41.3	D	
Overall				69.5	E		61.2	E
28. E. 149th Street at Grand Concourse	EB	TR	0.79	39.6	D	0.46	27.7	C
	WB	TR	0.59	32.8	C	0.40	26.7	C
	NB	TR	0.42	16.9	B	0.33	17.8	B
	SB	TR	0.51	18.1	B	0.50	20.2	C
	Overall				25.4	C		22.2

* - Movement closed by police during Saturday pre-game peak hour count.

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left

v/c = volume-to-capacity ratio, LOS = Level-of-Service

- E. 161st Street Main Road at Gerard Avenue – The eastbound and westbound approaches both currently operate at LOS “A” during the weekday PM peak hour and in the Saturday midday peak hour, while the northbound approach currently operates at LOS “C” during the weekday PM peak hour and LOS “A” during the Saturday midday peak hour.
- E. 161st Street S. Service Road at Gerard Avenue – The eastbound approach currently operates at LOS “A” during the weekday PM peak hour and in the Saturday midday peak hour, while the northbound approach currently operates at LOS “D” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour.
- E. 161st Street N. Service Road at Walton Avenue – The westbound approach currently operates at LOS “B” during the weekday PM and Saturday midday peak hours, the northbound approach operates at LOS “B” during the weekday PM and LOS “A” during the Saturday midday peak hour, and the southbound approach operates at LOS “C” during the weekday PM peak hour and LOS “B” during the Saturday midday peak hour.
- E. 161st Street S. Service Road at Walton Avenue – The eastbound approach currently operates at LOS “B” during both the weekday PM and Saturday midday peak hours; and the northbound approach operates at LOS “B” and “C” during the weekday PM peak hour and the Saturday midday peak hour respectively. The southbound approach turning movements operate at LOS “B” during the weekday PM peak hour and LOS “A” during the Saturday midday peak hour.
- E. 161st Street N. Service Road at Grand Concourse – The westbound approach currently operates at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, the northbound approach currently operates at LOS “A” during the weekday PM peak hour and Saturday midday peak hour, and the southbound approach operates at LOS “B” or “C” during weekday PM peak hour and Saturday midday peak hour.
- E. 161st Street S. Service Road at Grand Concourse – The eastbound and northbound approaches both currently operate at LOS “C” during the weekday PM peak hour and Saturday midday peak hour, while the southbound approaches operates at LOS “A” during both the weekday PM and Saturday midday peak hours.
- E. 161st at Concourse Village West/Sheridan Avenue – The eastbound main and service road approaches and the westbound approach all currently operate at LOS “B” during the weekday PM peak hour and Saturday midday peak hour, and the northbound approach operates at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour.
- E. 161st Street at Sherman Avenue – The eastbound and westbound approaches both currently operate at LOS “A” during the weekday PM peak hour and at an LOS “B” during the Saturday midday peak hour, respectively, the northbound approach operates at LOS “C” during the weekday PM peak hour and LOS “B” in the Saturday midday peak,

the southbound approach operates at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak period.

- E. 161st Street at Grant Avenue – The eastbound and westbound approaches both currently operate at LOS “B” during the weekday PM peak hour and Saturday midday peak hour.
- E. 161st Street at Concourse Village East/Morris Avenue – The eastbound and westbound approaches currently operate at LOS “C” during the weekday PM peak and at LOS “B” during the Saturday midday peak; The northbound approach operates at LOS “F” during the weekday PM peaks and LOS “D” during the Saturday midday peak hour; and the southbound approach operates at LOS “D” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour
- E. 161st Street at Park Avenue West – The eastbound and westbound approaches both currently operate at LOS “A” or “B” during the weekday PM peak hour and in the Saturday midday peak hour, while the southbound approach operates at LOS “C” in the weekday PM peak hour and at LOS “B” during the Saturday midday peak.
- E. 161st Street at Park Avenue East – The eastbound and westbound approaches both currently operate at LOS “A” or “B” during the weekday PM peak hour and in the Saturday midday peak hour, while the southbound approach operates at LOS “F” during the weekday PM peak hour and at LOS “D” during the Saturday midday peak hour.
- E. 161st Street at Courtlandt Avenue – The eastbound approach currently operates at LOS “E” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, the westbound approach currently operates at LOS “B” during the weekday PM peak hour and at LOS “A” during the Saturday midday peak hour, and the northbound approach currently operates at LOS “F” during the weekday PM peak and at LOS “C” during the Saturday midday peak.
- E. 161st Street at Melrose Avenue – The eastbound and westbound approaches currently operate at LOS “C” during the weekday PM peak hour and Saturday midday peak hour, the northbound approach currently operates at LOS “F” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour, and the southbound approach currently operates at LOS “C” during the weekday PM peak hour and Saturday midday peak hour.

Additional Analysis Locations

- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp – The eastbound approach currently operates at LOS “E” during the weekday PM peak hour and at LOS “D” during the Saturday midday peak hour. The westbound approach currently operates at LOS “C” during both the weekday PM and Saturday midday peak hours. The northbound Exterior Street approach currently operates at LOS “F” during the weekday PM peak hour and LOS “D” during the Saturday midday peak hour. The Major

Deegan Expressway northbound off-ramp approach currently operates at LOS “F” during both the weekday PM and Saturday midday peak hours. The southbound Exterior Street approach currently operates at LOS “D” during the weekday PM peak hour and at LOS “E” during the Saturday midday peak hour. The southbound River Avenue approach currently operates at LOS “D” during both the weekday PM and Saturday midday peak hours.

- E. 149th Street at Grand Concourse – The eastbound approach currently operates at LOS “D” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour, the westbound approach currently operates at LOS “C” during the weekday PM peak hour and in the Saturday midday peak hour, the northbound approach currently operates at an LOS “B” during the weekday PM peak hour and Saturday midday peak hour, and southbound approach currently operates at LOS “B” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour.

FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

As previously stated in this chapter, in the future without the proposed action, the existing zoning controls would remain in place and as-of-right development would be expected to occur on some of the 11 projected development sites. As presented in the RWCDs discussion in Chapter 2.0 (“Project Description”), it is expected that on the 11 projected development sites, the following additional development would occur under existing zoning over the year 2008 to year 2018 period:

As-of-Right Development: No-Action Conditions**

Retail	SF	(4,289)
Office	SF	-
Community Facility	SF	11,720
Residential	DU	295
Parking	Spaces	-

** See Chapter 2.0 for further details

During the 2008 to 2018 period, it is also expected that transportation demands in the study area would change due to specific development projects in the area, as well as general background growth over time. In order to forecast these future demands without the proposed rezoning action, an annual growth rate of 0.5 percent (0.5%) was applied to the existing traffic volumes (in accordance with recommendations described in the *CEQR Technical Manual*), and traffic volumes associated with the specific development projects (“soft sites”) described below were added to the adjusted traffic volumes (see Tables 3.3-4A and 3.3-4B) to arrive at 2018 No-Action traffic volumes. In addition, where appropriate, mitigation measures associated with these soft sites were also incorporated into the transportation analyses.

Known projects generally within one-half mile of the rezoning area were initially considered in analysis of the future without the proposed actions. However, only those projects that would add more than 50 vehicular trips within the study area in any peak hour were included in the No-

Action analysis. These projects were already described in the discussion of Non-Game-Day analysis above. All of those projects applied to Non-Game-Day and to Game-Day as well. The only project that did not apply to Non-Game Day but applies to the Game-Day scenario is the following:

- Yankee Stadium Redevelopment: relocation of Yankee Stadium from south of E. 161st Street to north of E. 161st Street.

Figures 3.3-20 and 3.3-21 show the projected year 2018 Game Day No-Action traffic volumes at each study intersection during weekday PM peak hour and the Saturday midday peak hour, respectively.

Besides generating additional traffic, the projects listed above, recommend improvements which were considered in the No Action condition for both the Non-Game Day and Game Day scenarios, and carried over to the future Action condition.

Capacity Analysis

During traffic counts conducted for Game Day scenario, north-south movements at the intersections of 161st Street and River Avenue were closed by police. Accordingly, these movements were assumed to be closed in the Existing conditions analysis. However, according to the proposed scheme for the Yankee Stadium redevelopment, these movements remain open to traffic in the future. Therefore, the closures shown in the Existing conditions at these intersections are not applicable to the future No-Action and Action conditions.

Based on the No-Action traffic volumes shown in Figures 3.3-20 and 3.3-21, intersection capacity analyses were conducted according to the *HCM* methodologies. Table 3.3-10 shows the v/c ratios, average control delays, and levels-of-service under year 2018 No-Action conditions during game days, and compares to the 2008 Game Day Existing conditions. As shown in Table 3.3-10, presently congested locations generally become worse, while there would be some newly congested locations in the study area. Overall, under No-Action conditions, of the 22 intersections studied for game day analysis, there would be:

- Nine intersections with one or more congested movements (i.e., LOS “E” or “F”) during the weekday PM peak hour (versus five under existing conditions); and
- One intersection during the Saturday midday peak hour (versus two under existing conditions).

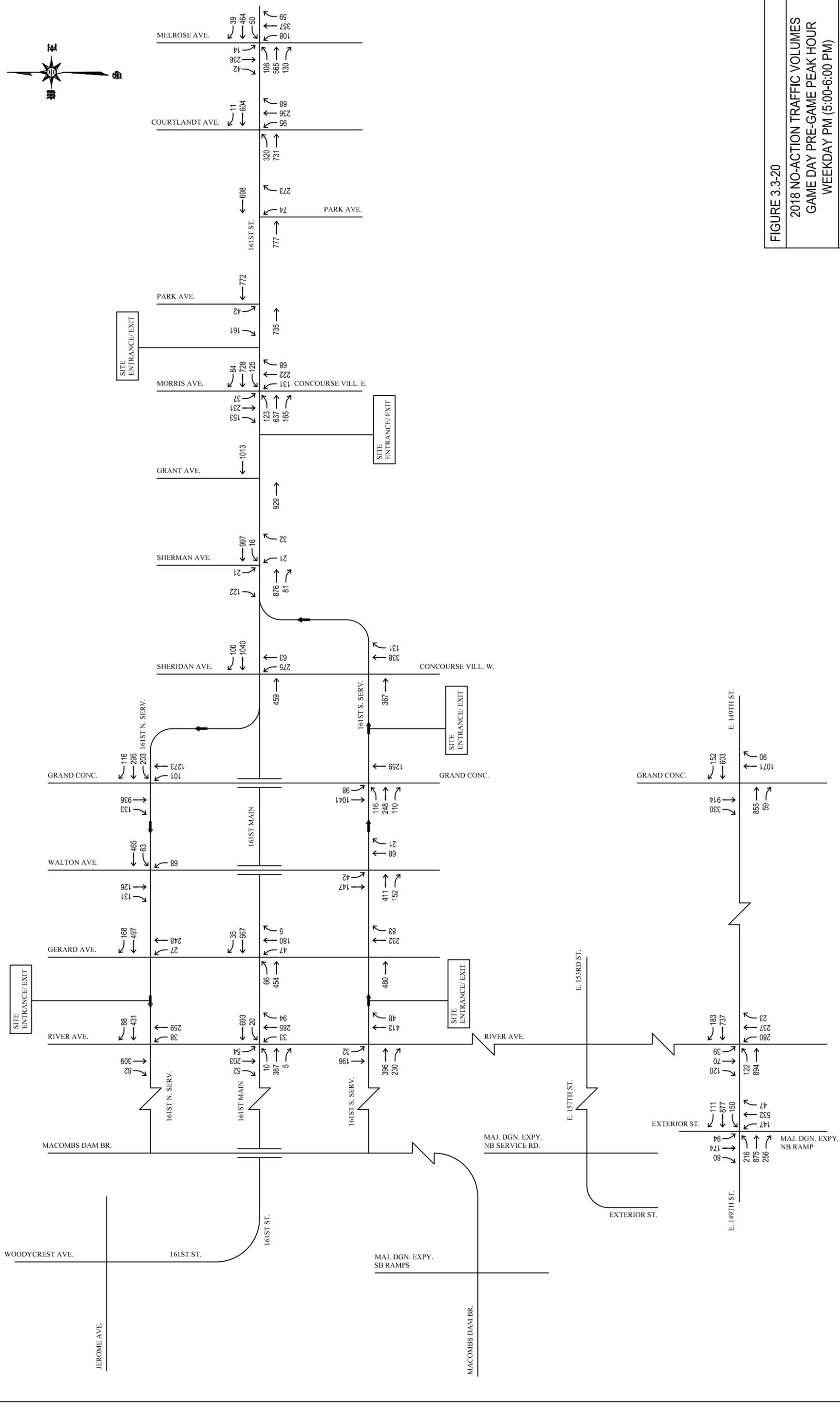


FIGURE 3.3-20

2018 NO-ACTION TRAFFIC VOLUMES
 GAME DAY PRE-GAME PEAK HOUR
 WEEKDAY PM (5:00-6:00 PM)

161st STREET REZONING EIS
 BRONX, NY

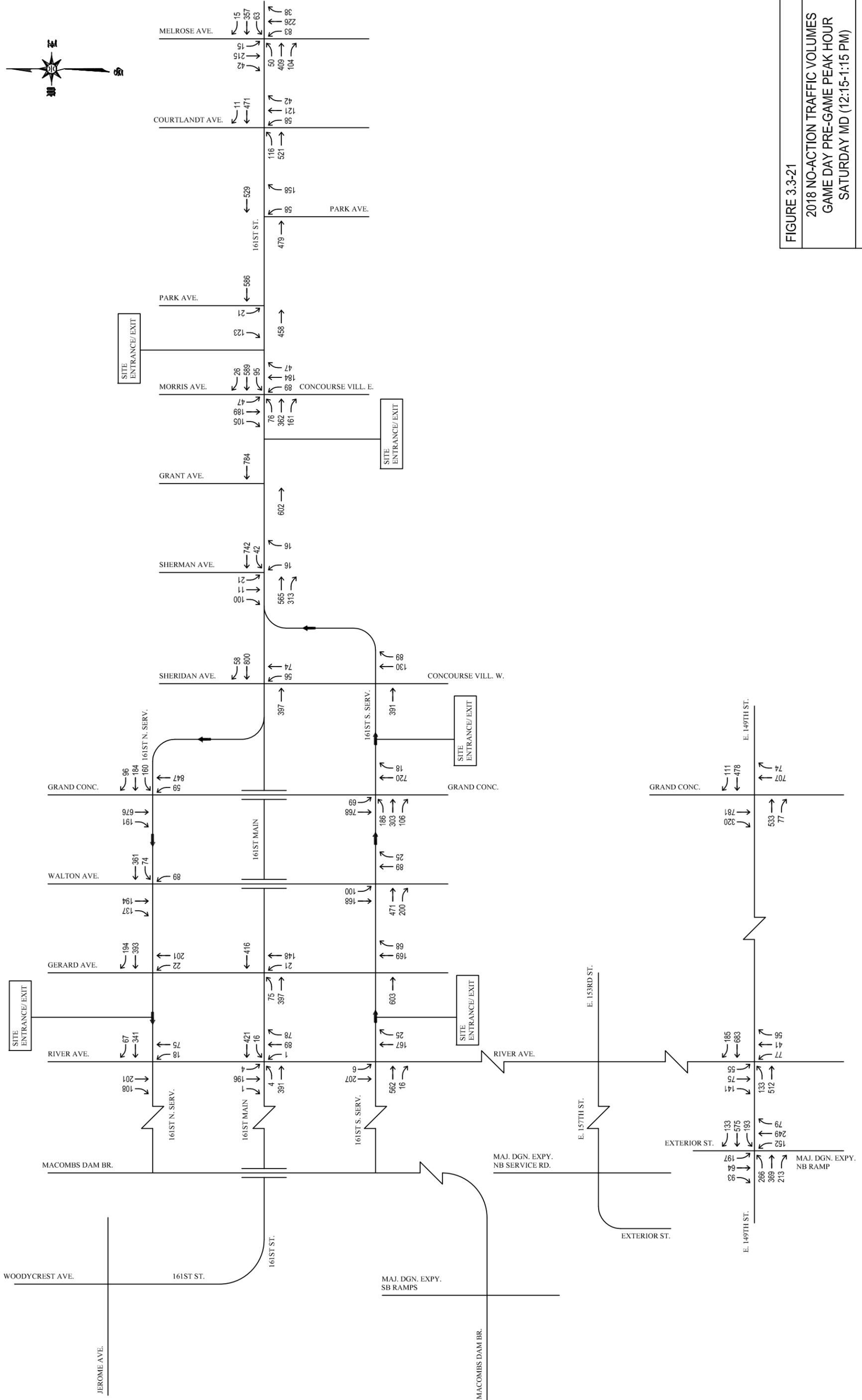
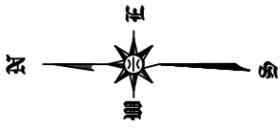


