12

Transportation

This chapter assesses the potential for the Proposed Actions to result in significant adverse impacts on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, cyclists, transit users, and motorists), and on- and off-street parking.

Introduction

GO Quay, LLC (the Project Developer), and the Metropolitan Transportation Authority (MTA) (an affiliate of the New York City Transit Authority [NYCTA]) (collectively, the Applicants) are seeking several discretionary actions that would apply to (1) a rezoning area consisting of Brooklyn Block 2590, Lot 25, the majority of Lot 1, and the northern half of the former Quay Street in the Greenpoint neighborhood of Brooklyn, Community District (CD) 1 (the Rezoning Area); (2) the remaining portion of Lot 1 (which would not be rezoned); and (3) a relocation site that would house two NYCTA facilities that are being relocated from their existing locations and consolidated into a new turnkey facility located at 213 Meadow Street (Block 2951, Lots 1, 5, and 45) in the East Williamsburg neighborhood of Brooklyn CD 1 that would be constructed by the Project Developer (the NYCTA Relocation Site). The Rezoning Area, the remaining portion of Lot 1 that will not be rezoned, and the NYCTA Relocation Site are, collectively, the Affected Area.

The Proposed Actions would facilitate a mixed-use development (the Proposed Development) located at the Development Site fronted by Quay Street to the north, and bounded by Bushwick Inlet Park to the south, Bushwick Inlet/East River to the south and west, and two lots occupied by commercial buildings fronting Franklin Street to the east. To allow for the redevelopment of the Development Site, the Proposed Actions would also facilitate the relocation and consolidation of two existing critical MTA NYCTA facilities to a new, approximately 143,000-gsf turnkey facility at the NYCTA Relocation

Site[1] in East Williamsburg. The NYCTA Relocation Site would accommodate the operations of the NYCTA Mobile Wash Unit and Materials Storage Facility currently located on Lot 1 of the Development Site (the NYCTA Facility), and of the NYCTA Emergency Response Unit (ERU) Facility currently located on 65 Commercial Street (Block 2472, Lot 415) (the ERU Site). **Figure 12-1** shows the Affected Area, and locations of the Development Site, ERU Site, and NYCTA Relocation Site.

As described in **Chapter 1, Project Description**, the Proposed Development consists of three new buildings; two of the buildings would include mixed-use residential and commercial uses, and a third building would provide a permanent museum for the Greenpoint Monitor Museum. In addition to the three buildings, the Proposed Development would also provide a landscaped Waterfront Public Access Area (WPAA) between the future Bushwick Inlet Park and the existing Shore Public Walkway to the north of the Development Site, and a connection between the future Bushwick Inlet Park and West Street. The Proposed Development would include a newly created turnaround on Quay Street, at its terminus, adjacent to Wharf Drive

[1] The NYCTA Relocation Site is located at 213 Meadow Street (Block 2951, Lots 1, 5, and 45) in the North Brooklyn Industrial Business Zone in the East Williamsburg neighborhood of Brooklyn Community District 1.

Figure 12-1 Location Map – All Sites



Affected Area

Development Site (40 and 56 Quay Street; Block 2590, Lots 1 and 25)

NYCTA Relocation Site (213 Meadow Street; Block 2951, Lots 1, 5, and 45)

ERU Site (65 Commercial Street; Block 2472, Lot 415)

Source: NYS ITS Geospatial Services

Table 12-1 summarizes the net change of component sizes by land use on the Development Site, and NYCTA Relocation Site. On the Development Site, the Proposed Actions would facilitate the development of approximately 1,106,500 gross square feet (gsf) of residential space with up to approximately 1,150 dwelling units (DUs) of which up to approximately 300 would be affordable, 35,000 gsf of community facility space (the Greenpoint Monitor Museum), approximately 36,500 gsf of local retail space, approximately 140 below-grade attendant operated parking spaces,[2] and approximately 50,000 sf (1.148 acres) of new open space.[3] Additional accessory outdoor rooftop terrace space will be provided for residents. With the Proposed Actions, operations at the existing 71,838-gsf NYCTA Facility and 4,700-gsf ERU Facility would be relocated with all operations then being consolidated into a new, approximately 143,000-gsf turnkey facility, delivered by the Project Developer, on the NYCTA Relocation Site.

In the future without the Proposed Actions (the No-Action condition), it is conservatively assumed that existing conditions at the Development Site would remain. Further, no new development would occur on the NYCTA Relocation Site at 213 Meadow Street without the Proposed Actions. Without the relocation of the existing operations at the NYCTA Facility on Lot 1, the relocation of operations and demolition of the NYCTA ERU Facility would not occur.

Table 12-1 Development Comparison

Use	Existing/No-Action	With-Action	Net Change
Development Site			
NYCTA Facility	71,838 gsf	--	-71,838 gsf
Residential	--	1,106,500 gsf 1,150 DUs	+1,106,500 gsf +1,150 DUs
Local Retail	--	36,500 gsf	+36,500 gsf
Museum	--	35,000 gsf	+35,000 gsf
Parking	--	37,000 gsf 140 residential spaces	+37,000 gsf +140 residential spaces
Open Space	--	50,000 sf[1] 1.148 acres[1]	+50,000 sf[1] +1.148 acres[1]
NYCTA Relocation Site			
Industrial	2,000 gsf	--	-2,000 gsf
NYCTA Relocation Site	--	143,000 gsf	+143,000 gsf

Notes: gsf = Gross Square Feet; sf = Square Feet; DU = Dwelling Unit
[1] Of the 50,000 sf (1.148 acres) of open space, 43,000 sf (0.987 acres) would be publicly accessible WPAA. The remaining approximately 7,000 sf of on-site open space, while not part of the WPAA, would consist of open space for museum visitors, as well as additional landscaping and planting areas that would contribute to the public open space.

[2] Per Zoning Resolution 25-211, no accessory residential parking is required as the Development Site is located within Brooklyn Community District 1, which is included in the Inner Transit Zone. The proposed parking spaces are optional.

[3] Of the 50,000 sf (1.148 acres) of open space, 43,000 sf (0.987 acres) would be a landscaped WPAA.

Principal Conclusions

The Proposed Actions would facilitate development at two sites in Brooklyn—the Development Site in Greenpoint and the NYCTA Relocation Site in East Williamsburg. Detailed analyses of vehicular traffic, parking, pedestrian elements, subway, and vehicular and pedestrian safety were conducted to determine the Proposed Action's potential to result in significant adverse impacts. These analyses focus on the potential implications associated with the Proposed Development. Detailed analyses associated with the relocation and consolidation of operations from the NYCTA Facility and ERU Facility to the NYCTA Relocation Site are not warranted as the level of travel demand to be generated at the site would be below the *2021 CEQR Technical Manual* Level 1 screening threshold that necessitate further analyses.

Traffic

Traffic analyses were conducted for 13 intersections. The Proposed Development would result in significant adverse traffic impacts to four intersections (at six specific traffic movements) during the weekday AM peak hour, four intersections (at six specific traffic movements) during the weekday midday peak hour, five intersections (at nine specific traffic movements) during the weekday PM peak hour, and five intersections (at seven specific traffic movements) during the Saturday peak hour. Mitigation measures that could be implemented to mitigate these significant adverse traffic impacts are discussed in **Chapter 19, Mitigation**.

Parking

The Proposed Development would provide approximately 140 on-site parking spaces. Project-generated demand would not be fully accommodated on-site. However, there would be sufficient capacity available (off-street plus on-street) within one-quarter mile of the Development Site to accommodate the demand not accommodated by the project during the weekday midday, weekday PM, overnight, and Saturday midday periods analyzed. Therefore, the Proposed Development would not result in a parking shortfall.

Pedestrians

Pedestrian analyses were conducted for a total of 22 pedestrian elements—ten sidewalk locations, four crosswalks, and eight corners—during the weekday AM, midday, PM, and Saturday peak hours. Significant pedestrian impacts were identified at the intersection of Franklin Street and Quay Street (one crosswalk in all peak hours analyzed and at one corner during the Saturday peak hour). Mitigation measures that could be implemented to mitigate these significant adverse pedestrian impacts are discussed in **Chapter 19, Mitigation**.

Subways

Fare control areas and stairways were analyzed at the stations closest to the Development Site—the Greenpoint Avenue station and Nassau Avenue station (both accessed by the G subway line)—during the commuter peak hours. The analysis determined that the fare control areas and stairways analyzed at both stations would operate at acceptable levels of service during both peak hours, therefore the Proposed Actions would not result in significant impacts to these subway stations.

A line haul analysis was conducted for the G subway line and determined that under the No-Action condition the subway line would operate at over-capacity conditions in the northbound direction during the weekday AM peak hour and in the southbound direction during the weekday PM peak hour. In the With-Action condition, the increase in subway passengers per car would be below the *CEQR Technical Manual* thresholds of five subway passengers per car, therefore the Proposed Actions would not result in significant impacts to subway line-haul conditions.

Vehicular and Pedestrian Safety

A study area consisting of the traffic and pedestrian analysis intersections was assessed for vehicular and pedestrian safety according to *CEQR Technical Manual* guidelines. Per CEQR criteria, none of the analysis locations have been identified as high-crash locations.

Methodology

According to the *CEQR Technical Manual* procedures for transportation analysis, a two-tiered screening process is undertaken to determine whether a quantified analysis is necessary. The first step, the Level 1 (Trip Generation) screening, determines whether the volume of peak hour person and vehicle trips generated by the Proposed Actions would remain below the minimum thresholds for further study. These thresholds are:

- 50 peak hour vehicle trip ends;
- 200 peak hour subway riders
- 200 peak hour bus transit riders;
- 200 peak hour pedestrian trips; and
- 50 City Wide Ferry Service (CWFS) ferry riders.

If the Proposed Actions result in increments that would exceed any of these thresholds, a Level 2 (Trip Assignment) screening assessment is typically performed. Under this assessment, project-generated trips that exceed Level 1 thresholds are assigned to and from a project through their respective networks (streets, bus and subway lines, sidewalks, etc.) based on expected origin-destination patterns and travel routes.

Level 1 Screening Assessment

As the Proposed Actions would facilitate development in two distinct areas of northwest Brooklyn, discrete Level 1 screening assessments were conducted for the Proposed Development and for the development on the NYCTA Relocation Site.

NYCTA Relocation Site

A new 143,000-gsf turnkey facility would be constructed at the NYCTA Relocation Site in East Williamsburg as a result of the Proposed Actions. This new facility would consolidate the existing operations at the NYCTA Facility and ERU Facility into one location. The majority of space at the new facility would be used for vehicle and material storage. The fleet of vehicles managed by the ERU and the Mobile Wash & Material Control units include delivery trucks, SUVs, vans and wash trucks.

Fleet trip departures and arrivals occur throughout the day. At the NYCTA Facility, fleet vehicles make daily trips to transfer supplies to two other Material Control locations. Additionally, supplies are delivered to various locations within the NYCT's Division of Stations and NYCT storerooms. Fleet delivery trips typically take several hours to complete. This facility operates in two shifts, a daytime shift from 8:00 AM to 4:00 PM and an overnight shift from 11:00 PM to 7:00 AM. Activity is higher during the daytime shift when the facility is staffed by approximately 16 employees—during the overnight shift, the staff count is lower with approximately six employees on-site.

Operationally, the future facility at the NYCTA Relocation Site would be an "in-kind" replacement—employee and fleet counts would be similar to existing levels found at the NYCTA Facility and ERU Facility. According to turning movement counts conducted of the entrance to the NYCT Facility, the number of inbound and outbound vehicle trips at the facility are modest, with a total of four vehicle trips during the morning commuter period (7:00 AM to 9:30 AM), six vehicle trips during the midday period (11:00 AM to 2:00 PM), and none during the evening commuter period (4:00 PM to 6:30 PM) and Saturday midday period (12:00 PM to 4:00 PM). According to pedestrian counts, the facility generates modest levels of pedestrian trips, with a total of 48 trips from 7:00 AM to 9:30 AM, 16 trips from 11:00 AM to 2:00 PM, and none from 4:00 PM to 6:30 PM, with pedestrian trip volumes peaking at 24 trips during the 7:15 to 8:15 AM period. These pedestrian trips include staffers walking to/from the fleet parking area on Quay Street, their personal vehicles, or engaged in activity at the facility's entrances. As the ERU Facility is smaller than the NYCTA Facility (4,700 gsf compared to 71,838 gsf) the ERU operation is not expected to generate more employee and fleet vehicle activity than the NYCTA Facility.

Proposed Development

The travel demand factors used to calculate the projected number of trips for the Proposed Development were obtained primarily from the *CEQR Technical Manual*, 2015-2019 US Census American Community Survey (ACS) journey-to-work (JTW) data, survey data provided by the New York City Department of Transportation (NYC DOT), and environmental assessments prepared for projects with similar proposed uses such as the 2021 *River Ring FEIS,* 2021 *One45 FEIS*, and 2022 *Innovation QNS FEIS*. **Table 12-2** presents the travel demand assumptions used to determine the trip projections for the Proposed Development during the weekday AM, weekday midday, weekday PM, and Saturday peak hours.

Table 12-2 Travel Demand Characteristics

Rates	Residential	Local Retail	Open Space (Passive)	Museum
Person Trip Generation Rate (Weekday/Saturday)	8.18[1]/9.08[1] *per dwelling unit*	329.0/358.0[1] *per 1,000 SF*	44.0/62.0[1] *per acre*	27.0/20.6[1] *per 1,000 SF*
Linked Trip Credit	--	5%	--	--
Temporal Distributions				
Weekday AM Peak	9.3%[1]	4.8%[1]	3.0%[1]	1.0%[1]
Weekday Midday Peak	5.6%[1]	8.0%[1]	14.0%[1]	16.0%[1]
Weekday PM Peak	8.5%[1]	10.9%[1]	14.0%[1]	13.0%[1]
Saturday Peak	8.4%[1]	11.7%[1]	16.0%[1]	17.0%[1]
Modal Split (All Periods)				
Auto	12.7%[2]	11.0%[4]	5.0%[3]	36.0%[6]
Taxi	1.5%[2]	--/--	5.0%[3]	12.0%[6]
Bus	1.0%[2]	2.0%[4]	5.0%[3]	25.0%[6]
Subway	65.8%[2]	3.0%[4]	5.0%[3]	25.0%[6]
Ferry	3.0%[2]	--/--	--/--	--/--
Bicycle	5.2%[2]	--/--	--/--	--/--
Walk/Other	10.8%[2]	84.0%[4]	80.0%[3]	2.0%[6]
Vehicle Occupancy (All Periods)				
Auto	1.08[2]	1.20[3]	2.00[3]	2.67[5]
Taxi	1.50[3]	1.20[3]	2.00[3]	2.08[5]
Directional Distribution				
Weekday AM Peak	22%/78%[1]	53%/47%[1]	59%/41%[1]	100%/0%[1]
Weekday Midday Peak	50%/50%[1]	50%/50%[1]	55%/45%[1]	43%/57%[1]
Weekday PM Peak	63%/37%[1]	50%/50%[1]	55%/45%[1]	31%/69%[1]
Saturday Peak	51%/49%[1]	50%/50%[1]	55%/45%[1]	54%/46%[1]
Delivery Trip Generation Rate (Weekday/Saturday)	0.06/0.02[1] *per dwelling unit*	0.35/0.04[1] *per 1,000 SF*	0.01/0.01[3] *per acre*	0.05[5]/-- *per 1,000 SF*
Delivery Temporal Distribution				
Weekday AM Peak	12%[1]	8.0%[1]	6.0%[3]	9.6%[5]
Weekday Midday Peak	9%[1]	11.0%[1]	6.0%[3]	11.0%[5]
Weekday PM Peak	2%[1]	2.0%[1]	1.0%[3]	1.0%[5]
Saturday Peak	9%[1]	11.0%[1]	0.0%[3]	--
Delivery Trip Directional Split (In/out) - 50%/ 50%				

Source:
[1] *2021 CEQR Technical Manual*
[2] 2015-2019 Five-year ACS JTW Census data for Tracts 557, 561, 565, 569, 573, and 575
[3] 2021 *River Ring FEIS*
[4] NYC DOT survey data
[5] 2021 *One45 FEIS*
[6] 2022 *Innovation QNS FEIS*

Residential

For the residential use, trip generation rates of 8.18 person trips per dwelling unit for the weekday and 9.08 person trips per dwelling unit for Saturday, and temporal distributions of 9.3 percent for the weekday AM peak hour, 5.6 percent for the weekday midday peak hour, 8.5 percent for the weekday PM peak hour, and 8.4 percent for the Saturday peak hour were obtained from the *CEQR Technical Manual*. Modal splits and automobile vehicle occupancy rates were based on 2015-2019 ACS JTW data while taxi vehicle occupancy rates were obtained from the *River Ring FEIS*. The modal splits used were 12.7 percent by auto, 1.5 percent by taxi, 1 percent by bus, 65.8 percent by subway, 3 percent by ferry, 5.2 percent by bike, and 10.8 percent by walking. The vehicle occupancies of 1.08 persons per auto and 1.5 persons per taxi were used. The directional distributions used were 22 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday peak hour, 63 percent "in" for the weekday PM peak hour, and 51 percent "in" for the Saturday peak hour, were obtained from the *CEQR Technical Manual*.

For residential delivery trips, daily trip generation rates of 0.06 trip per dwelling unit for the weekday and 0.02 trip per dwelling unit for the Saturday and a temporal distribution of 12 percent, 9 percent, 2 percent and 9 percent for the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively, were obtained from the *CEQR Technical Manual*.

Local Retail

For the local retail use, trip generation rates of 329 person trips per 1,000 gsf for the weekday and 358 person trips per 1,000 gsf for Saturday, and temporal distributions of 4.8 percent for the weekday AM peak hour, 8.0 percent for the weekday midday peak hour, 10.9 percent for the weekday PM peak hour, and 11.7 percent for the Saturday peak hour were obtained from the *CEQR Technical Manual*. A linked trip credit of 5 percent was assumed to account for pass-by trips from background traffic and nearby residential developments, as well as internal trips from the Proposed Development's residential uses. Modal splits were based on NYC DOT's surveys of local retail use and vehicle occupancies were obtained from the *River Ring FEIS*. The modal splits used were 11 percent by auto, 2 percent by bus, 3 percent by subway, and 84 percent by walking. The vehicle occupancies of 1.2 persons per auto and 1.2 persons per taxi were used. The directional distributions used were 53 percent "in" for the weekday AM peak hour and 50 percent "in" for the weekday midday and PM, and Saturday peak hours, and were obtained from the *CEQR Technical Manual*.

For local retail delivery trips, daily trip generation rates of 0.35 trip per 1,000 gsf for the weekday and 0.04 trip per 1,000 gsf for the Saturday and a temporal distribution of 8 percent, 11 percent, 2 percent and 11 percent for the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively, were obtained from the *CEQR Technical Manual*.

Open Space (Passive)

For the open space use, trip generation rates of 44 person trips per acre for the weekday and 62 person trips per acre for Saturday, and temporal distributions of 3 percent for the weekday AM peak hour, 14 percent for the weekday midday peak hour, 14 percent for the weekday PM peak hour, and 16 percent for the Saturday peak hour were obtained from the *CEQR Technical Manual*. Modal splits and vehicle occupancies were obtained from the *River Ring FEIS*. The modal splits used were 5 percent by auto, 5 percent by taxi, 5 percent by bus, 5 percent by subway, and 80 percent by walking. The vehicle occupancies of two persons per auto and two persons per taxi were used. The directional

distributions used were 59 percent "in" for weekday AM, and 55 percent "in" for the weekday midday, weekday PM and Saturday peak hours and were obtained from the *CEQR Technical Manual*.

For open space delivery trips, daily trip generation rates of 0.01 trip per acre and a temporal distribution of 6 percent for the weekday AM and midday peak hours, 1 percent for the PM peak hour, and 0 percent for the Saturday peak hour, were obtained from the *River Ring FEIS*.

Museum

For the museum use, trip generation rates of 27 person trips per 1,000 sf for the weekday and 20.6 person trips per 1,000 gsf for Saturday, and temporal distributions of 1 percent for the weekday AM peak hour, 16 percent for the weekday midday peak hour, 13 percent for the weekday PM peak hour, and 17 percent for the Saturday peak hour were obtained from the *CEQR Technical Manual*. Modal splits and vehicle occupancies were obtained from the *Innovation QNS FEIS* and *One45 FEIS*, respectively. The modal splits used were 36 percent by auto, 12 percent by taxi, 25 percent by bus, 25 percent by subway, and 2 percent by walking. Vehicle occupancies of 2.67 persons per auto and 2.08 persons per taxi were used. The directional distributions used were 100 percent "in" for the weekday AM peak hour, 43 percent "in" for the weekday midday peak hour, 31 percent "in" for the weekday PM peak hour, and 54 percent "in" for the Saturday peak hour, and were obtained from the *CEQR Technical Manua*l.

For museum delivery trips, daily trip generation rates of 0.05 trip per 1,000 gsf for the weekday and temporal distributions of 9.6 percent, 11 percent, and 1 percent for the weekday AM, midday, and PM peak hours, respectively, were obtained from the *One45 FEIS*. No delivery trips are expected on Saturday.

Level 1 Screening Results

NYCTA Relocation Site

As described above, the future facility at the NYCTA Relocation Site would be an "in-kind" replacement - employee and fleet counts would be similar to existing levels found at the NYCTA Facility and ERU Facility. When combined, the consolidated operations at the NYCTA Relocation are expected to generate modest levels of traffic and pedestrian travel demand. These levels are not expected to exceed the Level 1 screening thresholds, and therefore further analyses of the NYCTA Relocation Site are not warranted per *CEQR Technical Manual* criteria.

Proposed Development

Vehicles

Table 12-3 and **Table 12-4** summarize the total peak hour vehicular volumes ("ins" plus "outs") for the Proposed Development. The Proposed Development would result in an hourly trip increment of 179 vehicles per hour (vph) during the weekday AM peak hour, 209 vph in the weekday midday peak hour, 259 vph in weekday PM peak hour, and 287 vph in the Saturday peak hour. As the volume of vehicle trips generated by the Proposed Development would exceed the 50-vehicle trip threshold, a Level 2 screening assessment is needed to determine the scope of the detailed traffic analysis.

Table 12-3 Summary of Project-Generated Vehicle Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto (On-Site)[1]	23	81	104	32	32	64	59	35	94	53	50	103
Auto (On-Street)[1]	28	23	51	51	54	105	62	69	131	76	74	150
Taxi	8	8	16	15	15	30	16	16	32	16	16	32
Delivery Vehicle	4	4	8	5	5	10	1	1	2	1	1	2
Total	**63**	**116**	**179**	**103**	**106**	**209**	**138**	**121**	**259**	**146**	**141**	**287**

[1] Residents are assumed to utilize the on-site parking garage. Non-residential autos are expected to park on the street.

Table 12-4 Summary of Project-Generated Vehicle Trips by Land Use

	Residential			Local Retail			Passive Open Space			Museum		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Weekday AM Peak Hour												
Auto[1]	23	81	104	27	23	50	0	0	0	1	0	1
Taxi	8	8	16	0	0	0	0	0	0	0	0	0
Delivery Vehicle	4	4	8	0	0	0	0	0	0	0	0	0
Total	**35**	**93**	**128**	**27**	**23**	**50**	**0**	**0**	**0**	**1**	**0**	**1**
Weekday Midday Peak Hour												
Auto[1]	32	32	64	42	42	84	0	0	0	9	12	21
Taxi	6	6	12	0	0	0	0	0	0	9	9	18
Delivery Vehicle	4	4	8	1	1	2	0	0	0	0	0	0
Total	**42**	**42**	**84**	**43**	**43**	**86**	**0**	**0**	**0**	**18**	**21**	**39**
Weekday PM Peak Hour												
Auto[1]	59	35	94	57	57	114	0	0	0	5	12	17
Taxi	9	9	18	0	0	0	0	0	0	7	7	14
Delivery Vehicle	1	1	2	0	0	0	0	0	0	0	0	0
Total	**69**	**45**	**114**	**57**	**57**	**114**	**0**	**0**	**0**	**12**	**19**	**31**
Saturday Peak Hour												
Auto[1]	53	50	103	67	67	134	0	0	0	9	7	16
Taxi	9	9	18	0	0	0	0	0	0	7	7	14
Delivery Vehicle	1	1	2	0	0	0	0	0	0	0	0	0
Total	**63**	**60**	**123**	**67**	**67**	**134**	**0**	**0**	**0**	**16**	**14**	**30**

[1] Residents are assumed to utilize the on-site parking garage. Non-residential autos are assumed to park on the street.

Transit and Pedestrians

The number of person trips generated by the Proposed Development for each travel mode and analysis peak hour are summarized below and presented in **Table 12-5** and **Table 12-6**:

- During the weekday AM peak hour, the project would generate 22 bus-only trips, 594 subway trips, 27 ferry trips, and 1,262 pedestrian trips (walk plus bus, subway, ferry, and trips to and from on-street parking spaces).
- During the weekday midday peak hour, the project would generate 60 bus-only trips, 412 subway trips, 16 ferry trips and 1,477 pedestrian trips (walk plus bus, subway, ferry, and trips to and from on-street parking spaces).
- During the weekday PM peak hour, the project would generate 63 bus-only trips, 596 subway trips, 24 ferry trips and 2,003 pedestrian trips (walk plus bus, subway, ferry, and trips to and from on-street parking spaces).
- During the Saturday peak hour, the project would generate 71 bus-only trips, 652 subway trips, 26 ferry trips and 2,278 pedestrian trips (walk plus bus, subway, ferry, and trips to and from on-street parking spaces).

Table 12-5 Summary of Project-Generated Person Trips

	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto (On-Site)[1]	24	87	111	34	34	68	64	38	102	57	54	111
Auto (On-Street)[1]	35	28	63	74	82	156	82	99	181	104	100	204
Taxi	4	10	14	12	14	26	12	15	27	15	13	28
Bus	10	12	22	27	33	60	27	36	63	37	34	71
Subway	138	456	594	203	209	412	361	235	596	333	319	652
Ferry	6	21	27	8	8	16	15	9	24	13	13	26
Bicycle	10	35	45	13	13	26	27	16	43	23	22	45
Walk-only	266	290	556	416	417	833	580	559	1,139	664	661	1,325
Total	**493**	**939**	**1,432**	**787**	**810**	**1,597**	**1,168**	**1,007**	**2,175**	**1,246**	**1,216**	**2,462**

[1] Residents are assumed to utilize the on-site parking garage. Non-residential autos are assumed to park on the street.

Table 12-6 Summary of Project-Generated Person Trips by Land Use

	Residential			Local Retail			Passive Open Space			Museum		
Mode	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Weekday AM Peak Hour												
Auto[1]	24	87	111	32	28	60	0	0	0	3	0	3
Taxi	3	10	13	0	0	0	0	0	0	1	0	1
Bus	2	7	9	6	5	11	0	0	0	2	0	2
Subway	127	449	576	9	7	16	0	0	0	2	0	2
Ferry	6	21	27	0	0	0	0	0	0	0	0	0
Bicycle	10	35	45	0	0	0	0	0	0	0	0	0
Walk-only	21	74	95	244	216	460	1	0	1	0	0	0
Total	**193**	**683**	**876**	**291**	**256**	**547**	**1**	**0**	**1**	**8**	**0**	**8**
Weekday Midday Peak Hour												
Auto[1]	34	34	68	51	51	102	0	0	0	23	31	54
Taxi	4	4	8	0	0	0	0	0	0	8	10	18
Bus	2	2	4	9	9	18	0	0	0	16	22	38
Subway	173	173	346	14	14	28	0	0	0	16	22	38
Ferry	8	8	16	0	0	0	0	0	0	0	0	0
Bicycle	13	13	26	0	0	0	0	0	0	0	0	0
Walk-only	28	28	56	384	384	768	3	3	6	1	2	3
Total	**262**	**262**	**524**	**458**	**458**	**916**	**3**	**3**	**6**	**64**	**87**	**151**
Weekday PM Peak Hour												
Auto[1]	64	38	102	68	68	136	0	0	0	14	31	45
Taxi	7	5	12	0	0	0	0	0	0	5	10	15
Bus	5	3	8	12	12	24	0	0	0	10	21	31
Subway	332	195	527	19	19	38	0	0	0	10	21	31
Ferry	15	9	24	0	0	0	0	0	0	0	0	0
Bicycle	27	16	43	0	0	0	0	0	0	0	0	0
Walk-only	54	32	86	522	522	1,044	3	3	6	1	2	3
Total	**504**	**298**	**802**	**621**	**621**	**1,242**	**3**	**3**	**6**	**40**	**85**	**125**
Saturday Peak Hour												
Auto[1]	57	54	111	80	80	160	0	0	0	24	20	44
Taxi	7	6	13	0	0	0	0	0	0	8	7	15
Bus	5	5	10	15	15	30	0	0	0	17	14	31
Subway	294	283	577	22	22	44	0	0	0	17	14	31
Ferry	13	13	26	0	0	0	0	0	0	0	0	0
Bicycle	23	22	45	0	0	0	0	0	0	0	0	0
Walk-only	48	46	94	610	610	1,220	5	4	9	1	1	2
Total	**447**	**429**	**876**	**727**	**727**	**1,454**	**5**	**4**	**9**	**67**	**56**	**123**

[1] Residents are assumed to utilize the on-site parking garage. Non-residential autos are assumed to park on the street.

