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1034 -1042 ATLANTIC AVENUE REZONING

ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) AND SUPPLEMENTAL STUDIES TO THE EAS

Lead Agency:
Department of City Planning
120 Broadway, 31St Floor
New York, NY 10271

Prepared for:
EMP Capital Group

Prepared by:
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September 17, 2021

1034-1042 Atlantic Avenue
Brooklyn NY
Block 1125, Lots 29, 33, 40, 52, 53, 57, 59, and 61
Brooklyn Community District 8

Brooklyn, New York 11238

CEQR Reference No: 21DCP170K

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City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

FOR UNLISTED ACTIONS ONLY • *Please fill out and submit to the appropriate agency* (see instructions)

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* 1034-1042 Atlantic Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
21DCP170K	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
210386 ZMK, 210387 ZRK, 210379 ZSK	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY Department of City Planning			NAME OF APPLICANT EMP Capital Group		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, Deputy Director, Environmental Assessment and Review Division			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Kevin Williams		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 500 International Drive		
CITY New York	STATE NY	ZIP 10271	CITY Mount Olive	STATE NJ	ZIP 07828
TELEPHONE 212-720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE 973-527-7451	EMAIL kevin.williams@equityenvironmental.com	

5. *Project Description*

The Applicant, EMP Capital Group, requests approval of a zoning map and zoning text amendment to facilitate the development of Block 1125, Lots 29 and 33 with a 238,873 GSF (172,800 ZSF; 7.20 FAR) mixed-use commercial, community facility, and residential building with two separate towers in the Crown Heights neighborhood of Brooklyn, Community District 8.

The "Affected Area" consists of Block 1125, Lots 29, 33, 40, 52, 53, 57, 59, and 61. The Zoning Map Amendment would rezone Block 1125, Lots 29, p/o 33, and p/o 40 (a rectangular area approximately of 31,500 sf bounded in part by Atlantic and Classon Avenues) from an M1-1 zoning district to a C6-3A zoning district and Block 1125, Lots p/o 33, p/o 40, 52, 53, 57, 59, and 61 (a rectangle are of approximately of 31,500 feet bounded in part by Classon Avenue and Pacific Street) from an M1-1 zoning district to a R7A/C2-4 zoning district. The Applicant is also proposing a Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) area coterminous with the proposed rezoning area, a Zoning Text Amendment to modify ZR 35-66 to allow a minimum 20-foot sidewalk along Atlantic Avenue, and a Special Permit pursuant to ZR 74-533 to reduce the number of required accessory parking spaces. The Zoning Map Amendment, Zoning Text Amendments, and Special Permit constitute the "Proposed Actions."

The Proposed Actions are discretionary actions subject to environmental review. The New York City (NYC) Department of City Planning (DCP) shall be the lead agency on behalf of the NYC City Planning Commission (CPC) for environmental review under CEQR.

Project Location

BOROUGH Brooklyn	COMMUNITY DISTRICT(S) 8	STREET ADDRESS 1034, 1042, 1050 Atlantic Avenue and 1025, 1031, 1033, 1039, 1041 Pacific Street
TAX BLOCK(S) AND LOT(S) Block 1125, Lots 29, 61, 59, 57, 33, 53, 52, and 40		ZIP CODE 11238

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The property is bounded by Atlantic Avenue to the north, Grand Avenue to the east, Pacific Street to the south, and Classon Avenue to the west.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | ZONING SECTIONAL MAP NUMBER

6. *Required Actions or Approvals* (check all that apply)

***City Planning Commission*:** ☒ YES ☐ NO ☒ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

☐ CITY MAP AMENDMENT ☐ ZONING CERTIFICATION ☐ CONCESSION
☒ ZONING MAP AMENDMENT ☐ ZONING AUTHORIZATION ☐ UDAAP
☒ ZONING TEXT AMENDMENT ☐ ACQUISITION—REAL PROPERTY ☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY ☐ DISPOSITION—REAL PROPERTY ☐ FRANCHISE
☐ HOUSING PLAN & PROJECT ☐ OTHER, explain:
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Board of Standards and Appeals*:** ☐ YES ☒ NO

☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO If "yes," specify:

Other City Approvals Subject to CEQR (check all that apply)

☐ LEGISLATION ☐ FUNDING OF CONSTRUCTION, specify:
☐ RULEMAKING ☐ POLICY OR PLAN, specify:
☐ CONSTRUCTION OF PUBLIC FACILITIES ☐ FUNDING OF PROGRAMS, specify:
☐ 384(b)(4) APPROVAL ☐ PERMITS, specify:
☐ OTHER, explain:

Other City Approvals Not Subject to CEQR (check all that apply)

☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC) ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
☐ OTHER, explain:

***State or Federal Actions/Approvals/Funding*:** ☐ YES ☒ NO If "yes," specify:

7. *Site Description:* *The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.*

***Graphics*:** *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.*

☒ SITE LOCATION MAP ☒ ZONING MAP ☒ SANBORN OR OTHER LAND USE MAP
☒ TAX MAP ☒ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 62,450 | Waterbody area (sq. ft) and type:
Roads, buildings, and other paved surfaces (sq. ft.): | Other, describe (sq. ft.):

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 260,689
NUMBER OF BUILDINGS: 2 | GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 238,873/ 21,816
HEIGHT OF EACH BUILDING (ft.): 175'/ 95' | NUMBER OF STORIES OF EACH BUILDING: 17/ 9

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 24,000
The total square feet not owned or controlled by the applicant: 38,450

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 28,000 sq. ft. (width x length) | VOLUME OF DISTURBANCE: 280,000 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 28,000 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)				
	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	223,417	15,554	12,730	
Type (*e.g.,* retail, office, school)	227 units	Local Retail	General Community Facility	

Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 533 NUMBER OF ADDITIONAL WORKERS: 35

Provide a brief explanation of how these numbers were determined: 1 employee per 25 dwelling units; 3 employees per 1,000 SF for local retail and community facility; 1 employee per 1,000 SF manufacturing space; 2.38 residents per dwelling unit average per Brooklyn CD 8 (2017 ACS)

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2024

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: Factoring the Environmental Approval process and ULURP process of 18 months and an 21-month construction schedule for the Projected Development Site 1 and 2.

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO | IF MULTIPLE PHASES, HOW MANY?

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: single construction phase of 21 months on both Projected Development Sites

10. *Predominant Land Use in the Vicinity of the Project* (check all that apply)

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☒	☐
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☒
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☒

	YES	NO
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify:	☐	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒

	YES	NO
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 13,228 = (41 * 227) + (79 * 47) + (13 * 16)		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 5,604,884,246,094,895 = (126.7 * 223,417) + (216.3 * 15,554) + (250.7 * 12,730)		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☒	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☒
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☒	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☒
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☒	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		

	YES	NO
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☒	☐
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☐	☒
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒

(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.

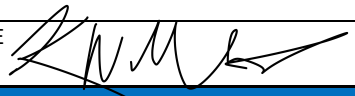
Construction entrances would be located along Pacific Street and would not have an impact on Atlantic Avenue, which is the major thoroughfare. A construction schedule is provided in Appendix D, documenting that the project would not exceed 24 months in duration

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME	DATE
Kevin Williams	9/16/2021

SIGNATURE 

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)

INSTRUCTIONS: In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact YES	NO
Land Use, Zoning, and Public Policy	☐	☒
Socioeconomic Conditions	☐	☒
Community Facilities and Services	☐	☒
Open Space	☐	☒
Shadows	☐	☒
Historic and Cultural Resources	☐	☒
Urban Design/Visual Resources	☐	☒
Natural Resources	☐	☒
Hazardous Materials	☐	☒
Water and Sewer Infrastructure	☐	☒
Solid Waste and Sanitation Services	☐	☒
Energy	☐	☒
Transportation	☐	☒
Air Quality	☐	☒
Greenhouse Gas Emissions	☐	☒
Noise	☐	☒
Public Health	☐	☒
Neighborhood Character	☐	☒
Construction	☐	☒

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ YES ☒ NO

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

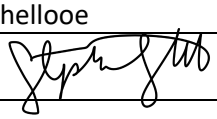
3. Check determination to be issued by the lead agency:

☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

☒ **Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.