FIGURE 3.3-21

2018 NO-ACTION TRAFFIC VOLUMES
 GAME DAY PRE-GAME PEAK HOUR
 SATURDAY MD (12:15-1:15 PM)

161st STREET REZONING EIS
 BRONX, NY

Table 3.3-10
Comparison of Game Day 2008 Existing and 2018 No-Action Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)					
			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
SIGNALIZED INTERSECTIONS														
4. 161st Street N. Service Road at River Avenue	WB	TR	0.45	17.4	B	0.68	27.2	C	0.39	11.3	B	0.49	13.7	B
	NB	LT	0.31	5.6	A	0.54	4.1	A	*	*	*	0.22	4.7	A
	SB	TR	0.59	28.2	C	0.69	25.5	C	1.03	81.1	F	0.87	39.7	D
	Overall			17.9	B		20.6	C		39.4	D		22.1	C
5. 161st Street Main Road at River Avenue	EB	LTR	0.29	15.3	B	0.39	21.5	C	0.25	10.0	B	0.32	11.8	B
	WB	LTR	0.50	18.0	B	0.80	31.3	C	0.31	10.5	B	0.39	12.5	B
	NB	LTR	0.41	6.7	A	0.63	5.4	A	*	*	*	0.38	5.7	A
	SB	LTR	0.34	5.8	A	0.61	5.2	A	*	*	*	0.31	5.0	A
Overall			13.8	B		18.9	B		10.3	B		9.9	A	
6. 161st Street S. Service Road at River Avenue	EB	TR	0.56	19.1	B	0.76	29.8	C	0.44	11.7	B	0.58	14.8	B
	NB	TR	0.53	26.1	C	0.77	28.0	C	*	*	*	0.77	28.7	C
	SB	LT	0.21	5.0	A	0.30	2.1	A	*	*	*	0.39	5.8	A
	Overall			18.8	B		24.9	C		11.7	B		17.2	B
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.32	7.2	A	0.40	7.9	A	0.39	9.5	A	0.44	10.0	A
	NB	LT	0.43	21.0	C	0.69	27.2	C	0.27	7.3	A	0.41	8.5	A
	Overall			10.5	B		13.4	B		9.0	A		9.6	A
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.24	6.6	A	0.43	8.2	A	0.25	8.4	A	0.38	9.5	A
		DefL	----	----	----	----	----	----	----	----	----	----	----	----
		T	----	----	----	----	----	----	----	----	----	----	----	----
	WB	TR	0.30	7.0	A	0.36	7.5	A	0.26	8.5	A	0.29	8.7	A
	NB	LTR	0.61	24.7	C	0.64	25.6	C	0.29	7.5	A	0.31	7.6	A
Overall			10.4	B		10.8	B		8.3	A		8.9	A	
9. 161st Street S. Service Road at Gerard Avenue	EB	TR	0.24	6.6	A	0.30	7.0	A	0.42	9.8	A	0.49	10.5	B
	NB	TR	0.80	48.2	D	1.10	111.6	F	0.54	19.9	B	0.57	20.6	C
	Overall			22.8	C		48.2	D		12.7	B		13.2	B
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.27	10.8	B	0.35	11.6	B	0.29	11.5	B	0.34	12.0	B
	NB	L	0.20	17.0	B	0.21	17.2	B	0.20	8.1	A	0.21	8.3	A
	SB	TR	0.44	29.3	C	0.46	29.6	C	0.40	18.1	B	0.42	18.4	B
	Overall			18.0	B		17.7	B		13.8	B		14.0	B
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.32	11.3	B	0.42	12.4	B	0.58	14.9	B	0.67	16.4	B
	NB	TR	0.20	26.6	C	0.24	27.3	C	0.22	16.8	B	0.27	17.5	B
	SB	L	0.12	15.8	B	0.13	16.0	B	0.22	8.1	A	0.24	8.3	A
		T	0.30	10.6	B	0.31	10.7	B	0.25	3.3	A	0.26	3.4	A
	Overall			13.0	B		13.7	B		12.6	B		14.0	B
12. 161st Street N. Service Road at Grand Concourse	WB	LTR	0.36	23.0	C	0.61	27.8	C	0.30	19.8	B	0.42	21.6	C
	NB	L	0.39	5.8	A	0.51	9.8	A	0.19	4.8	A	0.22	5.3	A
		T	0.65	3.9	A	0.78	5.6	A	0.48	4.4	A	0.56	4.8	A
	SB	T	0.27	18.1	B	0.32	18.7	B	0.21	19.7	B	0.24	20.0	B
		R	0.26	19.2	B	0.30	19.8	B	0.28	21.8	C	0.31	22.4	C
Overall			12.6	B		15.3	B		13.6	B		14.6	B	
13. 161st Street S. Service Road at Grand Concourse	EB	LTR	0.32	22.5	C	0.48	25.0	C	0.47	22.3	C	0.57	24.3	C
	NB	TR	0.56	22.4	C	0.62	23.7	C	0.57	25.0	C	0.58	25.3	C
	SB	L	0.67	22.3	C	0.93	65.5	E	0.47	13.4	B	0.53	16.4	B
		T	0.34	2.1	A	0.44	2.5	A	0.28	3.4	A	0.35	3.6	A
Overall			15.8	B		18.0	B		18.3	B		18.5	B	
14.&15. 161st Street at Concourse Village West/ Sheridan Avenue	EB (Main)	LT	0.39	12.3	B	0.49	13.7	B	0.48	14.0	B	0.52	14.5	B
	EB (Service)	TR	0.20	10.2	B	0.24	10.5	B	0.30	11.6	B	0.31	11.7	B
	WB	LTR	0.47	12.8	B	0.57	14.3	B	0.46	13.0	B	0.57	14.5	B
		R	0.16	10.8	B	0.17	10.9	B	0.17	11.8	B	0.18	11.9	B
	NB	LTR	0.27	21.3	C	0.51	24.7	C	0.24	11.2	B	0.26	11.4	B
Overall			13.3	B		15.5	B		12.6	B		13.5	B	

* - Movement closed by police during Saturday pre-game peak hour count.

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-10
Comparison of Game Day 2008 Existing and 2018 No-Action Traffic Conditions
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)					
			2008 EXISTING			2018 NO-ACTION			2008 EXISTING			2018 NO-ACTION		
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS
16. 161st Street at Sherman Avenue	EB	TR	0.46	8.4	A	0.59	9.9	A	0.59	11.1	B	0.62	11.6	B
	WB	LT	0.50	8.9	A	0.59	10.1	B	0.59	11.4	B	0.67	12.9	B
	NB	L	0.16	28.5	C	0.28	33.3	C	0.09	15.0	B	0.13	15.7	B
		R	0.13	27.4	C	0.14	27.5	C	0.10	14.9	B	0.11	15.0	B
	SB	LTR	0.54	34.4	C	1.01	81.9	F	0.25	15.7	B	0.62	22.4	C
Overall				11.7	B		20.2	C		11.7	B		13.7	B
17. 161st Street at Grant Avenue	EB	T	0.49	13.2	B	0.64	15.6	B	0.35	11.5	B	0.37	11.7	B
	WB	T	0.55	14.0	B	0.63	15.5	B	0.43	12.5	B	0.50	13.3	B
	Overall				13.6	B		15.5	B		12.1	B		12.6
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	----	----	----	----	----	----	----	----	----	----	----	----
		TR	0.76	20.4	C	1.01	50.8	D	0.53	10.7	B	0.52	10.5	B
	WB	LTR	0.84	24.8	C	1.13	91.1	F	0.54	10.8	B	0.63	12.1	B
	NB	LTR	1.05	90.5	F	1.21	145.8	F	0.84	37.5	D	0.90	45.6	D
	SB	LTR	0.85	41.9	D	0.94	54.3	D	0.78	29.9	C	0.83	33.6	C
Overall				36.1	D		78.4	E		18.5	B		20.5	C
19. 161st Street at Park Avenue West	EB	T	0.37	11.9	B	0.52	13.7	B	0.24	7.8	A	0.31	8.3	A
	WB	T	0.50	2.5	A	0.55	2.8	A	0.33	1.4	A	0.35	1.5	A
	SB	LR	0.47	26.6	C	0.63	31.8	C	0.38	18.2	B	0.62	24.2	C
	Overall				8.7	A		10.9	B		6.1	A		8.3
20. 161st Street at Park Avenue East	EB	T	0.36	1.8	A	0.50	2.4	A	0.27	1.2	A	0.33	1.4	A
	WB	T	0.38	11.8	B	0.42	12.3	B	0.28	8.1	A	0.33	8.5	A
	NB	LR	1.04	85.1	F	1.09	102.0	F	0.81	36.9	D	0.86	42.0	D
	Overall				25.4	C		26.7	C		12.4	B		12.9
21. 161st Street at Courtlandt Avenue	EB	DefL	----	----	----	----	----	----	----	----	----	----	----	----
		T	----	----	----	----	----	----	----	----	----	----	----	----
	WB	LT	1.05	63.0	E	1.08	72.9	E	0.54	10.8	B	0.59	11.6	B
		TR	0.38	11.9	B	0.40	12.2	B	0.30	8.3	A	0.36	8.7	A
	NB	LTR	1.04	82.7	F	1.10	99.9	F	0.63	24.4	C	0.67	25.7	C
	Overall				52.7	D		61.7	E		12.6	B		13.1
22. 161st Street at Melrose Avenue	EB	LTR	0.66	28.1	C	0.94	49.8	D	0.47	23.2	C	0.57	25.5	C
	WB	LTR	0.55	25.1	C	0.78	34.1	C	0.37	21.7	C	0.49	23.8	C
	NB	LTR	1.05	82.7	F	1.16	123.9	F	0.67	30.8	C	0.78	36.7	D
		L	----	----	----	----	----	----	----	----	----	----	----	----
		TR	----	----	----	----	----	----	----	----	----	----	----	----
	SB	LTR	0.53	25.7	C	0.60	27.7	C	0.48	24.4	C	0.53	25.7	C
Overall				41.7	D		61.4	E		24.9	C		27.7	C
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	EB	LTR	1.04	74.2	E	----	----	----	0.83	39.7	D	----	----	----
		L	----	----	----	0.76	38.6	D	----	----	----	0.97	72.3	E
		TR	----	----	----	0.86	31.0	C	----	----	----	0.65	23.9	C
	WB	LTR	0.62	31.2	C	----	----	----	0.63	31.1	C	----	----	----
		L	----	----	----	1.67	371.8	F	----	----	----	1.01	93.2	F
	NB (Exterior)	TR	----	----	----	0.36	18.1	B	----	----	----	0.34	18.5	B
		LTR	----	----	----	----	----	F	0.19	37.7	D	----	----	----
		DefL	1.04	114.6	F	1.54	309.3	F	----	----	----	0.91	95.7	F
	NB (Ramp)	TR	0.56	45.9	D	0.76	51.8	D	----	----	----	0.46	41.1	D
		LTR	1.05	97.1	F	1.43	242.8	F	1.05	96.5	F	1.15	127.1	F
		DefL	----	----	----	----	----	----	----	----	----	----	----	----
	SB (Ext)	TR	----	----	----	----	----	----	----	----	----	----	----	----
		DefL	----	----	----	----	----	----	----	----	----	----	----	----
		T	0.53	63.0	E	0.94	69.3	E	0.79	101.8	F	0.78	52.7	D
	SB (River)	R	0.48	43.4	D	0.33	35.8	D	0.33	40.4	D	0.30	36.5	D
LTR		0.09	36.8	D	0.45	37.6	D	0.16	38.1	D	0.70	46.0	D	
Overall				69.5	E		106.0	F		61.2	E		57.7	E
28. E. 149th Street at Grand Concourse	EB	TR	0.79	39.6	D	0.96	56.5	E	0.46	27.7	C	0.58	30.1	C
	WB	TR	0.59	32.8	C	0.75	37.5	D	0.40	26.7	C	0.51	28.6	C
	NB	TR	0.42	16.9	B	0.49	17.8	B	0.33	17.8	B	0.38	18.5	B
	SB	TR	0.51	18.1	B	0.69	21.9	C	0.50	20.2	C	0.65	23.2	C
	Overall				25.4	C		31.5	C		22.2	C		24.4

* - Movement closed by police during Saturday pre-game peak hour count.

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn
v/c = volume-to-capacity ratio, LOS = Level-of-Service

Newly Congested Intersections

Along the E. 161st Street corridor, there would be the following newly congested intersections during game days:

- E. 161st Street S. Service Road at Gerard Avenue – The northbound through-right-turn movement which currently operates at LOS “D” during the weekday PM peak hour is projected to operate at LOS “F” under the year 2018 No-Action Condition.
- E. 161st Street S. Service Road at Grand Concourse – The southbound left-turn movement which currently operates at LOS “C” during the weekday PM peak hour is projected to operate at LOS “E” under the year 2018 No-Action Condition.
- E. 161st Street at Sherman Avenue – The southbound left-through-right-turn movement which currently operates at LOS “C” during the weekday PM peak hour is projected to operate at LOS “F” under the year 2018 No-Action Condition.
- E. 161st Street at Concourse Village East/Morris Avenue – While the northbound left-through-right-turn movement is projected to continue to operate at LOS “F” during the weekday PM peak hour, the westbound left-through-right-turn movement which currently operates at LOS “C” during the weekday PM peak hour is projected to operate at LOS “F” under the year 2018 No-Action Condition.
- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp - The westbound approach which currently operates at LOS “C” during the weekday PM peak hour is projected to operate at LOS “F” under the year 2018 No-Action Condition due to the congested left-turn movement. During the Saturday midday peak hour, the eastbound and westbound left-turn movements which currently operate at LOS “D” and “C” are projected to operate at LOS “E” and “F”, respectively.
- E. 149th Street at Grand Concourse – The eastbound through-right-turn movement which currently operates at LOS “D” during the weekday PM peak hour is projected to operate at LOS “E” under the 2018 No-Action Condition.

Existing Congested Intersections No Longer Congested under No-Action Conditions

In the Game Day analysis scenario, there are no newly congested intersections under the 2018 No-Action conditions.

Traffic operations within the study area under the 2018 No-Action Condition are described more fully below.

E. 161st Street Corridor

- E. 161st Street N. Service Road at River Avenue – The westbound through-right movement is projected to operate at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, the northbound left-through movement is projected to operate at LOS “A” during the weekday PM peak hour and Saturday midday peak hour, and the southbound through-right movement is projected to operate at LOS “C” during the weekday PM peak hour and operate at LOS “D” during the Saturday midday peak hour.
- E. 161st Street Main Road at River Avenue – The eastbound and westbound approaches are projected to operate at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, while the northbound and southbound approaches are projected to operate at LOS “A” during those periods.
- E. 161st Street S. Service Road at River Avenue – The eastbound approach is projected to operate at LOS “C” and “B” during the weekday PM and Saturday midday peak hours, respectively. The northbound and southbound approaches are projected to operate at LOS “C,” and “A” respectively during both the weekday PM and Saturday midday peak hours.
- E. 161st Street N. Service Road at Gerard Avenue – The westbound and northbound approaches are projected to operate at LOS “A” during the weekday PM peak hour and in the Saturday midday peak hour, except for the northbound approach in the PM peak hour, when LOS “C” is projected.
- E. 161st Street Main Road at Gerard Avenue – The eastbound and westbound approaches are projected to operate at LOS “A” during the weekday PM peak hour and during the Saturday midday peak hour, while the northbound approach is projected to operate at LOS “C” during the weekday PM peak hour and at LOS “A” during the Saturday midday peak hour.
- E. 161st Street S. Service Road at Gerard Avenue – The eastbound approach is projected to operate at LOS “A” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, while the northbound approach is projected to operate at LOS “F” in the weekday PM peak hour and LOS “C” in the Saturday midday peak hour.
- E. 161st Street N. Service Road at Walton Avenue – The westbound approach is projected to operate at LOS “B” during the weekday PM peak hour and during the Saturday midday peak hour, the northbound approach is projected to operate at LOS “B” in the weekday PM peak hour and at LOS “A” during the Saturday midday peak hour, and the southbound approach is projected to operate at LOS “C” during the weekday PM peak hours and at LOS “B” during the Saturday midday peak hour.
- E. 161st Street S. Service Road at Walton Avenue – The eastbound approach is projected to operate at LOS “B” during both the weekday PM and Saturday midday peak hours; and the northbound approach is projected to operate at LOS “C” or “B” respectively during the weekday PM and Saturday midday peak hours. The southbound approach is

projected to operate at LOS “B” during the weekday PM peak hour and at LOS “A” during the Saturday midday peak hour.