Project-generated trips are expected to exceed the *CEQR Technical Manual* Level 1 screening thresholds for subway and pedestrian trips—200 subway trips and 200 pedestrian trips, respectively—during all four of the analysis peak hours. Ferry trips would not exceed the Level 1 screening thresholds and further analyses are not needed for that mode. The number of bus-only trips would not exceed the Level 1 screening threshold of 50 or more bus trips, however, a Level 2 assessment (trip assignments) is warranted as a proportion of the subway riders are expected to ride a bus in-route to and from a subway station, conducting a bus-to-subway transfer instead of a walk-to-subway trip. A Level 2 screening assessment was conducted to determine the required scope of detailed pedestrian, bus, and subway analyses.

Level 2 Screening Assessment

As shown above, a Level 2 screening assessment, and consequently further detailed analyses, was not warranted for the NYCTA Relocation Site. However, a Level 2 screening assessment was warranted for vehicle traffic, transit, and pedestrian trips generated by the Proposed Development during the peak hours analyzed. Project-generated trips were assigned through the surrounding street network based on expected routes to and from the Development Site. The following presents the Level 2 screening assessment conducted for the Proposed Development.

Traffic

The Development Site is bordered by Franklin Street to the east and Quay Street to the north. Between Wharf Drive and West Street, Quay Street is a two-way street. Between West Street and Franklin Street, Quay Street is one-way in the westbound direction. Project-generated vehicle trips were assigned through the surrounding street network based on expected routes to and from the Development Site's Quay Street frontage and parking garage, the configuration of the street network, and the location of streets with permitted on-street parking within the Development Site vicinity. The Proposed Development includes approximately 140 parking spaces. Due to the limited quantity of off-street parking facilities within a quarter-mile radius from the Development Site, the assignment of autos assumes that the proposed parking facility would be used by future residents and that autos generated by non-residential uses would utilize on-street parking spaces.

Trip Distribution Assumptions

Residential

The distribution of residential auto trips was based on the 2012-2016 American Association of State Highway and Transportation Officials Census Transportation Planning Products JTW data for Brooklyn Census Tracts 557, 561, 565, 569, 573, and 575. This data set informed the travel assumptions applied to the residential component of the Proposed Development. Within New York City, approximately 35 percent of the trips can be expected to travel to other parts of Brooklyn, 25.6 percent to Queens, 17.9 percent to Manhattan, 2.2 percent to the Bronx, and 0.5 percent to Staten Island. The remainder of residential trips were distributed as follows: 4.8 percent to Westchester County, 9.1 percent to Long Island (Nassau and Suffolk Counties), and 4.9 percent to New Jersey. Within Greenpoint, most residential auto trips were assumed to use McGuinness Boulevard and Greenpoint Avenue: approximately 36.4 percent of outbound trips were assigned to McGuinness Boulevard (18.5 percent to the north and 17.9 percent to the south), and 27.3 percent to Greenpoint Avenue to areas east of the Development Site. Trips to the south via Wythe Avenue account for

approximately 17.9 percent of residential trips. The remaining 36.3 percent would utilize other local streets such as Lorimer Street, Calyer Street, Norman Avenue, Nassau Avenue, Meeker Avenue, Graham Avenue, and Leonard Street en route to destinations outside the study area.

Museum

The distribution of auto museum visitor trips that would be generated by the Proposed Development were assumed to be within a 3-mile radius of the Development Site based on population densities. Approximately 39 percent of trips would originate from within Brooklyn, 48 percent from Manhattan, and 13 percent from Queens, respectively. In Greenpoint, most visitors were assumed to use McGuinness Boulevard and Kent Avenue: approximately 56 percent of outbound trips were assigned to McGuinness Boulevard (27.7 percent to the north and 28.3 percent to the south), and 13.3 percent to Kent Avenue to areas south of the Development Site. The remaining 30.7 percent would utilize other local streets.

Local and Open Space

Local trips (reflecting trips generated by local retail and open space uses) are expected to travel from within the immediate surrounding area and were therefore distributed to several local streets in the neighborhood.

Deliveries

Delivery trips were assigned along the nearest NYC DOT-designated truck routes such as McGuinness Boulevard, Kent Avenue, and the Brooklyn-Queen Expressway. At the Development Site, all delivery trips were assigned to Quay Street, the Development Site's only street frontage.

Traffic Volumes

Traffic volume increment maps for the weekday AM, midday, PM, and Saturday peak hours are shown in **Figure 12-2** through **Figure 12-5**, respectively.

Figure 12-2 Project-Generated Vehicle Trips – Weekday AM Peak Hour



Figure 12-3 Project-Generated Vehicle Trips – Weekday Midday Peak Hour



Figure 12-4 Project-Generated Vehicle Trips – Weekday PM Peak Hour



Figure 12-5 Project-Generated Vehicle Trips – Saturday Peak Hour



Transit and Pedestrians

To determine if the number of additional transit and pedestrian trips generated by the Proposed Development would exceed *CEQR Technical Manual* Level 2 thresholds for detailed subway, bus, and pedestrian analysis, transit and pedestrian trips were assigned through the pedestrian network. These trips were assigned based on logical and direct travel routes to and from the Development Site from neighborhood attractions, CWFS landings, subway stations, bus stops and on-street parking spaces.

Buses

The Development Site is served by several local bus routes within an approximately half-mile radius – the B24, B32, B43, B48, and B62 routes. Approximately 12 percent of bus-only trips were assigned along the B24 route, 5 percent along the B32 route, 37 percent along the B43 route, 14 percent along the B48 route, and 32 percent along the B62 route. Approximately 10 percent of subway riders are assumed to ride a bus to and from subway stations. These bus-to-subway transfer were assigned to the B32 route which connects riders to the Marcy Avenue station (J, M, and Z subway lines). **Table 12-7** presents the number of project-generated bus-only and bus-to-subway transfer trips by bus route direction. As shown in **Table 12-7**, no bus route would experience an increase in ridership that would exceed the Level 2 screening threshold in any direction, therefore a detailed bus line haul analysis is not warranted.

Table 12-7 Summary of Project-Generated Bus Trips

Bus Route	Direction	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Bus-Only Trips													
B24	EB	0	1	1	0	4	4	0	4	4	0	4	4
	WB	1	0	1	3	0	3	3	0	3	4	0	4
B32	NB	0	0	0	1	1	2	1	1	2	1	1	2
	SB	0	0	0	1	1	2	1	1	2	1	1	2
B43	NB	5	1	6	7	2	9	9	2	11	11	2	13
	SB	1	4	5	2	10	12	1	13	14	3	9	12
B48	NB	1	0	1	3	1	4	2	1	3	3	1	4
	SB	0	1	1	1	3	4	1	3	4	1	3	4
B62	NB	1	2	3	4	5	9	5	6	11	7	7	14
	SB	1	3	4	5	6	11	4	5	9	6	6	12
Bus-to-Subway Transfers													
B32	NB	13	0	13	20	0	20	36	0	36	33	0	33
	SB	0	45	45	0	21	21	0	25	25	0	32	32
Total Bus Trips													
B24	EB	0	1	1	0	4	4	0	4	4	0	4	4
	WB	1	0	1	3	0	3	3	0	3	4	0	4
B32	NB	13	0	13	21	1	22	37	1	38	34	1	35
	SB	0	45	45	1	22	23	1	26	27	1	33	34
B43	NB	5	1	6	7	2	9	9	2	11	11	2	13
	SB	1	4	5	2	10	12	1	13	14	3	9	12
B48	NB	1	0	1	3	1	4	2	1	3	3	1	4
	SB	0	1	1	1	3	4	1	3	4	1	3	4
B62	NB	1	2	3	4	5	9	5	6	11	7	7	14
	SB	1	3	4	5	6	11	4	5	9	6	6	12
	Total	**23**	**57**	**80**	**47**	**54**	**101**	**63**	**61**	**124**	**70**	**66**	**136**

Subway

The nearest subway stations to the Development Site are the Greenpoint Avenue station and Nassau Avenue station, both of which are served by the G subway line and are approximately a 10-minute walk from the Development Site. For subway trips, 90 percent of riders were assumed to walk to these two stations—54 percent to the Greenpoint Avenue station and 36 percent to the Nassau Avenue station based on guidance provided by NYCTA. The remaining 10 percent of subway riders were assumed to use the B32 bus to transfer to the Marcy Avenue station, located farther away from the Development Site. **Table 12-8** presents the number of subway-walk and subway-bus transfer trips by station and subway line direction.

Table 12-8 Summary of Project-Generated Subway Trips

Station-Subway Line	Direction	Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Subway-Walk Trips													
Greenpoint-G	NB	37	124	161	55	56	111	98	63	161	90	85	175
	SB	38	123	161	54	56	110	97	63	160	90	86	176
	Total	75	247	322	109	112	221	195	126	321	180	171	351
Nassau Ave-G	NB	25	82	107	37	38	75	65	42	107	60	58	118
	SB	25	82	107	37	38	75	65	42	107	60	58	118
	Total	**50**	**164**	**214**	**74**	**76**	**150**	**130**	**84**	**214**	**120**	**116**	**236**
Bus-Subway Transfer Trips													
Bedford Ave - L and/or Marcy Ave - J, M & Z	NB	13	0	13	20	0	20	36	0	36	33	0	33
	SB	0	45	45	0	21	21	0	25	25	0	32	32
	Total	**13**	**45**	**58**	**20**	**21**	**41**	**36**	**25**	**61**	**33**	**32**	**65**

Pedestrians

Due to the Development Site's location near the Bushwick Inlet, walk-only and pedestrian trips to/from on-street parking spaces were distributed primarily eastward with approximately 67 percent of walk-only trips toward the east, 25 percent of walk-only trips northward, and 8 percent of walk-only trips southward. These walk-only trips were then further divided toward local streets and attractions in the Development Site vicinity and then assigned further throughout the network.

Pedestrian volume increment maps for the weekday AM, midday and PM, and Saturday peak hours are shown in **Figure 12-6** through **Figure 12-9**. The volumes shown include walk-only trips, pedestrian trips to/from on-street parking spaces, and the walk component of trips to and from transit facilities (ferry, subway station, and bus stops).

Figure 12-6 Project-Generated Pedestrian Trips – Weekday AM Peak Hour



Figure 12-7 Project-Generated Pedestrian Trips – Weekday Midday Peak Hour



Figure 12-8 Project-Generated Pedestrian Trips – Weekday PM Peak Hour



Figure 12-9 Project-Generated Pedestrian Trips – Saturday Peak Hour



Level 2 Screening Results

As discussed above in the **Level 1 Screening Results** section, there is no need for detailed analyses of the CWFS ferry landing, CWFS ferry routes, bus stops, subway stations, and subway line-haul capacity. The results of the screening assessments for vehicles, subways, and pedestrians are presented below:

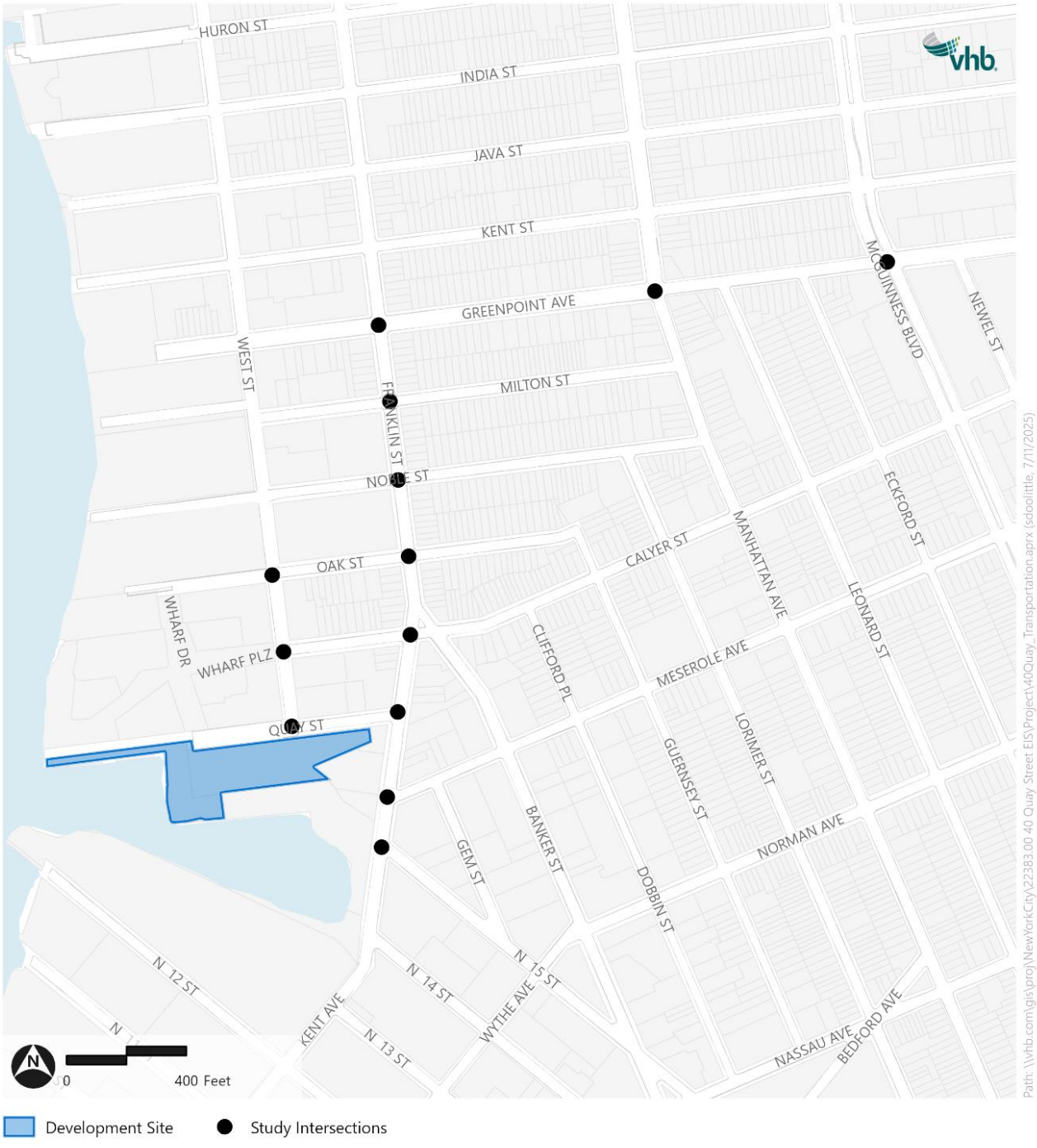
Traffic

Based on the vehicular traffic assignments described above, detailed level-of-service analyses were conducted at 13 intersections for the weekday AM, midday, PM, and Saturday peak hours. These intersections are shown in **Figure 12-10** and listed below:

- West Street and Quay Street
- West Street and Calyer Street
- West Street and Oak Street
- Franklin Street and N 15th Street
- Franklin Street and Meserole Avenue
- Franklin Street and Quay Street
- Franklin Street and Calyer Street
- Franklin Street and Oak Street
- Franklin Street and Noble Street
- Franklin Street and Milton Street
- Franklin Street and Greenpoint Avenue
- Manhattan Avenue and Greenpoint Avenue
- McGuinness Boulevard and Greenpoint Avenue

In addition to the 13 intersections identified above, traffic analysis could be needed at intersections within a quarter mile of the Development Site that are identified as high-crash locations per the *CEQR Technical Manual* screening thresholds and would experience an increase in project-generated vehicle trips. An intersection is considered a high-crash location if it is a Vision Zero Priority Intersection or has experienced five or more pedestrian/bicyclist injury crashes in any consecutive 12 months during the 3-year analysis period. In addition, per NYC DOT's guidance, an intersection along a Vision Zero Priority Corridor is considered a high-crash location when three or more pedestrian/bicyclist injury crashes occur in any 12 consecutive month period during the most recent three-year period for which data are available. In consultation with NYC DOT, the crash data were reviewed for all intersections within a quarter mile of the Development Site and it was determined that no intersection meets either criteria and therefore, the traffic study area will consist of the 13 intersections identified above.

Figure 12-10 Traffic Study Area



Subway

Based on the subway trip assignments described above, detailed capacity analyses of subway station elements at the Greenpoint Avenue station and Nassau Avenue station, and line haul analysis of the G subway line were identified for the weekday AM and PM commuter peak hours. The station elements identified for analysis are listed below:

- Greenpoint Avenue Station
  - Southwest corner street stairwell at the intersection of Manhattan Avenue and Greenpoint Avenue (S1 street stair and M1 mezzanine stair)
  - Southeast corner street stairwell at the intersection of Manhattan Avenue and Greenpoint Avenue (S2 street stair and M2 mezzanine stair)
  - Northwest corner street stairwells at the intersection of Manhattan Avenue and Greenpoint Avenue (S3 street stair and M3A/M3B mezzanine stair)
  - Fare Control Area at the south end of the station
  - Platform stairs to Church Ave bound platform (P1 and P3)
  - Platform stairs to Queens Ave bound platform (P2 and P4)
- Nassau Avenue Station
  - Northwest corner street stairwell at the intersection of Manhattan Avenue and Norman Avenue (S5 street stair and P3A/P3B platform stair)
  - Northeast corner street stairwell at the intersection of Manhattan Avenue and Norman Avenue (S6 street stair and P4A/P4B platform stair)
  - Church Avenue bound platform Fare Control Area at the north end of the station
  - Queens bound platform Fare Control Area at the north end of the station

Pedestrians

Based on the pedestrian assignments described above, detailed pedestrian level-of-service analyses for the weekday AM, midday, PM, and Saturday peak hours were conducted at the pedestrian elements (ten sidewalks, eight corners, and four crosswalks) listed below and shown in **0**.

Sidewalk Locations:

- Quay Street between Wharf Drive and West Street – south sidewalk
- Quay Street between West Street and Franklin Street - north sidewalk
- Quay Street between West Street and Franklin Street - south sidewalk
- Franklin Street between Noble Street & Oak Street - west sidewalk
- Franklin Street between Oak Street & Calyer Street - west sidewalk
- Franklin Street between Calyer Street & Quay Street - west sidewalk
- Franklin Street between Quay Street & Meserole Avenue - east sidewalk
- Meserole Avenue between Franklin Street & Gem Street -north sidewalk
- Meserole Avenue between Franklin Street & Gem Street - south sidewalk
- Meserole Avenue between Gem Street & Banker Street - south sidewalk

Corner and Crosswalk Locations:

- Franklin Street and Quay Street – northwest and southwest corners; and west and south crosswalks
- Franklin Street and Calyer Street – northwest and southwest corners; and west crosswalk
- Franklin Street and Noble Street – northwest and southwest corners; and west crosswalk
- Franklin Street and Greenpoint Avenue – northeast and southeast corners

Figure 12-11 Pedestrian Study Area



Detailed Analysis Methodology

This section describes the methodology used for the detailed traffic, parking, subway, and pedestrian analyses.

Traffic

The operation of all signalized and unsignalized intersection analysis locations were assessed using Synchro software and methodologies presented in the 2000 *Highway Capacity Manual (HCM)*. The HCM procedures evaluate the levels of service (LOS) for signalized and unsignalized intersections using average stop control delay, in seconds per vehicle, as described below.

- LOS A describes operations with very low delays, i.e., 10.0 seconds or less per vehicle. This occurs when signal progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all.
- LOS B describes operations with delays in excess of 10.0 seconds up to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. Again, most vehicles do not stop at the intersection.
- LOS C describes operations with delays in excess of 20.0 seconds up to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. The number of vehicles stopping is noticeable at this level, although many still pass through the intersection without stopping.
- LOS D describes operations with delays in excess of 35.0 seconds up to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (v/c) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.
- LOS E describes operations with delays in excess of 55.0 seconds up to 80.0 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios.
- LOS F describes operations with delays in excess of 80.0 seconds per vehicle. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios with cycle failures. Poor progression and long cycle lengths may also contribute to such delays. Often, vehicles do not pass through the intersection in one signal cycle.

Based on the *CEQR Technical Manual* guidelines, LOS A, B, and C are considered clearly acceptable conditions, LOS D is generally considered tolerably acceptable in dense urban environments, and LOS E and F indicate congestion and considered "unacceptable" level-of- service conditions. These guidelines are applicable to individual traffic movements (e.g. left turns from one street to another, through traffic on one street passing through the intersection, etc.) and overall intersection levels of service.

For unsignalized intersections, delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line: LOS A describes operations with very low delay, i.e., 10.0 seconds or less per vehicle; LOS B describes operations with delays in excess of 10.0 seconds up to 15.0 seconds; LOS C has delays in excess of 15.0 seconds up to 25.0 seconds; LOS D, excess of 25.0 seconds up to 35.0 seconds per vehicle; and LOS E, excess of 35.0 seconds up

to 50.0 seconds per vehicle. LOS F describes operations with delays in excess of 50.0 seconds per vehicle. This condition exists when there are insufficient gaps of suitable size in a major vehicular traffic stream to allow side street traffic to cross safely. Based on *CEQR Technical Manual* guidelines, LOS A, B, C, and D are considered acceptable for unsignalized intersections.

Significant Impact Criteria

The assessment of potential significant traffic impacts of a proposed project is based on significant impact criteria defined in the *CEQR Technical Manual*. If a lane group in the future With-Action condition is within acceptable LOS A, B, C, or D, the impact is not considered significant.

For a lane group at With-Action LOS E, an increase in projected delay of 5.0 or more seconds compared to the No-Action condition is considered a significant impact. For a lane group at With-Action LOS F, an increase in projected delay of 4.0 or more seconds compared to the No-Action condition is considered a significant impact. For unsignalized intersections, for the minor street to generate a significant impact, a total approach volume of 90 passenger car equivalents (PCEs) must be identified in the With-Action condition in any peak hour.

Parking

The parking analysis identifies the extent to which on-street and off-street parking is available and utilized under existing and future conditions. It takes into consideration anticipated changes in area parking supply and provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from additional demand generated by the Proposed Development. This analysis typically encompasses a study area within a quarter mile of the Development Site.

Significant Parking Shortfalls

For a development located outside of *CEQR* Parking Zones 1 and 2, such as the Development Site, a parking shortfall that exceeds the number of available on-street and off-street parking spaces within a quarter mile of the site may be considered significant. Additional factors, such as the availability and extent of transit in the area and the patterns of automobile usage by area residents, could be considered to determine the significance of the identified parking shortfall. If there is an adequate parking supply within a half mile of the site, the projected parking shortfall may not be considered significant.

Subway

The *CEQR Technical Manual* provides methodologies to assess subway lines and the capacity of subway station circulation elements such as stairways, escalators, passageways, and fare controls (turnstiles, high entry/exit turnstiles [HEETs] and high exit turnstiles [HXTs]).

Subway Station Elements

Subway station elements are assessed based on the ratio of passenger volume and the capacity of the element (the v/c ratio). The v/c ratio criteria are used to determine the levels of service that are shown in **Table 12-9**. LOS A and LOS B depict free flow and fluid flow conditions, respectively, at a subway station element. Station elements operating at LOS C still exhibit fluid flow, but pedestrian activities begin to become somewhat restricted. When conditions become crowded and there is restriction to walking speeds, the station element is considered to be operating at LOS D. At LOS E,

the station element is considered to be congested; there is shuffling and frequent intersections between pedestrians which result in some queueing. Severe congestion with constant queueing signifies that a station element is operating at LOS F.

Table 12-9 Level-of-Service Criteria for Subway Station Elements

LOS	v/c Ratio
A	0.00 to 0.45
B	0.45 to 0.70
C	0.70 to 1.00
D	1.00 to 1.33
E	1.33 to 1.67
F	Above 1.67

Source: *2021 CEQR Technical Manual*

Stairways and passageways are analyzed based on the width of the station element and the 15-minute pedestrian flow passing through. These analyses also take into account pedestrian surging resulting from an arriving train or platooning volumes from a major attraction such as a stadium or a school (the effect of surging can reduce capacity by up to 25 percent) and friction from pedestrian interactions (the effect of friction can reduce capacity by up to 10 percent). Other station elements, including escalators and turnstiles, are measured against the operational capacities designated by New York City Transit (NYCT).

Significant Impact Criteria

Significant impacts to stairs and passageways are determined by the width increment threshold (WIT) between the No-Action and With-Action conditions for elements operating at v/c ratios greater than 1.0 in the With-Action condition. The WIT for significant impacts are detailed in **Table 12-10**, below. If a stairway or passageway is significantly impacted, mitigation measures identified would need to restore the levels of service back to the No-Action levels of service of to a v/c ratio of 1.0. For escalators and turnstile elements, a With-Action v/c ratio of 1.0 or greater when the No-Action v/c ratio was less than 1.0 is considered a significant impact. For these elements where the No-Action v/c ratio is already in excess of 1.0, an incremental change in the v/c ratio of 0.01 would be considered a significant impact.

Table 12-10 Significant Impact Guidance for Stairs and Passageways

No-Action v/c Ratio	Width Increment Threshold (WIT) for Significant Impacts (Inches)	
	Stairway	Passageway
1.00 to 1.09	8.0	13.0
1.10 to 1.19	7.0	11.5
1.20 to 1.29	6.0	10.0
1.30 to 1.39	5.0	8.5
1.40 to 1.49	4.0	6.0
1.50 to 1.59	3.0	4.5
1.60 and up	2.0	3.0

Source: *2021 CEQR Technical Manual*

Subway Line-Haul

Line-haul capacity analyses evaluate the ability of a subway line to accommodate passenger loads at the maximum load point, or the point where the addition of project-generated passengers would be the highest.

NYCT operates six different types of subway train cars with a maximum peak period loading capacity ranging from 110 passengers to 175 passengers per car. The capacity of each car assumes full occupancy of all seats and approximately 3 square feet of standing room per passenger.

Significant Impact Criteria

For subway line-haul conditions, load levels under the With-Action condition that remain within the practical loading capacity limits are generally not considered significant. However, if the load capacity is exceeded, significant adverse subway line-haul impacts can occur if the Project is expected to generate an increment averaging five or more riders per subway car. This is based on the general assumption that when subways are at or above practical capacity, the addition of even five or more riders is perceptible.

Pedestrians

Pedestrian level-of-service standards are determined on the basis of walking speed, pedestrian spacing, and probabilities of pedestrian and vehicular conflict, and are assessed based on the methodologies presented in the *2010 Highway Capacity Manual* and the *CEQR Technical Manual*. These standards are primarily based on the space needs of people involved in various activities and are widely used for planning and design of facilities for pedestrians. Analysis of crosswalks, street corners, and sidewalks along key walking paths to and from the Development Site will be performed to assess the adequacy of these pedestrian elements.

To evaluate sidewalks, the pedestrian flow per unit width (p/ft/min) is calculated based on the pedestrian flow and the effective walkway width.[4] The analysis of sidewalk conditions should consider "platoon" flow, as this is more representative of pedestrian activities within New York City. Platooning occurs when pedestrians move in groups or "platoons" as a result of pedestrian metering from a traffic signal or from attractions such as subway stations or bus stops. The ratio of the walking speed[5] over the pedestrian flow per unit width determines the average pedestrian space (sf/p).

Crosswalk conditions are expressed as a measurement of the area available (the area consists of the crosswalk width multiplied by the crossing distance) and available pedestrian crossing time. The pedestrian flow is compared to the "time-space" available to determine the crosswalk level of service, which is expressed as square feet per pedestrian (sf/p). This analysis also takes account of pedestrian conflicts in the crosswalk with turning vehicles.