4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	NYC Department of City Planning, acting on behalf of the City Planning Commission
NAME: Stephanie Shellooe	DATE: September 17, 2021
SIGNATURE: 	

NEGATIVE DECLARATION

Statement of No Significant Effect

Pursuant to Executive Order 91 of 1977, as amended, and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York and 6 NYCRR, Part 617, State Environmental Quality Review, the Department of City Planning acting on behalf of the City Planning Commission assumed the role of lead agency for the environmental review of the proposed actions. Based on a review of information about the project contained in this environmental assessment statement (EAS) and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed actions would not have a significant adverse impact on the environment.

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds the proposed actions sought before the City Planning Commission would not have a significant adverse impact on the environment. Reasons supporting this determination are noted below.

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, EMP Capital Group, seeks a Zoning Map Amendment, Zoning Text Amendments, and Zoning Special Permit (the "Proposed Actions") affecting a portion of Block 1125 in the Crown Heights neighborhood of Brooklyn Community District 8. The proposed Zoning Map Amendment would rezone Block 1125, Lots 29, p/o 33, and p/o 40 from an M1-1 zoning district to a C6-3A zoning district and Block 1125, Lots p/o 33, p/o 40, 52, 53, 57, 59, and from an M1-1 zoning district to a R7A/C2-4 zoning district. The Applicant is also proposing a Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) area coterminous with the proposed rezoning area, a Zoning Text Amendment to modify the New York City Zoning Resolution (ZR) Section 35-66 to allow a minimum 20-foot sidewalk along Atlantic Avenue, and a Special Permit pursuant to ZR 74-533 to reduce the number of required accessory parking spaces. The Proposed Actions would facilitate the Applicant's development of 1034-1042 Atlantic Avenue located on Block 1125, Lots 29 and 33 (Projected Development Site 1) with a 238,873 gross square foot (gsf), mixed-use commercial, community facility, and residential building with two separate towers. Tower 1 would be built within the C6-3A portion of the rezoning area, facing Atlantic Avenue, and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 portion of the rezoning area, facing Pacific Street, and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include 206,353 gsf of residential floor area with approximately 210 dwelling units (DUs), including 42 affordable units pursuant to MIH, 12,850 gsf of commercial space and 12,730 gsf of community facility space, proposed to be a youth center, at the ground floor, and a 6,940 gsf parking garage at the cellar level with 20 residential accessory parking spaces. The Proposed Actions would also facilitate up to 21,816 gsf of development on Projected Development Site 2 (Block 1125, Lots 52 and 53), which would include up to 17,064 gsf of residential uses (17 DUs, 3 of which would be affordable), 2,704 gsf of commercial local retail uses at the ground floor, and 2,048 gsf of parking uses at the cellar level in a 9-story, 95-foot tall building, and a Potential Development Site (Block 1125, Lot 40) containing a 17-story, 175-foot tall mixed-use residential and commercial building with 232,046 gsf of floor area, including 176,538 of residential floor area (177 DUs, 35 of which would be affordable), 26,408 gsf of ground floor commercial (local retail) uses and a 29,100 gsf garage with 97 accessory spaces at the cellar level.

The Proposed Actions would not result in any land use changes within the 400-foot study area. The proposed zoning district would not adversely affect, or be incompatible with, the surrounding land uses in the study area. While the change in zoning would allow greater density and uses permitted by the Proposed Actions, the proposed and projected development would be consistent with nearby high-density mixed-use buildings in the study area and surrounding neighborhood, along Atlantic Avenue and Pacific Street to the west and Classon Avenue to the south. The Proposed Actions would not result in changes to existing regulations or policy, would not conflict with public policies and plans for the site or surrounding area, and would moreover be consistent with the goals of Housing New York, as an MIH area would be established to introduce more affordable residential units to the area. Therefore, no significant adverse impacts are anticipated to land use, zoning, or public policy, and no further analysis is required.

Socioeconomic Conditions

A detailed analysis related to socioeconomic conditions, with respect to indirect residential displacement, is included in this EAS. The Proposed Actions would result in 224 incremental residential DUs, which exceeds the 200-DU development threshold identified by the CEQR Technical Manual as warranting assessment for potential impacts. As the Proposed Actions would introduce a combination of market rate and permanently affordable residential units, incomes were estimated for the residents of both housing types. The analysis finds that while the overall average income of the introduced population would likely be higher than that of the surrounding study area, the population introduced as a result of the Proposed Actions would only increase by 3.56 percent in the ¼ mile study area, which is below the 5 percent threshold that would affect real estate market conditions in the study area, per the 2020 CEQR Technical Manual Therefore, no significant adverse impacts to socioeconomic conditions are anticipated, and no further analysis is required.

Open Space

A detailed analysis related to open space is included in this EAS. The Proposed Actions would introduce an estimated 542 residents to the Project Area, which exceeds the threshold for residential analysis identified in the CEQR Technical Manual of 350 new residents. The analysis finds that the residential (0.5-mile) study area's total open space ratio (0.39 acres per thousand residents) would be below the City's guideline of a 1.5 acres per thousand residents. The population resulting from the Proposed Actions would result in a decrease of 0.83 percent in Open Space Ratio for the study area of slightly below the CEQR Technical Manual threshold of 1%. While the analysis finds that proposed actions would result in further reductions in the open space ratio within the study area, significant adverse impacts would not result from the proposed actions due to several qualitative factors, including open space resources that are located just outside study-area but within a 15-minute walk from the Project Area, such as Prospect Park and Dr. Ronald McNair Park; the development would be subject to the Quality Housing Program regulations, which require that the residential developments include open space amenities such as tree plantings, landscaping, and recreational spaces; and the proposed development on Projected Development Site 1 is expected to incorporate an approximately 77-foot-wide semi-open space on the ground floor for public use along the sidewalk on Atlantic Avenue, which would feature wall art and benches, and would also provide private rooftop deck spaces for the residents. The analysis concludes that the Proposed Actions would therefore not result in significant adverse impacts on open space resources, and no further analysis is warranted.

Project Name: 1034 - 1042 Atlantic Avenue Rezoning
CEQR # 21DCP170K
SEQRA Classification: Unlisted

Shadows

A detailed analysis related to shadows is included in this EAS. The analysis finds that incremental shadow resulting from the Proposed Actions would potentially reach four sunlight-sensitive resources: Lefferts Place Block Association Garden, Crispus Attucks Playground, Bethel Church of the Nazarene, and Bethel Seventh Day Adventist Church. Per the CEQR Technical Manual, shadows within 90 minutes of sunrise and 90 minutes of sunset are considered on the following representative days: the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21) and one additional representative day (May 6 or August 6). The analysis shows that the Proposed Actions would result in incremental shadow on shadows on the Lefferts Place Block Association Garden, Bethel Church of the Nazarene, and Bethel Seventh Day Adventist Church on the December 21 and March 21/September 21 analysis days. The incremental shadow at the Lefferts Place Block Association Garden on the December 21 analysis day would not sufficiently impact vegetation as it is outside the growing season. On the March 21/September 21 analysis day, the shadow coverage would generally be limited to the southern portion of the Community Garden for less than an hour, and the garden would continue to receive four-to-six hours of sunlight, the minimum specified in the CEQR Technical Manual to support vegetative growth. A small incremental shadow on Bethel Church of the Nazarene would be cast by the Proposed Actions on the roof of the church—away from the stained-glass windows on the western façade, during the December and March/September analysis days. Because the Proposed Actions' incremental shadows would not affect the stained-glass windows, which are the sunlight-sensitive feature of the church, there would be no impacts on the enjoyment or appreciation of the sunlight-sensitive features of the historic resource. Incremental shadows on the Bethel Seventh Day Adventist Church would be cast on the eastern and southern façade of the church for 16 minutes in the December analysis period. As the duration would be minimal and the sunlight sensitive features of the building are facing away from the shadows cast, no impacts from incremental shadows from the Proposed Actions are expected to occur. Therefore, the Proposed Actions would not result in significant adverse shadows impacts to sunlight-sensitive resources, and further analysis is not required.