- E. 161st Street N. Service Road at Grand Concourse – The westbound approach is projected to operate at LOS “C” during both the weekday PM peak hour and in the Saturday midday peak hour. The northbound approach is projected to operate at LOS “A” during both the weekday PM peak hour and Saturday midday peak hour; and the southbound approach is projected to operate at LOS “B” and “C” respectively, during weekday PM and Saturday midday peak hours.
- E. 161st Street S. Service Road at Grand Concourse – The eastbound and northbound approaches are both projected to operate at LOS “C” during the weekday PM peak hour and Saturday midday peak hour, while the southbound approach is projected to operate at an overall LOS “A” during the weekday PM peak hour and Saturday midday peak hour, except for the southbound left-turn movement, which is projected to operate at LOS “E” and “B” in the weekday PM and Saturday midday peak hours, respectively.
- E. 161st at Concourse Village West/Sheridan Avenue – The eastbound main and service road approaches and the westbound approach are all projected to operate at LOS “B” during the weekday PM peak hour and Saturday midday peak hour, and the northbound approach is projected to operate at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour.
- E. 161st Street at Sherman Avenue – The eastbound and westbound approaches are projected to operate at LOS “A” or “B” during the weekday PM peak hour and Saturday midday peak hour, the northbound approach is projected to operate at LOS “C” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak, and the southbound approach is projected to operate at LOS “F” in the weekday PM peak hour and at LOS “C” in the Saturday midday peak period.
- E. 161st Street at Grant Avenue – The eastbound and westbound approaches are both projected to operate at LOS “B” during the weekday PM peak hour and Saturday midday peak hour.
- E. 161st Street at Concourse Village East/Morris Avenue – The eastbound approach is projected to operate at LOS “D” during the weekday PM peak and at LOS “B” during the Saturday midday peak, the westbound approach is projected to operate at LOS “F” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, the northbound approach is projected to operate at LOS “F” during the weekday PM peaks and at LOS “D” during the Saturday midday peak hour, and the southbound approach is projected to operate at LOS “D” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour.
- E. 161st Street at Park Avenue West – The eastbound and westbound approaches are projected to operate at LOS “A” or “B” during the weekday PM peak hour and Saturday

midday peak hour, and the southbound approach is projected to operate at LOS “C” during the weekday PM peak hour and Saturday midday peak hour.

- E. 161st Street at Park Avenue East – The eastbound and westbound approaches are both projected to operate at LOS “A” or “B” during the weekday PM peak hour and Saturday midday peak hour, and the southbound approach is projected to operate at LOS “F” during the weekday PM peak hour and at LOS “D” during the Saturday midday peak hour.
- E. 161st Street at Courtlandt Avenue – The eastbound approach is projected to operate at LOS “E” during the weekday PM peak hour and at LOS “B” during the Saturday midday peak hour, the westbound approach is projected to operate at LOS “B” during the weekday PM peak hour and at LOS “A” during the Saturday midday peak hour, and the northbound approach is projected to operate at LOS “F” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour.
- E. 161st Street at Melrose Avenue – The eastbound approach is projected to operate at LOS “D” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour, the westbound approach is projected to operate at LOS “C” during both the weekday PM peak hour and Saturday midday peak hour, the northbound approach is projected to operate at LOS “F” during the weekday PM peak hour and at LOS “D” during the Saturday midday peak hour, and the southbound approach is projected to operate at LOS “C” during both the weekday PM peak hour and Saturday midday peak hour.

Additional Analysis Locations

- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp
 - Weekday PM Peak Hour. The E.149th Street eastbound and westbound approaches are projected to operate at LOS “C” and “F”, respectively, where the westbound left-turn movement is projected to fail at LOS “F”. The northbound Exterior Street approach is projected to operate at LOS “F” due to the failed left-turn movement while the through-right-turn movement will operate at LOS “D”. The MDE northbound off-ramp is projected to operate at LOS “F”. The southbound Exterior Street approach is projected to operate at LOS “E”. The southbound River Avenue approach is projected to operate at LOS “D”. The overall intersection is projected to operate at LOS “F”.
 - Saturday Midday Peak Hour. The E.149th Street eastbound and westbound approaches are projected to operate at an overall LOS “D” while the eastbound and westbound left-turn movements are projected to operate at LOS “E” and “F”, respectively. The northbound Exterior Street approach is projected to operate at LOS “E” due to a failed left-turn movement, regardless of the through-right-turn movement at LOS “D”. The MDE northbound off-ramp is projected to operate at LOS “F”. The southbound Exterior Street and River Avenue approaches are projected to operate at LOS “D”. The overall intersection is projected to operate at LOS “E”.

- E. 149th Street at Grand Concourse – The eastbound approach is projected to operate at LOS “E” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour, the westbound approach is projected to operate at LOS “D” during the weekday PM peak hour and at LOS “C” during the Saturday midday peak hour, the northbound approach is projected to operate at an LOS “B” during both the weekday PM peak hour and Saturday midday peak hour, and the southbound approach is projected to operate at LOS “C” during both the weekday PM peak hour and the Saturday midday peak hour.

FUTURE WITH THE PROPOSED ACTION

A total of 11 projected development sites have been identified and are analyzed herein for their potential as the RWCDS to impact future traffic conditions. The proposed action would result in a net increase of:

- 594 residential dwelling units (DUs);
- 42,004 sq. ft. of retail space;
- 306,011 sq. ft. of office space; and
- 10 sq. ft. of community facility space.

Trip Generation and Assignment

Trip generation was calculated separately for each land use component related to the proposed action. Under the proposed action, the No-Action land uses on the 11 development sites would be redeveloped in the future in accordance with the land use plan under the Action scenario. As a result, the trip generation analysis takes credit for vehicle trips generated by No-Action land uses that would be displaced.

Tables 3.3-4A and 3.3-4B show the transportation planning assumptions used to estimate the projected person and vehicle trips under the No-Action condition, including the sizes of each land use, weekday and Saturday daily trip generation rates, temporal distributions, modal splits, and in/out splits. Tables 3.3-5A and 3.3-5B show the corresponding transportation planning assumptions and person and vehicle trips for the Action condition. Table 3.3-6 compares the resulting vehicle trip generation characteristics under No-Action and Action conditions to determine the vehicle trip increments during the weekday PM peak hour and Saturday midday peak hour. As shown in Table 3.3-6, the proposed action condition is projected to generate *net* vehicle trip increments of:

- 294 net vehicle trips during the weekday PM peak hour (5:00 to 6:00 PM); and
- 97 net vehicle trips during the Saturday midday peak hour (1:00 to 2:00 PM).

The resulting vehicle trips were assigned to the study area based on their anticipated origins and destinations, using the most direct routes to and from each of the 11 projected development sites. The incremental traffic assignments generated by the proposed action – essentially the difference

on each affected intersection approach between the 2018 No Action and 2018 Action traffic volumes is shown in Figures 3.3-12 and 3.3-13. Note that these incremental traffic assignments are the same for both the Non-Game Day and Game Day scenarios. Figures 3.3-22 and 3.3-23 depict the total traffic volumes under the 2018 Game Day Action condition during the weekday PM peak hour and Saturday midday peak hour.

Capacity Analysis and Determination of Traffic Impacts

Based on the Action condition traffic volumes shown in Figures 3.3-22 through 3.3-23, intersection capacity analyses were conducted according to the *HCM* methodologies. Table 3.3-11 shows the v/c ratios, average control delays, and levels-of-service under year 2018 Action conditions. According to the thresholds established in the *CEQR Technical Manual*, which is described in Section X.2.3, Table 3.3-11 compares those results to those under 2018 No-Action conditions during each peak hour, and then notes (with an “X” in the “Impact?” column) any movements or approaches that are projected to experience a significant traffic impact based on the *CEQR* criteria described above. As shown in Table 3.3-11, and summarized in Table 3.3-12 below, there would be five (5) intersections during the weekday PM peak hour and one (1) intersection during the Saturday midday peak hour with one or more significantly adversely impacted movements. These significant adverse impacts are described in more detail below.

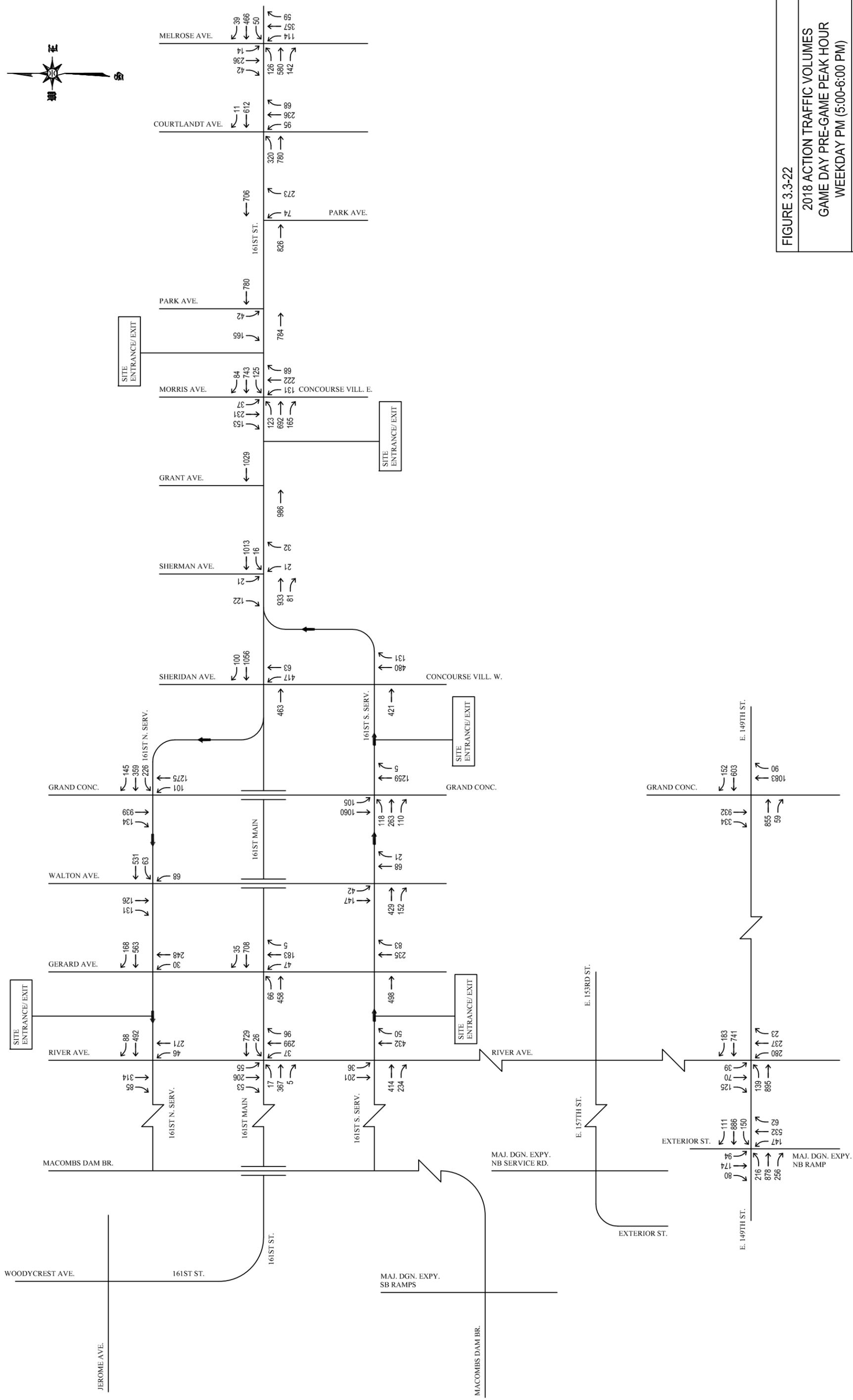
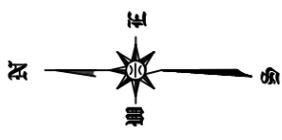


FIGURE 3.3-22

2018 ACTION DAY PRE-GAME PEAK HOUR
WEEKDAY PM (5:00-6:00 PM)

161st STREET REZONING EIS
BRONX, NY

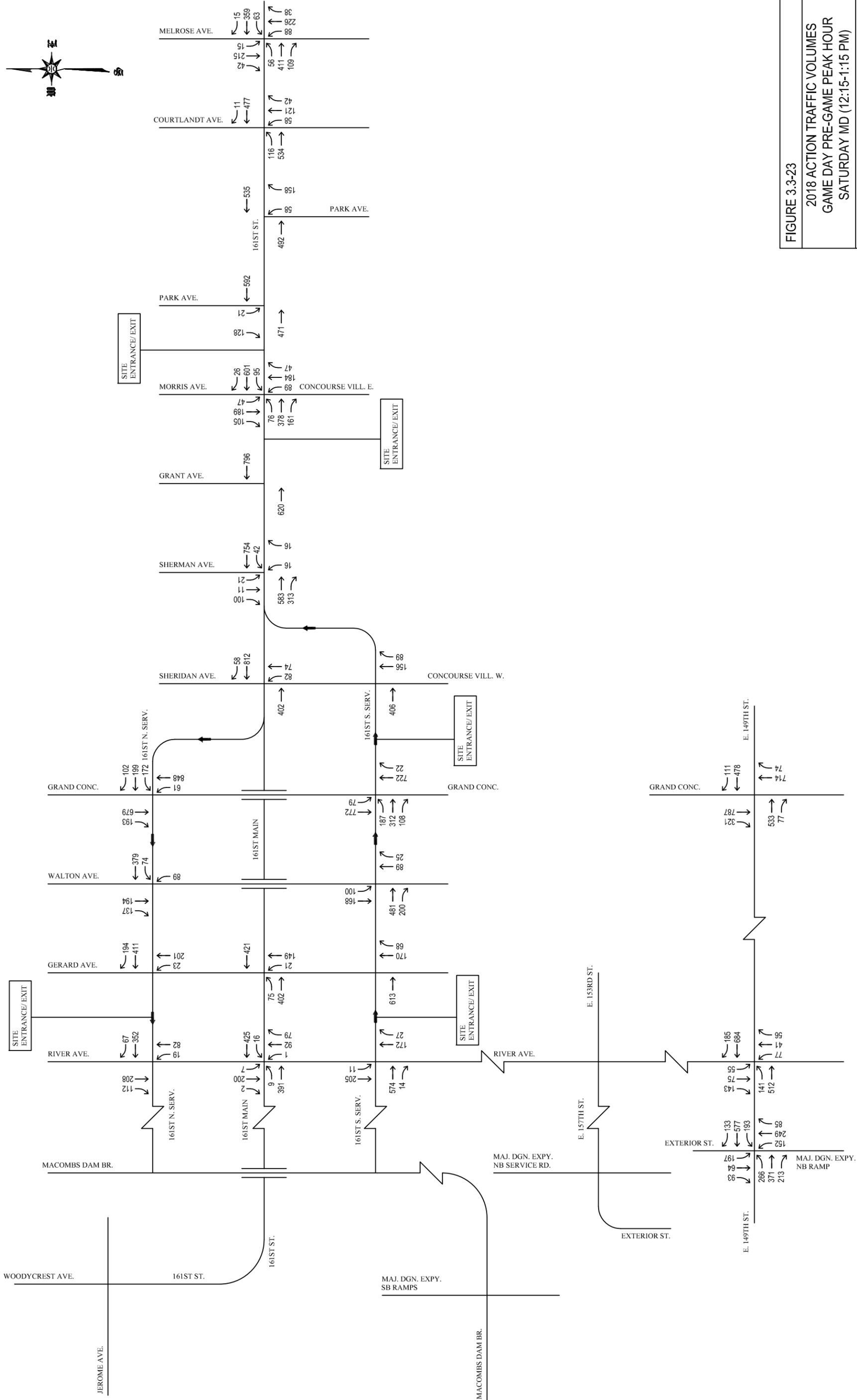
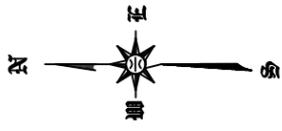