Similar to crosswalks, street corners must provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the other street or passing around the corner). The analysis applies a measure of time and space availability based on the area of the

[4] The effective walkway width is the space along the walkway that pedestrians could use that is free of obstruction. This width also takes account of the "shy distance" (the space between pedestrians and the obstacle such as a wall or building façade).

[5] The typical average pedestrian walking speed specified in the *CEQR Technical Manual* is 4.4 feet per second (ft/s). For intersections with school crosswalks or that are located within the Senior Pedestrian Focus Areas, an average pedestrian walking speed of 3.3 ft/s is used.

corner reservoir, pedestrian crossing time available, and the estimated time used by circulating pedestrians.

The level-of-service standards for pedestrian elements are based on the time and space available per pedestrian during the analysis period. Level-of-service grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. **Table 12-11** defines the level-of-service criteria for crosswalks, corner area, and sidewalk conditions, as per the *2010 HCM*. The *CEQR Technical Manual* identifies acceptable levels of service in non-CBD areas (such as the area in this study) as LOS C or better, and mid-LOS D or better for CBD areas.

Table 12-11 Level-of-Service Criteria for Pedestrian Elements

LOS	Sidewalks (Platoon Flow)	Corner Reservoirs and Crosswalks
A	> 530 sf/p	> 60 sf/p
B	> 90 and ≤ 530 sf/p	> 40 and ≤ 60 sf/p
C	> 40 and ≤ 90 sf/p	> 24 and ≤ 40 sf/p
D	> 23 and ≤ 40 sf/p	> 15 and ≤ 24 sf/p
E	> 11 and ≤ 23 sf/p	> 8 and ≤ 15 sf/p
F	≤ 11 sf/p	≤ 8 sf/p

Significant Impact Criteria

The identification of significant pedestrian impacts is dependent on the area type (CBD or non-CBD) and is determined by the decrease of time and space available for pedestrians between the No-Action and With-Action conditions. The *CEQR Technical Manual* identifies significant impacts for the pedestrian sidewalk, crosswalk, and corner elements on a sliding scale detailed below. With-Action pedestrian level of service that is considered acceptable (LOS C or better in non-CBD areas, and mid-LOS D or better in CBD areas) would not have a potential for significant impacts.

For sidewalks, the assessment of potential significant impacts is based on a sliding-scale formula provided in the *CEQR Technical Manual*. Consideration as to whether the sidewalk being analyzed is in a CBD or non-CBD condition is necessary.

For sidewalks the formula used to determine the decrease in pedestrian space from the No-Action to With-Action condition that would trigger a significant impact is $Y \geq (X / 9.5) - 0.321$, where Y is the decrease in pedestrian space (sf/p) to be considered a potential significant impact and X is the No-Action pedestrian space (sf/p). If the decrease in pedestrian space is greater than Y and the With-Action level of service is considered to be unacceptable, the sidewalk is considered to be significantly impacted. **Table 12-12** provides a summary of the sliding-scale guidelines provided in the *CEQR Technical Manual* for non-CBD areas.

Table 12-12 Significant Impact Criteria for Sidewalks - Non-CBD Areas

No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)	No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)
>44.3	With-Action Condition <40.0	24.5 to 25.3	≥ 2.3
43.5 to 44.2	≥ 4.3	23.5 to 24.4	≥ 2.2
42.5 to 43.4	≥ 4.2	22.6 to 23.4	≥ 2.1
41.6 to 42.4	≥ 4.1	21.6 to 22.5	≥ 2.0
40.6 to 41.5	≥ 4.0	20.7 to 21.5	≥ 1.9
39.7 to 40.5	≥ 3.9	19.7 to 20.6	≥ 1.8
38.7 to 39.6	≥ 3.8	18.8 to 19.6	≥ 1.7
37.8 to 38.6	≥ 3.7	17.8 to 18.7	≥ 1.6
36.8 to 37.7	≥ 3.6	16.9 to 17.7	≥ 1.5
35.9 to 36.7	≥ 3.5	15.9 to 16.8	≥ 1.4
34.9 to 35.8	≥ 3.4	15.0 to 15.8	≥ 1.3
34.0 to 34.8	≥ 3.3	14.0 to 14.9	≥ 1.2
33.0 to 33.9	≥ 3.2	13.1 to 13.9	≥ 1.1
32.1 to 32.9	≥ 3.1	12.1 to 13.0	≥ 1.0
31.1 to 32.0	≥ 3.0	11.2 to 12.0	≥ 0.9
30.2 to 31.0	≥ 2.9	10.2 to 11.1	≥ 0.8
29.2 to 30.1	≥ 2.8	9.3 to 10.1	≥ 0.7
28.3 to 29.1	≥ 2.7	8.3 to 9.2	≥ 0.6
27.3 to 28.2	≥ 2.6	7.4 to 8.2	≥ 0.5
26.4 to 27.2	≥ 2.5	6.4 to 7.3	≥ 0.4
25.4 to 26.3	≥ 2.4	<6.4	≥ 0.3

Source: *2021 CEQR Technical Manual*

For corners and crosswalks, the assessment of potential significant impacts is also based on a sliding-scale formula provided in the *CEQR Technical Manual*. The formula used to determine the decrease in pedestrian space from the No-Action to With-Action condition that would trigger a significant impact is $Y \geq (X / 9.0) - 0.31$, where Y is the decrease in pedestrian space (sf/p) to be considered a potential significant impact and X is the No-Action pedestrian space (sf/p). If the decrease in pedestrian space is greater than Y and the With-Action level of service is considered to be unacceptable, the corner or crosswalk is considered to be significantly impacted. **Table 12-13** provides a summary of the sliding-scale guidelines provided in the *CEQR Technical Manual* for non-CBD areas.

Table 12-13 Significant Impact Criteria for Corners and Crosswalks - Non-CBD Areas

No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)	No-Action Ped Space (sf/p)	With-Action Ped Space Reduction (sf/p)
>26.6	With-Action Condition <24.0		
25.8 to 26.6	≥ 2.6	14.1 to 14.9	≥ 1.3
24.9 to 25.7	≥ 2.5	13.2 to 14.0	≥ 1.2
24.0 to 24.8	≥ 2.4	12.3 to 13.1	≥ 1.1
23.1 to 23.9	≥ 2.3	11.4 to 12.2	≥ 1.0
22.2 to 23.0	≥ 2.2	10.5 to 11.3	≥ 0.9
21.3 to 22.1	≥ 2.1	9.6 to 10.4	≥ 0.8
20.4 to 21.2	≥ 2.0	8.7 to 9.5	≥ 0.7
19.5 to 20.3	≥ 1.9	7.8 to 8.6	≥ 0.6
18.6 to 19.4	≥ 1.8	6.9 to 7.7	≥ 0.5
17.7 to 18.5	≥ 1.7	6.0 to 6.8	≥ 0.4
16.8 to 17.6	≥ 1.6	5.1 to 5.9	≥ 0.3
15.9 to 16.7	≥ 1.5	< 5.1	≥ 0.2
15.0 to 15.8	≥ 1.4		

Source: *2021 CEQR Technical Manual*

Vehicle and Pedestrian Safety

An evaluation of vehicular and pedestrian safety was conducted for locations within the traffic study area. Consistent with *CEQR Technical Manual* guidelines, this evaluation identifies high-crash locations, as locations that are Vision Zero Priority Intersections or where five or more pedestrian/bicyclist injury crashes occurred in any consecutive 12 months of the most recent 3-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent 3-year period for which data is available should be identified as a high-crash location. For these locations, crash trends are identified to determine whether projected vehicular and pedestrian traffic could further impact safety at these locations. The determination of potential significant safety impacts depends on the type of area where the Proposed Development is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety are identified.

Existing Conditions

Traffic

Roadway Network

The roadway network within the study area consists of avenues and streets serving a mix of residential space, commercial (retail and office), and industrial land uses. The residential space

planned as part of the Proposed Development would contribute to a growing presence of residential development in and around the study area.

Quay Street is located along the north side of the Development Site. Quay street is one-way westbound between West Street and Franklin Street and consists of one travel lane with parking along the north side and a two-way bike lane along the south side. West of West Street, Quay Street operates two-way with parking on the southside for NYCTA Facility use. West Street, which begins at mid-block of the Development Site's block, is a one-way northbound street consisting of one travel lane and generally has on-street parking along the east side and a two-way bike lane along the west side—this bike lane turns onto Quay Street and continues to Franklin Street.

Franklin Street is a key north-south street located along the east side of the Development Site, and generally consists of one travel lane in each direction with on-street parking on both sides. A protected two-way bike lane is located on the east side of the Development Site block and continues to the south along Franklin Street.

The key east-west roadway within the study area is Greenpoint Avenue, which provides a two-way connection to Sunnyside, Queens. In the study area, Greenpoint Avenue consists of one travel lane in each direction with on-street parking on both sides. However, at the intersection with McGuinness Boulevard, the westbound approach consists of a left-turn lane and shared through-right lane.

McGuinness Boulevard is a major north-south boulevard generally consisting of two travel lanes in each direction within the study area with dedicated left-turn lanes at key intersections and a protected one-way bike lane on each side. In late 2024, NYC DOT implemented improvements to the McGuinness Boulevard bike lanes south of Calyer Place and reduced the number of travel lanes to one in each direction. South of the Development Site, this corridor provides drivers with a connection to and from the Brooklyn-Queens Expressway (I-278). North of the Development Site, McGuinness Boulevard continues along the Pulaski Bridge into the Long Island City section of Queens. Manhattan Avenue is a key north-south avenue consisting of one travel line in each direction and provides a direct connection to the Williamsburg neighborhood south of Greenpoint.

Traffic Volumes

To establish the existing conditions traffic network, traffic data for the weekday AM, midday, PM, and Saturday peak periods were assembled using manual intersection counts and 24-hour Automatic Traffic Recorder (ATR) machine counts conducted in June 2024. The weekday peak hours of 7:45 AM to 8:45 AM, 1:00 PM to 2:00 PM, and 5:00 PM to 6:00 PM, and Saturday peak hour of 2:15 PM to 3:15 PM, were identified.

Traffic volumes along Quay Street between Franklin Street and West Street are low - approximately 75 to 115 vph during the four peak hours. Traffic volumes along West Street between Quay Street and Oak Street are also generally low, ranging from approximately 55 vph to 135 vph during the four peak hours.

Traffic volumes along Franklin Street between North 15th Street and Greenpoint Avenue in the northbound direction range from approximately 245 vph to 325 vph during the weekday AM peak hour, 215 vph to 335 vph during the weekday midday peak hour, 290 vph to 465 vph during the weekday PM peak hour, and 265 vph to 455 vph during the Saturday peak hour. In the southbound direction, traffic volumes range from approximately 215 vph to 360 vph during the weekday AM peak

hour, 240 vph to 355 vph during the weekday midday peak hour, 255 vph to 375 vph during the weekday PM peak hour, and 200 vph to 360 vph during the Saturday peak hour.

Traffic volumes along Greenpoint Avenue between Franklin Street and McGuinness Boulevard in the eastbound direction range from approximately 170 vph to 210 vph during the weekday AM peak hour, 185 vph to 220 vph during the weekday midday peak hour, 230 vph to 275 vph during the weekday PM peak hour, and 240 vph and 290 vph during the Saturday peak hour. In the westbound direction, traffic volumes range from approximately 235 vph to 300 vph during the weekday AM peak hour, 210 vph to 285 vph during the weekday midday peak hour, 235 and 320 vph during the weekday PM peak hour, and 315 vph to 440 vph during the Saturday peak hour.

Traffic volumes on other east-west local street approaches intersecting Franklin Street - such as North 15th Street, Meserole Avenue, Calyer Street, Oak Street, Noble Street, and Milton Street - are also low with volumes generally not exceeding 100 vph during any of the four peak hours.

Existing traffic volumes are shown in **Figure 12-12** through **Figure 12-15**.

Figure 12-12 Existing Traffic Volumes – Weekday AM Peak Hour

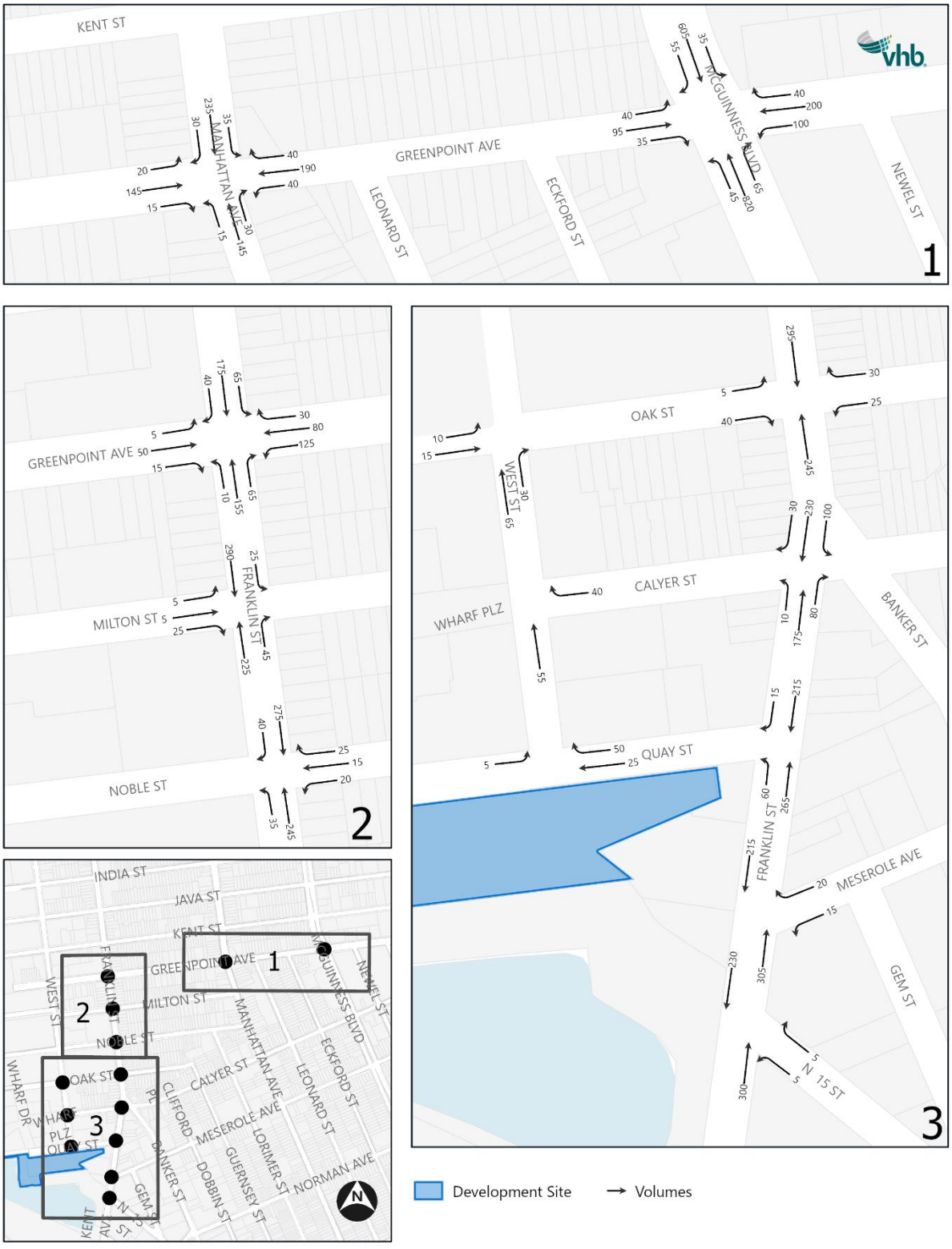


Figure 12-13 Existing Traffic Volumes – Weekday Midday Peak Hour

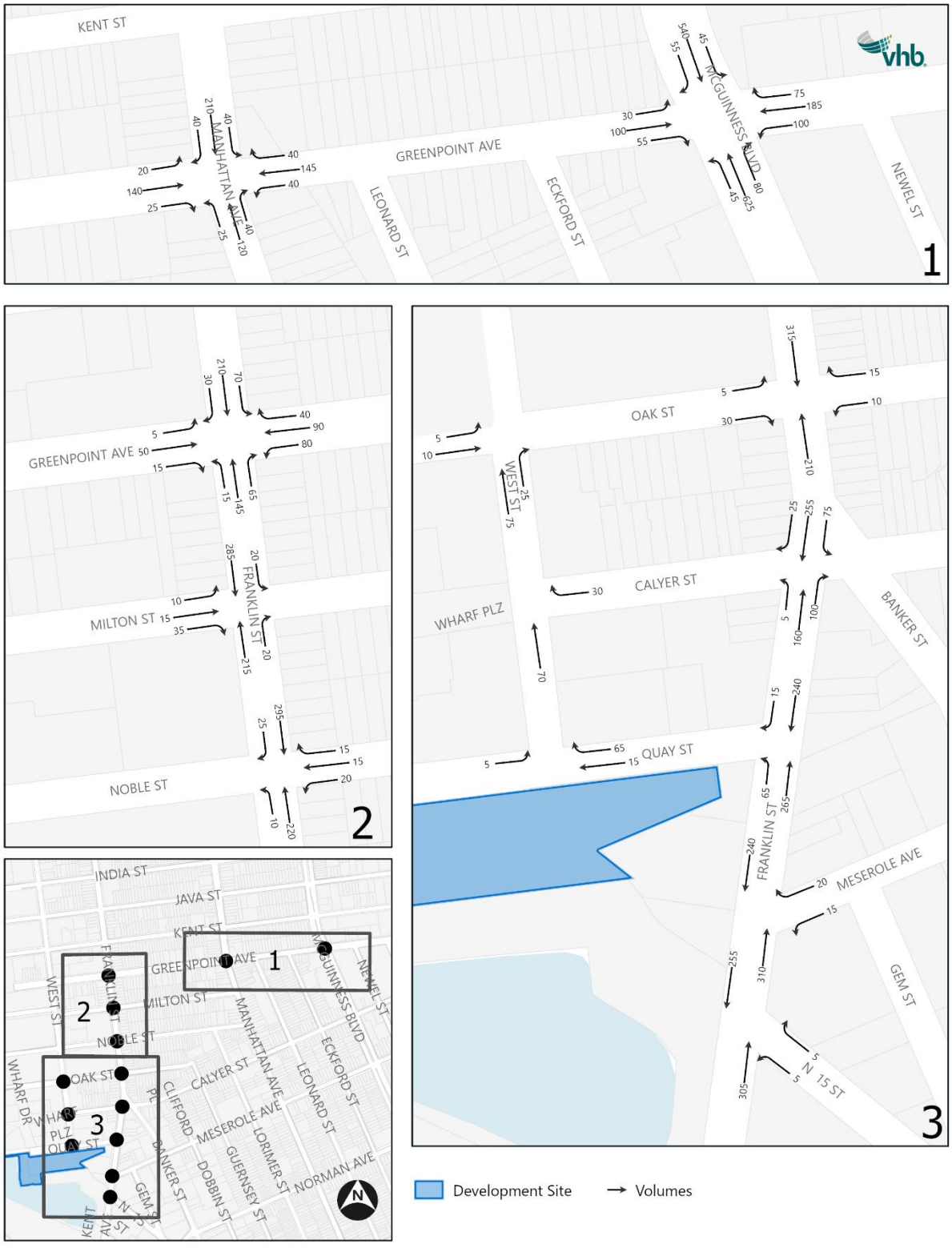


Figure 12-14 Existing Traffic Volumes – Weekday PM Peak Hour

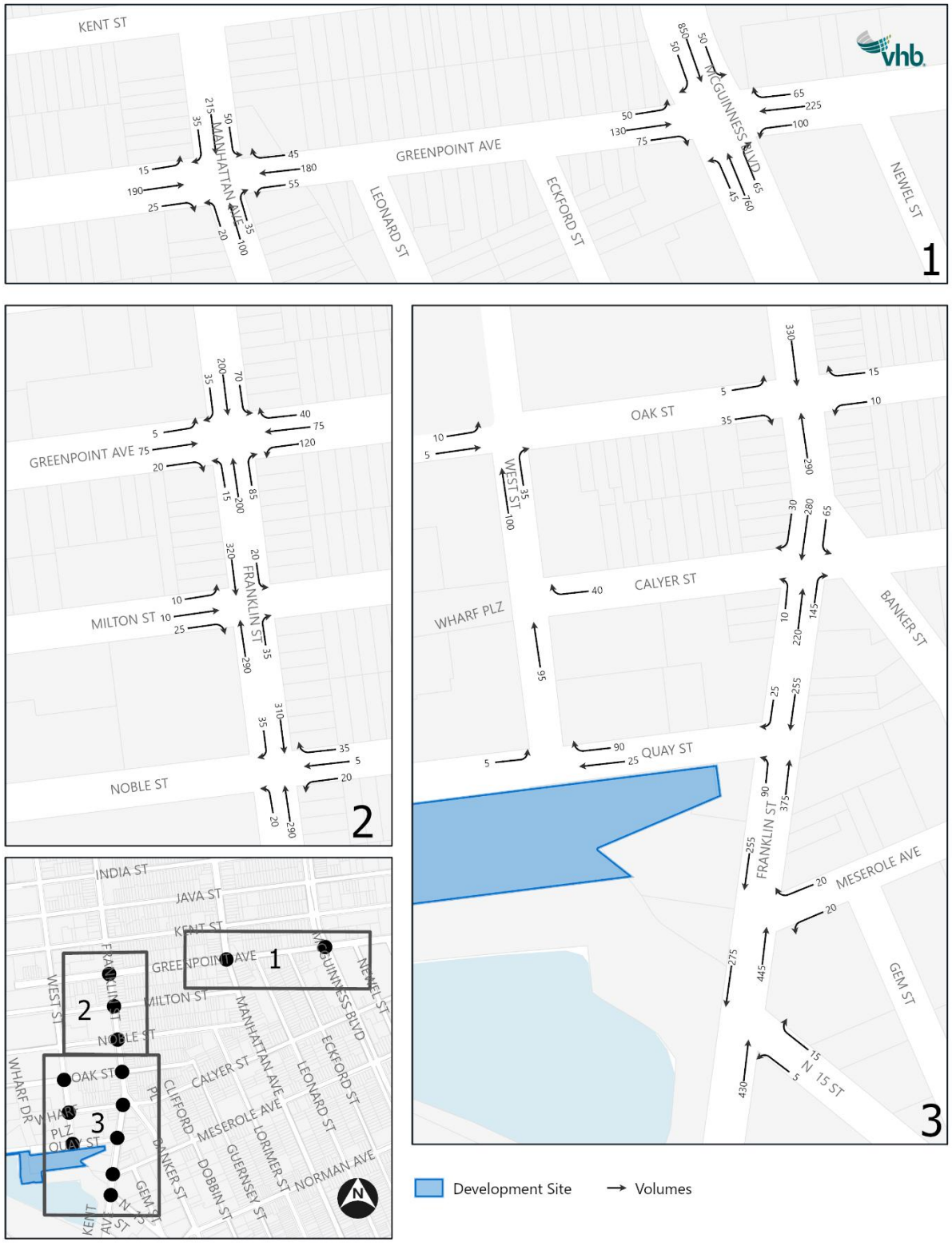
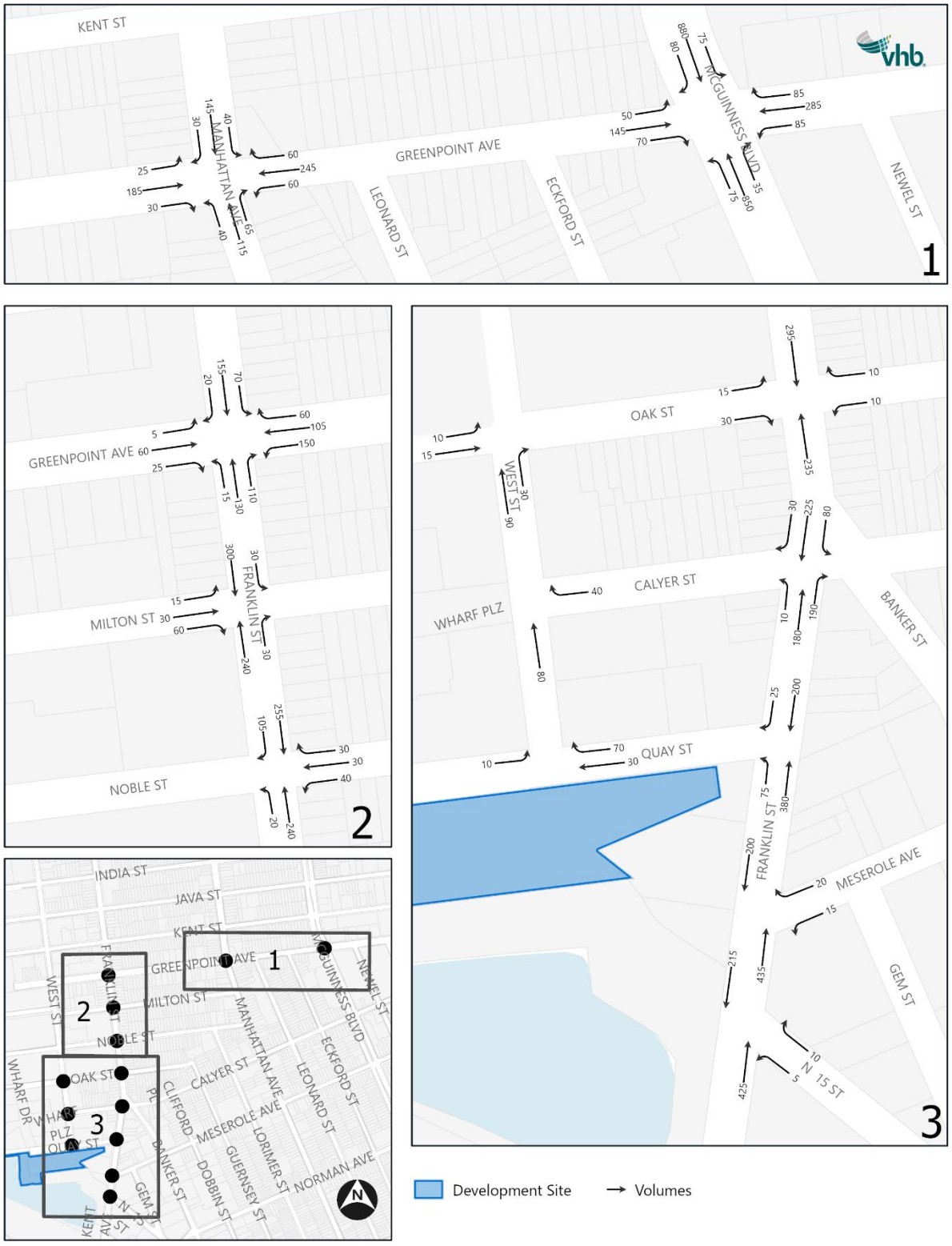


Figure 12-15 Existing Traffic Volumes – Saturday Peak Hour



Levels of Service

Table 12-14 and **Table 12-15** provide an overview of the levels of service that characterize existing "overall" intersection conditions and individual traffic movements, respectively, during the weekday AM, midday, PM, and Saturday peak hours. Detailed existing traffic levels of service are provided in **Table 12-16**.