Historic and Cultural Resources

A detailed analysis related to historic and cultural resources is included in this EAS. Historic and cultural resources include both archaeological and architectural resources. The New York City Landmarks Preservation Commission (LPC) was consulted as part of this environmental review and they determined that the project site has no archaeological significance; therefore, this analysis focuses on architectural resources only. One known architectural resource, the State/National Register (S/NR) Listed Clinton Hill South Historic District, is located within the 400-foot study area. No alteration or demolition of the existing buildings within the district would happen as a result of the Proposed Actions, and the development resulting from the Proposed Actions would not pose any changes to the historic resource's setting or context. The Projected and Potential Development Sites are not adjacent to or within 90 feet of any identified historic architectural resources. The Proposed Actions would not introduce any incompatible visual, audible, or atmospheric elements to the settings of historic resources. Therefore, the Proposed Actions would not result in any significant adverse impacts on historic and cultural resources, and no further analysis is warranted.

Urban Design and Visual Resources

A detailed analysis related to urban design and visual resources is included in this EAS. The analysis finds that while the development resulting from the Proposed Actions would result in physical alterations beyond those allowed by existing zoning, the Proposed Actions would not adversely affect urban design features in the study area so that the context of a natural or significant built resource is adversely altered. The development facilitated by the Proposed Actions would be consistent with the urban design elements and overall character of the neighborhood. It would not significantly change the pedestrian experience, nor would it disturb the vitality, walkability, or the visual character of the area. The proposed widened sidewalk, local retail and community facility service provided on-site would potentially improve the pedestrian experience in the area. Therefore, the Proposed Actions would not result in significant adverse impacts to urban design or visual resources, and further analysis is not warranted.

Hazardous Materials, Air Quality, and Noise

An (E) designation (E-637) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Annabelle Meunier at +1 212-720-3426.

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe	DATE September 17, 2021
SIGNATURE	
TITLE Acting Chair, City Planning Commission	
NAME Kenneth Knuckles	DATE September 20, 2021
SIGNATURE	

Project Name: 1034 - 1042 Atlantic Avenue Rezoning
CEQR # 21DCP170K
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	**BK**	Block 1125, Lots 29 and 33
Projected Development Site 2	**BK**	Block 1125, Lots 52 and 53
Potential Development Site 1	**BK**	Block 1125, Lot 40

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-637**) would be established as part of approval of the proposed actions on the **Projected and Potential Development Sites** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X
Projected Development Site 2	X	X	X
Potential Development Site 1	X	X	X

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Sites 1 and 2 and Potential Development Site 1** for hazardous materials would apply as follows:

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

Air Quality

The (E) designation requirements for air quality would apply as follows:

Block 1125 Lot 29 and 33 (Projected Development Site 1 Tower 1): *Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 178 feet above grade, and that the stack is located at least 140 feet from the eastern lot line facing Classon Avenue to avoid any potential significant adverse air quality impacts.*

Block 1125 Lot 29 and 33 (Projected Development Site 1 Tower 2): *Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 98 feet above grade, and that the stack is located at least 45 feet from the eastern lot line facing Classon Avenue and at least 135 feet from the northern lot line facing Atlantic Avenue to avoid any potential significant adverse air quality impacts.*

Block 1125 Lots 52 and 53 (Projected Development Site 2): *Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the HVAC equipment energy intensity is no greater than 0.35 million Btu, the stack is located at the building's highest level or at least 98 feet above grade, and that the stack is located at least 30 feet from the eastern lot line facing Classon Avenue and at least 40 feet from the northern lot line facing Atlantic Avenue to avoid any potential significant adverse air quality impacts.*

Block 1125 Lot 40 (Potential Development Site 1): *Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 178 feet above grade, and that the stack is located at least 90 feet from the western lot line facing Grand Avenue to avoid any potential significant adverse air quality impacts.*

Noise

The (E) designation requirements for noise would apply as follows:

Projected Development Site 1 (Block 1125 / Lots 29 and 33): *In order to ensure an acceptable interior noise environment, future residential/ community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing Atlantic Avenue and 28 dBA of attenuation on all other facades to maintain an interior noise level not greater than 45 dBA for residential uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Projected Development Site 2 (Block 1125 / Lot 52 and 53): *In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with* a minimum of 31 dBA

window/wall attenuation on the facades facing Atlantic Avenue and 28 dBA of attenuation on all other facades to maintain an interior noise level not greater than 45 dBA for residential uses as illustrated in the EAS

Potential Development Site 1 (Block 1125 / Lot 40): *In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing Atlantic Avenue and the facades facing Classon Avenue within 50 feet of Atlantic Avenue and the facades facing Grand Avenue within 50 feet of Atlantic Avenue and 28 dBA of attenuation on all other facades to maintain an interior noise level not greater than 45 dBA for residential uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.*