FIGURE 3.3-23

2018 ACTION TRAFFIC VOLUMES
 GAME DAY PRE-GAME PEAK HOUR
 SATURDAY MD (12:15-1:15 PM)

161st STREET REZONING EIS
 BRONX, NY

Table 3.3-11
Year 2018 Comparison of Game Day Traffic Conditions: No Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)							Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)						
			NO-ACTION			ACTION			Impact?	NO-ACTION			ACTION			Impact?
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	
SIGNALIZED INTERSECTIONS																
4. 161st Street N. Service Road at River Avenue	WB	TR	0.68	27.2	C	0.75	29.7	C		0.49	13.7	B	0.50	13.8	B	
	NB	LT	0.54	4.1	A	0.62	5.5	A		0.22	4.7	A	0.24	4.9	A	
	SB	TR	0.69	25.5	C	0.71	26.1	C		0.87	39.7	D	0.90	44.0	D	
	Overall			20.6	C		22.3	C			22.1	C		23.7	C	
5. 161st Street Main Road at River Avenue	EB	LTR	0.39	21.5	C	0.44	22.4	C		0.32	11.8	B	0.36	12.2	B	
	WB	LTR	0.80	31.3	C	0.92	41.1	D		0.39	12.5	B	0.40	12.5	B	
	NB	LTR	0.63	5.4	A	0.66	6.0	A		0.38	5.7	A	0.39	5.8	A	
	SB	LTR	0.61	5.2	A	0.63	5.5	A		0.31	5.0	A	0.34	5.3	A	
Overall			18.9	B		23.5	C			9.9	A		10.0	B		
6. 161st Street S. Service Road at River Avenue	EB	TR	0.76	29.8	C	0.79	30.9	C		0.58	14.8	B	0.58	14.8	B	
	NB	TR	0.77	28.0	C	0.81	30.1	C		0.77	28.7	C	0.80	31.0	C	
	SB	LT	0.30	2.1	A	0.33	2.3	A		0.39	5.8	A	0.50	7.4	A	
	Overall			24.9	C		26.2	C			17.2	B		18.1	B	
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.40	7.9	A	0.44	8.2	A		0.44	10.0	A	0.45	10.1	B	
	NB	LT	0.69	27.2	C	0.70	27.6	C		0.41	8.5	A	0.41	8.6	A	
	Overall			13.4	B		13.5	B			9.6	A		9.7	A	
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.43	8.2	A	0.43	8.3	A		0.38	9.5	A	0.38	9.5	A	
		DefL	----	----	----	----	----	----		----	----	----	----	----	----	
		T	----	----	----	----	----	----		----	----	----	----	----	----	
	WB	TR	0.36	7.5	A	0.38	7.6	A		0.29	8.7	A	0.30	8.7	A	
	NB	LTR	0.64	25.6	C	0.65	25.8	C		0.31	7.6	A	0.31	7.7	A	
Overall			10.8	B		10.9	B			8.9	A		8.9	A		
9. 161st Street S. Service Road at Gerard Avenue	EB	TR	0.30	7.0	A	0.31	7.1	A		0.49	10.5	B	0.50	10.6	B	
	NB	TR	1.10	111.6	F	1.11	114.6	F	X	0.57	20.6	C	0.57	20.6	C	
	Overall			48.2	D		48.7	D			13.2	B		13.2	B	
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.35	11.6	B	0.39	12.0	B		0.34	12.0	B	0.35	12.1	B	
	NB	L	0.21	17.2	B	0.21	17.2	B		0.21	8.3	A	0.21	8.3	A	
	SB	TR	0.46	29.6	C	0.46	29.6	C		0.42	18.4	B	0.42	18.4	B	
	Overall			17.7	B		17.6	B			14.0	B		14.0	B	
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.42	12.4	B	0.44	12.6	B		0.67	16.4	B	0.68	16.6	B	
	NB	TR	0.24	27.3	C	0.24	27.3	C		0.27	17.5	B	0.27	17.5	B	
	SB	L	0.13	16.0	B	0.13	16.0	B		0.24	8.3	A	0.24	8.3	A	
		T	0.31	10.7	B	0.31	10.7	B		0.26	3.4	A	0.26	3.4	A	
	Overall			13.7	B		13.8	B			14.0	B		14.1	B	
12. 161st Street N. Service Road at Grand Concourse	WB	LTR	0.61	27.8	C	0.73	31.2	C		0.42	21.6	C	0.45	22.1	C	
	NB	L	0.51	9.8	A	0.52	9.9	A		0.22	5.3	A	0.23	5.4	A	
		T	0.78	5.6	A	0.78	5.6	A		0.56	4.8	A	0.56	4.9	A	
	SB	T	0.32	18.7	B	0.32	18.7	B		0.24	20.0	B	0.24	20.0	B	
		R	0.30	19.8	B	0.30	19.9	B		0.31	22.4	C	0.32	22.4	C	
Overall			15.3	B		16.6	B			14.6	B		14.8	B		
13. 161st Street S. Service Road at Grand Concourse	EB	LTR	0.48	25.0	C	0.50	25.3	C		0.57	24.3	C	0.58	24.6	C	
	NB	TR	0.62	23.7	C	0.63	23.8	C		0.58	25.3	C	0.59	25.4	C	
	SB	L	0.93	65.5	E	1.00	83.2	F	X	0.53	16.4	B	0.61	21.4	C	
		T	0.44	2.5	A	0.45	2.5	A		0.35	3.6	A	0.35	3.6	A	
Overall			18.0	B		18.7	B			18.5	B		18.8	B		
14.&15. 161st Street at Concourse Village West/ Sheridan Avenue	EB (Main)	LT	0.49	13.7	B	0.49	13.7	B		0.52	14.5	B	0.52	14.6	B	
	EB (Service)	TR	0.24	10.5	B	0.27	10.8	B		0.31	11.7	B	0.32	11.8	B	
	WB	LTR	0.57	14.3	B	0.58	14.4	B		0.57	14.5	B	0.58	14.6	B	
		R	0.17	10.9	B	0.17	10.9	B		0.18	11.9	B	0.18	11.9	B	
	NB	LTR	0.51	24.7	C	0.65	27.4	C		0.26	11.4	B	0.28	11.6	B	
	Overall			15.5	B		16.6	B			13.5	B		13.5	B	

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-11
Year 2018 Comparison of Game Day Traffic Conditions: No Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)							Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)						
			NO-ACTION			ACTION			Impact?	NO-ACTION			ACTION			Impact?
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	
16. 161st Street at Sherman Avenue	EB	TR	0.59	9.9	A	0.62	10.4	B		0.62	11.6	B	0.64	11.8	B	
	WB	LT	0.59	10.1	B	0.60	10.2	B		0.67	12.9	B	0.69	13.2	B	
	NB	L	0.28	33.3	C	0.28	33.3	C		0.13	15.7	B	0.13	15.7	B	
		R	0.14	27.5	C	0.14	27.5	C		0.11	15.0	B	0.11	15.0	B	
	SB	LTR	1.01	81.9	F	1.01	81.9	F		0.62	22.4	C	0.62	22.4	C	
Overall				20.2	C		20.1	C			13.7	B		13.9	B	
17. 161st Street at Grant Avenue	EB	T	0.64	15.6	B	0.68	16.4	B		0.37	11.7	B	0.38	11.8	B	
	WB	T	0.63	15.5	B	0.64	15.7	B		0.50	13.3	B	0.50	13.4	B	
	Overall				15.5	B		16.0	B			12.6	B		12.7	B
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	----	----	----	----	----	----		----	----	----	----	----	----	
	TR	1.01	50.8	D	1.06	64.4	E	X	0.52	10.5	B	0.53	10.6	B		
	WB	LTR	1.13	91.1	F	1.16	104.0	F	X	0.63	12.1	B	0.64	12.3	B	
	NB	LTR	1.21	145.8	F	1.21	145.8	F		0.90	45.6	D	0.90	45.6	D	
	SB	LTR	0.94	54.3	D	0.94	54.3	D		0.83	33.6	C	0.83	33.6	C	
Overall				78.4	E		87.3	F	X		20.5	C		20.5	C	
19. 161st Street at Park Avenue West	EB	T	0.52	13.7	B	0.55	14.3	B		0.31	8.3	A	0.31	8.3	A	
	WB	T	0.55	2.8	A	0.56	2.9	A		0.35	1.5	A	0.39	1.6	A	
	SB	LR	0.63	31.8	C	0.64	32.3	C		0.62	24.2	C	0.44	19.3	B	
	Overall				10.9	B		11.2	B			8.3	A		6.5	A
20. 161st Street at Park Avenue East	EB	T	0.50	2.4	A	0.53	2.6	A		0.33	1.4	A	0.34	1.4	A	
	WB	T	0.42	12.3	B	0.43	12.4	B		0.33	8.5	A	0.34	8.5	A	
	NB	LR	1.09	102.0	F	1.09	102.0	F		0.86	42.0	D	0.86	42.0	D	
	Overall				26.7	C		26.1	C			12.9	B		12.8	B
21. 161st Street at Courtlandt Avenue	EB	DefL	----	----	----	----	----	----		----	----	----	----	----	----	
		T	----	----	----	----	----	----		----	----	----	----	----	----	
	LT	1.08	72.9	E	1.09	76.0	E		0.59	11.6	B	0.61	11.8	B		
	WB	TR	0.40	12.2	B	0.41	12.3	B		0.36	8.7	A	0.36	8.7	A	
	NB	LTR	1.10	99.9	F	1.10	99.9	F		0.67	25.7	C	0.67	25.7	C	
Overall				61.7	E		63.1	E			13.1	B		13.1	B	
22. 161st Street at Melrose Avenue	EB	LTR	0.94	49.8	D	1.04	75.3	E	X	0.57	25.5	C	0.60	26.1	C	
	WB	LTR	0.78	34.1	C	0.80	35.6	D		0.49	23.8	C	0.49	23.9	C	
	NB	LTR	1.16	123.9	F	1.19	136.1	F	X	0.78	36.7	D	0.80	38.3	D	
		L	----	----	----	----	----	----		----	----	----	----	----	----	
	TR	----	----	----	----	----	----		----	----	----	----	----	----		
	SB	LTR	0.60	27.7	C	0.60	27.7	C		0.53	25.7	C	0.53	25.7	C	
Overall				61.4	E		73.6	E	X		27.7	C		28.3	C	
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	EB	LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		L	0.76	38.6	D	0.76	39.2	D		0.97	72.3	E	0.98	73.2	E	
		TR	0.86	31.0	C	0.86	31.2	C		0.65	23.9	C	0.65	24.0	C	
	WB	LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		L	1.67	371.8	F	1.69	380.1	F	X	1.01	93.2	F	1.01	93.2	F	
	TR	0.36	18.1	B	0.37	18.1	B		0.34	18.5	B	0.34	18.5	B		
	NB (Exterior)	LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		DefL	1.54	309.3	F	1.57	320.2	F	X	0.91	95.7	F	0.92	97.3	F	
	TR	0.76	51.8	D	0.76	51.8	D		0.46	41.1	D	0.46	41.1	D		
	NB (Ramp)	LTR	1.43	242.8	F	1.43	242.8	F		1.15	127.1	F	1.16	131.7	F	X
		DefL	----	----	----	----	----	----		----	----	----	----	----	----	
	TR	----	----	----	----	----	----	----		----	----	----	----	----	----	
	SB (Ext)	LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		DefL	----	----	----	----	----	----		----	----	----	----	----	----	F
		T	0.94	69.3	E	0.94	69.3	E		0.78	52.7	D	0.79	52.9	D	
SB (River)	R	0.33	35.8	D	0.33	35.8	D		0.30	36.5	D	0.30	36.5	D		
	LTR	0.45	37.6	D	0.46	37.8	D		0.70	46.0	D	0.71	46.2	D		
	TR	----	----	----	----	----	----		----	----	----	----	----	----		
Overall				106.0	F		107.5	F			57.7	E		58.8	E	
28. E. 149th Street at Grand Concourse	EB	TR	0.96	56.5	E	0.96	56.5	E		0.58	30.1	C	0.58	30.1	C	
	WB	TR	0.75	37.5	D	0.75	37.5	D		0.51	28.6	C	0.51	28.6	C	
	NB	TR	0.49	17.8	B	0.50	17.9	B		0.38	18.5	B	0.38	18.5	B	
	SB	TR	0.69	21.9	C	0.70	22.2	C		0.65	23.2	C	0.65	23.3	C	
	Overall				31.5	C		31.5	C			24.4	C		24.4	C

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn
v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-12
Summary of Game Day Traffic Impacts

Intersections	Game Day Impacts Designated by 'X'	
	PM	SAT
9. 161st Street S. Service Road at Gerard Avenue	X	
13. 161st Street S. Service Road at Grand Concourse	X	
18. 161st Street at Concourse Village East/ Morris Avenue	X	
22. 161st Street at Melrose Avenue	X	
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	X	X

E. 161st Street Corridor Impact Locations

- E. 161st Street S. Service Road at Gerard Avenue – During the weekday PM peak hour, delays for vehicles on the northbound through-right-turn approach are projected to increase from 111.6 seconds/vehicle (LOS “F”) under the No-Action condition to 114.6 seconds/vehicle (LOS “F”) under the game-day Action condition.
- E. 161st Street S. Service Road at Grand Concourse – During the weekday PM peak hour, delays for vehicles on the southbound left-turn approach are projected to increase from 65.5 seconds/vehicle (LOS “E”) under the No-Action condition to 83.2 seconds/vehicle (LOS “F”) under the game-day Action condition.
- E. 161st Street at Concourse Village East/Morris Avenue – During the weekday PM peak hour, delays for vehicles on the eastbound through-right-turn movements are projected to increase from 50.8 seconds/vehicle (LOS “D”) under the No-Action condition to 64.4 seconds/vehicle (LOS “E”) under the game-day Action condition; and during the weekday PM peak hour, delays for vehicles on the westbound approach are projected to increase from 91.1 seconds/vehicle (LOS “F”) under the No-Action condition to 104.0 seconds/vehicle (LOS “F”) under the game-day Action condition.
- E. 161st Street at Melrose Avenue – During the weekday PM peak hour, delays for vehicles on the eastbound approach are projected to increase from 49.8 seconds/vehicle (LOS “D”) under the No-Action condition to 75.3 seconds/vehicle (LOS “E”) under the game-day Action condition; and during the weekday PM peak hour delays for vehicles on the northbound though-left-turn movements are projected to increase from 123.9 seconds/vehicle (LOS “F”) under the No-Action condition to 136.1 seconds/vehicle (LOS “F”) under the Action condition.

Additional Impact Locations

- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp
 - During the weekday PM peak hour, delays for vehicles on the westbound left turn movement are projected to increase from 371.8 seconds/vehicle (LOS “F”) under the No-Action condition to 380.1 seconds/vehicle (LOS “F”) under the game-day Action condition; and delays for vehicles on the northbound Exterior Street left-turn movement are projected to increase from 309.3 seconds/vehicle (LOS “F”) under the No-Action condition to 320.2 seconds/vehicle (LOS “F”) under the game-day Action condition.
 - During the Saturday midday peak hour, delays for vehicles on the MDE northbound off-ramp are projected to increase from 127.1 seconds/vehicle (LOS “F”) under the No-Action condition to 131.7 seconds/vehicle (LOS “F”) under the Action condition.

In summary, the traffic analyses in this section for the game day analysis demonstrate that the proposed rezoning action would result in significant adverse impacts at a number of locations during the analyzed weekday PM and Saturday midday peak hours. Recommended mitigation measures of off-set these projected impacts are discussed in Section 3.3.3 of this chapter.

3.3.3 RECOMMENDED MITIGATION MEASURES

This section presents potential transportation-related mitigation and improvement measures that address those significant adverse traffic impacts that are projected to occur as a result of the proposed action. The following mitigation measures would off-set those impacts identified above:

Mitigation Measures

- E. 161st Street S. Service Road at Gerard Avenue – Re-allocate one (1) second of green time from the eastbound phase to the northbound phase during the weekday PM peak period.
- E. 161st Street S. Service Road at Grand Concourse – Re-allocate two (2) seconds of green time from the eastbound phase to the northbound-southbound phase during the weekday PM peak period.
- E. 161st Street at Concourse Village East/Morris Avenue
 - Prohibit on-street parking along Concourse Village East northbound approach to accommodate one additional northbound lane. This prohibition should extend for a distance of approximately 150 feet south of E. 161st Street. This change would result in the loss of approximately six (6) existing parking spaces along Concourse Village East northbound approach.
 - Restripe Concourse Village East northbound approach to two (2) 10.5-foot wide lanes.
 - Re-allocate six (6) seconds of green time from the northbound phase to the eastbound-westbound phase during the weekday AM, midday, and PM peak periods.
- E. 161st Street at Park Avenue East and West – Re-allocate two (2) seconds of green time from the eastbound-westbound phase to the northbound-southbound phase during the weekday AM and midday peak periods.
- E. 161st Street at Melrose Avenue
 - Prohibit on-street parking along Melrose Avenue northbound approach to accommodate the northbound left-turns in a separate lane. This prohibition should extend for a distance of approximately 150 feet south of E. 161st Street. This change would result in the loss of approximately six (6) existing parking spaces along Melrose Avenue northbound approach.
 - Restripe Melrose Avenue northbound approach to a 11-foot wide, 100-foot long left-turn bay and a 13-foot wide through-right-turn lane;
 - Re-allocate four (4) seconds of green time from the northbound-southbound phase to the eastbound-westbound phase during the weekday AM and PM peak periods.

- Macombs Dam Bridge at Major Deegan Expressway (I-87) Southbound Ramps – Re-allocate one (1) second of green time from the southbound phase to the westbound left-turn movement lead phase during the weekday AM and PM and Saturday midday peak periods.

Tables 3.3-13 and 3.3-14 compare the year 2018 Mitigated Action to the year 2018 No-Action traffic conditions for the Non-Game Day and Game Day scenarios, respectively. As shown in Tables 3.3-13 and 3.3-14, the proposed mitigation measures would mitigate all projected adverse traffic impacts described in the chapter above, with the following exception:

- E. 149th Street at River Avenue/Exterior Street/ MDE (I-87) Northbound Off-Ramp. Despite the improved geometry and widening proposed by the Gateway Center at Bronx Terminal Market EIS, which were discussed in earlier, significant traffic impacts remain which are identified below:
 - E. 149th Street westbound left-turn movement during the weekday PM peak hour
 - Exterior Street northbound left-turn movement during the weekday PM peak hour
 - MDE northbound off-ramp during the Saturday midday peak hour

Traffic analyses indicate that any mitigation favoring any one of the above impacted movements will inevitably cause new impacts on one of the other movements. In other words, there is no spare capacity at this intersection in the Future Action condition.