Table 12-14 Existing Traffic Levels-of-Service Summary – Overall Intersections

Intersection LOS	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Overall LOS A/B/C	12	12	11	11
Overall LOS D	1	1	2	2
Overall LOS E	0	0	0	0
Overall LOS F	0	0	0	0

Note: Includes six signalized intersections and seven unsignalized intersections

Table 12-15 Existing Traffic Levels-of-Service Summary – Traffic Movements

Traffic Movement LOS	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
LOS A/B/C	37	37	35	34
LOS D	3	3	3	5
LOS E	1	2	2	0
LOS F	1	0	2	3
Number of Individual Traffic Movements	**42**	**42**	**42**	**42**

Note: Includes six signalized intersections and seven unsignalized intersections

Table 12-16 Existing Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday Midday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday PM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Saturday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS
SIGNALIZED INTERSECTIONS																	
Franklin Street and Quay Street																	
Franklin Street	NB	LT	0.54	12.8	B	LT	0.57	13.3	B	LT	0.77	19.5	B	LT	0.69	16.3	B
	SB	TR	0.34	6.1	A	R	0.36	6.6	A	R	0.34	5.9	A	R	0.28	6.2	A
Overall Intersection[2]		-	-	**9.9**	**A**	-	-	**10.4**	**B**	-	-	**14.5**	**B**	-	-	**12.9**	**B**
Franklin Street and Calyer Street																	
Franklin Street	NB	LTR	0.43	4.8	A	LTR	0.42	4.4	A	LTR	0.54	5.7	A	LTR	0.61	6.9	A
	SB	LTR	0.70	13.6	B	LTR	0.62	13.3	B	LTR	0.59	11.3	B	LTR	0.59	11.0	B
Overall Intersection[2]		-	-	**10.0**	**A**	-	-	**9.5**	**A**	-	-	**8.5**	**A**	-	-	**8.8**	**A**
Franklin Street and Noble Street																	
Noble Street	WB	LTR	0.16	15.5	B	LTR	0.13	15.2	B	LTR	0.18	15.8	B	LTR	0.29	17.2	B
Franklin Street	NB	LT	0.44	11.0	B	LT	0.36	10.7	B	LT	0.46	12.2	B	LT	0.39	11.1	B
	SB	TR	0.48	7.7	A	TR	0.53	6.3	A	TR	0.48	6.5	A	TR	0.61	10.5	B
Overall Intersection[2]		-	-	**9.8**	**A**	-	-	**8.7**	**A**	-	-	**9.9**	**A**	-	-	**11.6**	**B**
Franklin Street and Greenpoint Avenue																	
Greenpoint Avenue	EB	LTR	0.23	16.5	B	LTR	0.22	16.6	B	LTR	0.34	18.3	B	LTR	0.32	17.9	B
	WB	LTR	1.01	88.8	F	LTR	0.95	73.0	E	LTR	1.05	94.5	F	LTR	1.05	93.7	F
Franklin Street	NB	LTR	0.64	25.0	C	LTR	0.60	24.5	C	LTR	0.77	32.5	C	LTR	0.77	33.5	C
	SB	LTR	0.77	28.5	C	LTR	0.88	38.7	D	LTR	0.88	38.7	D	LTR	0.69	23.7	C
Overall Intersection[2]		-	-	**43.8**	**D**	-	-	**42.1**	**D**	-	-	**48.5**	**D**	-	-	**47.9**	**D**

Table 12-16 Existing Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
		Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS
Manhattan Avenue and Greenpoint Avenue																	
Greenpoint Avenue	EB	LT	0.40	27.7	C	LT	0.38	27.4	C	LT	0.43	27.4	C	LT	0.40	27.8	C
		R	0.05	22.4	C	R	0.09	22.6	C	R	0.08	21.9	C	R	0.12	23.3	C
	WB	LTR	0.66	20.5	C	LTR	0.61	28.8	C	LTR	0.70	28.5	C	LTR	0.82	33.7	C
Manhattan Avenue	NB	LTR	0.46	25.6	C	LTR	0.52	27.4	C	LTR	0.42	24.7	C	LTR	0.66	33.9	C
	SB	LTR	0.76	37.5	D	LTR	0.71	34.5	C	LTR	0.74	36.6	D	LTR	0.58	29.2	C
Overall Intersection[2]		-	-	**28.4**	**C**	-	-	**29.9**	**C**	-	-	**29.9**	**C**	-	-	**31.3**	**C**
McGuinness Boulevard and Greenpoint Avenue																	
Greenpoint Avenue	EB	LTR	0.73	69.1	E	LTR	0.75	52.1	D	LTR	1.05	92.0	F	LTR	1.05	104.5	F
	WB	L	0.57	47.2	D	L	0.62	49.3	D	L	0.67	55.3	E	L	0.51	43.1	D
		TR	0.69	47.3	D	TR	0.82	56.7	E	TR	0.87	61.0	E	TR	1.02	90.5	F
McGuinness Boulevard	NB	L	0.25	18.0	B	L	0.26	18.7	B	L	0.36	22.5	C	L	0.62	37.4	D
		TR	0.68	23.1	C	TR	0.55	20.7	C	TR	0.58	20.4	C	TR	0.62	21.9	C
	SB	L	0.29	20.3	C	L	0.28	19.5	B	L	0.34	20.7	C	L	0.54	30.8	C
		TR	0.51	19.2	B	TR	0.48	19.3	B	TR	0.64	21.8	C	TR	0.66	23.0	C
Overall Intersection[2]		-	-	**29.3**	**C**	-	-	**29.8**	**C**	-	-	**35.4**	**D**	-	-	**41.4**	**D**
UNSIGNALIZED INTERSECTIONS																	
West Street and Quay Street																	
Quay Street	EB	L	-	7.2	A	L	-	7.2	A	L	-	7.2	A	L	-	7.4	A
	WB	TR	-	7.0	A	TR	-	7.1	A	TR	-	7.1	A	TR	-	7.0	A
Overall Intersection[2]		-	-	**7.0**	**A**	-	-	**7.1**	**A**	-	-	**7.1**	**A**	-	-	**7.0**	**A**

Table 12-16 Existing Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
		Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS
West Street and Calyer Street																	
Calyer Street	WB	R	-	9.6	A	R	-	9.2	A	R	-	9.4	A	R	-	9.6	A
West Street	NB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**4.0**	**A**	**-**	**-**	**2.8**	**A**	**-**	**-**	**2.8**	**A**	**-**	**-**	**3.2**	**A**
West Street and Oak Street																	
Oak Street	EB	LT	-	15.4	C	LT	-	11.4	B	LT	-	13.4	B	LT	-	12.9	B
West Street	NB	TR	-	0.0	A	TR	-	0.0	A	TR	-	0.0	A	TR	-	0.0	A
Overall Intersection[2]		**-**	**-**	**3.2**	**A**	**-**	**-**	**1.6**	**A**	**-**	**-**	**1.3**	**A**	**-**	**-**	**2.4**	**A**
Franklin Street and North 15th Street																	
North 15th Street	WB	LR	-	14.7	B	LR	-	13.9	B	LR	-	14.7	B	LR	-	15.7	C
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**0.3**	**A**	**-**	**-**	**0.3**	**A**	**-**	**-**	**0.5**	**A**	**-**	**-**	**0.4**	**A**
Franklin Street and Meserole Avenue																	
Meserole Avenue	WB	LR	-	13.9	B	LR	-	14.4	B	LR	-	16.6	C	LR	-	17.0	C
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**0.9**	**A**	**-**	**-**	**0.8**	**A**	**-**	**-**	**1.0**	**A**	**-**	**-**	**1.0**	**A**

Table 12-16 Existing Traffic Levels of Service

		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Franklin Street and Oak Street																	
Oak Street	EB	LR	-	14.6	B	LR	-	12.2	B	LR	-	15.3	C	LR	-	25.7	D
	WB	LR	-	24.4	C	LR	-	20.5	C	LR	-	26.2	D	LR	-	30.3	D
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**3.2**	**A**	**-**	**-**	**1.6**	**A**	**-**	**-**	**1.9**	**A**	**-**	**-**	**3.0**	**A**
Franklin Street and Milton Street																	
Milton Street	EB	LTR	-	18.1	C	LTR	-	23.1	C	LTR	-	24.3	C	LTR	-	31.3	D
Franklin Street	NB	TR	-	0.0	A	RT	-	0.0	A	RT	-	0.0	A	RT	-	0.0	A
	SB	LT	-	1.1	A	LT	-	0.8	A	LT	-	0.9	A	LT	-	1.2	A
Overall Intersection[2]		**-**	**-**	**1.5**	**A**	**-**	**-**	**2.8**	**A**	**-**	**-**	**2.0**	**A**	**-**	**-**	**5.5**	**A**

Mvt=Movement; Ctrl=Control

[1] Control delay is measured in seconds per vehicle.

[2] Overall intersection v/c ratio is the critical lane groups' v/c ratio.

The summary overview of existing conditions indicates that:

- In the weekday AM peak hour, no intersection operates at LOS E and LOS F. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays or two or more of the specific traffic movements at the intersection are at LOS E or F with significant delays (the overall intersection level of service is a weighted average of all individual traffic movements). Two individual traffic movements out of 42 total movements analyzed operate at unacceptable LOS E or LOS F.
- In the weekday midday peak hour, no intersection operates at LOS E and LOS F, and two individual traffic movements operate at unacceptable LOS E.
- In the weekday PM peak hour, no intersection operates at LOS E and LOS F, and four individual traffic movements operate at unacceptable LOS E or LOS F.
- In the Saturday peak hour, no intersection operates at LOS E and LOS F, and three individual traffic movements operate at unacceptable LOS F.

Traffic movements operating at unacceptable levels of service under the existing conditions are listed below:

- Franklin Street and Greenpoint Avenue
  - Westbound Greenpoint Avenue approach (weekday AM, midday, PM, and Saturday peak hours)
- McGuinness Boulevard and Greenpoint Avenue
  - Eastbound Greenpoint Avenue approach (weekday AM, PM, and Saturday peak hours)
  - Westbound Greenpoint Avenue left-turn movement (weekday PM peak hour)
  - Westbound Greenpoint Avenue shared through-right movement (weekday midday, PM, and Saturday peak hours)

Parking

A quarter-mile (5-minute) walking distance is considered an acceptable walking distance to and from parking, per the *CEQR Technical Manual*. There is one public parking garage—25 Kent Avenue—within or close to a quarter-mile range of the Development Site as shown in **Figure 12-16**. As the Greenpoint neighborhood, particularly along the waterfront, continues to experience new construction and increases in population, it is conservatively assumed that this garage would be at capacity and would not be able to accommodate demand associated with the Proposed Development. Therefore, the parking analysis for the existing condition focuses on on-street parking availability.

Table 12-17 presents the available capacity of on-street parking spaces during the weekday midday, weekday PM, overnight (weekday) and Saturday midday peak periods. In the weekday midday period, there are 178 available parking spaces, in the weekday PM period there are 183 available spaces, in the overnight period there are 267 available spaces, and in the Saturday midday period there are 250 available spaces.

Figure 12-16 Existing Off-Street Public Parking Locations



Table 12-17 Existing On-Street Parking Availability

	Weekday Midday	Weekday PM	Overnight	Saturday Midday
Capacity	1,526	1,481	1,463	1,491
Demand	1,348	1,298	1,196	1,241
Utilization	88%	88%	82%	83%
Available Spaces	178	183	267	250

Subway

The closest subway stations are approximately a 10-minute walk away from the Development Site. The Greenpoint Avenue and Nassau Avenue subway stations are the closest stations and provide access to the G subway line. Based on the subway trip assignments, these two stations were identified for analysis during the weekday AM and PM commuter peak hours.

Subway Station Elements

The G Subway Line operates between the Court Square station in Queens and the Church Avenue station in Brooklyn. The Greenpoint Avenue station is fully accessible per Americans with Disabilities Act (ADA), with elevators. Access to this subway station is provided through surface stairs to the mezzanine and through additional stairs from the mezzanine to the subway platform. The surface stairs analyzed are located at the intersection of Greenpoint Avenue and Manhattan Avenue at the southern end of the station. The fare control area at the southern end of the Greenpoint Avenue station contains a fare array with five turnstiles and serves both platforms.

The Nassau Avenue station is not ADA accessible. Access to the subway station is provided through surface stairs to the subway platforms. The stairs analyzed are located at the intersection of Norman Avenue and Manhattan Avenue at the northern end of the station. There is one fare control area with three turnstiles at each platform—the southbound platform to Church Avenue and the northbound platform to Queens.

Subway rider counts were conducted at the subway station elements identified above in June 2025. **Table 12-18** shows the results of the level-of-service analyses at the fare control areas analyzed during the weekday AM and PM commuter peak hours. **Table 12-19** and **Table 12-20** show the results of the level-of-service analyses at the analyzed stairs during the weekday AM and PM commuter peak hours, respectively. The fare control areas and stairs analyzed operate at LOS A during both peak hours analyzed.

Table 12-18 Existing Subway Station Level of Service – Fare Control Areas

Peak Hour	Control Element	Pedestrian Volume (15-min)		Surging Factor	Friction Factor	v/c Ratio	LOS
		In	Out				
AM	Greenpoint Avenue 5 Turnstiles	173	106	0.80	0.90	0.14	A
	Nassau Avenue (to Church Ave) 3 Turnstiles	69	27	0.75	0.90	0.08	A
	Nassau Avenue (to Queens) 3 Turnstiles	92	51	0.75	0.90	0.12	A
PM	Greenpoint Avenue 5 Turnstiles	177	190	0.80	0.90	0.18	A
	Nassau Avenue (to Church Ave) 3 Turnstiles	72	48	0.75	0.90	0.10	A
	Nassau Avenue (to Queens) 3 Turnstiles	46	65	0.75	0.90	0.09	A

Notes:
Methodology based on *2021 CEQR Technical Manual* guidelines.
Surging factors only applied to exiting volumes. The surge factor for entry volumes is 1.0.

Table 12-19 Existing Subway Station Level of Service – Stairways – AM Peak Hour

Stairway	Effective Width (ft.)	Pedestrian Volume (15-min)		Surging Factor		Friction Factor	v/c Ratio	LOS
		Down	Up	Down	Up			
Greenpoint Avenue Station – Street Stairs								
S1	5.0	66	29	1.00	0.80	0.90	0.15	A
S2	3.9	56	28	1.00	0.80	0.90	0.17	A
S3	4.0	51	48	1.00	0.80	0.90	0.21	A
Greenpoint Avenue Station – Mezzanine Stairs								
M1	4.9	66	29	1.00	0.80	0.90	0.15	A
M2	4.0	56	28	1.00	0.80	0.90	0.17	A
M3A/M3B	8.7	51	48	1.00	0.80	0.90	0.09	A
Greenpoint Avenue Station – Southbound Platform								
P1	4.8	40	14	1.00	0.75	0.90	0.09	A
P3	3.9	24	49	1.00	0.75	0.90	0.17	A
Greenpoint Avenue Station – Northbound Platform								
P2	3.2	64	8	1.00	0.75	0.90	0.17	A
P4	4.8	49	55	1.00	0.75	0.90	0.19	A
Nassau Avenue Station - Southbound								
S5	4.0	69	27	1.00	0.75	0.90	0.19	A
P3A/P3B	8.8	69	27	1.00	0.75	0.90	0.09	A
Nassau Avenue Station - Northbound								
S6	4.0	92	51	1.00	0.75	0.90	0.30	A
P4A/P4B	8.7	92	51	1.00	0.75	0.90	0.14	A

Table 12-20 Existing Subway Station Level of Service – Stairways – PM Peak Hour

Stairway	Effective Width (ft.)	Pedestrian Volume (15-min)		Surging Factor		Friction Factor	v/c Ratio	LOS
		Down	Up	Down	Up			
Greenpoint Avenue Station – Street Stairs								
S1	5.0	64	54	1.00	0.80	0.90	0.19	A
S2	3.9	49	43	1.00	0.80	0.90	0.20	A
S3	4.0	64	93	1.00	0.80	0.90	0.33	A
Greenpoint Avenue Station – Mezzanine Stairs								
M1	4.9	64	54	1.00	0.80	0.90	0.20	A
M2	4.0	49	43	1.00	0.80	0.90	0.19	A
M3A/M3B	8.7	64	93	1.00	0.80	0.90	0.15	A
Greenpoint Avenue Station – Southbound Platform								
P1	4.8	62	43	1.00	0.75	0.90	0.18	A
P3	3.9	26	96	1.00	0.75	0.90	0.29	A
Greenpoint Avenue Station – Northbound Platform								
P2	3.2	71	3	1.00	0.75	1.00	0.16	A
P4	4.8	25	63	1.00	0.75	0.90	0.17	A
Nassau Avenue Station – Southbound								
S5	4.0	72	48	1.00	0.75	0.90	0.25	A
P3A/P3B	8.8	72	48	1.00	0.75	0.90	0.11	A
Nassau Avenue Station – Northbound								
S6	4.0	46	65	1.00	0.75	0.90	0.25	A
P4A/P4B	8.7	46	65	1.00	0.75	0.90	0.11	A

Subway Line-Haul

Existing subway line-haul conditions for the G subway line serving the Greenpoint Avenue station and Nassau Avenue station are summarized in **Table 12-21**. The analysis examines the peak-hour load passing through the maximum load point of the subway line in the peak direction; this analysis was conducted using the existing subway line-haul data provided by NYCT for the weekday AM and PM commuter peak hours.

During the weekday AM peak hour, the maximum load point in the northbound direction is at the Greenpoint Avenue station, while the maximum load point in the southbound direction is at the Clinton-Washington Avenues station. During the weekday PM peak hour, the maximum load point in the northbound direction is at the Broadway station, while the maximum load point in the southbound direction is at the 21st Street station. The G subway line operates below capacity in both directions during the weekday AM peak hour as well as in the northbound direction during the weekday PM peak hour. During the weekday PM peak hour in the southbound direction, this subway line operates at capacity (v/c ratio is at 1.00).

Table 12-21 Existing Conditions Subway Line-Haul

Peak Hour	Route	Direction	Max Load Point (Leaving Station)	Average Passengers Per Hour[1]	Average Trains Per Hour[1]	Cars Per Train[1]	Average Passengers Per Car[1]	Guideline Passengers Per Car[2, 3]	V/C Ratio[4]
AM	G	NB	Greenpoint Avenue	4,764	9.0	5.0	106	115	0.92
AM	G	SB	Clinton-Washington Avenues	3,798	9.0	5.0	84	115	0.73
PM	G	NB	Broadway	4,220	8.0	5.0	105	115	0.92
PM	G	SB	21st Street	4,593	8.0	5.0	115	115	1.00

Source: MTA-NYCT, 2025
Notes:
[1] Based on 2025 ridership and train throughput data from NYCT.
[2] Guideline capacities are based on NYCT rush hour loading guidelines which vary by car type, line, and location based on frequency and type of service.
[3] G subway line runs 300-foot trains, half the usual length. Guideline assumes 60-foot cars.
[4] Volume to guideline capacity ratio

Pedestrians

The pedestrian analysis utilizes counts conducted in June of 2024 at key potential impact locations for the weekday AM, midday, PM, and Saturday peak hours. The pedestrian peak hours of 7:30 AM to 8:30 AM, 12:30 PM to 1:30 PM, 5:30 PM to 6:30 PM, and 1:30 PM to 2:30 PM were selected for the existing conditions analyses in 2024, for the weekday AM, midday, PM, and Saturday peak hours, respectively.

Table 12-22, presents a summary of the existing levels of service for sidewalk, crosswalk, and corner elements. The existing peak hour volumes and levels of service for each pedestrian element analyzed are presented in **Table 12-23** through **Table 12-25**. As shown in the tables, all sidewalks operate at LOS A or B, and all crosswalks and corners operate at LOS A in all peak hours.

Table 12-22 Existing Pedestrian Levels of Service Summary

	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Sidewalk Elements[1]				
Sidewalks at LOS A/B/C	9	9	9	9
Sidewalks at LOS D	0	0	0	0
Sidewalks at LOS E	0	0	0	0
Sidewalks at LOS F	0	0	0	0
Crosswalk Elements				
Crosswalks at LOS A/B/C	4	4	4	4
Crosswalks at LOS D	0	0	0	0
Crosswalks at LOS E	0	0	0	0
Crosswalks at LOS F	0	0	0	0
Corner Elements				
Corners at LOS A/B/C	8	8	8	8
Corners at LOS D	0	0	0	0
Corners at LOS E	0	0	0	0
Corners at LOS F	0	0	0	0

[1] A sidewalk on the south side of Quay Street between Wharf Drive and West Street does not currently exist; therefore analysis results are shown for the nine existing sidewalks.

Table 12-23 Existing Pedestrian Levels of Service – Sidewalks

Sidewalk	Effective Width	Weekday AM Peak Hour Volume	Weekday AM Peak Hour A.P.S.	Weekday AM Peak Hour LOS	Weekday Midday Peak Hour Volume	Weekday Midday Peak Hour A.P.S.	Weekday Midday Peak Hour LOS	Weekday PM Peak Hour Volume	Weekday PM Peak Hour A.P.S.	Weekday PM Peak Hour LOS	Saturday Peak Hour Volume	Saturday Peak Hour A.P.S.	Saturday Peak Hour LOS
Quay Street between West Street and Franklin Street (north side)	3.9	16	2,580.6	A	18	1,935.4	A	33	1,105.9	A	28	1,720.4	A
Quay Street between West Street and Franklin Street (south side)	8.7	173	581.2	A	53	1,905.2	A	164	635.0	A	148	762.0	A
Quay Street between Wharf Drive and West Street (south side)[1]	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin Street between Noble Street & Oak Street (west side)	5.6	183	394.9	B	186	307.1	B	246	307.1	B	492	152.2	B
Franklin Street between Oak Street & Calyer Street (west side)	3.3	146	299.1	B	66	476.6	B	220	189.0	B	415	105.0	B
Franklin Street between Calyer Street & Quay Street (west side)	8.8	129	911.8	A	89	1,194.8	A	162	629.9	A	300	417.3	B
Franklin Street between Quay Street & Meserole Avenue (east side)	8.3	110	1,099.5	A	110	767.1	A	116	970.1	A	254	478.0	B
Meserole Avenue between Franklin Street & Gem Street (north side)	4.3	19	2,453.3	A	27	1,717.3	A	22	1,908.1	A	44	954.0	A
Meserole Avenue between Franklin Street & Gem Street (south side)	10.5	36	4,158.0	A	27	4,158.0	A	28	3,465.0	A	50	2,598.7	A
Meserole Avenue between Gem Street & Banker Street (south side)	9.7	36	2,550.2	A	41	2,250.2	A	49	2,550.2	A	64	2,013.3	A

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
[1] A sidewalk on the south side of Quay Street between Wharf Drive and West Street does not currently exist.

Table 12-24 Existing Pedestrian Levels of Service – Crosswalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Intersection	Crosswalk	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Franklin Street and Quay Street	South	27	746.5	A	17	969.3	A	30	808.9	A	27	605.9	A
	West	133	1,008.2	A	94	1,121.7	A	161	706.1	A	316	415.8	A
Franklin Street and Calyer Street	West	142	849.8	A	102	1,225.0	A	195	674.3	A	329	353.2	A
Franklin Street and Noble Street	West	213	207.1	A	271	84.2	A	307	158.7	A	503	85.7	A

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian

Table 12-25 Existing Pedestrian Levels of Service – Corners

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Intersection	Corner	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Franklin Street and Quay Street	Northwest	6	882.0	A	9	808.2	A	9	557.7	A	3	385.1	A
	Southwest	162	366.3	A	47	622.5	A	154	331.5	A	135	246.2	A
Franklin Street and Calyer Street	Northwest	20	580.3	A	13	690.4	A	25	381.1	A	32	215.2	A
	Southwest	17	398.1	A	10	681.3	A	19	360.9	A	35	196.1	A
Franklin Street and Noble Street	Northwest	21	420.5	A	17	215.1	A	36	306.4	A	52	181.1	A
	Southwest	12	313.5	A	52	134.6	A	22	230.1	A	155	107.9	A
Franklin Street and Greenpoint Avenue	Northeast	45	85.9	A	33	104.2	A	74	58.5	B	45	85.9	A
	Southeast	66	238.8	A	68	177.8	A	96	148.4	A	66	238.8	A

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
Volumes shown are of corner roundings.

No-Action Condition

This section establishes the baseline (No-Action) condition against which potential impacts of the Proposed Actions can be identified. Future year conditions were analyzed for the year 2031. No-Action volumes were established by applying a background growth rate of 0.50 percent per year for the first 5 years (years 2024 to 2029) and a growth rate of 0.25 percent per year for the subsequent 2 years (years 2029 to 2031) in accordance with *CEQR Technical Manual* guidelines for Brooklyn projects outside of Downtown Brooklyn. This background growth is applied to existing traffic, transit and pedestrian volumes and accounts for small projects and general increases in travel demand—these constitute baseline No-Action volumes.

As detailed in **Chapter 2, Land Use, Zoning, and Public Policy**, several developments within a quarter mile of the Development Site are being planned and can be expected to be developed by the year 2031. The majority of these developments are small or modest in scale, and travel demand generated by these projects is accounted for as part of general background growth. For the larger projects or moderate projects that are clustered in close proximity to one another, discrete travel demand forecasts were conducted and the traffic, transit and pedestrian trips generated by those projects were added to the baseline No-Action volumes, where applicable. Development at seven sites (across four projects) were identified for inclusion in the transportation analyses for the No-Action condition (see **Table 12-26** and **Figure 12-17**), including six within a quarter mile of the Development Site and one farther away (18 India Street).[6] In total, these projects include approximately 1,615 residential units, 6,600 sf of community facility space, 53,500 sf of retail space, 497,000 sf of office space, and 109,000 sf for a new processing facility for the ACME Smoked Fish Company.

In the future, under the No-Action condition, it is assumed that the existing NYCTA Facility located on the Development Site would remain and no new development would occur at the Development Site.

Traffic

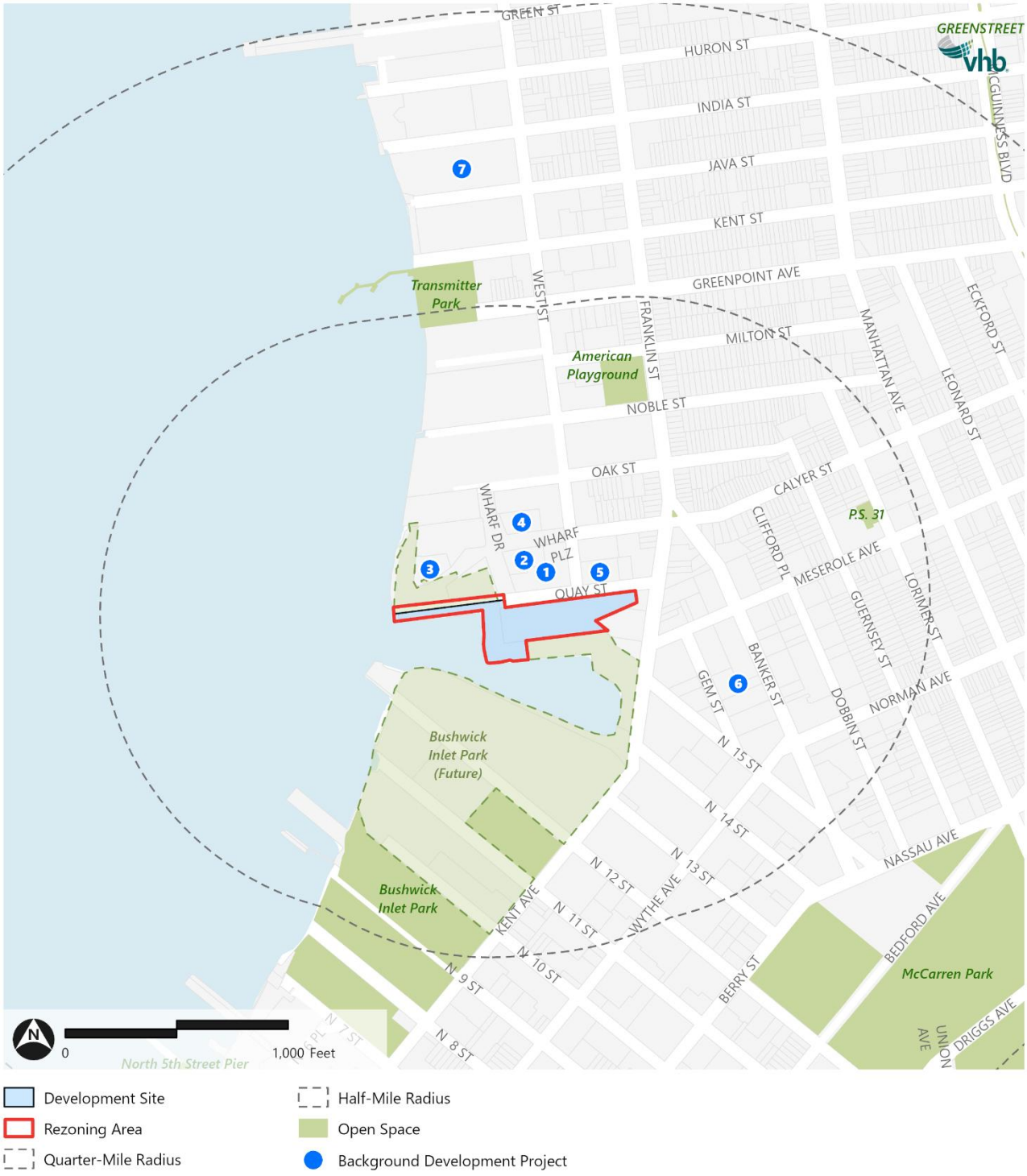
No-Action traffic volumes are shown in **Figure 12-18** through **Figure 12-21**. As described above, these No-Action traffic volumes include background growth and discrete trips associated with the No-Action projects identified.