Figure 1-1: Project Location Map



Figure 1-2: Existing Land Use and Zoning Map

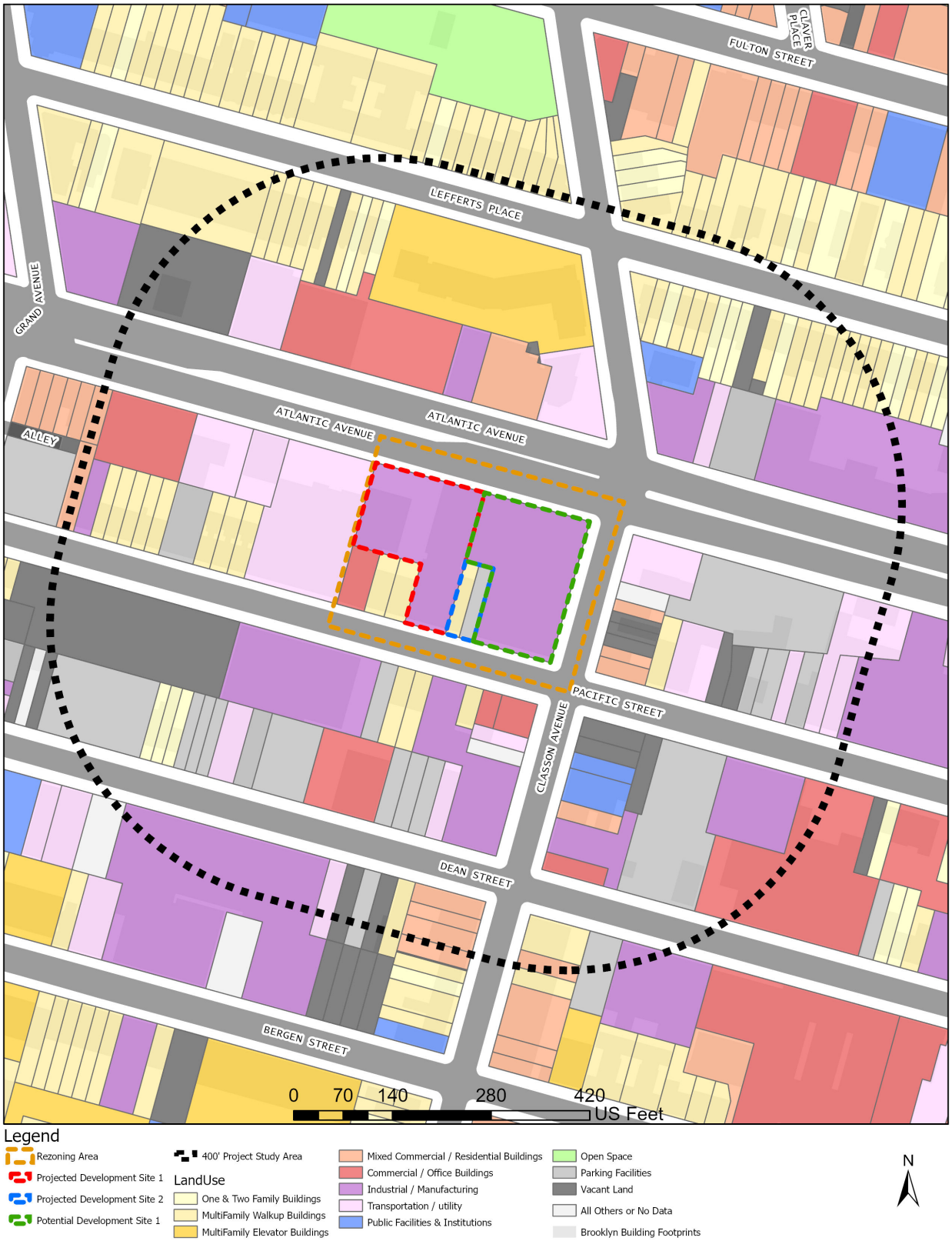


Figure 1-3: Zoning Sectional Map

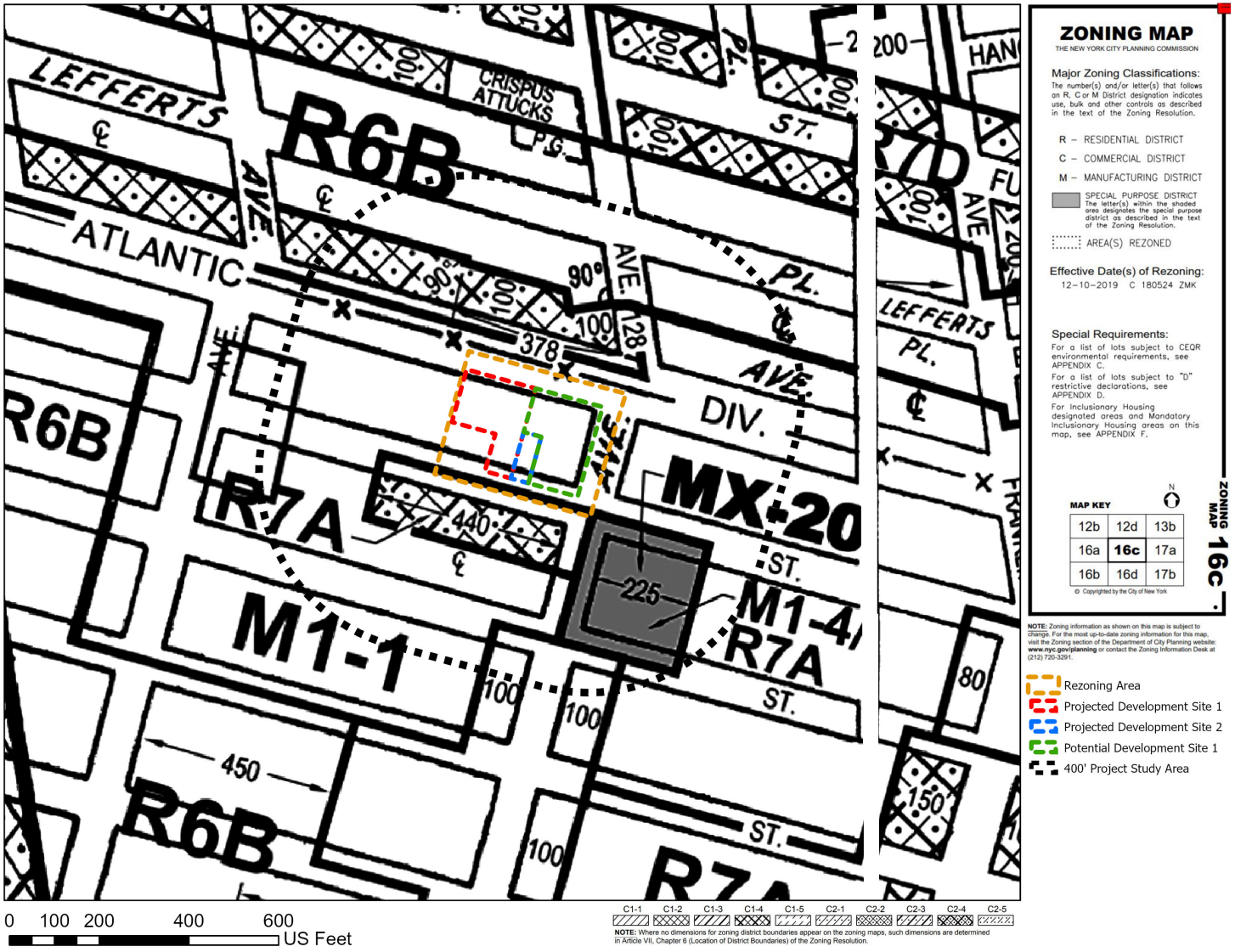


Figure 1-4: Tax Map

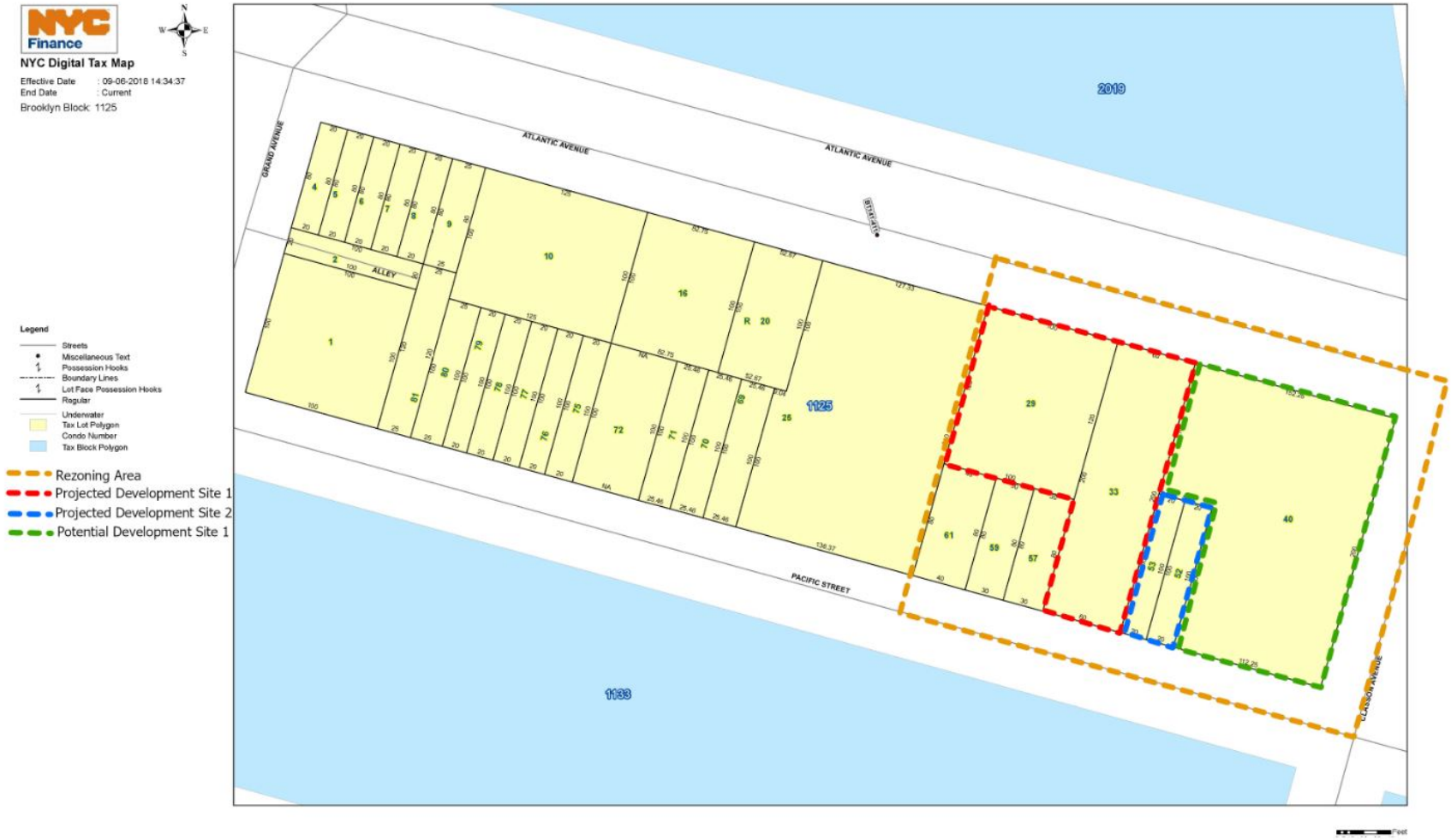


Figure 1-5.1: Site Photo Map Key



a Looking southwest at the eastern side of Classon Ave



b Looking northwest near the intersection of Classon Ave and Pacific St



c Looking west along Pacific St at the eastern side of Classon Ave

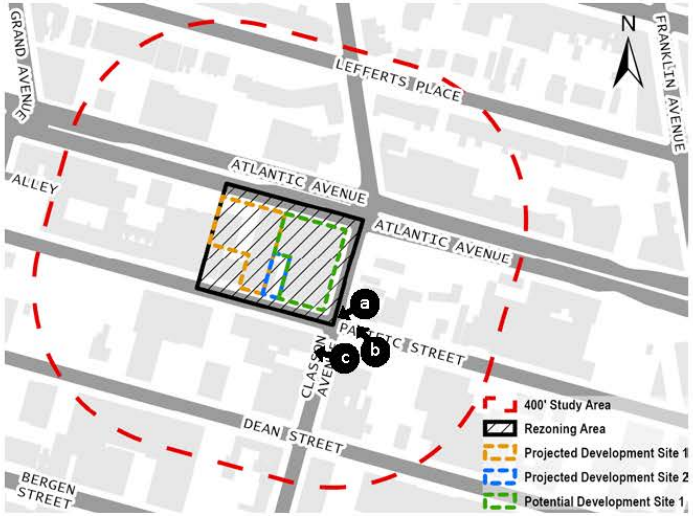


Photo Key

Figure 1-5.2: Site Photo Map Key



d Looking west at the southern side of Atlantic Ave



e Looking southwest at the northern side of Atlantic Ave near Classon Ave



f Looking southwest at the northern side of Atlantic Ave

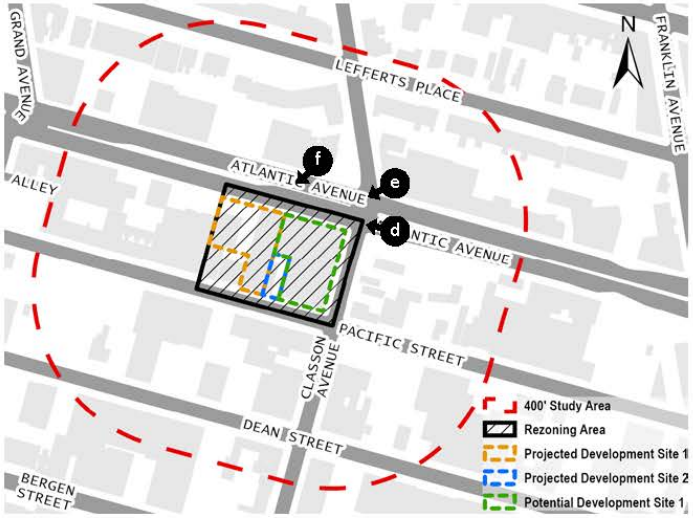


Photo Key

Figure 1-5.3: Site Photo Map Key



g Looking west at the northern side of Atlantic Ave



h Looking south to the rezoning area at the northern side of Atlantic Ave



i Looking southwest at the northern side of Atlantic Ave



Photo Key

Figure 1-5.4: Site Photo Map Key



j Looking southeast at the rezoning area along Atlantic Ave



k Looking west at the northern aide of Atlantic Ave



l Looking southeast at the northern side of Atlantic Ave



Photo Key

Figure 1-5.5: Site Photo Map Key



m Looking south at the northern side of Atlantic Ave near Grand Avenue



n Looking west at the northern side of Atlantic Ave near Grand Avenue



o Looking east at the southern side of Atlantic Ave



Photo Key

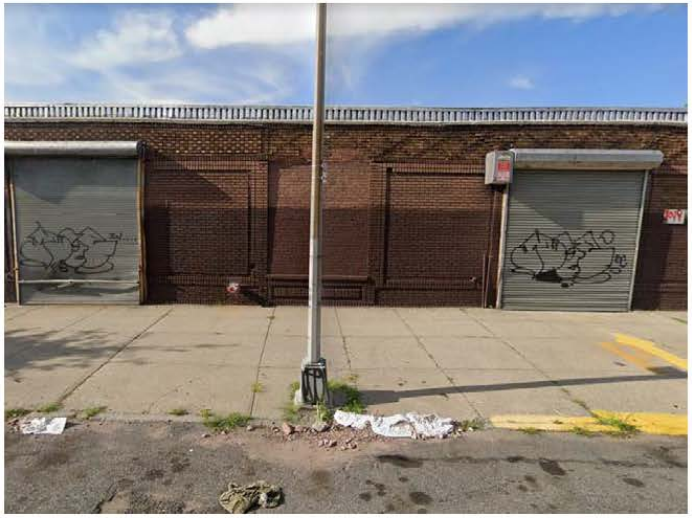
Figure 1-5.6: Site Photo Map Key



p Looking east at the southern side of Pacific St near Grand Avenue



q Looking southeast at the northern side of Pacific St



r Looking north at the southern side of Pacific St



Photo Key

1. Project Description

1.1 Introduction

The "Applicant", EMP Capital Group, seeks a Zoning Map Amendment from M1-1 to C6-3A and R7A/C2-4 that would affect a portion of Block 1125 in the Crown Heights neighborhood of Brooklyn Community District 8. The "Affected Area" consists of Block 1125, Lots 29, 33, 40, 52, 53, 57, 59, and 61. The Zoning Map Amendment would rezone Block 1125, Lots 29, p/o 33, and p/o 40 (a rectangular area approximately of 31,500 sf bounded in part by Atlantic and Classon