Table 3.3-13
Year 2018 Comparison of Non-Game Day Traffic Conditions: With Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)							Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)							Weekday PM Peak Hour (5:00 to 6:00 p.m.)							Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)						
			NO-ACTION			MITIGATED BUILD			Impact?	NO-ACTION			MITIGATED BUILD			Impact?	NO-ACTION			MITIGATED BUILD			Impact?	NO-ACTION			MITIGATED BUILD			Impact?
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	
SIGNALIZED INTERSECTIONS																														
1. 161st Street at Jerome Avenue	EB	L	0.27	20.5	C	0.27	20.5	C		0.41	23.3	C	0.41	23.3	C		0.63	32.9	C	0.63	32.9	C		0.19	18.6	B	0.19	18.6	B	
		TR	----	----	F	----	----	F		----	----	F	----	----	F		----	----	F	----	----	F		----	----	F	----	----	F	
		T	0.16	16.9	B	0.16	16.9	B		0.24	17.8	B	0.24	17.8	B		0.30	18.4	B	0.30	18.4	B		0.28	18.2	B	0.28	18.2	B	
	WB	R	0.63	27.4	C	0.63	27.4	C		0.48	23.2	C	0.48	23.2	C		0.50	23.7	C	0.50	23.7	C		0.58	25.1	C	0.58	25.1	C	
		L	0.35	21.3	C	0.35	21.3	C		0.24	19.6	B	0.24	19.6	B		0.25	20.0	B	0.25	20.0	B		0.13	17.8	B	0.13	17.8	B	
		TR	0.55	23.9	C	0.55	23.9	C		0.50	22.8	C	0.50	22.8	C		0.65	27.1	C	0.65	27.1	C		0.33	19.4	B	0.33	19.4	B	
	NB	LT	0.36	14.9	B	0.37	15.0	B		0.29	14.2	B	0.30	14.2	B		0.52	17.0	B	0.55	17.5	B		0.29	14.1	B	0.29	14.2	B	
		R	0.12	13.0	B	0.12	13.0	B		0.03	12.1	B	0.03	12.1	B		0.08	12.5	B	0.08	12.5	B		0.03	12.0	B	0.03	12.0	B	
		Overall		20.0	B		20.0	B			19.0	B		19.0	B			21.5	C		21.2	C			18.7	B		18.6	B	
	2. 161st Street N. Service Road at Macombs Dam Br. Approach	WB	L	0.60	28.9	C	0.64	30.1	C		0.45	25.5	C	0.47	25.8	C		0.69	32.0	C	0.76	35.6	D		0.74	33.6	C	0.75	34.4	C
R			0.20	21.8	C	0.23	22.2	C		0.21	22.0	C	0.23	22.2	C		0.30	23.4	C	0.42	25.4	C		0.27	22.5	C	0.29	22.9	C	
NB		T	0.34	11.4	B	0.34	11.4	B		0.22	10.4	B	0.22	10.4	B		0.22	10.4	B	0.22	10.4	B		0.20	10.2	B	0.20	10.2	B	
		SB	T	0.51	13.4	B	0.53	13.6	B		0.34	11.5	B	0.35	11.5	B		0.45	12.6	B	0.45	12.6	B		0.21	10.3	B	0.21	10.3	B
Overall		15.8	B		16.3	B			14.4	B		14.6	B			17.2	B		18.8	B			19.2	B		19.6	B			
4. 161st Street N. Service Road at River Avenue	WB	TR	0.34	21.0	C	0.35	21.1	C		0.33	20.9	C	0.34	21.0	C		0.48	23.0	C	0.55	24.2	C		0.45	13.5	B	0.46	13.6	B	
		LT	0.48	4.6	A	0.57	6.2	A		0.26	2.1	A	0.27	2.2	A		0.47	3.5	A	0.53	4.3	A		0.91	34.8	C	0.96	43.4	D	
	SB	TR	0.53	20.6	C	0.57	21.5	C		0.49	19.8	B	0.52	20.3	C		0.62	22.9	C	0.63	23.4	C		0.84	35.9	D	0.87	38.9	D	
		Overall		16.6	B		17.4	B			16.7	B		16.9	B			17.7	B		18.6	B			26.7	C		30.1	C	
5. 161st Street Main Road at River Avenue	EB	LTR	0.44	22.3	C	0.44	22.3	C		0.29	20.3	C	0.30	20.4	C		0.29	20.3	C	0.33	20.8	C		0.42	12.7	B	0.43	12.9	B	
		LTR	0.49	22.9	C	0.50	23.0	C		0.42	21.9	C	0.42	22.0	C		0.59	24.6	C	0.64	25.6	C		0.37	12.3	B	0.37	12.3	B	
	NB	LTR	0.44	3.1	A	0.47	3.4	A		0.38	2.7	A	0.39	2.8	A		0.74	8.2	A	0.78	9.6	A		1.01	42.7	D	1.01	44.5	D	
		SB	LTR	0.35	2.4	A	0.37	2.5	A		0.34	2.3	A	0.36	2.4	A		0.42	2.9	A	0.43	2.9	A		0.46	6.7	A	0.48	6.9	A
Overall		15.1	B		15.0	B			13.1	B		13.1	B			15.4	B		16.4	B			21.1	C		21.6	C			
6. 161st Street S. Service Road at River Avenue	EB	TR	0.70	28.0	C	0.79	31.1	C		0.48	23.0	C	0.51	23.5	C		0.60	25.3	C	0.63	25.8	C		0.91	29.2	C	0.93	32.6	C	
		TR	0.46	19.0	B	0.51	20.0	B		0.41	18.3	B	0.43	18.5	B		0.79	29.8	C	0.82	31.9	C		0.90	41.0	D	0.92	44.1	D	
	SB	LT	0.34	2.3	A	0.34	2.3	A		0.40	2.7	A	0.41	2.8	A		0.44	3.2	A	0.47	3.6	A		0.54	8.4	A	0.59	9.6	A	
		Overall		19.9	B		22.3	C			15.9	B		16.5	B			22.3	C		23.4	C			29.3	C		32.3	C	
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.25	6.7	A	0.26	6.8	A		0.24	6.6	A	0.25	6.7	A		0.38	7.7	A	0.42	8.5	A		0.26	8.5	A	0.28	8.6	A	
		LT	0.37	20.2	C	0.37	20.2	C		0.33	19.6	B	0.33	19.6	B		0.77	31.3	C	0.74	28.4	C		0.72	14.2	B	0.73	14.3	B	
	Overall		10.3	B		10.2	B			9.9	A		9.9	A			15.6	B		14.8	B			11.6	B		11.6	B		
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.27	6.8	A	0.28	6.9	A		0.25	6.7	A	0.25	6.8	A		0.42	8.4	A	0.44	9.1	A		----	----	F	----	----	F	
		DefT	----	----	F	----	----	F		----	----	F	----	----	F		----	----	F	----	----	F		0.57	16.1	B	0.57	16.2	B	
	WB	T	----	----	F	----	----	F		----	----	F	----	----	F		----	----	F	----	----	F		0.34	9.6	A	0.35	9.7	A	
		TR	0.24	6.6	A	0.29	7.0	A		0.20	6.4	A	0.20	6.4	A		0.37	7.5	A	0.39	8.2	A		0.28	8.6	A	0.29	8.7	A	
NB	LTR	0.39	20.5	C	0.40	20.6	C		0.41	21.1	C	0.41	21.1	C		0.56	23.6	C	0.55	22.1	C		0.36	8.2	A	0.37	8.2	A		
	Overall		8.7	A		8.8	A			9.1	A		9.1	A			10.6	B		10.8	B			10.2	B		10.3	B		
9. 161st Street S. Service Road at Gerard Avenue	EB	TR	0.28	6.9	A	0.34	7.4	A		0.31	7.1	A	0.33	7.3	A		0.35	7.4	A	0.37	8.0	A		0.34	9.2	A	0.35	9.2	A	
		TR	1.01	87.3	F	1.01	87.3	F		0.64	39.3	D	0.65	39.5	D		1.20	149.4	F	1.16	131.8	F		0.54	19.6	B	0.54	19.7	B	
	Overall		36.2	D		32.8	C			15.6	B		15.3	B			59.3	F		52.4	D			12.8	B		12.9	B		
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.20	10.2	B	0.20	10.3	B		0.16	10.0	A	0.17	10.0	B		0.25	10.6	B	0.28	11.0	B		0.21	10.9	B	0.22	11.0	B	
		L	0.24	17.4	B	0.24	17.4	B		0.28	17.6	B	0.28	17.6	B		0.55	22.4	C	0.55	22.4	C		0.22	8.1	A	0.22	8.1	A	
	SB	TR	0.40	28.8	C	0.40	28.8	C		0.31	27.6	C	0.31	27.6	C		0.36	28.2	C	0.36	28.2	C		0.30	17.2	B	0.30	17.2	B	
		Overall		18.3	B		18.2	B			17.5	B		17.3	B			18.2	B		17.8	B			12.7	B		12.7	B	
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.41	12.2	B	0.48	13.1	B		0.43	12.5	B	0.45	12.9	B		0.49	13.3	B	0.51	13.5	B		0.33	11.9	B	0.34	12.0	B	
		TR	0.30	28.2	C	0.30	28.2	C		0.27	27.8	C	0.27	27.8	C		0.49	31.9	C	0.49	31.9	C		0.29	18.0	B	0.29	18.0	B	
	NB	L	0.24	17.4	B	0.24	17.4	B		0.35	18.9	B	0.35	18.9	B		0.23	17.7	B	0.23	17.7	B		0.13	7.5	A	0.13	7.5	A	
		T	0.45	12.5	B	0.45	12.5	B		0.23	10.1	B	0.23	10.1	B		0.40	11.8	B</											

Table 3.3-13
Year 2018 Comparison of Non-Game Day Traffic Conditions: With Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday AM Peak Hour (7:45 to 8:45 a.m.)						Weekday Midday (MD) Peak Hour (1:00 to 2:00 p.m.)						Weekday PM Peak Hour (5:00 to 6:00 p.m.)						Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)								
			NO-ACTION			MITIGATED BUILD			Impact?	NO-ACTION			MITIGATED BUILD			Impact?	NO-ACTION			MITIGATED BUILD			Impact?						
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS							
16. 161st Street at Sherman Avenue	EB	TR	0.48	8.7	A	0.49	8.7	A	0.41	7.9	A	0.41	8.0	A		0.48	8.6	A	0.51	9.0	A		0.44	9.4	A	0.45	9.5	A	
	WB	LT	0.66	11.3	B	0.69	11.9	B	0.84	18.4	B	0.86	19.8	B		0.74	13.5	B	0.76	14.1	B		0.58	11.2	B	0.59	11.3	B	
		L	0.08	26.8	C	0.08	26.8	C	0.26	30.0	C	0.26	30.0	C		0.41	36.3	D	0.41	36.3	D		0.12	15.4	B	0.12	15.4	B	
	NB	R	0.04	26.1	C	0.04	26.1	C	0.15	27.6	C	0.15	27.6	C		0.12	27.2	C	0.12	27.2	C		0.17	15.7	B	0.17	15.7	B	
	SB	LTR	0.06	25.7	C	0.06	25.7	C	0.47	35.0	C	0.47	35.0	C		1.25	175.5	F	1.25	175.5	F		0.64	25.7	C	0.64	25.7	C	
	Overall		10.5	B		10.9	B		15.8	B		16.6	B			30.6	C		30.4	C			12.4	B		12.5	B		
17. 161st Street at Grant Avenue	EB	T	0.47	12.9	B	0.47	13.0	B	0.45	12.7	B	0.45	12.8	B		0.54	13.9	B	0.57	14.4	B		0.41	12.3	B	0.43	12.4	B	
	WB	T	0.66	16.2	B	0.69	17.0	B	0.58	14.7	B	0.60	15.0	B		0.68	16.7	B	0.69	17.0	B		0.48	13.1	B	0.49	13.2	B	
	Overall		14.8	B		15.3	B		13.8	B		14.0	B			15.4	B		15.8	B			12.7	B		12.8	B		
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	1.14	122.4	F	1.12	112.0	F	---	---	F	---	---	F	---	---	F	---	---	F	---	---	F	---	---	F	---	---	F
	TR	0.82	26.6	C	0.79	20.9	C	0.65	17.1	B	0.56	11.4	B		1.28	155.4	F	1.22	123.9	F		0.61	11.9	B	0.62	12.2	B		
	WB	LTR	0.76	19.8	B	0.77	16.7	B	0.67	17.6	B	0.58	11.8	B		1.23	131.7	F	1.12	86.5	F		0.66	12.8	B	0.67	13.1	B	
	NB	LTR	1.04	83.2	F	0.77	38.6	D	0.87	41.5	D	0.70	33.6	C		1.02	74.0	E	0.78	38.1	D		0.87	40.3	D	0.49	18.3	B	
	SB	LTR	1.07	91.6	F	0.83	42.2	D	0.91	46.6	D	0.73	35.0	D		1.09	99.5	F	0.81	40.8	D		0.86	38.9	D	0.50	18.4	B	
	Overall		54.3	D		34.0	C		26.5	C		19.2	B			126.0	F		85.8	F			21.1	C		14.4	B		
19. 161st Street at Park Avenue West	EB	T	0.45	12.8	B	0.47	14.2	B	0.53	14.0	B	0.56	15.6	B		0.63	15.7	B	0.69	18.3	B		0.44	9.5	A	0.45	9.6	A	
	WB	T	0.38	2.0	A	0.41	2.2	A	0.37	1.9	A	0.40	2.1	A		0.49	2.5	A	0.52	2.7	A		0.41	1.7	A	0.41	1.7	A	
	SB	LR	0.93	60.4	E	0.93	56.9	E	0.69	34.8	C	0.67	32.2	C		1.01	78.6	E	0.96	64.1	E		0.63	24.9	C	0.65	25.6	C	
	Overall		18.7	B		18.9	B		12.8	B		13.4	B			21.8	C		20.5	C			8.6	A		8.8	A		
20. 161st Street at Park Avenue East	EB	T	0.46	2.3	A	0.49	2.5	A	0.54	2.8	A	0.57	3.1	A		0.66	3.8	A	0.73	4.8	A		0.48	2.0	A	0.49	2.0	A	
	WB	T	0.31	11.3	B	0.34	12.6	B	0.32	11.3	B	0.34	12.6	B		0.43	12.5	B	0.45	13.8	B		0.38	8.9	A	0.39	8.9	A	
	NB	LR	0.36	2.0	A	0.65	32.2	C	0.53	29.1	C	0.49	26.5	C		0.88	53.3	D	0.82	43.9	D		0.39	19.3	B	0.39	19.3	B	
	Overall		11.0	B		10.9	B		8.8	A		9.1	A			14.2	B		13.6	B			6.5	A		6.5	A		
21. 161st Street at Courtland Avenue	EB	LT	0.76	20.0	C	0.77	20.8	C	0.81	22.2	C	0.82	22.9	C		1.01	49.9	D	1.02	50.4	D		0.60	11.9	B	0.61	12.1	B	
	WB	TR	0.30	11.2	B	0.32	11.3	B	0.30	11.1	B	0.31	11.2	B		0.41	12.3	B	0.39	12.1	B		0.39	9.0	A	0.40	9.1	A	
	NB	LTR	1.11	106.5	F	1.11	106.5	F	0.84	44.2	D	0.84	44.2	D		1.04	82.8	F	1.00	71.9	E		0.85	37.6	D	0.85	37.6	D	
	Overall		40.8	D		40.7	D		24.0	C		24.2	C			46.0	D		43.9	D			16.6	B		16.6	B		
22. 161st Street at Melrose Avenue	EB	LTR	0.58	25.4	C	0.55	22.4	C	0.77	32.4	C	0.73	28.0	C		1.11	98.9	F	1.10	91.1	F		0.64	27.3	C	0.61	24.2	C	
	WB	LTR	0.28	20.3	C	0.27	17.9	B	0.57	26.3	C	0.53	22.8	C		0.74	32.0	C	0.69	27.3	C		0.51	24.2	C	0.47	21.1	C	
		LTR	1.16	123.4	F	---	---	---	0.54	26.4	C	---	---	---		0.85	42.5	D	---	---	---		0.88	48.9	D	---	---	---	
	NB	L	---	---	---	0.55	33.8	C	---	---	---	0.24	23.6	C		---	---	---	0.31	25.4	C		---	---	---	0.37	26.9	C	
		TR	---	---	---	0.66	31.6	C	---	---	---	0.35	24.1	C		---	---	---	0.59	29.7	C		---	---	---	0.53	28.3	C	
	Overall		54.5	D		26.4	C		28.7	C		25.8	C			60.5	E		54.4	D			31.8	C		25.5	C		
23. Macombs Dam Bridge at Major Deegan Expy. (I-87) Southbound Ramps	EB	TR	0.89	33.4	C	0.90	34.5	C	0.98	42.6	D	0.99	43.6	D		0.79	27.7	C	0.79	27.9	C		0.95	39.7	D	0.95	40.0	D	
	WB	L	1.00	79.6	E	0.98	72.1	E	0.98	74.2	E	0.93	58.6	E		0.97	68.8	E	0.98	70.6	E		0.97	73.7	E	0.91	59.3	E	
		T	0.60	16.4	B	0.59	15.7	B	0.35	13.1	B	0.34	12.5	B		0.51	14.9	B	0.51	14.4	B		0.47	14.4	B	0.46	13.8	B	
	SB	LTR	0.90	35.9	D	0.94	41.5	D	0.67	25.5	C	0.69	26.7	C		0.72	26.8	C	0.75	28.6	C		0.63	24.4	C	0.65	25.6	C	
	Overall		32.3	C		33.8	C		34.2	C		33.6	C			27.0	C		27.7	C			21.4	C		30.6	C		
24. E. 157th Street at Major Deegan Expy. (I-87) Northbound Off-Ramp	NEB	L	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---		---	---	---	---	---	---	---	
	WB	R	0.41	15.9	B	0.41	16.0	B	0.47	16.4	B	0.47	16.4	B		0.50	16.0	B	0.50	16.0	B		0.54	16.8	B	0.54	16.8	B	
	NB	T	0.37	11.0	B	0.37	11.0	B	0.49	12.0	B	0.49	12.0	B		0.62	12.8	B	0.62	12.8	B		0.83	17.4	B	0.83	17.4	B	
	Overall		12.5	B		12.5	B		13.0	B		13.0	B			13.4	B		13.4	B			16.8	B		16.8	B		
25. E. 153rd Street at River Avenue	EB	LTR	0.65	30.0	C	0.65	29.9	C	0.53	26.5	C	0.53	26.5	C		0.92	63.4	E	0.93	65.4	E		0.60	21.3	C	0.60	21.3	C	
	WB	LTR	0.21	21.1	C	0.22	21.2	C	0.31	22.8	C	0.31	22.8	C		0.79	51.7	D	0.82	55.3	E		0.33	16.9	B	0.33	16.9	B	
		LTR	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---		---	---	---	---	---	---	---	
	NB	DefL	0.70	27.2	C	0.72	28.3	C	0.87	37.8	D	0.87	38.1	D		0.98	49.3	D	0.99	53.1	D		0.81	25.1	C	0.81	25.3	C	
		TR	0.28	11.8	B	0.30	12.0	B	0.26	11.6	B	0.27	11.7	B		0.45	8.5	A	0.47	8.8	A		0.56	12.4	B	0.57	12.7	B	
	Overall		21.2	C		21.6	C		23.8	C		23.8	C			32.3	C		33.8	C			17.3	B		17.4	B		
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	EB	L	0.62	31.7	C	0.62	31.7	C	0.47	23.9	C	0.47	23.9	C		1.30	190.2	F	1.31	194.8	F	X	0.83	48.3	D	0.83	48.7	D	
		TR	0.62	23.4	C	0.63	23.5	C	0.57	22.3	C	0.57	22.3	C		0.80	28.9	C	0.80	28.9	C		0.63	23.5	C	0.63	23.5	C	
	WB	LTR	---	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---		---	---	---	---	---	---	---	
		L	0.52	28.4	C	0.53	28.9	C	0.95	70.5	E	0.95	70.5	E		1.00	102.0												