Table 12-26 Background Development Projects

No.	Project Name/Address	Description	Expected Completion Date
Within Quarter Mile			
1	Calyer Place Project - Building D2 *3 West Street*	150 dwelling units; 84 parking spaces	To be completed by 2031
2	Calyer Place Project - Building D1 *7 Wharf Drive*	303 dwelling units; 3,300 sf community facility space; 58 parking spaces	To be completed by 2031
3	Calyer Place Project - Building A *30 Wharf Drive*	104 dwelling units	To be completed by 2031
4	Calyer Place Project - Building C1 *29 Wharf Plaza*	92 dwelling units; 13,104 sf retail space; 3,300 sf community facility space; 92 parking spaces	To be completed by 2031
5	79 Quay Street	132 dwelling units; 1,287 sf retail space; 54 parking spaces	2025
6	ACME Fish Expansion (ACME project) *30 Gem Street*	33,800 sf retail space; 496,800 sf office space; 109,300 sf ACME facility; 150 parking spaces	To be completed by 2031
Within Half Mile			
7	18 India Street	834 dwelling units; 5,345 sf retail space	2026

[6] Three of the development projects identified are prepped for construction (the sites are cleared of obstructions) or are currently undergoing construction as of the completion of the transportation analyses' existing data collection. Construction at the ACME site has not started as of the publication of this DEIS. While the start of construction is unknown, it is assumed that the project will be completed by the Proposed Development's 2031 build-year.

Figure 12-17 Background Development Projects



Source: NYC DCP, DevDB 24v2

Figure 12-18 No-Action Traffic Volumes – Weekday AM Peak Hour

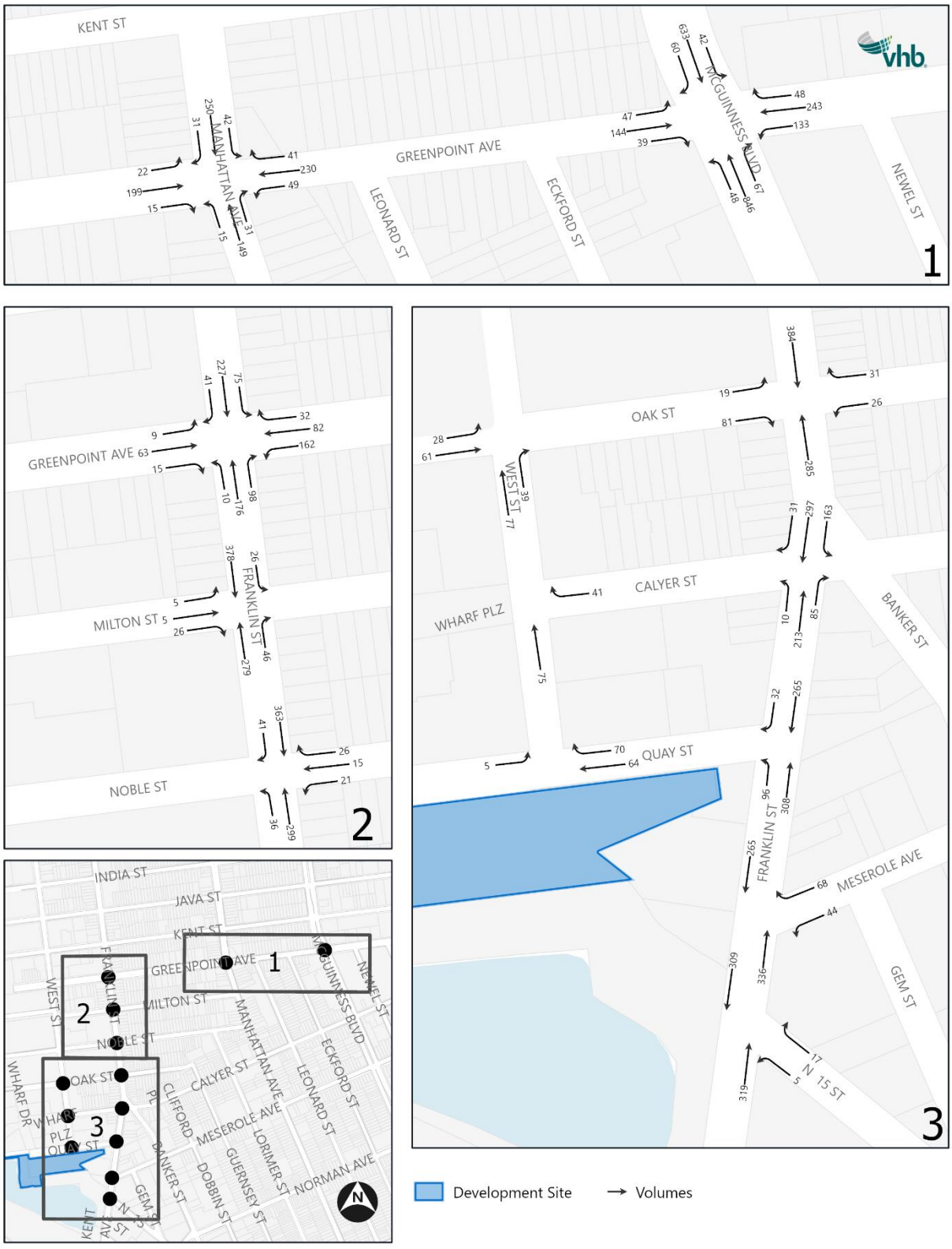


Figure 12-19 No-Action Traffic Volumes – Weekday Midday Peak Hour

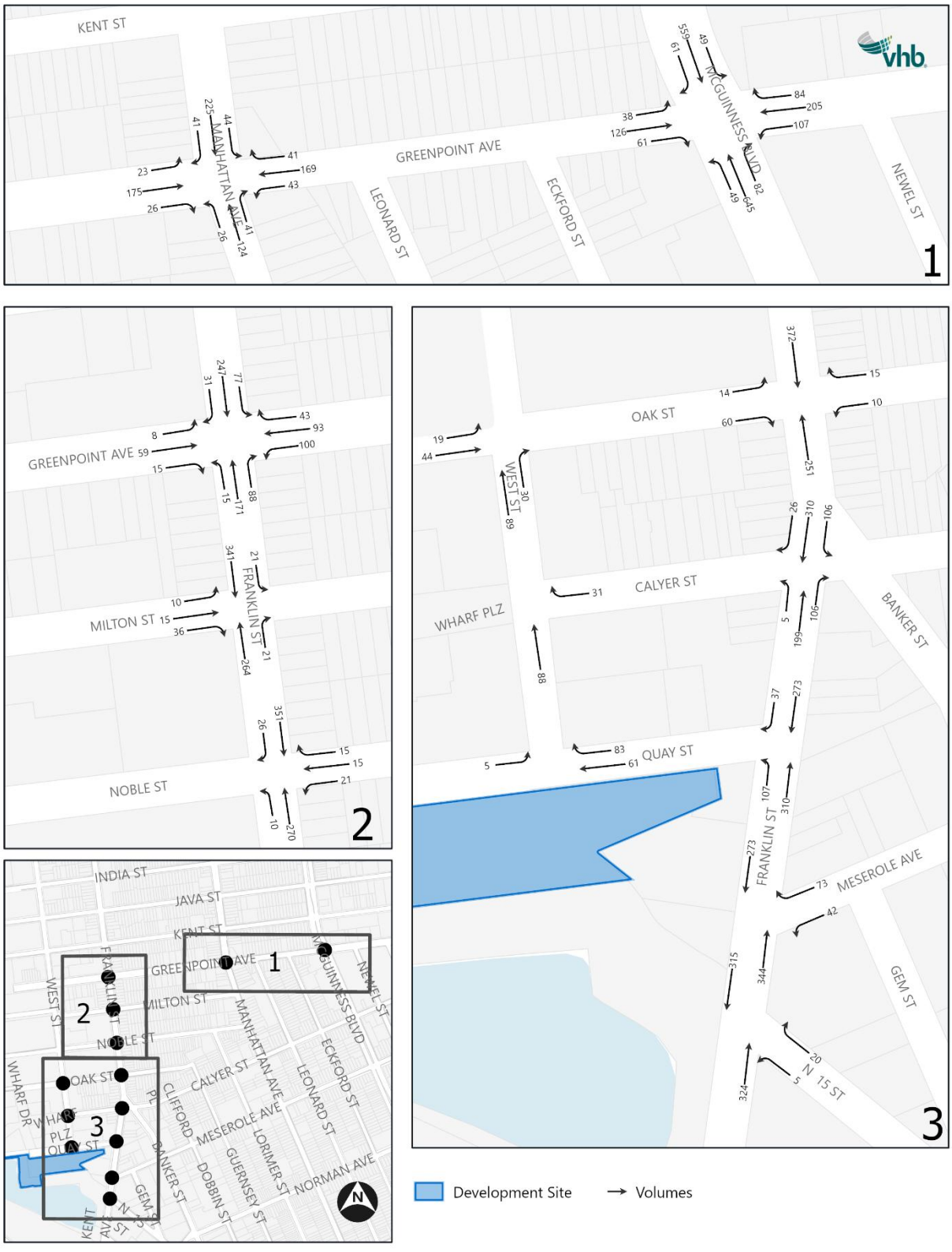


Figure 12-20 No-Action Traffic Volumes – Weekday PM Peak Hour

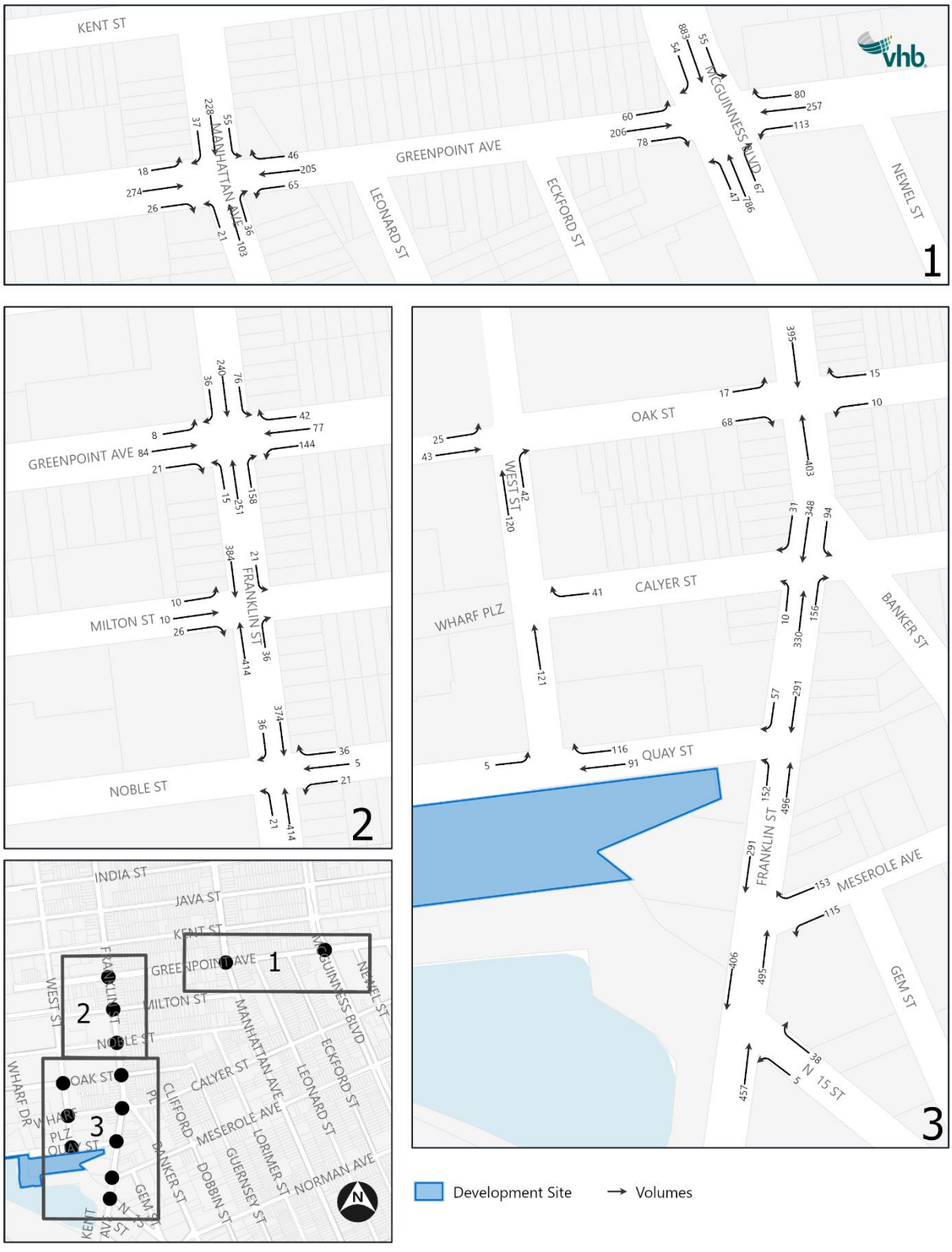
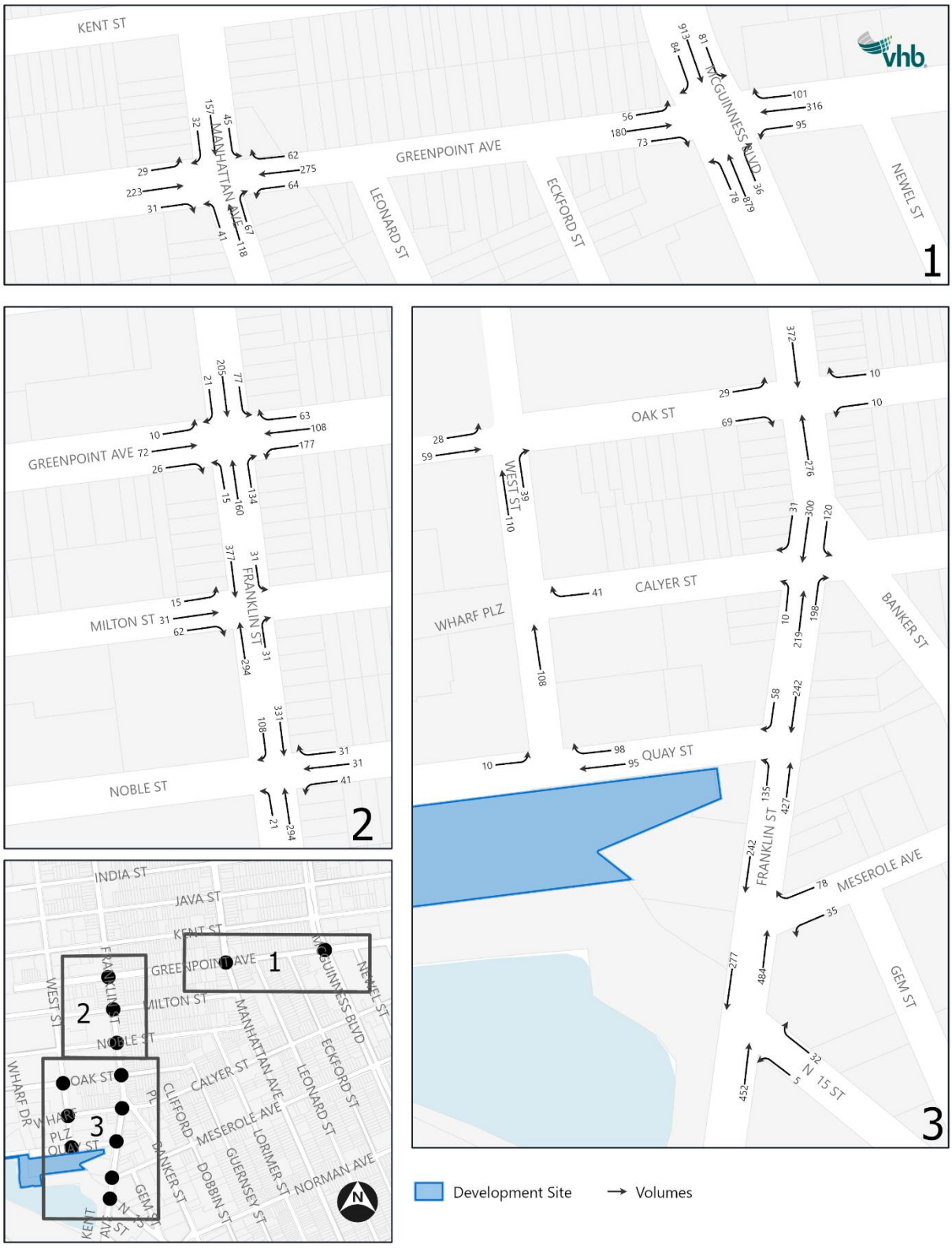


Figure 12-21 No-Action Traffic Volumes – Saturday Peak Hour



Roadway and Signal Changes

The following modifications were made to the traffic analysis for the No-Action condition as a result of the expected completion of existing construction activity and improvements proposed by other projects and NYC DOT:

- The westbound travel lane of Quay Street at its intersection with West Street would no longer be reduced to a width of 9 feet and would return to an unobstructed 14-foot width as the use of a portion of the north parking lane of Quay Street for construction staging would no longer be present after completion of the 79 Quay Street project.
- Signal timing changes at the intersection of Franklin Street and Quay Street as proposed in the 2021 *ACME Fish Expansion FEIS*:
  - Shifted 1 second of green time from the pedestrian-only phase to the northbound/southbound phase in the weekday AM period;
  - Shifted 2 seconds of green time from the pedestrian-only phase to the northbound/southbound phase in the weekday PM period;
- A new traffic signal would be installed at the intersection of Franklin Street and Meserole Avenue as proposed in the 2021 *ACME Fish Expansion FEIS*.[7]
- A new traffic signal would be installed at the intersection of Franklin Street and Oak Street as planned by NYC DOT.

Congestion Pricing

New York City's CBD Tolling Program, also known as "Congestion Pricing," is an electronic toll system that charges vehicles that enter Manhattan's CBD1 and taxis/for hire vehicles that enter, leave or travel within the CBD. The program is intended to reduce congestion in the CBD and provide a new local, recurring funding source for MTA capital projects. The program went into effect on January 5, 2025. Initial data collected by MTA/NYCT and New York City Department of Transportation (NYSDOT) indicate a decrease in congestion in the CBD; however, the longer-term effects cannot yet be determined. Thus, while the transportation data presented in the DEIS were collected prior to implementation of the Congestion Pricing program, this data was not adjusted to account for the implementation of the program, nor have any improvements to the transit system been considered.

Levels of Service

Based on the traffic volume increases and traffic operations changes mentioned above, the 2031 No-Action traffic levels of service were determined for the 13 analysis locations. **Table 12-27** and **Table 12-28** provide an overview of the levels of service that are projected to characterize No-Action "overall" intersection conditions and individual traffic movements, respectively, during the weekday AM, midday, PM, and Saturday peak hours. Detailed No-Action traffic levels of service are provided in **Table 12-29**.

[7] As the timeline for the ACME project construction is unknown, there is a possibility that the signal at the intersection of Franklin Street and Meserole Avenue proposed in connection with that project may not be installed by the 2031 build year. In coordination with the lead agency and NYC DOT it was determined that, in the absence of the ACME project, travel demand from that project would not materialize and a traffic signal would not be warranted in the future without the addition of ACME-related traffic (see **Chapter 19, Mitigation** and as set forth in **Appendix G**).

Table 12-27 No-Action Traffic Levels of Service Summary – Overall Intersections

	Existing				No-Action			
Intersection LOS	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Overall LOS A/B/C	12	12	11	11	9	11	9	10
Overall LOS D	1	1	2	2	2	1	1	1
Overall LOS E	0	0	0	0	1	1	1	2
Overall LOS F	0	0	0	0	1	0	2	0

Note:
Existing conditions include six signalized intersections and seven unsignalized intersections. No Action condition includes eight signalized intersections and five unsignalized intersections

Table 12-28 No-Action Traffic Levels of Service Summary – Traffic Movements

	Existing				No-Action			
Traffic Movement LOS	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
LOS A/B/C	37	37	35	34	33	34	31	28
LOS D	3	3	3	5	3	2	2	7
LOS E	1	2	2	0	3	4	1	3
LOS F	1	0	2	3	3	2	8	4
Number of Individual Traffic Movements	42	42	42	42	42	42	42	42

Table 12-29 No-Action Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday Midday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday PM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Saturday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS
SIGNALIZED INTERSECTIONS																	
Franklin Street and Meserole Avenue																	
Meserole Ave	WB	LR	0.27	16.6	B	LR	0.24	16.2	B	LR	0.65	23.8	C	LR	0.27	16.6	B
Franklin Street	NB	T	0.44	10.7	B	T	0.48	11.3	B	T	0.56	12.3	B	T	0.56	12.3	B
	SB	T	0.36	8.8	A	T	0.35	8.6	A	T	0.35	1.5	A	T	0.29	7.5	A
Overall Intersection[2]		-	-	**11.0**	**B**	-	-	**11.1**	**B**	-	-	**12.6**	**B**	-	-	**11.5**	**B**
Franklin Street and Quay Street																	
Franklin Street	NB	LT	0.71	12.2	B	LT	0.78	14.6	B	LT	1.15	94.4	F	LT	0.99	39.4	D
	SB	TR	0.43	4.8	A	TR	0.45	6.6	A	TR	0.41	4.1	A	TR	0.40	6.3	A
Overall Intersection[2]		-	-	**8.9**	**A**	-	-	**11.2**	**B**	-	-	**63.7**	**E**	-	-	**27.7**	**C**
Franklin Street and Calyer Street																	
Franklin Street	NB	LTR	0.50	5.9	A	LTR	0.53	5.8	A	LTR	0.72	7.8	A	LTR	0.70	7.4	A
	SB	LTR	1.04	56.6	E	LTR	0.84	19.4	B	LTR	0.80	16.3	B	LTR	0.87	23.1	C
Overall Intersection[2]		-	-	**37.8**	**D**	-	-	**13.8**	**B**	-	-	**12.0**	**B**	-	-	**15.4**	**B**
Franklin Street and Oak Street																	
Oak Street	EB	LR	0.27	16.8	B	LR	0.18	15.7	B	LR	0.22	16.1	B	LR	0.26	16.6	B
	WB	LR	0.17	15.7	B	LR	0.07	14.6	B	LR	0.07	14.6	B	LR	0.05	14.4	B
Franklin Street	NB	T	0.42	7.8	A	T	0.36	7.7	A	T	0.57	8.9	A	T	0.39	7.5	A
	SB	T	0.57	6.4	A	T	0.58	7.7	A	T	0.53	6.8	A	T	0.51	6.6	A
Overall Intersection[2]		-	-	**8.8**	**A**	-	-	**8.7**	**A**	-	-	**8.9**	**A**	-	-	**8.5**	**A**

Table 12-29 No-Action Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour				Saturday Peak Hour			
		Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS
Franklin Street and Noble Street																	
Noble Street	WB	LTR	0.17	15.6	B	LTR	0.14	15.2	B	LTR	0.19	15.9	B	LTR	0.31	17.5	B
Franklin Street	NB	LT	0.53	10.5	B	LT	0.44	9.2	A	LT	0.64	8.9	A	LT	0.47	8.8	A
	SB	TR	0.62	8.6	A	TR	0.62	6.1	A	TR	0.57	5.8	A	TR	0.73	11.6	B
Overall Intersection[2]		-	-	**10.0**	**A**	-	-	**8.0**	**A**	-	-	**8.1**	**A**	-	-	**11.3**	**B**
Franklin Street and Greenpoint Avenue																	
Greenpoint Avenue	EB	LTR	0.28	17.2	B	LTR	0.27	17.3	B	LTR	0.40	19.4	B	LTR	0.39	19.3	B
	WB	LTR	1.09	105.6	F	LTR	1.20	149.1	F	LTR	1.29	182.4	F	LTR	1.23	156.5	F
Franklin Street	NB	LTR	0.84	39.9	D	LTR	0.80	37.9	D	LTR	1.17	119.7	F	LTR	0.95	56.5	E
	SB	LTR	0.96	52.6	D	LTR	1.04	72.6	E	LTR	1.09	91.0	F	LTR	0.86	35.6	D
Overall Intersection[2]		-	-	**60.5**	**E**	-	-	**77.8**	**E**	-	-	**115.2**	**F**	-	-	**75.5**	**E**
Manhattan Avenue and Greenpoint Avenue																	
Greenpoint Avenue	EB	LT	0.54	31.5	C	LT	0.48	30.4	C	LT	0.62	32.2	C	LT	0.48	29.8	C
		R	0.05	22.5	C	R	0.12	23.4	C	R	0.10	22.4	C	R	0.14	23.6	C
	WB	LTR	0.80	25.1	C	LTR	0.72	33.1	C	LTR	0.91	42.7	D	LTR	0.92	37.9	D
Manhattan Avenue	NB	LTR	0.48	26.1	C	LTR	0.55	28.4	C	LTR	0.44	25.1	C	LTR	0.69	35.4	D
	SB	LTR	0.84	44.4	D	LTR	0.77	38.3	D	LTR	0.80	41.1	D	LTR	0.63	31.6	C
Overall Intersection[2]		-	-	**32.5**	**C**	-	-	**33.0**	**C**	-	-	**36.4**	**D**	-	-	**33.9**	**C**

Table 12-29 No-Action Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday Midday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday PM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Saturday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS
McGuinness Boulevard and Greenpoint Avenue																	
Greenpoint Avenue	EB	LTR	1.13	155.3	F	LTR	1.05	107.0	F	LTR	1.75	300+	F	LTR	1.57	300+	F
	WB	L	0.83	74.4	E	L	0.73	59.6	E	L	0.96	108.9	F	L	0.63	51.0	D
		TR	0.83	58.5	E	TR	0.92	69.8	E	TR	1.01	89.7	F	TR	1.15	134.8	F
McGuinness Boulevard	NB	L	0.28	18.9	B	L	0.30	19.7	B	L	0.40	24.6	C	L	0.69	45.1	D
		TR	0.70	23.7	C	TR	0.57	21.0	C	TR	0.60	20.8	C	TR	0.64	22.4	C
	SB	L	0.37	23.5	C	L	0.32	20.5	C	L	0.39	22.8	C	L	0.62	36.4	D
		TR	0.54	19.7	B	TR	0.50	19.6	B	TR	0.67	22.5	C	TR	0.69	23.7	C
Overall Intersection[2]		**-**	**-**	**43.1**	**D**	**-**	**-**	**39.2**	**D**	**-**	**-**	**83.1**	**F**	**-**	**-**	**72.3**	**E**
UNSIGNALIZED INTERSECTIONS																	
West Street and Quay Street																	
Quay Street	EB	L	-	7.3	A	L	-	7.3	A	L	-	7.3	A	L	-	7.5	A
	WB	TR	-	7.5	A	TR	-	7.7	A	TR	-	7.9	A	TR	-	7.7	A
Overall Intersection[2]		**-**	**-**	**7.5**	**A**	**-**	**-**	**7.7**	**A**	**-**	**-**	**7.9**	**A**	**-**	**-**	**7.7**	**A**
West Street and Calyer Street																	
Calyer Street	WB	R	-	10.7	B	R	-	10.7	B	R	-	10.4	B	R	-	10.6	B
West Street	NB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**3.8**	**A**	**-**	**-**	**2.8**	**A**	**-**	**-**	**2.7**	**A**	**-**	**-**	**2.9**	**A**
West Street and Oak Street																	
Oak Street	EB	LT	-	119.8	F	LT	-	24.8	C	LT	-	76.8	F	LT	-	41.9	E
West Street	NB	TR	-	0.0	A	TR	-	0.0	A	TR	-	0.0	A	TR	-	0.0	A
Overall Intersection[2]		**-**	**-**	**52.4**	**F**	**-**	**-**	**9.3**	**A**	**-**	**-**	**22.0**	**C**	**-**	**-**	**16.3**	**C**

Table 12-29 No-Action Traffic Levels of Service

Intersection & Approach		Weekday AM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday Midday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Weekday PM Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS	Saturday Peak Hour Mvt	V/C	Ctrl Delay[1]	LOS
Franklin Street and North 15th Street																	
North 15th Street	WB	LR	-	15.0	B	LR	-	14.1	B	LR	-	16.8	C	LR	-	16.4	C
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**0.5**	**A**	**-**	**-**	**0.6**	**A**	**-**	**-**	**0.9**	**A**	**-**	**-**	**0.9**	**A**
Franklin Street and Milton Street																	
Milton Street	EB	LTR	-	23.1	C	LTR	-	37.3	E	LTR	-	42.0	E	LTR	-	53.4	F
Franklin Street	NB	RT	-	0.0	A	RT	-	0.0	A	RT	-	0.0	A	RT	-	0.0	A
	SB	LT	-	1.0	A	LT	-	0.9	A	LT	-	1.0	A	LT	-	1.2	A
Overall Intersection[2]		**-**	**-**	**1.6**	**A**	**-**	**-**	**3.8**	**A**	**-**	**-**	**2.6**	**A**	**-**	**-**	**7.8**	**A**

Mvt=Movement; Ctrl=Control

[1] Control delay is measured in seconds per vehicle.