Avenues) from an M1-1 zoning district to a C6-3A zoning district and Block 1125, Lots p/o 33, p/o 40, 52, 53, 57, 59, and 61 (a rectangle are of approximately of 31,500 feet bounded in part by Classon Avenue and Pacific Street) from an M1-1 zoning district to a R7A/C2-4 zoning district. The Applicant is also proposing a Zoning Text Amendment to Appendix F to add a Mandatory Inclusionary Housing (MIH) area coterminous with the proposed rezoning area, a Zoning Text Amendment to modify ZR 35-66 to allow a minimum 20-foot sidewalk along Atlantic Avenue, and a Special Permit pursuant to ZR 74-533 to reduce the number of required accessory parking spaces. The Zoning Map Amendment, Zoning Text Amendments, and Special Permit constitute the "Proposed Actions."

The Proposed Actions are sought in order to facilitate the Applicant's development of 1034-1042 Atlantic Avenue located on Block 1125, Lots 29 and 33 (the "Development Site"). The "Proposed Development" is the assemblage of Lots 29 and 33 and development of a 238,873 GSF (172,800 ZSF; 7.20 FAR) mixed-use commercial, community facility, and residential building with two separate towers. Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) commercial space and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) youth center community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the Proposed Development, with up to 52-63 MIH units set aside at or below 80% AMI, which would make up 20% of the total residential units provided on the Development Site.

The Proposed Actions are discretionary actions subject to environmental review. The New York City (NYC) Department of City Planning (DCP) shall be the lead agency on behalf of the NYC City Planning Commission (CPC) for environmental review under CEQR.

1.2 Background

The Affected Area is located at the northwestern boundary of the Crown Heights neighborhood. It was originally zoned M1-1 in the 1961 zoning ordinance. A 1938 Certificate of Occupancy (CO) exists for Lot 29 to be used as a gas station and a 1956 CO for the site permits office use and gas station uses. A 1929 CO for Lot 33 permits the building's use as an auto showroom and service station and a 1965 CO permits the use of the site for bicycle sales and a factory for the manufacturing of metal and glass products.