Table 3.3-14
Year 2018 Game Day Comparison of Traffic Conditions: With Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)							Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)								
			NO-ACTION			MITIGATED BUILD				Impact?	NO-ACTION			MITIGATED BUILD				Impact?
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	v/c		Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS			
SIGNALIZED INTERSECTIONS																		
4. 161st Street N. Service Road at River Avenue	WB	TR	0.68	27.2	C	0.75	29.7	C		0.49	13.7	B	0.50	13.8	B			
	NB	LT	0.54	4.1	A	0.62	5.5	A		0.22	4.7	A	0.24	4.9	A			
	SB	TR	0.69	25.5	C	0.71	26.1	C		0.87	39.7	D	0.90	44.0	D			
	Overall			20.6	C		22.3	C			22.1	C		23.7	C			
5. 161st Street Main Road at River Avenue	EB	LTR	0.39	21.5	C	0.44	22.4	C		0.32	11.8	B	0.36	12.2	B			
	WB	LTR	0.80	31.3	C	0.92	41.1	D		0.39	12.5	B	0.40	12.5	B			
	NB	LTR	0.63	5.4	A	0.66	6.0	A		0.38	5.7	A	0.39	5.8	A			
	SB	LTR	0.61	5.2	A	0.63	5.5	A		0.31	5.0	A	0.34	5.3	A			
Overall			18.9	B		23.5	C			9.9	A		10.0	B				
6. 161st Street S. Service Road at River Avenue	EB	TR	0.76	29.8	C	0.79	30.9	C		0.58	14.8	B	0.58	14.8	B			
	NB	TR	0.77	28.0	C	0.81	30.1	C		0.77	28.7	C	0.80	31.0	C			
	SB	LT	0.30	2.1	A	0.33	2.3	A		0.39	5.8	A	0.50	7.4	A			
Overall			24.9	C		26.2	C			17.2	B		18.1	B				
7. 161st Street N. Service Road at Gerard Avenue	WB	TR	0.40	7.9	A	0.45	8.8	A		0.44	10.0	A	0.45	10.1	B			
	NB	LT	0.69	27.2	C	0.67	25.2	C		0.41	8.5	A	0.41	8.6	A			
Overall			13.4	B		13.2	B			9.6	A		9.7	A				
8. 161st Street Main Road at Gerard Avenue	EB	LT	0.43	8.2	A	0.44	8.8	A		0.38	9.5	A	0.38	9.5	A			
		DefL	----	----	----	----	----	----		----	----	----	----	----				
		T	----	----	----	----	----	----		----	----	----	----	----				
	WB	TR	0.36	7.5	A	0.39	8.1	A		0.29	8.7	A	0.30	8.7	A			
	NB	LTR	0.64	25.6	C	0.62	23.7	C		0.31	7.6	A	0.31	7.7	A			
Overall			10.8	B		11.0	B			8.9	A		8.9	A				
9. 161st Street S. Service Road at Gerard Avenue	EB	TR	0.30	7.0	A	0.32	7.6	A		0.49	10.5	B	0.50	10.6	B			
	NB	TR	1.10	111.6	F	1.06	96.9	F		0.57	20.6	C	0.57	20.6	C			
Overall			48.2	D		42.2	D			13.2	B		13.2	B				
10. 161st Street N. Service Road at Walton Avenue	WB	LT	0.35	11.6	B	0.39	12.0	B		0.34	12.0	B	0.35	12.1	B			
	NB	L	0.21	17.2	B	0.21	17.2	B		0.21	8.3	A	0.21	8.3	A			
	SB	TR	0.46	29.6	C	0.46	29.6	C		0.42	18.4	B	0.42	18.4	B			
Overall			17.7	B		17.6	B			14.0	B		14.0	B				
11. 161st Street S. Service Road at Walton Avenue	EB	LTR	0.42	12.4	B	0.44	12.6	B		0.67	16.4	B	0.68	16.6	B			
	NB	TR	0.24	27.3	C	0.24	27.3	C		0.27	17.5	B	0.27	17.5	B			
	SB	L	0.13	16.0	B	0.13	16.0	B		0.24	8.3	A	0.24	8.3	A			
		T	0.31	10.7	B	0.31	10.7	B		0.26	3.4	A	0.26	3.4	A			
Overall			13.7	B		13.8	B			14.0	B		14.1	B				
12. 161st Street N. Service Road at Grand Concourse	WB	LTR	0.61	27.8	C	0.75	33.6	C		0.42	21.6	C	0.45	22.1	C			
		L	0.51	9.8	A	0.49	8.9	A		0.22	5.3	A	0.23	5.4	A			
	NB	T	0.78	5.6	A	0.75	5.0	A		0.56	4.8	A	0.56	4.9	A			
		T	0.32	18.7	B	0.31	17.5	B		0.24	20.0	B	0.24	20.0	B			
	SB	R	0.30	19.8	B	0.29	18.6	B		0.31	22.4	C	0.32	22.4	C			
Overall			15.3	B		16.6	B			14.6	B		14.8	B				
13. 161st Street S. Service Road at Grand Concourse	EB	LTR	0.48	25.0	C	0.52	26.9	C		0.57	24.3	C	0.58	24.6	C			
	NB	TR	0.62	23.7	C	0.61	22.2	C		0.58	25.3	C	0.59	25.4	C			
	SB	L	0.93	65.5	E	0.93	64.2	E		0.53	16.4	B	0.61	21.4	C			
		T	0.44	2.5	A	0.44	2.4	A		0.35	3.6	A	0.35	3.6	A			
Overall			18.0	B		17.7	B			18.5	B		18.8	B				
14.&15. 161st Street at Concourse Village West/ Sheridan Avenue	EB (Main)	LT	0.49	13.7	B	0.49	13.7	B		0.52	14.5	B	0.52	14.6	B			
	EB (Service)	TR	0.24	10.5	B	0.27	10.8	B		0.31	11.7	B	0.32	11.8	B			
	WB	LTR	0.57	14.3	B	0.58	14.4	B		0.57	14.5	B	0.58	14.6	B			
		R	0.17	10.9	B	0.17	10.9	B		0.18	11.9	B	0.18	11.9	B			
	NB	LTR	0.51	24.7	C	0.65	27.4	C		0.26	11.4	B	0.28	11.6	B			
Overall			15.5	B		16.6	B			13.5	B		13.5	B				

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound

L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn

v/c = volume-to-capacity ratio, LOS = Level-of-Service

Table 3.3-14
Year 2018 Game Day Comparison of Traffic Conditions: With Mitigation
161st Street Rezoning - Bronx, NY

Intersection	Approach	Lane Group	Weekday PM Peak Hour (5:00 to 6:00 p.m.)							Saturday Midday (SAT) Peak Hour (12:15 to 1:15 p.m.)						
			NO-ACTION			MITIGATED BUILD			Impact?	NO-ACTION			MITIGATED BUILD			Impact?
			v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS		v/c	Delay (sec/veh)	LOS	v/c	Delay (sec/veh)	LOS	
16. 161st Street at Sherman Avenue	EB	TR	0.59	9.9	A	0.62	10.4	B		0.62	11.6	B	0.64	11.8	B	
	WB	LT	0.59	10.1	B	0.60	10.2	B		0.67	12.9	B	0.69	13.2	B	
	NB	L	0.28	33.3	C	0.28	33.3	C		0.13	15.7	B	0.13	15.7	B	
		R	0.14	27.5	C	0.14	27.5	C		0.11	15.0	B	0.11	15.0	B	
	SB	LTR	1.01	81.9	F	1.01	81.9	F		0.62	22.4	C	0.62	22.4	C	
Overall				20.2	C		20.1	C			13.7	B		13.9	B	
17. 161st Street at Grant Avenue	EB	T	0.64	15.6	B	0.68	16.4	B		0.37	11.7	B	0.38	11.8	B	
	WB	T	0.63	15.5	B	0.64	15.7	B		0.50	13.3	B	0.50	13.4	B	
	Overall				15.5	B		16.0	B			12.6	B		12.7	B
18. 161st Street at Concourse Village East/ Morris Avenue	EB	DefL	----	----	----	----	----	----		----	----	----	----	----	----	
		TR	1.01	50.8	D	0.93	29.2	C		0.52	10.5	B	0.53	10.5	B	
	WB	LTR	1.13	91.1	F	1.02	50.1	D		0.63	12.1	B	0.63	12.3	B	
	NB	LTR	1.21	145.8	F	0.82	42.6	D		0.90	45.6	D	0.50	18.5	B	
	SB	LTR	0.94	54.3	D	0.71	33.9	C		0.83	33.6	C	0.49	18.2	B	
Overall				78.4	E		38.8	D			20.5	C		13.7	B	
19. 161st Street at Park Avenue West	EB	T	0.52	13.7	B	0.55	14.3	B		0.31	8.3	A	0.31	8.3	A	
	WB	T	0.55	2.8	A	0.56	2.9	A		0.35	1.5	A	0.39	1.6	A	
	SB	LR	0.63	31.8	C	0.64	32.3	C		0.62	24.2	C	0.44	19.3	B	
	Overall				10.9	B		11.2	B			8.3	A		6.5	A
20. 161st Street at Park Avenue East	EB	T	0.50	2.4	A	0.53	2.6	A		0.33	1.4	A	0.34	1.4	A	
	WB	T	0.42	12.3	B	0.43	12.4	B		0.33	8.5	A	0.34	8.5	A	
	NB	LR	1.09	102.0	F	1.09	102.0	F		0.86	42.0	D	0.86	42.0	D	
	Overall				26.7	C		26.1	C			12.9	B		12.8	B
21. 161st Street at Courtlandt Avenue	EB	DefL	----	----	----	----	----	----		----	----	----	----	----	----	
		T	----	----	----	----	----	----		----	----	----	----	----	----	
		LT	1.08	72.9	E	1.09	76.0	E		0.59	11.6	B	0.61	11.8	B	
	WB	TR	0.40	12.2	B	0.41	12.3	B		0.36	8.7	A	0.36	8.7	A	
	NB	LTR	1.10	99.9	F	1.10	99.9	F		0.67	25.7	C	0.67	25.7	C	
Overall				61.7	E		63.1	E			13.1	B		13.1	B	
22. 161st Street at Melrose Avenue	EB	LTR	0.94	49.8	D	0.96	50.2	D		0.57	25.5	C	0.56	22.7	C	
	WB	LTR	0.78	34.1	C	0.73	28.9	C		0.49	23.8	C	0.45	20.7	C	
		LTR	1.16	123.9	F	----	----	----		0.78	36.7	D	----	----	----	
	NB	L	----	----	----	0.44	28.6	C		----	----	----	0.30	24.9	C	
		TR	----	----	----	0.74	35.2	D		----	----	----	0.53	27.9	C	
	SB	LTR	0.60	27.7	C	0.56	28.8	C		0.53	25.7	C	0.50	27.1	C	
Overall				61.4	E		37.6	D			27.7	C		24.0	C	
26.&27. E. 149th Street at River Avenue/ Exterior Street/ Major Deegan Expy. (I-87) Northbound Off-Ramp	EB	LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		L	0.76	38.6	D	0.76	39.2	D		0.97	72.3	E	0.98	73.2	E	
		TR	0.86	31.0	C	0.86	31.2	C		0.65	23.9	C	0.65	24.0	C	
	WB	LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		L	1.67	371.8	F	1.69	380.1	F	X	1.01	93.2	F	1.01	93.2	F	
	NB (Exterior)	TR	0.36	18.1	B	0.37	18.1	B		0.34	18.5	B	0.34	18.5	B	
		LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		DefL	1.54	309.3	F	1.57	320.2	F	X	0.91	95.7	F	0.92	97.3	F	
	NB (Ramp)	TR	0.76	51.8	D	0.76	51.8	D		0.46	41.1	D	0.46	41.1	D	
		LTR	1.43	242.8	F	1.43	242.8	F		1.15	127.1	F	1.16	131.7	F	X
	SB (Ext)	DefL	----	----	----	----	----	----		----	----	----	----	----	----	
		LTR	----	----	----	----	----	----		----	----	----	----	----	----	
		LT	0.94	69.3	E	0.94	69.3	E		0.78	52.7	D	0.79	52.9	D	
	SB (River)	R	0.33	35.8	D	0.33	35.8	D		0.30	36.5	D	0.30	36.5	D	
LTR		0.45	37.6	D	0.46	37.8	D		0.70	46.0	D	0.71	46.2	D		
TR		----	----	----	----	----	----		----	----	----	----	----	----		
Overall				106.0	F		107.5	F			57.7	E		58.8	E	
28. E. 149th Street at Grand Concourse	EB	TR	0.96	56.5	E	0.96	56.5	E		0.58	30.1	C	0.58	30.1	C	
	WB	TR	0.75	37.5	D	0.75	37.5	D		0.51	28.6	C	0.51	28.6	C	
	NB	TR	0.49	17.8	B	0.50	17.9	B		0.38	18.5	B	0.38	18.5	B	
	SB	TR	0.69	21.9	C	0.70	22.2	C		0.65	23.2	C	0.65	23.3	C	
	Overall				31.5	C		31.5	C			24.4	C		24.4	C

NB = northbound, SB = southbound, EB = eastbound, WB = westbound, NEB = north-eastbound
L = left-turn, R = right-turn, T = through movement, LTR = left-through-right, TR = through/right-turn, LT = left-turn/through, LR = left-turn/right-turn, DefL = de facto left-turn
v/c = volume-to-capacity ratio, LOS = Level-of-Service

3.3.4 PARKING

EXISTING CONDITIONS

On-Street Parking Utilization

A survey of existing parking utilization was conducted on all streets within 400 feet of the proposed development sites (see Figure 3.3-24). This survey documented the total number of legal, on-street parking spaces on each block-face based on available curb space and existing parking regulations, as well as the total number of legally and illegally parked vehicles on each block-face during the weekday AM (7:00 to 9:00 AM), midday (12:00 to 2:00 PM), and PM (5:00 to 6:00 PM) peak periods, as well as during Saturday midday peak period (12:00 to 1:00 PM). The survey was done for the Non-Game Day scenario. Table 3.3-15 summarizes the results of this existing conditions utilization survey and identifies the existing number of legal, on-street parking spaces, as well as the existing parking utilization during each of the four study time periods. It should be noted that the legal number of parking spaces varies across the study time periods because of time-of-day variations in the posted parking regulations. It should also be noted that Game Day conditions in the study area are covered extensively in the Yankee Stadium Redevelopment EIS. Further, the Yankee Stadium redevelopment proposes fewer seats, increased parking supplies, and nearby transit improvements, all of which should alleviate parking demand in the study area under future Game Day conditions.