[2] Overall intersection v/c ratio is the critical lane groups' v/c ratio.

The summary overview of the No-Action condition indicates that:

- In the weekday AM peak hour, one intersection would operate at LOS E and one intersection would operate at LOS F, compared to no intersections at LOS E and LOS F in the existing condition. Six individual traffic movements would operate at LOS E or LOS F, compared to two in the existing conditions.
- In the weekday midday peak hour, one intersection would operate at LOS E and no intersections would operate at LOS F, compared to no intersections at LOS E and LOS F in the existing conditions. Six individual traffic movements would operate at LOS E or LOS F, compared to two in the existing condition.
- In the weekday PM peak hour, one intersection would operate at LOS E and two intersections would operate at LOS F, compared to no intersections at LOS E and LOS F in the existing conditions. Nine individual traffic movements would operate at LOS E or LOS F, compared to four in the existing condition.
- In the Saturday peak hour, two intersections would operate at LOS E and no intersections would operate at LOS F, compared to no intersections at LOS E and LOS F in the existing conditions. Six individual traffic movements would operate at LOS E or LOS F, compared to three in the existing condition.

According to the analysis results, the majority of traffic movements would continue to operate at acceptable levels of service in the No-Action condition. The following intersections would have at least one movement operating at unacceptable levels of service during at least one peak hour:

- Franklin Street and Quay Street
  - Northbound Franklin Street approach (weekday PM peak hour)
- Franklin Street and Calyer Street
  - Southbound Franklin Street approach (weekday AM peak hour)
- Franklin Street and Greenpoint Avenue
  - Westbound Greenpoint Avenue approach (weekday AM, midday, PM, and Saturday peak hours)
  - Northbound Franklin Street approach (weekday PM and Saturday peak hours)
  - Southbound Franklin Street approach (weekday midday and PM peak hours)
- McGuinness Boulevard and Greenpoint Avenue
  - Eastbound Greenpoint Avenue approach (weekday AM, midday, PM, and Saturday peak hours)
  - Westbound Greenpoint Avenue left-turn movement (weekday AM, midday, and PM peak hours)
  - Westbound Greenpoint Avenue shared through-right movement (weekday AM, midday, PM, and Saturday peak hours)
- Franklin Street and Milton Street
  - Eastbound Milton Street approach (weekday midday, PM, and Saturday peak hours)
- West Street and Oak Street
  - Eastbound Oak Street approach (weekday AM, PM, and Saturday peak hours)

Parking

Between 2024 and 2031, demand for parking in the vicinity of the Development Site would increase due to background growth and the No-Action condition development projects expected to be completed within the study area. A parking demand forecast of the No-Action background developments within a quarter-mile radius of the Development Site (Sites 1 through 6 listed in **Table 12-26**) was conducted. The background development projects reflected in the parking analysis would include approximately 438 total off-street parking spaces. These projects are not expected to result in a change in the total number of on-street parking spaces.

Table 12-30 presents the parking demand and availability under the No-Action condition during the four periods analyzed. As shown in **Table 12-30**, all parking demand generated by the background development projects would be accommodated by the new off-street parking spaces expected to be built by these projects. More specifically, the parking analysis of No-Action condition indicates that:

- In the weekday midday period, there would be a surplus of 12 off-street and 137 on-street parking spaces.
- In the weekday PM period, there would be a surplus of 204 off-street and 144 on-street parking spaces.
- In the overnight period, there would be a surplus of 151 off-street and 231 on-street parking spaces.
- In the Saturday midday period, there would be a surplus of 196 off-street and 212 on-street parking spaces.

Table 12-30 No-Action Parking Demand and Utilization

	Weekday Midday	Weekday PM	Overnight	Saturday Midday
Off-Street Parking				
Demand				
Background Projects	426	234	287	242
Development Site	0	0	0	0
No-Action Projects Total	**426**	**234**	**287**	**242**
Supply				
Background Projects	438	438	438	438
Development Site	0	0	0	0
No-Action Projects Total	**438**	**438**	**438**	**438**
Off-Street Parking Surplus (Deficit)	**12**	**204**	**151**	**196**
On-Street Parking				
Demand				
Background Growth	41	39	36	38
No-Action Projects Total[1]	--	--	--	--
No-Action Total	**41**	**39**	**36**	**38**
Supply				
Existing Availability	178	183	267	250
Additional On-Street Parking	--	--	--	--
No-Action Total	**178**	**183**	**267**	**250**
On-Street Parking Surplus (Deficit)	**137**	**144**	**231**	**212**

[1] All parking demand generated by No-Action developments is expected to be accommodated by the collective off-street parking capacity introduced by these developments

Subway

Subway Station Element

Existing subway station volumes were increased based on the background growth rates recommended in the *CEQR Technical Manual*. Subway trips generated by background development projects were routed through the study area and added to the No-Action condition subway volumes.

Table 12-31 summarizes the 2031 No-Action conditions weekday AM and PM peak hour levels of the service at the fare control areas. Under the No-Action condition, the fare control areas at both stations would operate at LOS A during both peak hours analyzed.

Table 12-31 No-Action Condition Subway Station Level of Service – Fare Control Areas

Peak Hour	Control Element	Pedestrian Volume (15-min)		Surging Factor	Friction Factor	v/c Ratio	LOS
		In	Out				
AM	Greenpoint Avenue 5 Turnstiles	285	233	0.80	0.90	0.25	A
	Nassau Avenue (to Church Ave) 3 Turnstiles	110	67	0.75	0.90	0.15	A
	Nassau Avenue (to Queens) 3 Turnstiles	140	99	0.75	0.90	0.20	A
PM	Greenpoint Avenue 5 Turnstiles	350	295	0.80	0.90	0.31	A
	Nassau Avenue (to Church Ave) 3 Turnstiles	134	78	0.75	0.90	0.18	A
	Nassau Avenue (to Queens) 3 Turnstiles	99	100	0.75	0.90	0.16	A

Note:
Methodology based on *2021 CEQR Technical Manual* guidelines
Surging factors only applied to exiting volumes. The surge factor for entry volumes is 1.0.

Table 12-32 and **Table 12-33** summarize the subway stair levels of service under the No-Action condition. During the weekday AM and PM peak hours, all stairs would operate at LOS A at both the Greenpoint Avenue station and the Nassau Avenue station.

Table 12-32 No-Action Condition Subway Station Level of Service – Stairs – AM Peak Hour

Stair	Effective Width (ft.)	Pedestrian Volume (15-min)		Surging Factor		Friction Factor	v/c Ratio	LOS
		Down	Up	Down	Up			
Greenpoint Avenue Station – Street Stairs								
S1	5.0	97	57	1.00	0.80	0.90	0.25	A
S2	3.9	63	70	1.00	0.80	0.90	0.29	A
S3	4.0	76	76	1.00	0.80	0.90	0.32	A
Greenpoint Avenue Station – Mezzanine Stairs								
M1	4.9	97	57	1.00	0.80	0.90	0.25	A
M2	4.0	63	70	1.00	0.80	0.90	0.28	A
M3A/M3B	8.7	76	76	1.00	0.80	0.90	0.15	A
Greenpoint Avenue Station – Southbound Platform								
P1	4.8	59	25	1.00	0.75	0.90	0.14	A
P3	3.9	36	87	1.00	0.75	0.90	0.29	A
Greenpoint Avenue Station – Northbound Platform								
P2	3.2	83	14	1.00	0.75	0.90	0.24	A
P4	4.8	62	98	1.00	0.75	0.90	0.30	A
Nassau Avenue Station – Southbound								
S5	4.0	90	60	1.00	0.75	0.90	0.31	A
P3A/P3B	8.8	90	60	1.00	0.75	0.90	0.14	A
Nassau Avenue Station – Northbound								
S6	4.0	114	84	1.00	0.75	0.90	0.42	A
P4A/P4B	8.7	114	84	1.00	0.75	0.90	0.19	A

Table 12-33 No-Action Condition Subway Station Level of Service – Stair – PM Peak Hour

Stair	Effective Width (ft.)	Pedestrian Volume (15-min)		Surging Factor		Friction Factor	v/c Ratio	LOS
		Down	Up	Down	Up			
Greenpoint Avenue Station – Street Stairs								
S1	5.0	125	76	1.00	0.80	0.90	0.33	A
S2	3.9	98	51	1.00	0.80	0.90	0.31	A
S3	4.0	77	116	1.00	0.80	0.90	0.41	A
Greenpoint Avenue Station – Mezzanine Stairs								
M1	4.9	125	76	1.00	0.80	0.90	0.33	A
M2	4.0	98	51	1.00	0.80	0.90	0.30	A
M3A/M3B	8.7	77	116	1.00	0.80	0.90	0.19	A
Greenpoint Avenue Station – Southbound Platform								
P1	4.8	106	51	1.00	0.75	0.90	0.27	A
P3	3.9	45	115	1.00	0.75	0.90	0.38	A
Greenpoint Avenue Station – Northbound Platform								
P2	3.2	116	4	1.00	0.75	1.00	0.25	A
P4	4.8	42	87	1.00	0.75	0.90	0.24	A
Nassau Avenue Station – Southbound								
S5	4.0	113	64	1.00	0.75	0.90	0.37	A
P3A/P3B	8.8	113	64	1.00	0.75	0.90	0.17	A
Nassau Avenue Station – Northbound								
S6	4.0	86	82	1.00	0.75	0.90	0.36	A
P4A/P4B	8.7	86	82	1.00	0.75	0.90	0.17	A

Subway Line-Haul

Table 12-34 summarizes anticipated 2031 No-Action conditions at the maximum load point of the G subway line in the peak direction. The No-Action condition passenger volumes reflect background growth for the period between 2025 and 2031. In the No-Action condition, the G subway line would continue to operate below capacity in the southbound direction during the weekday AM peak hour and in the northbound direction during the weekday PM peak hour. During the No-Action condition weekday AM peak hour, this subway line would operate at capacity in the northbound direction, compared to below capacity in the existing condition. During the No-Action condition weekday PM peak hour, this subway line would operate at over-capacity conditions in the southbound direction similar to the existing conditions.

Table 12-34 No-Action Condition Subway Line-Haul

Peak Hour	Route	Direction	Max Load Point (leaving station)	Average Passengers Per Hour	Average Trains Per Hour[1]	Cars Per Train	Average Passengers Per Car[1]	Guideline Passengers Per Car[2, 3]	V/C Ratio[4]
AM	G	NB	Greenpoint Avenue	5,198	9.0	5	116	115	1.00
AM	G	SB	Clinton-Washington Avenues	3,983	9.0	5	89	115	0.77
PM	G	NB	Broadway	4,405	8.0	5	110	115	0.96
PM	G	SB	21 Street	4,947	8.0	5	124	115	1.08

Source: MTA-NYCTA, 2025
Notes:
[1] Based on 2025 ridership and train throughput data from NYCTA.
[2] Guideline capacities are based on NYCTA rush hour loading guidelines which vary by car type, line, and location based on frequency and type of service.
[3] G subway line runs 300-foot trains, half the usual length. Guideline assumes 60-foot cars.
[4] Volume to guideline capacity ratio

Pedestrians

The 2031 No-Action pedestrian volumes were developed by increasing existing volumes to reflect expected travel growth within the study area and incorporating pedestrian volumes from projects expected to be completed by then.

The No-Action pedestrian levels of service were determined for the locations analyzed in the existing conditions. **Table 12-35** provides an overview of the pedestrian levels of service for the peak hours analyzed. Pedestrian volumes and levels of service are provided in **Table 12-36** through **Table 12-38**. The summary of the No-Action condition indicates that all sidewalks analyzed would operate at LOS C or better, all crosswalks would operate at LOS A, and all corners would operate at LOS B or better during all peak hours analyzed.

Table 12-35 No-Action Pedestrian Levels of Service Summary

	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Sidewalk Elements[1]				
Sidewalks at LOS A/B/C	9	9	9	9
Sidewalks at LOS D	0	0	0	0
Sidewalks at LOS E	0	0	0	0
Sidewalks at LOS F	0	0	0	0
Crosswalk Elements				
Crosswalks at LOS A/B/C	4	4	4	4
Crosswalks at LOS D	0	0	0	0
Crosswalks at LOS E	0	0	0	0
Crosswalks at LOS F	0	0	0	0
Corner Elements				
Corners at LOS A/B/C	8	8	8	8
Corners at LOS D	0	0	0	0
Corners at LOS E	0	0	0	0
Corners at LOS F	0	0	0	0

[1] A sidewalk on the south side of Quay Street between Wharf Drive and West Street does not currently exist. Therefore, analysis results are shown for the nine existing sidewalks.

Table 12-36 No-Action Pedestrian Levels of Service – Sidewalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Sidewalk	Effective Width	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Quay Street between West Street and Franklin Street (north side)	9.7	112	918.9	A	281	308.9	B	193	471.3	B	210.0	571.7	A
Quay Street between West Street and Franklin Street (south side)	8.7	521	192.7	B	507	198.9	B	647	160.6	B	662.0	170.1	B
Quay Street between Wharf Drive and West Street (south side)[1]	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin Street between Noble Street & Oak Street (west side)	5.6	219	330.0	B	239	238.9	B	287	263.2	B	542.0	138.1	B
Franklin Street between Oak Street & Calyer Street (west side)	3.3	214	203.9	B	129	243.7	B	274	151.6	B	483.0	90.0	B
Franklin Street between Calyer Street & Quay Street (west side)	8.8	203	579.4	A	160	664.5	A	246	414.7	B	406.0	308.3	B
Franklin Street between Quay Street & Meserole Avenue (east side)	8.3	522	231.5	B	753	111.6	B	662	169.7	B	814.0	148.8	B
Meserole Avenue between Franklin Street & Gem Street (north side)	4.3	91	512.1	B	99	468.2	B	115	364.9	B	154.0	272.4	B
Meserole Avenue between Franklin Street & Gem Street (south side)	10.5	296	505.6	B	548	204.6	B	429	225.9	B	409.0	317.5	B
Meserole Avenue between Gem Street & Banker Street (south side)	9.7	628	145.8	B	1,394	65.4	C	955	130.4	B	781.0	164.7	B

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
[1] A sidewalk on the south side of Quay Street between Wharf Drive and West Street does not currently exist.

Table 12-37 No-Action Pedestrian Levels of Service – Crosswalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Intersection	Crosswalk	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Franklin Street and Quay Street	South	355	49.7	B	467	34.4	C	478	39.7	C	505	28.2	C
	West	143	920.4	A	122	888.5	A	171	647.0	A	337	379.6	A
Franklin Street and Calyer Street	West	231	524.6	A	197	650.9	A	290	454.3	A	442	263.1	A
Franklin Street and Noble Street	West	243	180.7	A	322	71.8	A	342	141.6	A	545	78.4	A

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian

Table 12-38 No-Action Pedestrian Levels of Service – Corners

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Intersection	Crosswalk	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Franklin Street and Quay Street	Northwest	68	381.5	A	71	229.8	A	87	250.8	A	97	158.8	A
	Southwest	187	131.7	A	75	109.8	A	195	116.8	A	180	72.6	A
Franklin Street and Calyer Street	Northwest	21	370.7	A	13	408.2	A	26	263.3	A	33	163.2	A
	Southwest	18	247.1	A	10	278.9	A	20	224.2	A	36	136.6	A
Franklin Street and Noble Street	Northwest	22	371.5	A	18	186.2	A	37	276.9	A	54	167.0	A
	Southwest	12	275.0	A	54	117.0	A	23	207.2	A	160	100.3	A
Franklin Street and Greenpoint Avenue	Northeast	46	63.2	A	34	57.9	B	76	42.5	B	38	43.9	B
	Southeast	72	177.3	A	129	104.4	A	119	108.6	A	136	95.6	A

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
Volumes shown are of corner roundings

With-Action Condition

The Proposed Development would redevelop the site of an existing NYCTA facility fronted by Quay Street to the north, and bounded by Bushwick Inlet Park to the south, Bushwick Inlet/East River to the south and west, and two lots occupied by commercial buildings fronting Franklin Street to the east

(see **Figure 12-1**). The Proposed Development consists of three new buildings; two of the buildings would include mixed-use residential and commercial uses, and a third building would provide a permanent museum for the Greenpoint Monitor Museum. The Proposed Development would also provide a landscaped WPAA between the future Bushwick Inlet Park and the existing Shore Public Walkway to the north of the Development Site, and a connection between the future Bushwick Inlet Park and West Street. Overall, the Proposed Development would introduce approximately 1,150 dwelling units (including approximately 300 affordable dwelling units), approximately 35,000 sf of community facility space (Greenpoint Monitor Museum), approximately 36,500 sf of local retail space, approximately 140 below-grade attendant operated parking spaces, and approximately 50,000 sf (1.148 acres) of new open space, including 43,000 sf (0.987 acres) of WPAA. In addition, with completion of the Proposed Development, it is assumed that Quay Street between West Street and Wharf Drive would be reconstructed and continue to operate two-way. The south side of this street segment is currently used for parking by the staff and fleet vehicles of the to-be-relocated NYCTA Facility. It is assumed that with the Proposed Development, on-street public parking would be allowed on the south side of the new Quay Street. While this street segment is private, the Applicant will continue to coordinate necessary changes to the design, management, and ownership of this space with the Department of City Planning, NYC DOT, and relevant agencies. The existing portion of Quay Street abutting the Development Site will continue to provide a bike lane and one-way westbound operation for traffic. The Applicant will continue to work with NYC DOT to determine a final design for the bike lanes. The Proposed Development's build year is 2031.

Traffic

Overall, the Proposed Development would generate a total of 179 vph (63 "ins" and 116 "outs") in the weekday AM peak hour, 209 vph (103 "in" and 106 "outs") in the weekday midday peak hour, 259 vph (138 "ins" and 121 "outs") in the weekday PM peak hour, and 287 vph (146 "ins" and 141 "outs") in the Saturday peak hour. These vehicle trips were distributed as described in the **Level 2 Screening Assessment**. With-Action traffic volumes for the weekday AM, midday, PM, and Saturday peak hours are shown in **Figure 12-22** through **Figure 12-25**.