DCP has initiated three large-scale rezonings in the past decade adjacent to the Affected Area:

- In 2007, DCP proposed contextual zoning map changes and a zoning text amendment for 99 blocks located to the north of the Affected Area with a shared boundary of Atlantic Avenue within the Fort Greene and Clinton Hill neighborhoods as part of the Fort Greene / Clinton Hill Rezoning (N 070431 ZRY, C 070430 ZMK, effective July 25, 2007) at the request of Community Board 2, local civic groups, and elected officials. The Fort Greene / Clinton Hill Rezoning eliminated C1-3, C1-5, and C2-3 Districts from within an existing R6, R7-1, and R7-2 Districts, changed R6, R7-1, R7-2, and M1-1 Districts to R5B, R6A, R6B, and R7A Districts, and established C2-4 Districts within an existing R7-1 District and proposed R6B and R7A Districts. The proposed contextual zoning districts -- R5B, R6B, R6A, R7A -- would protect and preserve the predominantly brownstone character of the neighborhood's residential core and provide opportunities for apartment house construction and incentives for affordable housing on Myrtle Avenue, Fulton Street and Atlantic Avenue within the rezoning area.

- In the same year of 2007, Bedford-Stuyvesant Rezoning (N 070448 ZRY, C 070447 ZMK, effective October 29, 2007) was also proposed by DCP to the east of the Fort Greene / Clinton Hill Rezoning with a shared boundary, which affected an approximately 206 block area in the southern half of the Bedford-Stuyvesant neighborhood of Community District 3, Brooklyn. The rezoning area is generally bounded by Lafayette Avenue and Quincy Street to the north, Classon Avenue to the west, Saratoga Avenue and Broadway to the east, and Atlantic Avenue to the south. The 206-block area was rezoned by eliminating C1-3, C1-4, and C2-3 Districts from within R5 and R6 Districts, changing R5, R6, C4-3, and M1-1 Districts to R5B, R6A, R6B, R7D, C4-5D, and M1-1/R7D Districts, establishing a C2-4 District within adopted R6, R6A, R6B, and R7D Districts, and establishing a Special Mixed Use District (MX-10). The proposed rezoning aims to preserve neighborhood scale and character, maintain opportunities for mid-rise apartment building construction along appropriate corridors, and allow for residential growth with incentives for affordable housing along the Fulton Street transit and retail corridor.

- In 2013, an approximately 55-block area to the south and east of the Affected Area was rezoned in the Crown Heights West Rezoning (N 130212 ZRK, C 130213 ZMK, effective September 24, 2013). The rezoning area is generally bounded by Atlantic Avenue, Pacific, Dean and Bergen streets to the north; Nostrand Avenue to the east; Eastern Parkway to the south; and, Washington and Grand Avenues to the west. The contextual rezoning eliminated C1-3 and C2-3 Districts from within existing R6 and R7-1 Districts, changed R6, R7-1, C4-3 and C8-2 Districts to R5B, R6, R6A, R6B, R7A and R7D Districts, and established C2-4 Districts within the proposed R6A, R7A and R7D Districts. The proposed rezoning seeks to maintain the existing scale and character of the neighborhood, create incentives for the development of affordable housing, and match commercial zoning to reflect the existing retail character.

In addition to the three large-scale rezonings proposed by DCP, there are also small-scale rezonings proposed by private owners in the adjacent area.

- In 2004, Franklin Lofts Rezoning (C 030294 ZMK, effective July 21, 2004), proposed by CPC Resources Inc. Artopolis, rezoned two lots on the western side of Franklin Avenue between Dean and Bergen streets from an M1-1 manufacturing classification to an R6 residential designation with a C2-3 commercial overlay to facilitate the conversion of nine vacant buildings to an 83-unit housing complex.

- In 2018, 35 Underhill Avenue Rezoning (C 180095 ZMK, effective April 11, 2018), proposed by Silvershore Properties 97 LLC, requested a zoning map amendment from an R6B district to an R6A/C2-4 district on a triangular portion of a block located at the northeastern corner of Dean Street and Underhill Avenue to facilitate the change of use in the ground floor of an existing building from parking to commercial use in Prospect Heights, CD 8, Brooklyn.

- In 2019, 1010 Pacific Street LLC sought the rezoning of 1010 Pacific Street Rezoning (C 180042 ZMK, N 180043 ZRK, effective May 8, 2019) to seek a zoning map amendment from M1-1 to R7D/C2-4 and a zoning text amendment to designate an MIH area to facilitate a new 11-story mixed use development with 154 dwelling units, 7,056 square feet of commercial floor area and 4,378 square feet of community facility floor area at 1010 Pacific Street in Crown Heights, CD 8, Brooklyn.

- Also in 2019, 1050 Pacific Street Rezoning (C 160175 ZMK, N 160176 ZRK, effective May 8, 2019), a private application by 1050 Pacific LLC, proposed a zoning map amendment from M1-1 to M1-4/R7A and a zoning text amendment to create a Mixed Use (MX) district and MIH area in order to facilitate a new eight-story mixed use development with 103 dwelling units containing 15,790 square feet of commercial area in Crown Heights, CD 8, Brooklyn.

- In 2020, Grand Avenue and Pacific Street Rezoning (C 190256 ZMK, N 190257 ZRK, effective August 27, 2020), a private application by EMP Capital, proposed a zoning map amendment from M1-1 to R7A/C2-4 and R7D/C2-4 and a zoning text amendment to designate MIH area to facilitate a new 9-story mixed use development with 68 dwelling units and 9,000 square feet of ground floor retail.

- Currently, 840 Atlantic Avenue Rezoning (C 210249 ZMK, N 210250 ZRK) is under ULURP process, which is an application from Vanderbilt Atlantic Holdings LLC seeking for a zoning map amendment from M1-1 and R6B to C6-3X and a zoning text amendment to designate an MIH area and allow flexibility in the location of the street wall. The rezoning would facilitate an 18-story mixed use development with 316 dwelling units (95 affordable units), 50,650 SF of retail, and 7,490 SF of community facility space.

- 1045 Atlantic Avenue Rezoning (C 210276 ZMK, N 210277 ZRK) is also under ULURP process. A zoning map amendment from M1-1 to a C6-3A district and a zoning text amendment to create a new MIH area to facilitate a newly constructed 17-story mixed-use building with a total of 490,000 SF, including 426 units and 63,000 SF of commercial uses (8.5 FAR), is sought by private applicant Atlantic Brooklyn LLC at 1045 Atlantic Avenue in Bedford-Stuyvesant, Community District 3, Brooklyn.

The abovementioned recent and ongoing rezonings are indicative of the area's trend away from manufacturing uses toward mixed residential and commercial uses in context with the scale of the existing buildings.

1.3 Description of the Surrounding Area

The Affected Area is located within the Crown Heights neighborhood of Brooklyn, CD 8. The Proposed Project Area is bounded by Atlantic Avenue to the north, Classon Avenue to the east, Pacific Street to the south, and Grand Avenue to the west. Atlantic Avenue is an east-west, wide right-of-way classified as a Principal Arterial Road by the NYSDOT with three moving lanes of traffic in each direction and curbside parking. Classon Avenue is a south to north one-way right-of-way classified as a Minor Arterial Road with two moving lanes of traffic and curbside parking. Pacific Street is a one-way east to west road with one moving lane of traffic and curbside parking. Grand Avenue is a north to south one-way road with one moving lane of traffic and curbside parking.

Existing land uses within the 400-foot buffer around the Affected Area primarily consist of manufacturing, multi-family residences, mixed commercial and residential buildings, transportation and utility uses, public facilities and institutions, and vacant land. The manufacturing buildings range from 1 to 3 stories in height. The residential buildings consist of multiple family apartment buildings ranging from 3 to 4 stories in height. Atlantic Avenue is a major thoroughfare in the area and contains a mix of high-density multi-family, commercial, and mixed residential and commercial uses. Pacific Street is mostly developed with light-industrial uses near the Affected Area before becoming predominantly residential to the west. Similarly, Classon Avenue is developed with light industrial uses near the Affected Area and becomes a mix of multi-family residential and mixed residential and commercial uses to the south.