As shown in Table 3.3-15, existing curbside parking utilization was observed to peak at approximately 90 percent during the weekday midday peak period. Existing utilization during the other three study time periods ranges from approximately 66 percent during the weekend midday peak period to approximately 82 percent during the weekday PM peak period. The results of this survey indicate that existing on-street parking demand does not exceed the current supply, and that parking spaces are currently available in the study area. Summaries of the existing on-street parking utilization surveys are available upon request.

**Table 3.3-15
 Summary of Existing On-Street Parking Utilization**

Time Period	Number of Existing Legal Parking Spaces	Number of Parked Vehicles¹	Existing Parking Utilization
Weekday AM Peak Period	3,004	2,006	79%
Weekday Midday Peak Period	3,301	2,708	90%
Weekday PM Peak Period	3,301	2,500	82%
Saturday Midday Peak Period	3,310	2,058	66%

¹ = Includes legally and illegally parked vehicles.

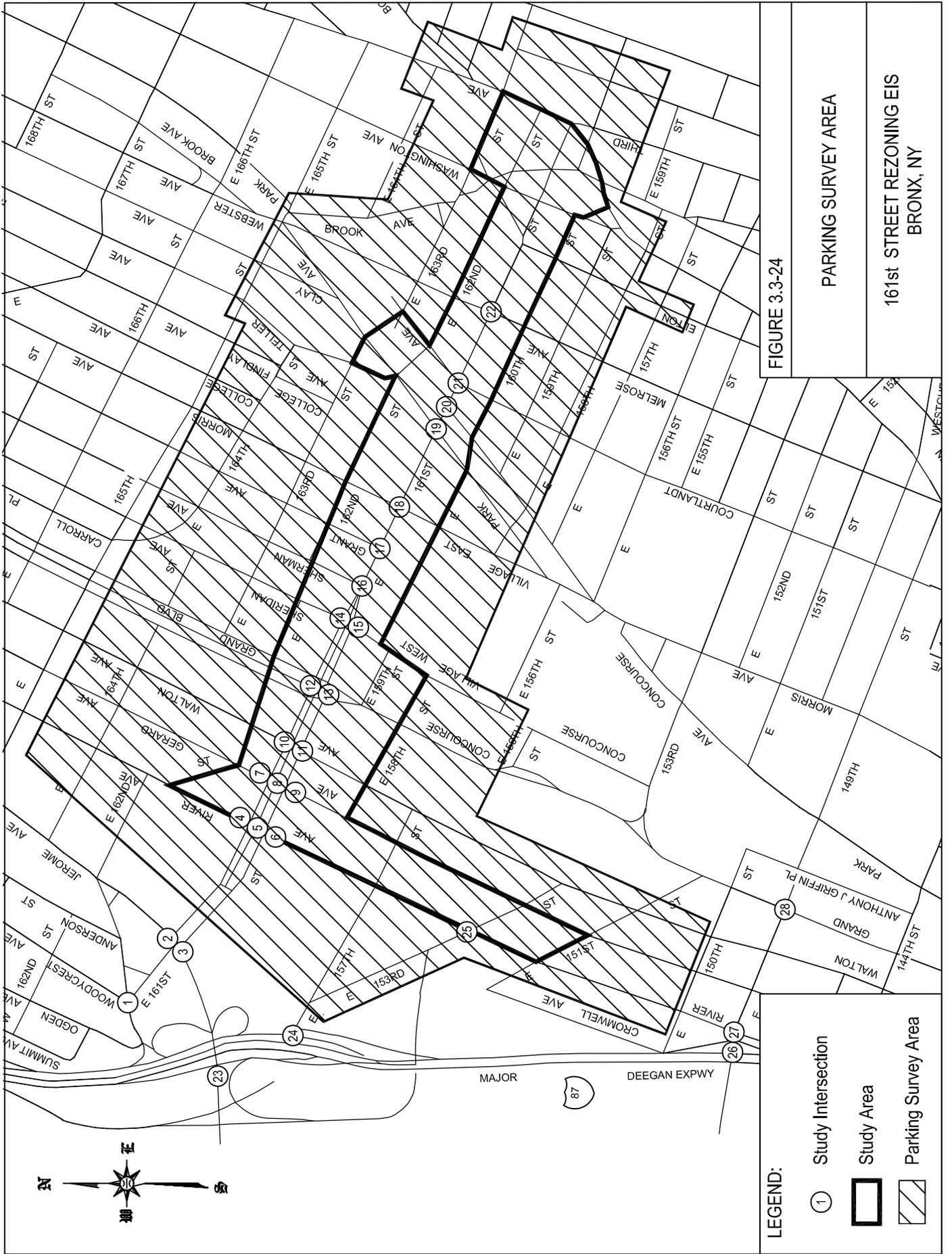


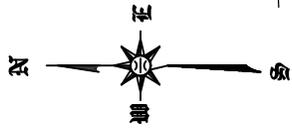
FIGURE 3.3-24

PARKING SURVEY AREA

161st STREET REZONING EIS
BRONX, NY

LEGEND:

- ① Study Intersection
- ▭ Study Area
- ▨ Parking Survey Area



Off-Street Parking Utilization

Eight public and three private off-street parking lots and garages located within a 400 foot radius of the projected development sites were also surveyed to identify their respective capacities and utilization during the weekday AM, midday, and PM peak periods. As shown in Table 3.3-16, the three private parking facilities provide a total of 64 spaces for residents, and have a maximum existing utilization of 83 percent during the weekday AM peak hour. As shown in Table 3.3-16, the overall off-street parking utilization within the study area is approximately 74 percent during the weekday AM peak period, approximately 64 percent during the weekday midday peak period, and approximately 32 percent during the weekday PM peak period.

**Table 3.3-16
Summary of Existing Off-Street Parking Utilization**

FACILITY NAME	ADDRESS	PUBLIC/PRIVATE	LEGAL CAPACITY	EXISTING NUMBER OF PARKED VEHICLES			PERCENT UTILIZATION			EMPTY LEGAL SPACES			
				AM	MD	PM	AM	MD	PM	AM	MD	PM	
N/A (Private)	1010 Sherman Avenue	Private	36	33	<u>21</u>	<u>36</u>	92%	<u>58%</u>	<u>100%</u>	3	<u>15</u>	<u>0</u>	
Princess Parking Corp	800 Grand Concourse	Public	100	100	100	88	100%	100%	88%	0	0	12	
Flash Parking System	702 Concourse Village West	Public	110	75	69	61	68%	63%	55%	35	41	49	
Yankee Stadium Lot #3	950 River Avenue	Public	1,200	1,100	920	310	92%	77%	26%	100	280	890	
A & Z Corp.	180 East 156 th Street	Public	100	100	91	75	100%	91%	75%	0	9	25	
751 CVW	751 Concourse Village West	Public	120	118	<u>120</u>	73	98%	<u>100%</u>	61%	2	<u>0</u>	47	
Prince Garage	771 Concourse Village West	Public	100	98	70	65	98%	70%	65%	2	30	35	
N/A (Private)	Corner of Anderson Avenue / Jerome Avenue	Private	14	6	6	4	43%	43%	29%	8	8	10	
Precise Parking Associates	702 Grand Concourse	Public	150	10	11	8	7%	7%	5%	140	139	142	
Central Parking System	200 East 161 st Street	Public	1,208	<u>678</u>	<u>584</u>	<u>300</u>	<u>56%</u>	<u>48%</u>	<u>25%</u>	<u>530</u>	<u>624</u>	<u>908</u>	
N/A (Private)	162 nd Street between Grant Avenue / Morris Avenue	Private	14	14	12	7	100%	86%	50%	0	2	7	
			TOTAL	<u>3,152</u>	<u>2,332</u>	<u>2,004</u>	<u>1,027</u>	<u>74%</u>	<u>64%</u>	<u>33%</u>	<u>820</u>	<u>1,148</u>	<u>2,125</u>
			PUBLIC	<u>3,088</u>	<u>2,279</u>	<u>1,965</u>	<u>980</u>	<u>74%</u>	<u>64%</u>	<u>32%</u>	<u>809</u>	<u>1,123</u>	<u>2,108</u>
			PRIVATE	<u>64</u>	<u>53</u>	<u>39</u>	<u>47</u>	<u>83%</u>	<u>61%</u>	<u>73%</u>	<u>11</u>	<u>25</u>	<u>17</u>

Note: Off-street parking survey was performed in May, 2008 and supplemental information was collected in July 2009.

FUTURE CONDITIONS

The future conditions parking analyses identify projected future parking conditions in the study area in the 2018 horizon year both *without* the proposed land use action (i.e. the future “No-Action” condition under the existing zoning), and *with* the proposed land use action (i.e. the future “Action” condition under the proposed zoning).

Background Growth

All future conditions parking analyses (both “No-Action” and “Action”) include anticipated future increases in on-street and off-street parking demand resulting from background growth over time. This background growth reflects long-term growth trends due to city-wide population increases and on-going development throughout the region. To establish the baseline future parking demand for both the No-Action and Action conditions analyses, an annual parking growth rate of one-half percent (0.5%) was assumed based on the recommended growth rate for the Bronx identified in Section 331 of the *City Environmental Quality Review (CEQR) Technical Manual*. This growth rate was then applied to the existing on-street and off-street parking demands over ten years (from 2008 to 2018) to arrive at the projected future baseline parking demand in the 2018 horizon year.

Table 3.3-17 shows the resulting baseline future parking demand projections for on-street parking within the project study area during the weekday AM, midday, and PM peak periods.

**Table 3.3-17
Summary of Future Year 2018 On-Street Parking Utilization**

Time Period	Number of Existing Legal Parking Spaces	Projected Number of Parked Vehicles	Projected Future Baseline Parking Utilization
Weekday AM Peak Period	3,004	2,096	83%
Weekday Midday Peak Period	3,301	2,819	94%
Weekday PM Peak Period	3,301	2,601	86%
Saturday Midday Peak Period	3,310	2,147	69%

As shown in Table 3.3-17, the future year 2018 baseline parking demand is not projected to exceed the number of existing on-street parking spaces during any of the four peak study time periods.

Table 3.3-18 shows the resulting baseline future parking demand projections for off-street parking within the project study area during the weekday AM, midday, and PM peak periods.

**Table 3.3-18
Summary of Future Year 2018 Off-Street Parking Utilization**

FACILITY NAME	ADDRESS	PUBLIC/ PRIVATE	LEGAL CAPACITY	PROJECTED NUMBER OF PARKED VEHICLES			PROJECTED FUTURE BASELINE PARKING UTILIZATION			
				AM	MD	PM	AM	MD	PM	
N/A (Private)	1010 Sherman Avenue	Private	36	35	<u>22</u>	<u>38</u>	96%	<u>61%</u>	<u>105%</u>	
Princess Parking Corp	800 Grand Concourse	Public	100	105	105	92	105%	105%	92%	
Flash Parking System	702 Concourse Village West	Public	110	79	72	64	72%	66%	58%	
Yankee Stadium Lot #3	950 River Avenue	Public	1,200	1155	966	326	96%	81%	27%	
A & Z Corp.	180 East 156 th Street	Public	100	105	96	79	105%	96%	79%	
751 CVW	751 Concourse Village West	Public	120	124	<u>126</u>	77	103%	<u>105%</u>	64%	
Prince Garage	771 Concourse Village West	Public	100	103	74	68	103%	74%	68%	
N/A (Private)	Corner of Anderson Avenue / Jerome Avenue	Private	14	6	6	4	45%	45%	30%	
Precise Parking Associates	702 Grand Concourse	Public	150	11	12	8	7%	8%	6%	
Central Parking System	200 East 161 st Street	Public	1,208	<u>712</u>	<u>613</u>	<u>315</u>	<u>59%</u>	<u>51%</u>	<u>26%</u>	
N/A (Private)	162 nd Street between Grant Avenue and Morris Avenue	Private	14	15	13	7	105%	90%	53%	
			TOTAL	3,152	<u>2,449</u>	<u>2,104</u>	<u>1,078</u>	<u>78%</u>	<u>67%</u>	<u>34%</u>
			PUBLIC	3,088	<u>2,393</u>	<u>2,063</u>	<u>1,029</u>	<u>77%</u>	<u>67%</u>	<u>33%</u>
			PRIVATE	64	<u>56</u>	<u>41</u>	<u>49</u>	<u>87%</u>	<u>64%</u>	<u>77%</u>

As shown in Table 3.3-18, under future baseline conditions, parking utilization would increase to approximately 78 percent during the weekday AM peak period (versus 74 percent under existing conditions), approximately 67 percent during the weekday midday peak period (versus 64 percent under existing conditions), and approximately 34 percent during the weekday PM peak period (versus 33 percent under existing conditions). Therefore, as shown in Table 3.3-18, the projected off-street parking demand in the overall study area is not expected to exceed the total legal capacity. However, it should be noted that, as indicated in Table 3.3-18, there are instances where the projected future baseline parking demand at a particular off-street parking facility exceeds the legal capacity. In those cases, it can be assumed that motorists seeking a parking space at a fully-occupied parking facility would proceed to the next nearest parking facility where parking spaces are available.

Projected Future No-Action Parking Conditions

The future No-Action condition assumes that the existing zoning at each of the proposed development sites would remain unchanged through the 2018 horizon year. However, under the existing zoning, the proposed sites would be developed in the future to accommodate a net increase of approximately 296 residential units. It is important to note that under the existing zoning (i.e. the No-Action condition), as-of-right accessory parking is not required.

The additional parking demand associated with development of the sites under the No-Action condition was estimated based on the projected parking demand associated with the net increase in residential units anticipated under the existing zoning. The peak parking generation rate and temporal distribution from the Institute of Transportation Engineers' (ITE) standard reference manual, *Parking Generation, 3rd Edition*, were applied to the projected residential units using ITE land use code 224. Because the parking generation rates published in the ITE manual are developed from empirical studies of parking demand at other similar land uses throughout the United States, the parking demand estimate for the residential uses were modified to reflect auto ownership rates in the Bronx, relative to auto ownership rates in the United States (using Census 2000 data for census tracts 49, 53.01, 57, 59.01, 59.02, 61, 65, 67, 69, 71, 75, 77, 133, 135, 137, 139, 141, 143, 145, 173, 175, 181, 183, 187, 189, 193, 195, 197, and 199 in the Bronx). Based on the resulting parking generation profile for the residential units, the projected parking demands under the No-Action condition were identified for the weekday AM, midday, and PM peak periods. As shown in Table 3.3-19, under future No-Action conditions, the projected net new parking demand is 30 vehicles during the weekday AM peak hour, 22 vehicles during the weekday midday peak hour, and 43 vehicles during the weekday PM peak hour.

With the anticipated increase in residential units under the No-Action condition, sufficient on-street and off-street parking supply is anticipated to be available in the study area to accommodate the net additional No-Action parking demands during all three peak periods. Specifically, there are approximately 908 available on-street parking spaces during the weekday AM peak hour, approximately 482 available on-street parking spaces during the weekday midday peak hour, and approximately 700 available on-street parking spaces during the weekday PM peak hour. Similarly, the off-street parking facilities provide approximately 703 available spaces during the weekday AM peak hour, approximately available 1,048 spaces during the weekday midday peak hour, and approximately available 2,074 spaces during the weekday PM peak hour.