Figure 12-22 With-Action Traffic Volumes – Weekday AM Peak Hour

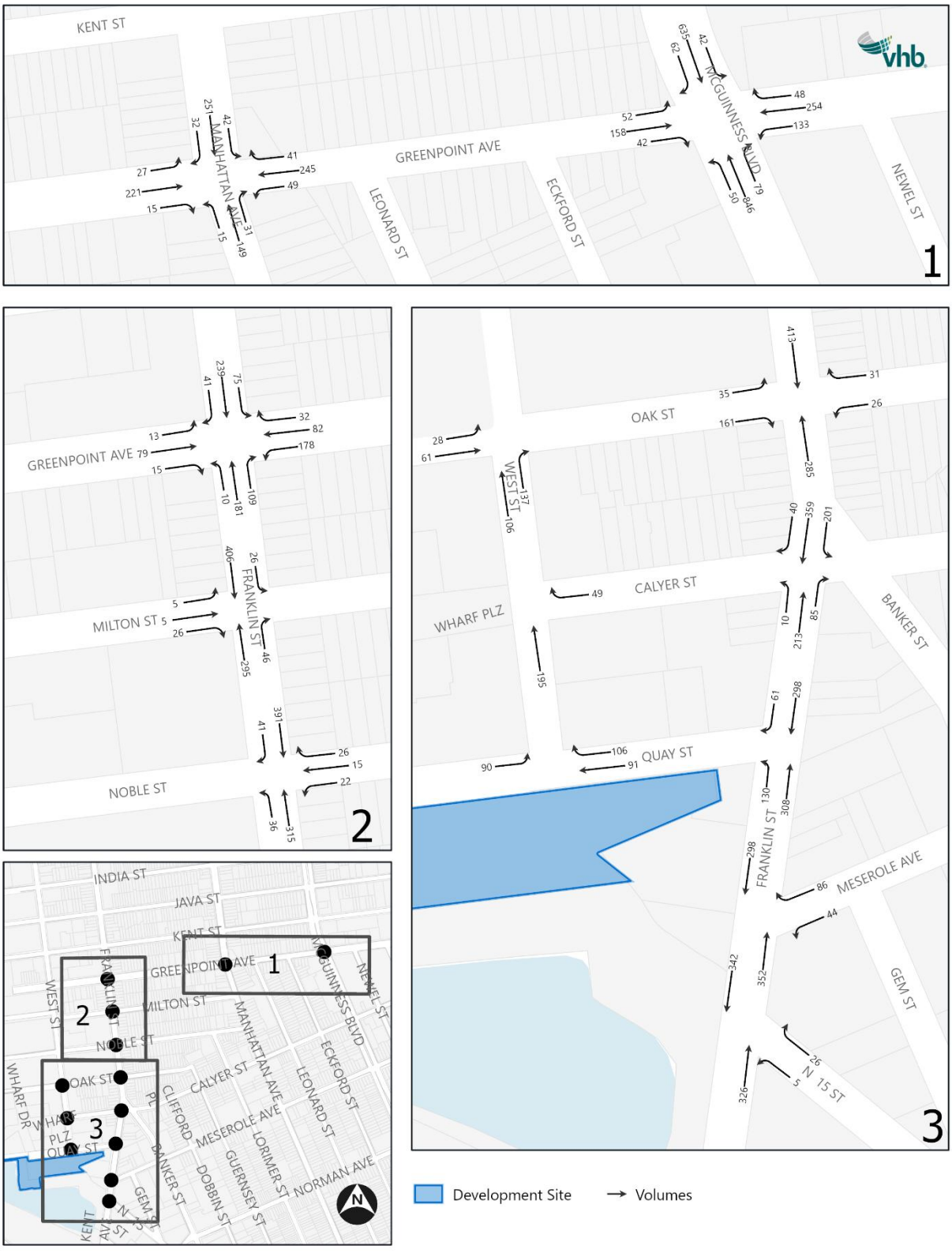


Figure 12-23 With-Action Traffic Volumes – Weekday Midday Peak Hour

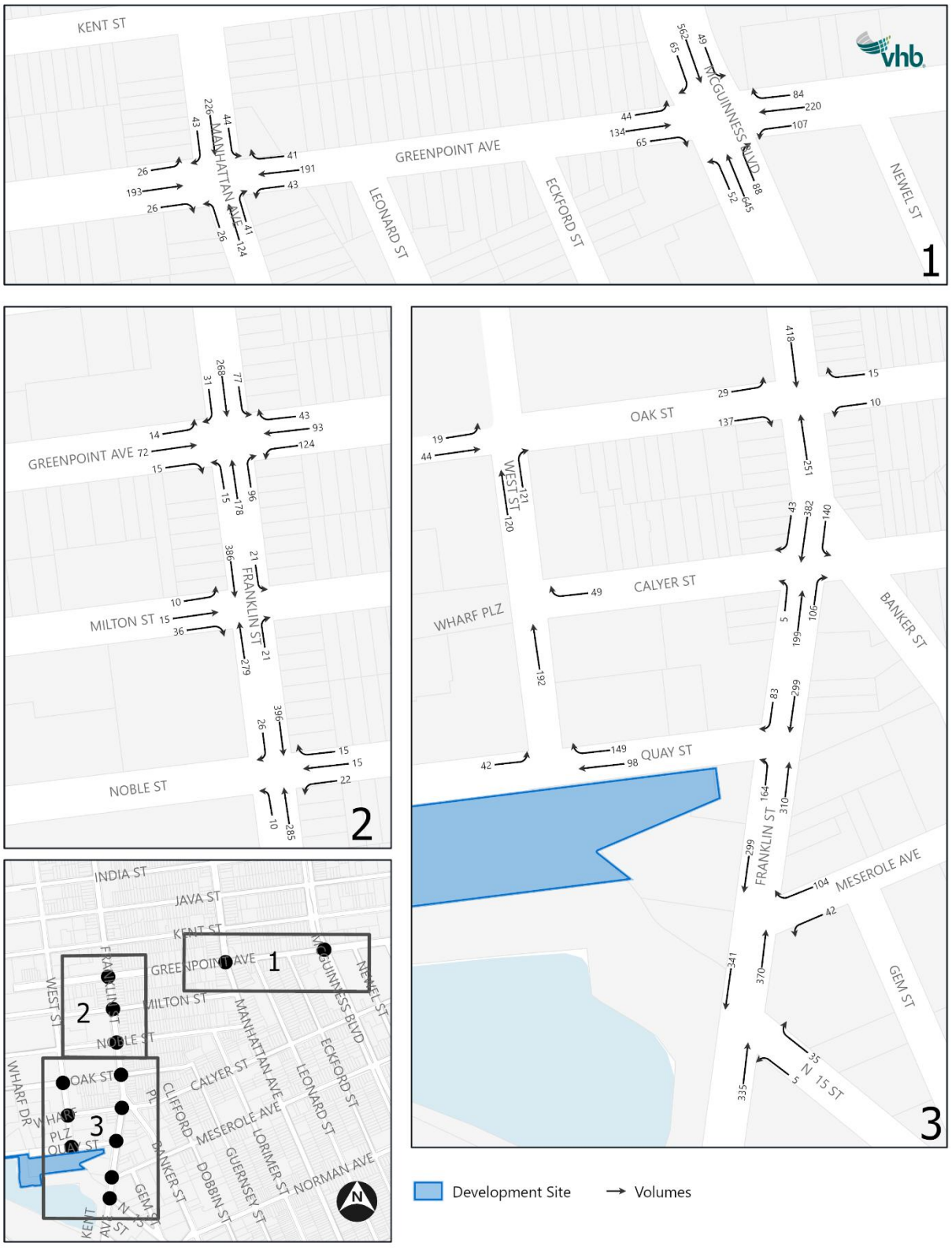


Figure 12-24 With-Action Traffic Volumes – Weekday PM Peak Hour

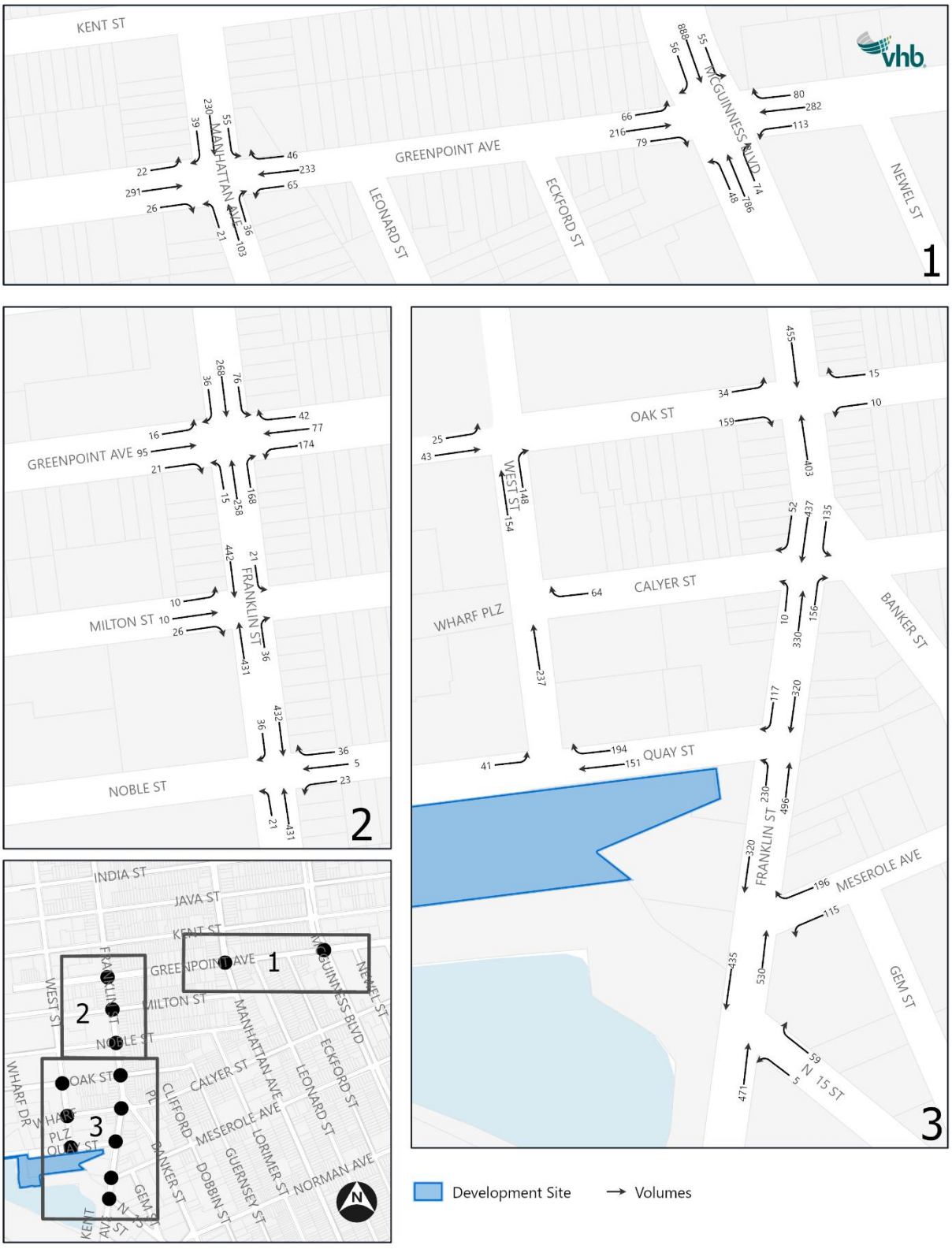
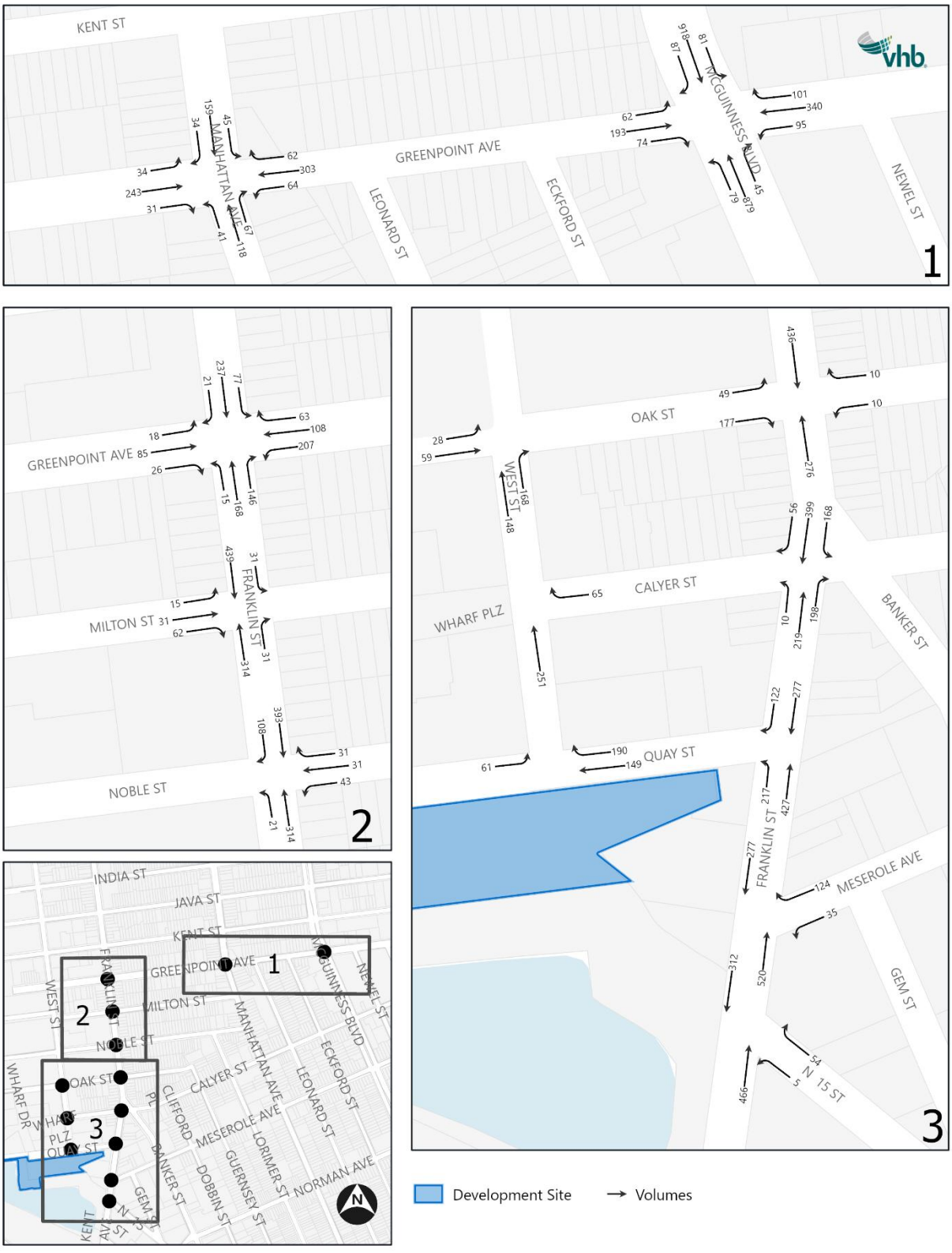


Figure 12-25 With-Action Traffic Volumes – Saturday Peak Hour



Levels of Service

Based on the traffic volume increments illustrated above, the 2031 With-Action traffic levels of service were determined for the 13 analysis locations. **Table 12-39** and **Table 12-40** provide an overview of the levels of service that characterize With-Action "overall" intersection conditions and individual traffic movements during the peak hours analyzed. Detailed traffic levels of service comparing the No-Action and With-Action conditions during each peak hour analyzed are provided in **Table 12-41** through **Table 12-44**.

Table 12-39 With-Action Traffic Level of Service Summary – Overall Intersections

	No-Action				With-Action			
Intersection LOS	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Overall LOS A/B/C	9	11	9	10	9	9	7	7
Overall LOS D	2	1	1	1	0	1	1	1
Overall LOS E	1	1	1	2	1	2	1	1
Overall LOS F	1	0	2	0	3	1	4	4
Number of Significantly Impacted Intersections	-	-	-	-	4	4	5[1]	5[1]

Notes:
Includes eight signalized intersections and five unsignalized intersections

[1] The analysis reflects a new traffic signal that would be installed in conjunction with the ACME project at the intersection of Franklin Street and Meserole Avenue in the No-Action condition. With this signal no significant adverse impact would occur at this location in any peak hour. However, as set forth in **Appendix G**, absent the traffic signal there would be the potential for a significant adverse impact at this location during the weekday PM and Saturday peak hours.

Table 12-40 With-Action Traffic Level-of-service Summary – Traffic Movements

	No-Action				With-Action			
Traffic Movement LOS	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
LOS A/B/C	33	34	31	28	31	30	30	28
LOS D	3	2	2	7	4	3	1	6
LOS E	3	4	1	3	2	2	1	1
LOS F	3	2	8	4	5	7	10	7
Number of Significantly Impacted Movements	-	-	-	-	6	6	9[1]	7[1]
Number of Individual Traffic Movements	42	42	42	42	42	42	42	42

Note:
[1] The analysis reflects a new traffic signal that would be installed in conjunction with the ACME project at the intersection of Franklin Street and Meserole Avenue in the No-Action condition. With this signal no significant adverse impact would occur at this location in any peak hour. However, as set forth in **Appendix G**, absent the traffic signal there would be the potential for a significant adverse impact to the westbound approach at this location during the weekday PM and Saturday peak hours.

Table 12-41 No-Action vs. With-Action Traffic Level of Service – Weekday AM Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Signalized Intersections									
Franklin Street and Meserole Avenue									
Meserole Ave	WB	LR	0.27	16.6	B	LR	0.31	17.2	B
Franklin Street	NB	T	0.44	10.7	B	T	0.46	10.9	B
	SB	T	0.36	8.8	A	T	0.40	8.7	A
Overall Intersection[2]		-	-	**11.0**	**B**	-	-	**11.2**	**B**
Franklin Street and Quay Street									
Franklin Street	NB	LT	0.71	12.2	B	LT	0.95	35.2	D
	SB	TR	0.43	4.8	A	TR	0.55	5.1	A
Overall Intersection[2]		-	-	**8.9**	**A**	-	-	**21.1**	**C**
Franklin Street and Calyer Street									
Franklin Street	NB	LTR	0.50	5.9	A	LTR	0.50	6.5	A
	SB	LTR	1.04	56.6	E	LTR	1.30	156.8	F
Overall Intersection[2]		-	-	**37.8**	**D**	-	-	**108.0**	**F**
Franklin Street and Oak Street									
Oak Street	EB	LR	0.27	16.8	B	LR	0.53	21.4	C
	WB	LR	0.17	15.7	B	LR	0.18	15.9	B
Franklin Street	NB	T	0.42	7.8	A	T	0.42	7.9	A
	SB	T	0.57	6.4	A	T	0.61	7.1	A
Overall Intersection[2]		-	-	**8.8**	**A**	-	-	**10.8**	**B**
Franklin Street and Noble Street									
Noble Street	WB	LTR	0.17	15.6	B	LTR	0.19	16.0	B
Franklin Street	NB	LT	0.53	10.5	B	LT	0.56	10.5	B
	SB	TR	0.62	8.6	A	TR	0.67	7.5	A
Overall Intersection[2]		-	-	**10.0**	**A**	-	-	**9.4**	**A**
Franklin Street and Greenpoint Avenue									
Greenpoint Avenue	EB	LT	0.28	17.2	B	LTR	0.38	18.9	B
	WB	LTR	1.09	105.6	F	LTR	1.45	258.6	F
Franklin Street	NB	LTR	0.84	39.9	D	LTR	0.93	53.0	D
	SB	LTR	0.96	52.6	D	LTR	1.01	64.5	E
Overall Intersection[2]		-	-	**60.5**	**E**	-	-	**110.2**	**F**

Table 12-41 No-Action vs. With-Action Traffic Level of Service – Weekday AM Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Manhattan Avenue and Greenpoint Avenue									
Greenpoint Avenue	EB	LT	0.54	31.5	C	LT	0.61	32.9	C
		R	0.05	22.5	C	R	0.06	21.6	C
	WB	LTR	0.80	25.1	C	LTR	0.84	28.0	C
Manhattan Avenue	NB	LTR	0.48	26.1	C	LTR	0.48	26.1	C
	SB	LTR	0.84	44.4	D	LTR	0.84	45.1	D
Overall Intersection[2]		-	-	**32.5**	**C**	-	-	**33.8**	**C**
McGuinness Boulevard and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	1.13	155.3	F	LTR	1.35	240.7	F
	WB	L	0.83	74.4	E	L	0.93	96.4	F
		TR	0.83	58.5	E	TR	0.87	63.1	E
McGuinness Boulevard	NB	L	0.28	18.9	B	L	0.30	19.4	B
		TR	0.70	23.7	C	TR	0.72	24.3	C
	SB	L	0.37	23.5	C	L	0.38	24.0	C
		TR	0.54	19.7	B	TR	0.54	19.7	B
Overall Intersection[2]		-	-	**43.1**	**D**	-	-	**55.8**	**E**
Unsignalized Intersections									
West Street and Quay Street									
Quay Street	EB	L	-	7.3	A	L	-	8.0	A
	WB	TR	-	7.5	A	TR	-	8.1	A
Overall Intersection[2]		-	-	**7.5**	**A**	-	-	**8.1**	**A**
West Street and Calyer Street									
Calyer Street	WB	R	-	10.7	B	R	-	14.8	B
West Street	NB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		-	-	**3.8**	**A**	-	-	**3.0**	**A**
West Street and Oak Street									
Oak Street	EB	LT	-	119.8	F	LT	-	300+	F
West Street	NB	TR	-	0.0	A	TR	-	0.0	A
Overall Intersection[2]		-	-	**52.4**	**F**	-	-	**138.1**	**F**
Franklin Street and North 15th Street									
North 15th Street	WB	LR	-	15.0	B	LR	-	15.4	C
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		-	-	**0.5**	**A**	-	-	**0.7**	**A**

Table 12-41 No-Action vs. With-Action Traffic Level of Service – Weekday AM Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Franklin Street and Milton Street									
Milton Street	EB	LTR	-	23.1	C	LTR	-	29.8	D
Franklin Street	NB	RT	-	0.0	A	RT	-	0.0	A
	SB	LT	-	1.0	A	LT	-	1.1	A
Overall Intersection[2]		**-**	**-**	**1.6**	**A**	**-**	**-**	**1.8**	**A**

Mvt=Movement; Ctrl=Control
[1] Control delay is measured in seconds per vehicle.
[2] Overall intersection v/c ratio is the critical lane groups' v/c ratio.
[3] Approach would not be significantly impacted as total approach volumes would be under 90 PCEs.
Shading denotes a significant adverse impact

Table 12-42 No-Action vs. With-Action Traffic Levels of Service – Weekday Midday Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Signalized Intersections									
Franklin Street and Meserole Avenue									
Meserole Ave	WB	LR	0.24	16.2	B	LR	0.30	16.9	B
Franklin Street	NB	T	0.48	11.3	B	T	0.52	11.8	B
	SB	T	0.35	8.6	A	T	0.38	7.8	A
Overall Intersection[2]		**-**	**-**	**11.1**	**B**	**-**	**-**	**11.3**	**B**
Franklin Street and Quay Street									
Franklin Street	NB	LT	0.78	14.6	B	LT	1.20	116.3	F
	SB	TR	0.45	6.6	A	R	0.60	6.2	A
Overall Intersection[2]		**-**	**-**	**11.2**	**B**	**-**	**-**	**67.5**	**E**
Franklin Street and Calyer Street									
Franklin Street	NB	LTR	0.53	5.8	A	LTR	0.53	5.8	A
	SB	LTR	0.84	19.4	B	LTR	1.13	86.6	F
Overall Intersection[2]		**-**	**-**	**13.8**	**B**	**-**	**-**	**58.0**	**E**
Franklin Street and Oak Street									
Oak Street	EB	LR	0.18	15.7	B	LR	0.40	18.8	B
	WB	LR	0.07	14.6	B	LR	0.07	14.6	B
Franklin Street	NB	T	0.36	7.7	A	T	0.36	7.7	A
	SB	T	0.58	7.7	A	T	0.65	8.6	A
Overall Intersection[2]		-	-	8.7	A	-	-	10.4	B

Table 12-42 No-Action vs. With-Action Traffic Levels of Service – Weekday Midday Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Franklin Street and Noble Street									
Noble Street	WB	LTR	0.14	15.2	B	LTR	0.16	15.5	B
Franklin Street	NB	LT	0.44	9.2	A	LT	0.46	9.0	A
	SB	TR	0.62	6.1	A	TR	0.70	5.7	A
Overall Intersection[2]		-	-	**8.0**	**A**	-	-	**7.6**	**A**
Franklin Street and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	0.27	17.3	B	LTR	0.35	18.7	B
	WB	LTR	1.20	149.1	F	LTR	1.40	235.0	F
Franklin Street	NB	LTR	0.80	37.9	D	LTR	0.86	44.6	D
	SB	LTR	1.04	72.6	E	LTR	1.10	91.6	F
Overall Intersection[2]		-	-	**77.8**	**E**	-	-	**109.0**	**F**
Manhattan Avenue and Greenpoint Avenue									
Greenpoint Avenue	EB	LT	0.48	30.4	C	LT	0.54	31.1	C
		R	0.12	23.4	C	R	0.13	23.3	C
	WB	LTR	0.72	33.1	C	LTR	0.79	36.4	D
Manhattan Avenue	NB	LTR	0.55	28.4	C	LTR	0.55	28.4	C
	SB	LTR	0.77	38.3	D	LTR	0.77	38.9	D
Overall Intersection[2]		-	-	**33.0**	**C**	-	-	**34.1**	**C**
McGuinness Boulevard and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	1.05	107.0	F	LTR	1.25	179.5	F
	WB	L	0.73	59.6	E	L	0.76	63.7	E
		TR	0.92	69.8	E	TR	0.96	78.3	E
McGuinness Boulevard	NB	L	0.30	19.7	B	L	0.32	20.4	C
		TR	0.57	21.0	C	TR	0.58	21.2	C
	SB	L	0.32	20.5	C	L	0.32	20.8	C
		TR	0.50	19.6	B	TR	0.51	19.8	B
Overall Intersection[2]		-	-	**39.2**	**D**	-	-	**50.0**	**D**
Unsignalized Intersections									
West Street and Quay Street									
Quay Street	EB	L	-	7.3	A	L	-	7.7	A
	WB	TR	-	7.7	A	TR	-	8.7	A
Overall Intersection[2]		-	-	**7.7**	**A**	-	-	**8.6**	**A**

Table 12-42 No-Action vs. With-Action Traffic Levels of Service – Weekday Midday Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
West Street and Calyer Street									
Calyer Street	WB	R	-	10.7	B	R	-	14.8	B
West Street	NB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**2.8**	**A**	**-**	**-**	**3.1**	**A**
West Street and Oak Street									
Oak Street	EB	LT	-	24.8	C	LT	-	55.0[3]	F
West Street	NB	TR	-	0.0	A	TR	-	0.0	A
Overall Intersection[2]		**-**	**-**	**9.3**	**A**	**-**	**-**	**12.2**	**B**
Franklin Street and North 15th Street									
North 15th Street	WB	LR	-	14.1	B	LR	-	14.9	B
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		**-**	**-**	**0.6**	**A**	**-**	**-**	**0.9**	**A**
Franklin Street and Milton Street									
Milton Street	EB	LTR	-	37.3	E	LTR	-	61.5[3]	F
Franklin Street	NB	RT	-	0.0	A	RT	-	0.0	A
	SB	LT	-	0.9	A	LT	-	1.0	A
Overall Intersection[2]		**-**	**-**	**3.8**	**A**	**-**	**-**	**5.6**	**A**

Mvt=Movement; Ctrl=Control
[1] Control delay is measured in seconds per vehicle.
[2] Overall intersection v/c ratio is the critical lane groups' v/c ratio.
[3] Approach would not be significantly impacted as total approach volumes would be under 90 PCEs.
Shading denotes a significant adverse impact

Table 12-43 No-Action vs. With-Action Traffic Levels of Service - Weekday PM Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Signalized Intersections									
Franklin Street and Meserole Avenue									
Meserole Ave	WB	LR	0.65	23.8	C	LR	0.75	28.0	C[4]
Franklin Street	NB	T	0.56	12.3	B	T	0.60	13.0	B
	SB	T	0.35	1.5	A	T	0.39	1.6	A
Overall Intersection[2]		**-**	**-**	**12.6**	**B**	**-**	**-**	**14.3**	**B**

Table 12-43 No-Action vs. With-Action Traffic Levels of Service - Weekday PM Peak Hour

Intersection & Approach		No-Action				With-Action			
		Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS
Franklin Street and Quay Street									
Franklin Street	NB	LT	1.15	94.4	F	LT	1.74	300+	F
	SB	TR	0.41	4.1	A	R	0.58	4.2	A
Overall Intersection[2]		-	-	**63.7**	**E**	-	-	**222.1**	**F**
Franklin Street and Calyer Street									
Franklin Street	NB	LTR	0.72	7.8	A	LTR	0.72	7.8	A
	SB	LTR	0.80	16.3	B	LTR	1.19	110.5	F
Overall Intersection[2]		-	-	**12.0**	**B**	-	-	**65.4**	**E**
Franklin Street and Oak Street									
Oak Street	EB	LR	0.22	16.1	B	LR	0.51	20.6	C
	WB	LR	0.07	14.6	B	LR	0.07	14.6	B
Franklin Street	NB	T	0.57	8.9	A	T	0.57	8.9	A
	SB	T	0.53	6.8	A	T	0.62	7.4	A
Overall Intersection[2]		-	-	**8.9**	**A**	-	-	**10.6**	**B**
Franklin Street and Noble Street									
Noble Street	WB	LTR	0.19	15.9	B	LTR	0.21	16.3	B
Franklin Street	NB	LT	0.64	8.9	A	LT	0.67	10.0	A
	SB	TR	0.57	5.8	A	TR	0.64	6.3	A
Overall Intersection[2]		-	-	**8.1**	**A**	-	-	**8.8**	**A**
Franklin Street and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	0.40	19.4	B	LTR	0.48	21.2	C
	WB	LTR	1.29	182.4	F	LTR	1.52	280.1	F
Franklin Street	NB	LTR	1.17	119.7	F	LTR	1.22	141.7	F
	SB	LTR	1.09	91.0	F	LTR	1.17	118.8	F
Overall Intersection[2]		-	-	**115.2**	**F**	-	-	**154.5**	**F**
Manhattan Avenue and Greenpoint Avenue									
Greenpoint Avenue	EB	LT	0.62	32.2	C	LT	0.67	32.8	C
		R	0.10	22.4	C	R	0.11	22.3	C
	WB	LTR	0.91	42.7	D	LTR	1.02	63.7	E
Manhattan Avenue	NB	LTR	0.44	25.1	C	LTR	0.44	25.1	C
	SB	LTR	0.80	41.1	D	LTR	0.81	42.0	D
Overall Intersection[2]		-	-	**36.4**	**D**	-	-	**43.1**	**D**

Table 12-43 No-Action vs. With-Action Traffic Levels of Service - Weekday PM Peak Hour

Intersection & Approach		No-Action				With-Action			
		Mvt	V/C	Ctrl Delay[1]	LOS	Mvt	V/C	Ctrl Delay[1]	LOS
McGuinness Boulevard and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	1.75	377.8	F	LTR	2.16	300+	F
	WB	L	0.96	108.9	F	L	0.99	117.7	F
		TR	1.01	89.7	F	TR	1.09	111.6	F
McGuinness Boulevard	NB	L	0.40	24.6	C	L	0.41	25.1	C
		TR	0.60	20.8	C	TR	0.60	21.0	C
	SB	L	0.39	22.8	C	L	0.39	23.0	C
		TR	0.67	22.5	C	TR	0.67	22.6	C
Overall Intersection[2]		-	-	**83.1**	**F**	-	-	**114.1**	**F**
Unsignalized Intersections									
West Street and Quay Street									
Quay Street	EB	L	-	7.3	A	-	-	7.8	A
	WB	TR	-	7.9	A	TR	-	9.5	A
Overall Intersection[2]		-	-	**7.9**	**A**	-	-	**9.3**	**A**
West Street and Calyer Street									
Calyer Street	WB	R	-	10.4	B	R	-	15.4	C
West Street	NB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		-	-	**2.7**	**A**	-	-	**3.3**	**A**
West Street and Oak Street									
Oak Street	EB	LT	-	76.8	F	LT	-	300+[3]	F
West Street	NB	TR	-	0.0	A	TR	-	0.0	A
Overall Intersection[2]		-	-	**22.0**	**C**	-	-	**82.7**	**F**
Franklin Street and North 15th Street									
North 15th Street	WB	LR	-	16.8	C	LR	-	18.8	C
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		-	-	**0.9**	**A**	-	-	**1.4**	**A**
Franklin Street and Milton Street									
Milton Street	EB	LTR	-	42.0	E	LTR	-	82.5[3]	F
Franklin Street	NB	RT	-	0.0	A	RT	-	0.0	A
	SB	LT	-	1.0	A	LT	-	1.1	A
Overall Intersection[2]		-	-	**2.6**	**A**	-	-	**4.5**	**A**

Notes:
Mvt=Movement; Ctrl=Control
[1] Control delay is measured in seconds per vehicle.
[2] Overall intersection v/c ratio is the critical lane groups' v/c ratio.
[3] Approach would not be significantly impacted as total approach volumes would be under 90 PCEs.
[4] In the No-Action condition, a new traffic signal would be installed in conjunction with the ACME project. With this signal no significant adverse impact would occur. However, as set forth in **Appendix G**, absent the traffic signal there would be the potential for a significant adverse impact to the westbound approach.
Shading denotes a significant adverse impact

Table 12-44 No-Action vs. With-Action Traffic Levels of Service – Saturday Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Signalized Intersections									
Franklin Street and Meserole Avenue									
Meserole Ave	WB	LR	0.27	16.6	B	LR	0.38	18.0	B[4]
Franklin Street	NB	T	0.56	12.3	B	T	0.60	13.0	B
	SB	T	0.29	7.5	A	T	0.34	7.3	A
Overall Intersection[2]		-	-	**11.5**	**B**	-	-	**12.3**	**B**
Franklin Street and Quay Street									
Franklin Street	NB	LT	0.99	39.4	D	LT	1.64	300+	F
	SB	TR	0.40	6.3	A	R	0.61	6.2	A
Overall Intersection[2]		-	-	**27.7**	**C**	-	-	**190.8**	**F**
Franklin Street and Calyer Street									
Franklin Street	NB	LTR	0.70	7.4	A	LTR	0.71	6.7	A
	SB	LTR	0.87	23.1	C	LTR	1.32	168.2	F
Overall Intersection[2]		-	-	**15.4**	**B**	-	-	**101.9**	**F**
Franklin Street and Oak Street									
Oak Street	EB	LR	0.26	16.6	B	LR	0.60	23.0	C
	WB	LR	0.05	14.4	B	LR	0.05	14.5	B
Franklin Street	NB	T	0.39	7.5	A	T	0.39	7.5	A
	SB	T	0.51	6.6	A	T	0.59	7.2	A
Overall Intersection[2]		-	-	**8.5**	**A**	-	-	**11.3**	**B**
Franklin Street and Noble Street									
Noble Street	WB	LTR	0.31	17.5	B	LTR	0.35	18.5	B
Franklin Street	NB	LT	0.47	8.8	A	LT	0.50	8.9	A
	SB	TR	0.73	11.6	B	TR	0.83	13.0	B
Overall Intersection[2]		-	-	**11.3**	**B**	-	-	**12.1**	**B**
Franklin Street and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	0.39	19.3	B	LTR	0.47	21.1	C
	WB	LTR	1.23	156.5	F	LTR	1.42	236.7	F
Franklin Street	NB	LTR	0.95	56.5	E	LTR	1.03	78.7	E
	SB	LTR	0.86	35.6	D	LTR	0.94	46.9	D
Overall Intersection[2]		-	-	**75.5**	**E**	-	-	**108.1**	**F**

Table 12-44 No-Action vs. With-Action Traffic Levels of Service – Saturday Peak Hour

		No-Action				With-Action			
Intersection & Approach		**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**	**Mvt**	**V/C**	**Ctrl Delay[1]**	**LOS**
Manhattan Avenue and Greenpoint Avenue									
Greenpoint Avenue	EB	LT	0.48	29.8	C	LT	0.54	30.5	C
		R	0.14	23.6	C	R	0.16	23.5	C
	WB	LTR	0.92	37.9	D	LTR	1.00	43.3	D
Manhattan Avenue	NB	LTR	0.69	35.4	D	LTR	0.69	35.6	D
	SB	LTR	0.63	31.6	C	LTR	0.64	32.1	C
Overall Intersection[2]		-	-	**33.9**	**C**	-	-	**36.1**	**D**
McGuinness Boulevard and Greenpoint Avenue									
Greenpoint Avenue	EB	LTR	1.57	300+	F	LTR	2.01	300+	F
	WB	L	0.63	51.0	D	L	0.66	53.4	D
		TR	1.15	134.8	F	TR	1.22	159.1	F
McGuinness Boulevard	NB	L	0.69	45.1	D	L	0.71	48.1	D
		TR	0.64	22.4	C	TR	0.65	22.6	C
	SB	L	0.62	36.4	D	L	0.63	37.6	D
		TR	0.69	23.7	C	TR	0.70	23.9	C
Overall Intersection[2]		-	-	**72.3**	**E**	-	-	**99.4**	**F**
Unsignalized Intersections									
West Street and Quay Street									
Quay Street	EB	L	-	7.5	A	L	-	8.1	A
	WB	TR	-	7.7	A	TR	-	9.2	A
Overall Intersection[2]		-	-	**7.7**	**A**	-	-	**9.0**	**A**
West Street and Calyer Street									
Calyer Street	WB	R	-	10.6	B	R	-	15.8	C
West Street	NB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		-	-	**2.9**	**A**	-	-	**3.2**	**A**
West Street and Oak Street									
Oak Street	EB	LT	-	41.9	E	LT	-	194.1[3]	F
West Street	NB	TR	-	0.0	A	TR	-	0.0	A
Overall Intersection[2]		-	-	**16.3**	**C**	-	-	**43.9**	**E**
Franklin Street and North 15th Street									
North 15th Street	WB	LR	-	16.4	C	LR	-	18.1	C
Franklin Street	NB	T	-	0.0	A	T	-	0.0	A
	SB	T	-	0.0	A	T	-	0.0	A
Overall Intersection[2]		-	-	**0.9**	**A**	-	-	**1.5**	**A**

Table 12-44 No-Action vs. With-Action Traffic Levels of Service – Saturday Peak Hour

Intersection & Approach		No-Action Mvt	No-Action V/C	No-Action Ctrl Delay[1]	No-Action LOS	With-Action Mvt	With-Action V/C	With-Action Ctrl Delay[1]	With-Action LOS
Franklin Street and Milton Street									
Milton Street	EB	LTR	-	53.4	F	LTR	-	116.2	F
Franklin Street	NB	RT	-	0.0	A	RT	-	0.0	A
	SB	LT	-	1.2	A	LT	-	1.2	A
Overall Intersection[2]		**-**	**-**	**7.8**	**A**	**-**	**-**	**14.9**	**B**

Notes:
Mvt=Movement; Ctrl=Control
[1] Control delay is measured in seconds per vehicle.
[2] Overall intersection v/c ratio is the critical lane groups' v/c ratio.
[3] Approach would not be significantly impacted as total approach volumes would be under 90 PCEs.
[4] In the No-Action condition, a new traffic signal would be installed in conjunction with the ACME project. With this signal no significant adverse impact would occur. However, as set forth in **Appendix G**, absent the traffic signal there would be the potential for a significant adverse impact to the westbound approach.
Shading denotes a significant adverse impact

The summary overview of the With-Action condition indicates that:

› In the weekday AM peak hour, four intersections would operate at overall LOS E or F, compared to two in the No-Action condition. Seven individual traffic movements would operate at LOS E or F, compared to six in the No-Action condition. Four intersections (six movements) would be significantly impacted during this peak hour.