Built form in the area varies by use, and generally consists of low-rise industrial and commercial buildings and one- to eight-story multi-family residential buildings. The manufacturing and industrial buildings are mostly one story in height, but occasionally range from two to four stories.

The Affected Area is within an M1-1 zoning district that generally extends along Atlantic Avenue to the east and west. South of the Affected Area is mapped R7A/C2-4 (part of the 1010 Pacific Rezoning 180042 ZMK, effective May 8, 2019 and the Grand Ave and Pacific St Rezoning 190256 ZMK, effective August 27, 2020), R7D/C2-4 (part of the Grand Ave and Pacific St Rezoning 190256 ZMK, effective August 27, 2020), M1-4/R7A (part of the 1050 Pacific Rezoning 160175 ZMK, effective May 8, 2019), and a mix of R6A and R6B zoning districts. C2-4 commercial overlays are mapped along Atlantic Avenue to the north, within R6B and R7A zoning districts. Major commercial corridors in the area include Washington Avenue to the west, Franklin Avenue to the southeast, and Atlantic Avenue and Fulton Street to the north. Other rezonings in the area included the Crown Heights West Rezoning (130213 ZMK, effective September 24, 2013), Fort Greene/Clinton Hill (070430 ZMK, effective July 25, 2007), and Bedford-Stuyvesant South (070447 ZMK, effective October 29, 2007). The aforementioned rezonings are indicative of the area's trend toward higher density residential and commercial uses from the former manufacturing uses in the recent past.

The area is well-served by transit. The Franklin Avenue subway station with service from C train is located approximately 800 feet northeast of the Affected Area near the corner of Fulton Street and Franklin Avenue. At the same station, the Franklin Avenue S Shuttle train also provides full-time connecting service between the C train at Franklin Avenue/ Fulton Street station and the Q train at the Prospect Park. In addition, the Atlantic Avenue transportation hub, including the Atlantic Terminal served by seven Long Island Rail Road lines (Babylon/ Far Rockaway/ Hempstead/ Long Beach/ Port Jefferson/ Ronkonkoma/ West Hempstead) and the Atlantic Avenue Barclays Center Station served by ten NYC subway lines (2/ 3/ 4/ 5/ B/ D/ N/ Q/ R/ W), is located approximately one-mile northwest of the Affected Area.

There are six bus lines (B25/ B26/ B45/ B48/ B49/ B65) that are accessible to users in the area. The B25 bus, which connects Downtown Brooklyn/ Dumbo and Broadway Junction via Fulton Street, has two bus stops on different directions located two blocks north of the Affected Area near the corner of Fulton Street and Classon Avenue. Serving as a link between Downtown Brooklyn and Ridgewood via Fulton Street and Halsey Street, the B26 bus line runs one block further north than the B25 bus, which has two bus stops on different directions near the corner of Classon Avenue and Putnam Avenue. The B45 bus, which runs between Downtown Brooklyn and Crown Heights along Washington Avenue near the Affected Area, has two bus stops on different directions located two blocks west of the Affected Area near the corner of Atlantic Avenue and Washington Avenue. The B48 bus operates on Classon Avenue between the Prospect Park Station in Lefferts Gardens and Meeker Avenue in Greenpoint with a bus stop adjacent to the Affected Area near the corner of Classon Avenue and Atlantic Avenue. The B49 bus, which has a stop east of the Affected Area near the corner of Atlantic Avenue and Franklin Avenue, operates between Manhattan Beach (Kingsborough Community College via Bedford Avenue) and Fulton Street in Bedford-Stuyvesant via Ocean Avenue and Rogers Avenue. The B65 bus, which has a stop southeast of the Affected Area near the corner of Dean Street and Classon Avenue, operates between the Fulton Mall in Downtown Brooklyn and Ralph Avenue in Crown Heights via Bergen Street and Dean Street.

1.4 Description of the Affected Area

The Affected Area is located on the southern side of Atlantic Avenue, which extends to the northern side of Pacific Street and the western side of Classon Avenue. The Affected Area contains approximately 63,000 SF of lot area within Block 1125.

The Applicant-Owned Development Site

The Applicant-Owned Development Site is located at 1034-1042 Atlantic Avenue (Block 1125, Lots 29 and 33) and both lots are each 12,000 SF. Lot 29 is an interior lot with 100 feet of frontage along Atlantic Avenue and is improved with a 3,915 GSF, one-story industrial building that was constructed around 1930. Lot 33 is a through-lot with 60 feet of frontage on Atlantic Avenue and Pacific Street, and is improved with a 24,000 GSF, two-story industrial building that was constructed around 1930. Both buildings are currently vacant.

Non-Applicant Controlled Sites

The other lots in the Affected Area are Lots 40, 52, 53, 57, 59, and 61 and are all independently owned:

- Lot 40 is a 26,450 SF irregularly shaped corner lot with frontages on Atlantic Avenue, Classon Avenue, and Pacific Street. The lot is improved with a 2-story, 50,550 GSF industrial building that is operating as a Cubesmart self-storage facility. The building was originally constructed in 1930 and underwent significant renovations around 2013 to turn it into the self-storage building. The building is owned and operated by Cubesmart, L.P., a real estate investment trust (REIT) that owns and operates self-storage facilities around the country.

- Lots 52 and 53 are both 2,000 sf interior lots with 20 feet of frontage along Pacific Street. Lot 52 is vacant and unimproved and used as a parking lot. Lot 53 is improved with a 3-story, 2,700 GSF multi-family walk-up building with 3 dwelling units. The building was originally constructed in 1930 and altered in 1999.

- Lots 57 and 59 are both 2,400 sf interior lots with 30 feet of frontage along Pacific Street, and are both improved with 4-story 8-unit multi-family buildings with 6,000 GSF of floor area. Each building was constructed around 1931.

- Lot 61 is a 3,200 SF interior lot with 40 feet of frontage along Pacific Street and is improved with a 3,200 GSF, 1-story building operating as a dog training, boarding, and daycare center. The building was constructed in 2014.

1.5 Description of the Proposed Development

The Proposed Development is the assemblage of Lots 29 and 33 and the development of a 238,873 GSF (172,800 ZSF; 7.20 FAR) mixed-use commercial, community facility, and residential building with two separate towers. Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) commercial space and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) youth center community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the Proposed Development, with up to 63 permanently affordable units set aside at or below 80% AMI, which would make up 33% of the total residential units provided on the Development Site.

1.6 Action(s) Necessary to Facilitate the Project

The actions necessary to facilitate construction of the Proposed Development are approvals of:

(1) a Zoning Map Amendment to map a C6-3A and R7A/C2-4 zoning district in the Affected Area currently zoned as M1-1;

(2) a Zoning Text Amendment to amend Brooklyn Community District 8, Map 8 in Appendix F: Inclusionary Housing Designated Area to establish the Affected Area as an MIH Area.

(3) a Zoning Text Amendment to modify ZR 35-66 to allow a minimum 20-foot sidewalk along Atlantic Avenue.

(4) a Special Permit pursuant to ZR 74-533 to reduce the number of required accessory parking spaces.

1.7 Purpose and Need

The Applicant believes that the increased bulk (2.40 maximum FAR within M1-1 to 4.60 FAR or 7.20 FAR within new proposed zoning districts), new uses (introduction of residential uses), and reduction of parking requirements (1 space per 300 sf of uses within existing M1-1) would help induce the development of an underutilized lot along a major commercial corridor (Atlantic Avenue) within a growing neighborhood of Brooklyn. The Proposed Actions would also set aside a substantial amount of permanently affordable housing units, furthering city goals for affordable housing.