Table 3.3-19
Parking Temporal Distribution Analysis
161st Street Rezoning - Bronx, NY
NO-ACTION YEAR 2018

161st STREET REZONING - NO ACTION 2018 USES		
RETAIL USE	71,550	square feet
RESIDENTIAL	300	dwelling units
OFFICE	246,500	square feet
COMMUNITY FACILITY	11720	square feet

AVERAGE PEAK PERIOD PARKING DEMAND		
RETAIL USE (1)	2.65	vehicles per 1000sq. ft. GLA
VEHICULAR MODE SPLIT (2)	5%	of total retail trips
RESIDENTIAL (3)	1.73	vehicles per dwelling unit
VEHICULAR MODE SPLIT (4)	25%	of total residential trips
OFFICE (5)	2.80	vehicles per 1000sq. ft. GLA
VEHICULAR MODE SPLIT (6)	42%	of total office trips
COMMUNITY FACILITY (7)	5.19	vehicles per 1000sq. ft. GLA
VEHICULAR MODE SPLIT (8)	13%	of total community facility trips
STUDY AREA CENSUS DATA (9)	0.27	vehicles per dwelling unit
UNITED STATES CENSUS DATA (10)	1.90	vehicles per dwelling unit

161st STREET PEAK PARKING DEMAND		
RETAIL USE	9	parking spaces
RESIDENTIAL	74	parking spaces
OFFICE	290	parking spaces
COMMUNITY FACILITY	8	parking spaces
AM PARKING DEMAND	229	parking spaces
MIDDAY PARKING DEMAND	310	parking spaces
PM PARKING DEMAND	230	parking spaces

Net new Parking Demand (increase from existing conditions)		
AM PARKING DEMAND	30	parking spaces
MIDDAY PARKING DEMAND	22	parking spaces
PM PARKING DEMAND	43	parking spaces

TIME PERIOD	TEMPORAL DISTRIBUTION (PARKING) BY USE				TEMPORAL DISTRIBUTION (PARKING) BY USE				
	RETAIL USE (1)	RESIDENTIAL (3)	OFFICE USE (5)	COMMUNITY FACILITY (7)	RETAIL DEMAND	RESIDENTIAL DEMAND	OFFICE DEMAND	COMMUNITY FACILITY	TOTAL DEMAND
	% of peak period	% of peak period	% of peak period	% of peak period	Volume	Volume	Volume	Volume	Volume
12:00 AM -- 1:00 AM	0%	98%	0%	0%	0	73	0	0	73
1:00 AM -- 2:00 AM	0%	98%	0%	0%	0	73	0	0	73
2:00 AM -- 3:00 AM	0%	98%	0%	0%	0	73	0	0	73
3:00 AM -- 4:00 AM	0%	98%	0%	0%	0	73	0	0	73
4:00 AM -- 5:00 AM	0%	98%	0%	0%	0	73	0	0	73
5:00 AM -- 6:00 AM	0%	100%	0%	0%	0	74	0	0	74
6:00 AM -- 7:00 AM	0%	84%	0%	0%	0	62	0	0	62
7:00 AM -- 8:00 AM	5%	62%	20%	0%	0	46	58	0	104
8:00 AM -- 9:00 AM	18%	41%	68%	0%	2	30	197	0	229
9:00 AM -- 10:00 AM	38%	34%	90%	0%	3	25	261	0	289
10:00 AM -- 11:00 AM	53%	32%	96%	86%	5	24	278	7	307
11:00 AM -- 12:00 PM	86%	31%	95%	71%	8	23	276	6	307
12:00 PM -- 1:00 PM	100%	30%	94%	53%	9	22	273	4	304
1:00 PM -- 2:00 PM	98%	31%	96%	49%	9	23	278	4	310
2:00 PM -- 3:00 PM	91%	33%	100%	42%	8	24	290	3	322
3:00 PM -- 4:00 PM	86%	37%	99%	49%	8	27	287	4	322
4:00 PM -- 5:00 PM	81%	45%	92%	76%	7	33	267	6	307
5:00 PM -- 6:00 PM	57%	61%	62%	88%	5	45	180	7	230
6:00 PM -- 7:00 PM	69%	69%	0%	100%	6	51	0	8	57
7:00 PM -- 8:00 PM	82%	72%	0%	77%	7	53	0	6	60
8:00 PM -- 9:00 PM	70%	80%	0%	62%	6	59	0	5	65
9:00 PM -- 10:00 PM	42%	89%	0%	0%	4	66	0	0	70
10:00 PM -- 11:00 PM	10%	92%	0%	0%	1	68	0	0	69
11:00 PM -- 12:00 AM	0%	94%	0%	0%	0	70	0	0	70

Notes:

- 1 Source: ITE Parking Generation 3rd Edition - Landuse 820, Monday - Thursday, Non-December
- 2 Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS"
- 3 Source: ITE Parking Generation 3rd Edition: Landuse 224, weekday
- 4 Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area
- 5 Source: ITE Parking Generation 3rd Edition: Landuse 701, weekday Urban Data
- 6 Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).
- 7 Source: ITE Parking Generation 3rd Edition: Landuse 492, weekday Data
- 8 Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS"
- 9 Source: U.S. Census Bureau Census 2000; Census Tract data - Table QT-H11 Vehicles Available
- 10 Source: U.S. Census Bureau Census 2000; UNITED STATES - Table QT-H11 Vehicles Available

Projected Future Action Parking Conditions

The future Action condition assumes that the zoning at each of the proposed development sites would change in the 2018 horizon year. Under the proposed zoning, the sites would be developed in the future to accommodate total increases of approximately 899 dwelling units, 37,715 square-feet of retail, 306,984 square-feet of office space, and 11,730 square-feet of community facilities. These proposed land use changes have posed requirements to provide as-of-right accessory parking totaling approximately 311 spaces on the projected development sites.

The additional parking demand associated with development of the sites under the Action condition was estimated based on the projected parking demand associated with the individual land uses anticipated to be developed under the proposed zoning. The peak parking generation rates and temporal distributions from ITE's *Parking Generation, 3rd Edition*, were applied to the incremental land use changes under the proposed zoning, using the respective land use codes. Again, because the parking generation rates in the ITE manual are developed from empirical studies of parking demand at other similar land uses throughout the United States, the parking demand estimate for the residential uses were modified to reflect auto ownership rates in the Bronx, relative to auto ownership rates in the United States (using Census 2000 data for census tracts 49, 53.01, 57, 59.01, 59.02, 61, 65, 67, 69, 71, 75, 77, 133, 135, 137, 139, 141, 143, 145, 173, 175, 181, 183, 187, 189, 193, 195, 197, and 199 in the Bronx). Similarly, the auto mode splits for the proposed retail, office, and community facility uses were applied to the parking demand estimates to reflect the site-specific mode of travel for patrons of these proposed uses. The hourly parking generation profiles for all land uses were aggregated to arrive at the combined total parking generation profile under the Action condition. Based on the resulting parking generation profile for the Action condition, the projected net additional parking demands under the Action condition were identified for the weekday AM, midday, and PM peak periods.

Table 3.3-20 shows the total estimated hourly parking demand that would be generated by the projected development sites under the Action condition. As shown in Table 3.3-20, the proposed Action condition would generate a maximum total net parking demand of 337 vehicles during the weekday AM peak hour, 420 vehicles during the weekday midday peak hour, and 360 vehicles during the weekday PM peak hour.

Table 3.3-20
Parking Temporal Distribution Analysis
161st Street Rezoning - Bronx, NY
ACTION YEAR 2018

161st STREET REZONING - ACTION 2018 USES		
RETAIL USE	113,553	square feet
RESIDENTIAL	893	dwelling units
OFFICE	553,484	square feet
COMMUNITY FACILITY	11730	square feet

AVERAGE PEAK PERIOD PARKING DEMAND		
RETAIL USE (1)	2.65	vehicles per 1000sq. ft. GLA
VEHICULAR MODE SPLIT (2)	5%	of total retail trips
RESIDENTIAL (3)	1.73	vehicles per dwelling unit
VEHICULAR MODE SPLIT (4)	25%	of total residential trips
OFFICE (5)	2.80	vehicles per 1000sq. ft. GLA
VEHICULAR MODE SPLIT (6)	42%	of total office trips
COMMUNITY FACILITY (7)	5.19	vehicles per 1000sq. ft. GLA
VEHICULAR MODE SPLIT (8)	13%	of total community facility trips
STUDY AREA CENSUS DATA (9)	0.27	vehicles per dwelling unit
UNITED STATES CENSUS DATA (10)	1.90	vehicles per dwelling unit

161st STREET PEAK PARKING DEMAND		
RETAIL USE	15	parking spaces
RESIDENTIAL	219	parking spaces
OFFICE	651	parking spaces
COMMUNITY FACILITY	8	parking spaces
AM PARKING DEMAND	536	parking spaces
MIDDAY PARKING DEMAND	708	parking spaces
PM PARKING DEMAND	547	parking spaces

Net new Parking Demand (increase from existing conditions)		
AM PARKING DEMAND	337	parking spaces
MIDDAY PARKING DEMAND	420	parking spaces
PM PARKING DEMAND	360	parking spaces

TIME PERIOD	TEMPORAL DISTRIBUTION (PARKING) BY USE				TEMPORAL DISTRIBUTION (PARKING) BY USE				
	RETAIL USE (1)	RESIDENTIAL (3)	OFFICE USE (5)	COMMUNITY FACILITY (7)	RETAIL DEMAND	RESIDENTIAL DEMAND	OFFICE DEMAND	COMMUNITY FACILITY	TOTAL DEMAND
	% of peak period	% of peak period	% of peak period	% of peak period	Volume	Volume	Volume	Volume	Volume
12:00 AM -- 1:00 AM	0%	98%	0%	0%	0	215	0	0	215
1:00 AM -- 2:00 AM	0%	98%	0%	0%	0	215	0	0	215
2:00 AM -- 3:00 AM	0%	98%	0%	0%	0	215	0	0	215
3:00 AM -- 4:00 AM	0%	98%	0%	0%	0	215	0	0	215
4:00 AM -- 5:00 AM	0%	98%	0%	0%	0	215	0	0	215
5:00 AM -- 6:00 AM	0%	100%	0%	0%	0	219	0	0	219
6:00 AM -- 7:00 AM	0%	84%	0%	0%	0	184	0	0	184
7:00 AM -- 8:00 AM	5%	62%	20%	0%	1	136	130	0	267
8:00 AM -- 9:00 AM	18%	41%	68%	0%	3	90	443	0	536
9:00 AM -- 10:00 AM	38%	34%	90%	0%	6	74	586	0	666
10:00 AM -- 11:00 AM	53%	32%	96%	86%	8	70	625	7	703
11:00 AM -- 12:00 PM	86%	31%	95%	71%	13	68	618	6	699
12:00 PM -- 1:00 PM	100%	30%	94%	53%	15	66	612	4	693
1:00 PM -- 2:00 PM	98%	31%	96%	49%	15	68	625	4	708
2:00 PM -- 3:00 PM	91%	33%	100%	42%	14	72	651	3	737
3:00 PM -- 4:00 PM	86%	37%	99%	49%	13	81	644	4	738
4:00 PM -- 5:00 PM	81%	45%	92%	76%	12	99	599	6	710
5:00 PM -- 6:00 PM	57%	61%	62%	88%	9	134	404	7	547
6:00 PM -- 7:00 PM	69%	69%	0%	100%	10	151	0	8	161
7:00 PM -- 8:00 PM	82%	72%	0%	77%	12	158	0	6	170
8:00 PM -- 9:00 PM	70%	80%	0%	62%	11	175	0	5	186
9:00 PM -- 10:00 PM	42%	89%	0%	0%	6	195	0	0	201
10:00 PM -- 11:00 PM	10%	92%	0%	0%	2	201	0	0	203
11:00 PM -- 12:00 AM	0%	94%	0%	0%	0	206	0	0	206

Notes:

- Source: ITE Parking Generation 3rd Edition - Landuse 820, Monday - Thursday, Non-December
- Retail modal split for AM, PM, based on modal split for retail in "125th Street Rezoning and Related Actions EIS". For MD, all modal splits from "125th Street Rezoning and Related Actions EIS"
- Source: ITE Parking Generation 3rd Edition: Landuse 224, weekday
- Residential modal split based on Census 2000 Journey-to-Work data for census tracts comprising the rezoning area
- Source: ITE Parking Generation 3rd Edition: Landuse 701, weekday Urban Data
- Office modal split based on Census 2000 Reverse Journey-to-Work data census tracts comprising the rezoning area (59.01, 59.02, 61, 173, 183, 195).
- Source: ITE Parking Generation 3rd Edition: Landuse 492, weekday Data
- Community facility modal split based on modal split for community facility in "125th Street Rezoning and Related Actions EIS"
- Source: U.S. Census Bureau Census 2000; Census Tract data - Table QT-H11 Vehicles Available
- Source: U.S. Census Bureau Census 2000; UNITED STATES - Table QT-H11 Vehicles Available

The proposed Action would generate an increase in parking demand as compared to the No-Action scenario. However, as shown in Table 3.3-21, the projected additional parking demand under the Action condition can be accommodated by the available on-street and off-street parking supply under the future baseline condition.

**Table 3.3-21
Comparison of Future Action Parking Demand vs. Future Available Supply**

Peak Period	Increase in Parking Demand under Action Condition (vehicles)	Available On-Street Parking Supply (spaces)	Available Off-Street Parking Supply (spaces)	Total Future Available Parking Supply (spaces)
Weekday AM	337	908	<u>703</u>	<u>1,611</u>
Weekday Midday	420	482	<u>1,048</u>	<u>1,530</u>
Weekday PM	360	700	<u>2,074</u>	<u>2,774</u>

Conclusion

In conclusion, under the Action condition, the future available parking supply is projected to be sufficient to accommodate the estimated future parking demand that is not otherwise accommodated in the accessory parking facilities. The proposed Action would therefore not result in a significant adverse impact to on-street parking conditions.

3.3.5 TRAFFIC SAFETY

According to the *CEQR Technical Manual*, locations within close proximity to sensitive land uses, such as hospitals, schools, parks, nursing homes, or elderly housing, which could be affected by traffic volumes generated by the Proposed Action, require a detailed analysis of safety impacts. Roadways with high accident rates or a design that makes it difficult for pedestrians to traverse safely also require analysis. The *CEQR Technical Manual* (page 30-4) considers an intersection to be a high-accident location if there are five (5) or more pedestrian/bicycle accidents in any year in the most recent three-year period for which data is available.

Accident records for the 28 intersections within the study area were obtained from NYCDOT for the three-year period from January 1, 2004 to December 31, 2006. Table 3.3-22 summarizes the data to present pedestrian and bicycle accidents for the three-year period. A review of these records revealed that there are five (5) or more accidents at the following intersections:

- East 161st Street/Morris Avenue/Concourse Village East: There were five pedestrian and one bicycle related accidents in 2006, four pedestrian related accidents in 2005, and one pedestrian and one bicycle related accidents in 2004.

Detailed accident histories identifying the locations and contributing factors of each of the pedestrian/bicycle accidents were not available. However, inattentiveness, disregard of signals, and other human factors behaviors by the driver or the pedestrian are often responsible for such accidents. Implementation of the following measures would reduce the likelihood of pedestrian and vehicular conflicts at the study intersections listed above:

- Installation of high-visibility crosswalks, and re-painting of existing crosswalks, to delineate the pedestrian crossing path.
- Installation of pedestrian and vehicle warning signs.

Application and implementation of the safety improvements described above would require approval from NYCDOT.

**Table 3.3-22
Summary of Pedestrian and Bicycle Related Accident Locations
161st Street Rezoning - Bronx, New York**

NODE #	INTERSECTIONS	2004			2005			2006		
		TOTAL	PEDESTRIAN	BICYCLIST	TOTAL	PEDESTRIAN	BICYCLIST	TOTAL	PEDESTRIAN	BICYCLIST
3207	Jerome Ave and E. 161st Street	<i>Accident Data Not Available</i>								
2336	E. 161st Street N. Service Rd and Macombs Dam Bridge	0	0	0	0	0	0	0	0	0
3181	E. 161st Street S. Service Rd and Macombs Dam Bridge	0	0	0	1	1	0	0	0	0
2338	E. 161st Street and River Avenue	2	2	0	0	0	0	0	0	0
2334	E. 161st Street N. Service Rd and River Avenue	2	2	0	1	1	0	2	2	0
2337	E. 161st Street S. Service Rd and River Avenue	0	0	0	0	0	0	0	0	0
2206	E. 161st Street and Gerard Avenue	0	0	0	0	0	0	1	1	0
2205	E. 161st Street N. Service Rd and Gerard Avenue	0	0	0	0	0	0	1	1	0
2207	E. 161st Street S. Service Rd and Gerard Avenue	0	0	0	0	0	0	0	0	0
2175	E. 161st Street N. Service Rd and Walton Avenue	1	1	0	2	2	0	0	0	0
2208	E. 161st Street S. Service Rd and Walton Avenue	0	0	0	1	1	0	1	1	0
2166	E. 161st Street N. Service Rd and Grand Concourse	0	0	0	0	0	0	0	0	0
2167	E. 161st Street S. Service Rd and Grand Concourse	0	0	0	1	1	0	1	1	0
2176	E. 161st Street N. Service Rd and Sheridan Avenue	2	1	1	0	0	0	2	1	1
2210	E. 161st Street S. Service Rd and Sheridan Avenue	0	0	0	0	0	0	0	0	0
2192	E. 161st Street and Sherman Avenue	1	1	0	0	0	0	1	0	1
2193	E. 161st Street and Grant Ave	1	1	0	0	0	0	0	0	0
2194	E. 161st Street and Morris Ave/Concourse Village East	2	1	1	4	4	0	6	5	1
2240	E. 161st Street and Park Avenue	0	0	0	1	1	0	3	3	0
2237	E. 161st Street and Courtlandt Avenue	1	0	1	0	0	0	0	0	0
2236	E. 161st Street and Melrose Avenue	0	0	0	1	1	0	2	0	2
4101	Major Degan Expwy SB Ramp and Macombs Dam Br.	0	0	0	0	0	0	0	0	0
4100	Major Degan Expwy NB Service Rd and E. 157th Street	0	0	0	0	0	0	0	0	0
2341	E. 153rd Street and River Avenue	0	0	0	0	0	0	1	1	0
4117	E. 149th Street and River Avenue	0	0	0	0	0	0	0	0	0
2309	E. 149th Street and Grand Concourse	3	3	0	1	1	0	1	1	0