› In the weekday midday peak hour, three intersections would operate at overall LOS E or F, compared to one in the No-Action condition. Nine individual traffic movements would operate at LOS E or F, compared to six in the No-Action condition. Four intersections (six movements) would be significantly impacted during this peak hour.

› In the weekday PM peak hour, five intersections would operate at overall LOS E or F, compared to three in the No-Action condition. Eleven individual traffic movements would operate at LOS E or F, compared to nine in the No-Action condition. Five intersections (nine movements) would be significantly impacted during this peak hour.

› In the Saturday peak hour, five intersections would operate at overall LOS E or F, compared to two in the No-Action condition. Eight individual traffic movements would operate at LOS E or F, compared to six in the No-Action condition. Five intersections (seven movements) would be significantly impacted during this peak hour.

Traffic movements operating at unacceptable levels of service (LOS E or F) under the No-Action condition would continue to do so under the With-Action condition. Additional movements that would be expected to operate at unacceptable levels of service as a result of the Proposed Development are listed below:

› Franklin Street and Quay Street
  - Northbound Franklin Street approach (weekday midday peak hour)

› Franklin Street and Calyer Street
  - Southbound Franklin Street approach (weekday midday, PM, and Saturday peak hour)

› Franklin Street and Greenpoint Avenue
  - Southbound Franklin Street approach (weekday AM peak hour)

› Manhattan Avenue and Greenpoint Avenue
  - Westbound Greenpoint Avenue approach (weekday PM peak hour)
› West Street and Oak Street
  - Eastbound Oak Street approach (weekday midday peak hour)

The significantly impacted traffic movements are identified below. Most of the impacted traffic movements are movements that would operate at unacceptable levels of service under the No-Action condition.

› Franklin Street and Quay Street
  - Northbound Franklin Street approach (weekday midday, PM, and Saturday peak hours)
› Franklin Street and Calyer Street
  - Southbound Franklin Street approach (weekday AM, midday, PM, and Saturday peak hours)
› Franklin Street and Greenpoint Avenue
  - Westbound Greenpoint Avenue approach (weekday AM, midday, PM, and Saturday peak hours)
  - Northbound Franklin Street approach (weekday PM and Saturday peak hours)
  - Southbound Franklin Street approach (weekday AM, midday, and PM peak hours)
› Manhattan Avenue and Greenpoint Avenue
  - Westbound Greenpoint Avenue approach (weekday PM peak hour)
› McGuinness Boulevard and Greenpoint Avenue
  - Eastbound Greenpoint Avenue approach (weekday AM, midday, PM, and Saturday peak hours)
  - Westbound Greenpoint Avenue left-turn movement (weekday AM and PM peak hours)
  - Westbound Greenpoint Avenue through-right turn movement (weekday midday, PM, and Saturday peak hours)
› West Street and Oak Street
  - Eastbound Oak Street approach (weekday AM peak hour)
› Franklin Street and Milton Street
  - Eastbound Milton Street approach (Saturday peak hour)

As noted above, a new signal at the intersection of Franklin Street and Meserole Avenue is reflected in the future condition traffic level-of-service analyses—this signal would be introduced in connection with the ACME project. An assessment was conducted to determine the potential for significant adverse traffic impacts at this location assuming that the travel demand associated with the ACME project were not to materialize and no new signal would be installed by the 2031 build year—see **Appendix G** for a summary of level-of-service results for future conditions with and without the ACME project. This assessment determined that absent the ACME project trips and a new traffic signal, there would be a potential for a significant adverse impact to the westbound approach at this location during the weekday PM and Saturday peak hours.

The identification and evaluation of traffic capacity improvements needed to mitigate potential significant adverse traffic impacts created by the Proposed Development are presented in **Chapter 19, Mitigation**.

Parking

The Proposed Development would provide approximately 140 on-site parking spaces, which are voluntary and not required per zoning (see **Introduction** section for further details). Access to the on-site parking garage would be provided from the new Quay Street extension. In addition, the reconstruction of Quay Street west of West Street is expected to add approximately 11 on-street parking spaces along the south curb.

Table 12-45 below presents a comparison of the hourly weekday and Saturday parking demand under the No-Action and With-Action conditions. The peak With-Action project-generated parking demand was determined to be 403 parking spaces during the overnight period when demand for residential parking would be the highest. As shown in **Table 12-45**, the With-Action project-generated parking demand would exceed the 140 on-site/off-street parking capacity in all periods and therefore, an assessment of the ability of future off-street and on-street parking capacity to accommodate project demand was conducted.

Table 12-45 Proposed Development Parking Demand

	Weekday					Saturday				
	Residential	Local Retail	Open Space	Museum	Total	Residential	Local Retail	Open Space	Museum	Total
12 AM - 1 AM	397	2	0	0	**399**	384	0	0	0	**384**
1 AM - 2 AM	400	1	0	0	**401**	390	0	0	0	**390**
2 AM - 3 AM	402	1	0	0	**403**	397	0	0	0	**397**
3 AM - 4 AM	403	0	0	0	**403**	400	0	0	0	**400**
4 AM - 5 AM	402	0	0	0	**402**	403	0	0	0	**403**
5 AM - 6 AM	397	0	0	0	**397**	402	0	0	0	**402**
6 AM - 7 AM	384	0	0	0	**384**	400	0	0	0	**400**
7 AM - 8 AM	352	1	0	0	**353**	391	0	0	0	**391**
8 AM - 9 AM	294	5	0	1	**300**	375	2	0	0	**377**
9 AM - 10 AM	269	6	0	1	**276**	355	6	0	0	**361**
10 AM - 11 AM	260	8	0	5	**273**	339	7	0	4	**350**
11 AM - 12 PM	256	8	0	7	**271**	327	9	0	10	**346**
12 PM - 1 PM	256	8	0	4	**268**	317	9	0	10	**336**
1 PM - 2 PM	258	11	0	6	**275**	314	9	0	14	**337**
2 PM - 3 PM	259	15	0	10	**284**	317	9	0	16	**342**
3 PM - 4 PM	265	16	0	12	**293**	317	9	0	15	**341**
4 PM - 5 PM	271	14	0	16	**301**	325	8	0	10	**343**
5 PM - 6 PM	295	14	0	9	**318**	334	10	0	4	**348**
6 PM - 7 PM	313	14	0	11	**338**	343	8	0	4	**355**
7 PM - 8 PM	320	9	0	8	**337**	348	5	0	0	**353**
8 PM - 9 PM	339	7	0	0	**346**	356	5	0	0	**361**
9 PM - 10 PM	359	3	0	0	**362**	366	2	0	0	**368**
10 PM - 11 PM	376	3	0	0	**379**	372	1	0	0	**373**
11 PM - 12 AM	390	2	0	0	**392**	377	0	0	0	**377**

Table 12-46 below presents the parking demand from the Proposed Development which would park at off- and on-street parking facilities and the ability of these facilities to accommodate the parking demand. During the weekday PM, parking demand would be fully accommodated by available off-street capacity, leaving a surplus of six spaces. During the weekday midday, overnight, and Saturday midday periods, off-street parking capacity would not be able to accommodate all the project demand—there would be shortfalls of 132, 6, and 112 spaces during these three periods, respectively. However, there would be sufficient on-street availability (148 spaces during the weekday midday period, 242 spaces during the overnight period, and 223 spaces during the Saturday midday period) to absorb the off-street parking shortfalls. Overall, after accounting for project-generated demand, there would be approximately 16 on-street parking spaces available during the weekday midday period, 155 on-street parking spaces available during the weekday PM period, 130 on-street parking spaces available during the overnight period, and 217 on-street parking spaces available during the Saturday midday period. Therefore, the Proposed Development would not result in a parking shortfall during any of the peak hours analyzed.

Table 12-46 With-Action Parking Demand and Utilization

	Weekday Midday	Weekday PM	Overnight	Saturday Midday
Off-Street Parking				
Demand				
No-Action Project Total	0	0	0	0
With-Action Project Total	284	338	403	342
Project Increment	**284**	**338**	**403**	**342**
Supply				
No-Action Availability[1]	12	204	151	196
On-Site Availability[2]	140	140	140	140
With-Action Availability	**152**	**344**	**291**	**336**
Project Demand Accommodated Off-Street	**152**	**338**	**291**	**336**
Off-Street Parking Surplus (Deficit)	**(132)**	**6**	**(112)**	**(6)**
On-Street Parking				
Supply				
No-Action Availability	137	144	231	212
Additional On-Street Parking[3]	11	11	11	11
With-Action Availability	148	155	242	223
Project Demand Accommodated On-Street	**132**	**0**	**112**	**6**
On-Street Parking Surplus (Deficit)	**16**	**155**	**130**	**217**

[1] Reflects the surplus capacity provided by the No-Action developments.
[2] Under the With-Action condition, 140 on-site parking spaces would be included on the Development Site.
[3] Approximately 11 on-street parking spaces are assumed to be provided along the new Quay Street west of West Street

Subway

Subway Station Elements

Table 12-47 shows the levels of service of the fare control elements in the With-Action condition compared to the No-Action condition in the weekday AM and PM commuter peak hours. At both the Greenpoint Avenue station and Nassau Avenue station, the fare control areas would operate at LOS A in the With-Action condition – similar to the No-Action condition.

Table 12-48 and **Table 12-49** show the levels of service of the stairway elements in the With-Action condition compared to the No-Action condition in the AM and PM peak hours. At both the Greenpoint Avenue station and Nassau Avenue station, the stairways analyzed would continue to operate at acceptable levels of service (LOS B or better) in the With-Action condition during the weekday AM and PM commuter peak hours, similar to the No-Action condition. None of the stairways analyzed would be significantly adversely impacted.

Table 12-47 No-Action vs. With-Action Subway Station Level of Service – Fare Control Areas

Peak Hour	Control Element	Pedestrian Volume (15-min) In	Pedestrian Volume (15-min) Out	Surging Factor	Friction Factor	No-Action v/c Ratio	No-Action LOS	With-Action v/c Ratio	With-Action LOS
AM	Greenpoint Avenue 5 Turnstiles	362	256	0.80	0.90	0.25	A	0.30	A
	Nassau Avenue (to Church Ave) 3 Turnstiles	136	75	0.75	0.90	0.15	A	0.18	A
	Nassau Avenue (to Queens) 3 Turnstiles	166	107	0.75	0.90	0.20	A	0.23	A
PM	Greenpoint Avenue 5 Turnstiles	389	356	0.80	0.90	0.31	A	0.36	A
	Nassau Avenue (to Church Ave) 3 Turnstiles	147	98	0.75	0.90	0.18	A	0.20	A
	Nassau Avenue (to Queens) 3 Turnstiles	112	120	0.75	0.90	0.16	A	0.19	A

Note:
Methodology based on *2021 CEQR Technical Manual* guidelines
Surging factors only apply to exiting volumes. The surge factor for entry volumes is 1.0.

Table 12-48 No-Action vs. With-Action Subway Station Level of Service – Stairs – AM Peak Hour

Stairs	Effective Width (ft.)	Pedestrian Volume (15-min)		Surging Factor		Friction Factor	No-Action		With-Action	
		Down	Up	Down	Up		v/c Ratio	LOS	v/c Ratio	LOS
Greenpoint Avenue Station – Street Stairs										
S1	5.0	135	63	1.00	0.80	0.90	0.25	A	0.32	A
S2	3.9	82	82	1.00	0.80	0.90	0.29	A	0.35	A
S3	4.0	95	82	1.00	0.80	0.90	0.32	A	0.37	A
Greenpoint Avenue Station – Mezzanine Stairs										
M1	4.9	135	63	1.00	0.80	0.90	0.25	A	0.32	A
M2	4.0	82	82	1.00	0.80	0.90	0.28	A	0.34	A
M3A/M3B	8.7	95	82	1.00	0.80	0.90	0.15	A	0.17	A
Greenpoint Avenue Station – Southbound Platform										
P1	4.8	83	28	1.00	0.75	0.90	0.14	A	0.19	A
P3	3.9	51	96	1.00	0.75	0.90	0.29	A	0.34	A
Greenpoint Avenue – Northbound Platform										
P2	3.2	105	16	1.00	0.75	0.90	0.24	A	0.29	A
P4	4.8	79	108	1.00	0.75	0.90	0.30	A	0.34	A
Nassau Avenue Station - Southbound										
S5	4.0	116	68	1.00	0.75	0.90	0.31	A	0.38	A
P3A/P3B	8.8	116	68	1.00	0.75	0.90	0.14	A	0.17	A
Nassau Avenue Station - Northbound										
S6	4.0	140	92	1.00	0.75	0.90	0.42	A	0.49	B
P4A/P4B	8.7	140	92	1.00	0.75	0.90	0.19	A	0.22	A

Note:
Methodology based on *2021 CEQR Technical Manual* guidelines
* Denotes a significant adverse impact

Table 12-49 No-Action vs. With-Action Subway Station Level of Service – Stairs – PM Peak Hour

Stairs	Effective Width (ft.)	Pedestrian Volume (15-min)		Surging Factor		Friction Factor	No-Action		With-Action	
		Down	Up	Down	Up		v/c Ratio	LOS	v/c Ratio	LOS
Greenpoint Avenue Station – Street Stairs										
S1	5.0	145	91	1.00	0.80	0.90	0.33	A	0.38	A
S2	3.9	108	82	1.00	0.80	0.90	0.31	A	0.40	A
S3	4.0	87	131	1.00	0.80	0.90	0.41	A	0.46	B
Greenpoint Avenue Station – Mezzanine Stairs										
M1	4.9	145	91	1.00	0.80	0.90	0.33	A	0.39	A
M2	4.0	108	82	1.00	0.80	0.90	0.30	A	0.39	A
M3A/M3B	8.7	87	131	1.00	0.80	0.90	0.19	A	0.21	A
Greenpoint Avenue Station – Southbound Platform										
P1	4.8	120	60	1.00	0.75	0.90	0.27	A	0.31	A
P3	3.9	51	136	1.00	0.75	0.90	0.38	A	0.44	A
Greenpoint Avenue – Northbound Platform										
P2	3.2	130	6	1.00	0.75	1.00	0.25	A	0.29	A
P4	4.8	47	116	1.00	0.75	0.90	0.24	A	0.31	A
Nassau Avenue Station – Southbound										
S5	4.0	126	84	1.00	0.75	0.90	0.37	A	0.44	A
P3A/P3B	8.8	126	84	1.00	0.75	0.90	0.17	A	0.20	A
Nassau Avenue Station – Northbound										
S6	4.0	99	102	1.00	0.75	0.90	0.36	A	0.44	A
P4A/P4B	8.7	99	102	1.00	0.75	0.90	0.17	A	0.20	A

Note:
Methodology based on *2021 CEQR Technical Manual* guidelines
* Denotes a significant adverse impact

Subway Line-Haul

Table 12-50 summarizes anticipated 2031 With-Action condition subway line-haul conditions at the maximum load point of the G subway line in the peak direction. Under the With-Action condition, the G subway line would continue to operate below capacity during the weekday AM peak hour in the southbound direction and in the northbound direction during the weekday PM peak hour. Therefore, based on *CEQR Technical Manual* criteria, significant adverse impacts to subway line haul conditions are not anticipated during these peak hours in these directions.

In the With-Action condition, the G subway line would operate at over-capacity conditions in the northbound direction during the weekday AM peak hour and in the southbound direction during the weekday PM peak hour. These are similar conditions as in the No-Action condition. For such conditions, the increase in passengers per car is evaluated to determine whether the Proposed Development would result in significant impacts to the subway line-haul. Per the *CEQR Technical Manual* criteria, an increase of more than five passengers per subway car would result in a significant impact.

Table 12-50 With-Action Condition Subway Line-Haul

Peak Hour	Route	Direction	Max Load Point (leaving station)	Average Passengers Per Hour	Average Trains Per Hour[1]	Cars Per Train[1]	Average Passengers Per Car[1]	Guideline Passengers Per Car[2, 3]	V/C Ratio[4]
AM	G	NB	Greenpoint Avenue	5,404	9.0	5	120	115	1.04
AM	G	SB	Clinton-Washington Avenues	4,038	9.0	5	90	115	0.78
PM	G	NB	Broadway	4,453	8.0	5	111	115	0.97
PM	G	SB	21 Street	5,105	8.0	5	128	115	1.11

Source: MTA-NYCTA, 2025
Notes:
[1] Based on 2025 ridership and train throughput data from NYCTA.
[2] Guideline capacities are based on NYCTA rush hour loading guidelines which vary by car type, line, and location based on frequency and type of service.
[3] G subway line runs 300-foot trains, half the usual length. Guideline assumes 60-foot cars.
[4] Volume to guideline capacity ratio

As shown in **Table 12-51**, the Proposed Development would generate 206 subway passengers in the northbound direction through the Greenpoint Avenue station maximum load point during the weekday AM peak hour. The increase in subway passengers per car would be 4.58. The Proposed Development would generate 97 subway passengers in the southbound direction through the 21st Street station maximum load point during the weekday AM peak hour. The increase in subway passengers per car would be 3.95. As these passenger-per-car increments are both less than five passengers per car, significant adverse impacts to subway line haul conditions are not anticipated.

Table 12-51 With-Action Condition Subway Line-Haul – Impact Evaluation

Peak Hour	Route	Direction	Max Load Point (leaving station)	Project-Generated Subway Passengers Per Hour	Average Trains Per Hour[1]	Cars Per Train[1]	Project-Generated Subway Passengers Per Car
AM	G	NB	Greenpoint Avenue	206	9.0	5	4.58
PM	G	SB	21 Street	158	8.0	5	3.95

Source: MTA-NYCTA, 2025
Notes:
[1] Based on 2025 ridership and train throughput data from NYCTA.

Pedestrians

Project-generated pedestrian volumes were distributed through the pedestrian network and added to the 2031 No-Action volumes to develop 2031 With-Action pedestrian volumes. Pedestrian analyses were conducted and the With-Action pedestrian levels of service were determined for the analysis locations. **Table 12-52** provides an overview of the pedestrian levels of service for the peak hours analyzed. Pedestrian volumes and levels of service are provided in **Table 12-53** through **Table 12-55**. The summary of the With-Action condition indicates that:

› During the weekday AM peak hour, all sidewalks analyzed would operate at LOS B or C, three crosswalks would operate at LOS A and one at LOS D, and all corners would operate at LOS B or better;

- During the weekday midday peak hour, all sidewalks analyzed would operate at LOS B or C, three crosswalks would operate at LOS B or better and one at LOS E, and all corners would operate at LOS B or better;
- During the weekday PM peak hour, all sidewalks analyzed would operate at LOS B or C, three crosswalks would operate at LOS A and one at LOS E, and all corners would operate at LOS B or better;
- During the Saturday peak hour, all sidewalks analyzed would operate at LOS B or C, three crosswalks would operate at LOS B or better and one at LOS E, and seven corners would operate at LOS B or better and one at LOS D.

The Proposed Development would significantly impact two of the 22 pedestrian elements analyzed - the north crosswalk at the intersection of Franklin Street and Quay Street would be impacted in all peak hours analyzed; and the southwest corner at the same intersection would be impacted during the Saturday peak hour.

Table 12-52 With-Action Pedestrian Levels of Service Summary

	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour	Saturday Peak Hour
Sidewalk Elements				
Sidewalks at LOS A/B/C	10	10	10	10
Sidewalks at LOS D	0	0	0	0
Sidewalks at LOS E	0	0	0	0
Sidewalks at LOS F	0	0	0	0
Number of significantly impacted sidewalk elements	**0**	**0**	**0**	**0**
Crosswalk Elements				
Crosswalks at LOS A/B/C	3	3	3	3
Crosswalks at LOS D	1	0	0	0
Crosswalks at LOS E	0	1	1	1
Crosswalks at LOS F	0	0	0	0
Number of significantly impacted crosswalk elements	**1**	**1**	**1**	**1**
Corner Elements				
Corners at LOS A/B/C	8	8	8	7
Corners at LOS D	0	0	0	1
Corners at LOS E	0	0	0	0
Corners at LOS F	0	0	0	0
Number of significantly impacted corner elements	**0**	**0**	**0**	**1**

Note:
Includes ten sidewalk, four crosswalk, and eight corner analysis locations

Table 12-53 With-Action Pedestrian Levels of Service – Sidewalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Sidewalk	Effective Width	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Quay Street between West Street and Franklin Street (north side)	9.7	208	494.7	B	416	208.5	B	372	244.3	B	417	287.8	B
Quay Street between West Street and Franklin Street (south side)	7.5	1,385	62.0	C	1,478	58.2	C	1,974	44.5	C	2,160	44.0	C
Quay Street between Wharf Drive and West Street (south side)	7.5	1,006	85.9	C	1,180	73.4	C	1,588	55.8	C	1,805	53.1	C
Franklin Street between Noble Street & Oak Street (west side)	5.6	434	166.3	B	478	119.1	B	615	122.5	B	913	81.6	C
Franklin Street between Oak Street & Calyer Street (west side)	3.3	474	91.6	B	391	79.8	C	629	65.4	C	888	48.2	C
Franklin Street between Calyer Street & Quay Street (west side)	8.8	655	179.3	B	630	168.5	B	891	114.1	B	1,137	109.7	B
Franklin Street between Quay Street & Meserole Avenue (east side)	8.3	977	123.4	B	1,301	64.0	C	1,397	79.9	C	1,650	72.9	C
Meserole Avenue between Franklin Street & Gem Street (north side)	4.3	214	217.6	B	255	181.5	B	319	131.2	B	392	106.6	B
Meserole Avenue between Franklin Street & Gem Street (south side)	10.5	512	292.2	B	852	131.4	B	838	115.3	B	869	149.2	B
Meserole Avenue between Gem Street & Banker Street (south side)	9.7	861	106.1	B	1,729	52.3	C	1,404	88.4	C	1,288	99.5	B

Notes:
LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
Shading denotes a significantly impacted sidewalk

Table 12-54 With-Action Pedestrian Levels of Service – Crosswalks

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Intersection	Crosswalk	Volume	A.P.S.	LOS	Vol.	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Franklin Street and Quay Street	South	823	19.8	D	1,037	14.1	E	1,251	13.7	E	1,376	8.9	E
	West	503	260.4	A	463	223.9	A	647	164.2	A	871	137.5	A
Franklin Street and Calyer Street	West	579	212.3	A	551	231.6	A	771	170.7	A	992	116.5	A
Franklin Street and Noble Street	West	370	116.0	A	464	48.3	B	538	88.1	A	765	54.6	B

LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
Shading denotes a significant adverse impact.

Table 12-55 With-Action Pedestrian Levels of Service – Corners

		Weekday AM Peak Hour			Weekday Midday Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
Intersection	Corner	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS	Volume	A.P.S.	LOS
Franklin Street and Quay Street	Northwest	164	151.5	A	206	114.1	A	265	93.2	A	305	62.5	A
	Southwest	224	53.1	B	134	41.7	B	274	40.7	B	272	22.4	D
Franklin Street and Calyer Street	Northwest	21	157.8	A	14	165.6	A	27	114.6	A	34	81.1	A
	Southwest	18	112.2	A	10	118.8	A	20	91.8	A	36	62.9	A
Franklin Street and Noble Street	Northwest	22	234.0	A	18	126.2	A	37	176.2	A	54	116.9	A
	Southwest	12	156.6	A	54	75.0	A	23	120.7	A	160	68.9	A
Franklin Street and Greenpoint Avenue	Northeast	46	50.0	B	46	50.0	B	46	50.0	B	46	50.0	B
	Southeast	72	152.6	A	72	152.6	A	72	152.6	A	72	152.6	A

Notes:
LOS= Level of Service
Units: Effective Width=feet; Volume=pedestrians per hour; Average Pedestrian Space (A.P.S.)=square feet per pedestrian
Volumes shown are of corner roundings
Shading denotes a significant adverse impact.

Vehicular and Pedestrian Safety

Crash data were obtained for the study area intersections from NYC DOT for the most recent 3-year period for which such data are available (2019, 2023, and 2024). This information is based on data provided by the New York State Department of Transportation (NYSDOT), New York State Department of Motor Vehicles (NYSDMV), and the New York City Police Department (NYPD).

The crash data detail reported crashes (crashes resulting in death, injury, or property damage in excess of $1,000), fatalities, injuries, and pedestrian and bicycle injuries annually. According to the *CEQR Technical Manual,* an intersection is considered a high-crash location if it is a Vision Zero Priority Intersection, or there were five or more pedestrian/bicyclist injury crashes in any consecutive 12 months during the most recent 3-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent 3-year period for which data is available should be identified as a high crash location.

Table 12-56 presents a summary of total crashes at the study area intersections during the 3-year period of 2019, 2023, and 2024 and shows total fatalities, injuries, and pedestrian and bicycle crashes. None of the intersections in the study area had at least five pedestrian/bicyclist injury crashes within a consecutive 12-month period. The study area does not include any intersections considered a Vision Zero Priority Intersection or located within a Vision Zero Priority Corridor. As a result, none of the intersections were identified as high-crash locations in the study area.

Table 12-56 Vehicle and Pedestrian Crash Summary

Intersection		Total Crashes by Year					Pedestrian and Bicycle Crashes by Year		
North-South Roadway	East-West Roadway	2019	2023	2024	Total Fatalities	Total Injuries	2019	2023	2024
West Street	Quay Street	0	2	2	0	2	0	1	1
West Street/ Wharf Plaza	Calyer Street	0	1	1	0	0	0	0	0
West Street	Oak Street	0	0	2	0	1	0	0	1
Franklin Street	North 15 Street	0	0	2	0	1	0	0	1
Franklin Street	Meserole Street	0	0	0	0	0	0	0	0
Franklin Street	Quay Street	4	0	1	0	6	3	0	1
Franklin Street	Noble Street	1	1	2	0	2	0	1	1
Franklin Street	Milton Street	2	6	3	0	6	1	1	0
Franklin Street/ Banker Street	Calyer Street	4	4	2	0	5	1	0	0
Franklin Street	Oak Street	0	1	3	0	1	0	0	0
Franklin Street	Greenpoint Avenue	3	2	1	0	6	0	2	0
Manhattan Avenue	Greenpoint Avenue	6	2	8	0	10	2	0	4
McGuinness Boulevard	Greenpoint Avenue	20	4	10	0	11	1	0	4

Source: NYSDOT/NYSDMV/NYPD (2019, 2023, and 2024)