1.8 Analysis Framework

The analysis framework compares the incremental difference between the proposed and potential development under the Proposed Actions (With-Action) and the development which could occur under the existing zoning (No-Action). This EAS studies the potential for individual and cumulative environmental impacts related to the Proposed Actions occurring in a study area of approximately 400 feet around the rezoning area. This environmental assessment considers the potential effects of the Proposed Actions compared to future conditions without the approvals sought by the project sponsor. This analysis framework is described below:

Reasonable Worst-Case Development Scenario

Discretionary actions sometimes permit a range of project characteristics, or development scenarios, to occur even though the action may be sought in order to facilitate a specific development. From the range of possible scenarios that are considered reasonable and likely, the scenario with the worst environmental consequences is chosen for analysis. This is considered to be the Reasonable Worst-Case Development Scenario (RWCDS), the use of which ensures that, regardless of which scenario actually occurs, its impacts would be no worse than those considered in the environmental review. The environmental assessment examines the incremental differences between the RWCDS of the future without the project in place (No-Action Scenario) and the future with the project in operation (With-Action Scenario).

Build Year

The build year for the analysis is anticipated to be 2024 in consideration of an 18-month Environmental Approval process and ULURP process and an 18-month construction schedule for both Projected Development Site 1 and 2.

Future Without the Proposed Actions (No-Action Scenario)

The No-Action Scenario for the Project Area would be the same as existing conditions. Redevelopment is not considered likely in the No-Action Scenario because of the bulk permitted under the current M1-1 district (1.00 commercial and manufacturing; 2.40 community facility) and significant parking requirement (1 space per 300 sf of uses).

Future With the Proposed Actions (With-Action Scenario)

Projected Development Site 1 (Block 1125, Lots 29 and 33; Applicant-Owned Lots)
The Applicant-Owned lots would assemble with 16,000 sf within the proposed C6-3A district and 8,000 sf within the proposed R7A/C2-4 district. The site would be developed with two separate mixed-use commercial, community facility, and residential building towers totaling 238,873 GSF (172,800 ZSF; 7.20 FAR). Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) UG 6 commercial space (local retail) and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) general community facility space between the shared ground floor and cellar floor on

the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the Proposed Development, with 42 affordable units permanently set aside at or below 80% AMI, which would make up 20% of the total residential units provided on the Development Site.

The Applicant's proposed building is assumed to be the RWCDS in terms of bulk, height, and uses (12,850 GSF of UG 6 commercial uses, 12,730 GSF of general community facility uses, and 206,353 GSF of residential uses) for Projected Development Site 1. For the purposes of a conservative shadow analysis, a 15-foot-tall bulkhead is assumed and the full lot area will be blocked out.

Projected Development Site 2 (Block 1125, Lots 52 and 53; Non-Applicant Lots)

The lots would assemble with a merged lot area of 4,000 sf and be developed with a 21,816 GSF (18,400 ZSF; 4.60 FAR) 9-story mixed-use residential and commercial building that rises to a height of 95 feet tall. The ground floor would contain 2,704 GSF (2,600 ZSF, 0.65 FAR) of local retail (UG 6) space. Floors two through nine would contain 17,064 GSF (15,800 ZSF, 3.95 FAR) of residential uses, with 17 total dwelling units (3 of which would be permanently affordable at or below 80% AMI). Seven residential accessory parking spaces would be required, and would be provided at cellar level within a 2,048 GSF parking garage.

Projected Development Site 2 was assumed to maximize development within the new zoning district and provide ground floor commercial space to meet the qualifying ground floor requirement and to provide a conservative build scenario. The dwelling units were assumed to be an average of 1,000 GSF, and MIH units were assumed to be set aside for 20% of the residential floor area. Similar to Projected Development Site 1, a 15-foot-tall bulkhead will be assumed for shadows analysis.

Potential Development Site (Block 1125, Lot 40; Non-Applicant Lot)

The lot could be developed with a 17-story mixed-use residential and commercial building at 175 feet tall with 232,046 GSF of floor area (188,853 ZSF; 7.14 FAR). The building could include 26,408 GSF of ground floor commercial (local retail) uses and floors 2 through 17 would contain 176,538 GSF of residential floor area with 177 total dwelling units, 35 of which could be permanently set aside as affordable. Parking could be provided at cellar level in a 29,100 GSF garage with 71 residential accessory spaces and 26 commercial spaces.

As noted above in **Section 1.4**, Lot 40 is a 26,450 SF corner lot that is improved with a 50,550 GSF self-storage facility. The building was originally constructed in 1930 but was then significantly renovated in 2014 as part of a $10 million project. The current owner, Cubesmart, L.P., is a Real Estate Investment Trust (REIT) that owns and operates self-storage facilities throughout the United States. Considering that the site has recently seen a significant investment into the building's operation as a self-storage space and the owner's business of owning and operating only self-storage facilities, redevelopment of the site by the build year is unlikely. However, due to the size of Lot 40, it is assumed to be a Potential Development Site for conservative analysis purposes.

The other lots within the rezoning area (other affected lots) are not projected to redevelop include:

- Lots 57 and 59 were each improved with a 6,000 GSF multi-family walk-up building in 1931 and contain 8 dwelling units. Because of the buildings' age and exceedance of six dwelling units, the buildings are likely under rent control regulations and redevelopment of the buildings is not likely.

- Lot 61 is a 3,200 SF interior lot that is improved with a 3,200 GSF, 1-story commercial building that was constructed in 2014. The building is in good repair and is operating with an active dog boarding and daycare facility. Because of the small size of this interior lot, its use as an active, locally serving business, and the building being new and in good repair, redevelopment of this lot is not considered likely.

Because only Projected Development Sites are considered in the increment between the No-Action and With-Action, the Potential Development Site and Other Affected Sites will not be considered in the analysis of density-related aspects of the environmental review (such as open space, traffic, and socioeconomic conditions). This incremental development would consist of 224 dwelling units—179 market rate and 45 affordable. The net residential square footage would equal 220,717 GSF or 171,420 ZSF, the net commercial square footage would equal 15,554 GSF or 14,500 ZSF, and the net community facility square footage would equal 12,730 GSF or 2,580 ZSF. Further, an increase of 27 parking spaces would result in the With-Action Scenario compared to the No-Action Scenario to accommodate the future residential parking demands.

The Projected, Potential, and Other Affected Sites shown in **Figure 1-1,** while the RWCDS Analysis Framework is shown below in **Table 1.8-1**.

The existing, No-Action, and With-Action Scenarios on the lots within the Affected Area are presented in **Table 1.8- 2**.

Table 1.8- 1: Summary Table for Existing, No-Action, and With-Action Scenarios

Site Info				Existing/No-Action Condition			With-Action Condition				
Site ID	Block	Lot	Lot Area	Zoning	Mf (gsf)	Res. (gsf)	Zoning	Res. (gsf)	DU	Com. (gsf)	CF (gsf)
Projected Site 1	1125	29	12,000	M1-1	3,915	0	C6-3A/ R7A/C2-4	206,353	210	12,850	12,730
		33	12,000		24,000	0					
Projected Site 2	1125	52	2,000	M1-1	0	0	R7A/C2-4	17,064	17	2,704	0
		53	2,000		0	2,700					
Total			**15,130**		**27,915**	**2,700**	**80,306**	**223,417**	**227**	**15,554**	**12,730**

DU = Dwelling Units

gsf = gross square feet

Res. = Residential

Com. = Commercial

Mf = Manufacturing

CF = Community Facility

Table 1.8-2: RWCDS Incremental Analysis Table

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Land Use				
Residential	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify the following:				
Describe type of residential structures	3-story multi-family	3-story multi-family	Two mixed-use multi-family buildings	
No. of dwelling units	3	3	227	224
No. of low- to moderate-income units	0	0	45	45
Gross floor area (sq. ft.)	2,700	2,700	223,417	220,717
Commercial	☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No	
If "yes," specify the following:				
Describe type (retail, office, other)	N/A	N/A	UG 6 Local Retail	
Gross floor area (sq. ft.)	N/A	N/A	15,554	15,554
Manufacturing/Industrial	Yes	Yes	No	
If "yes," specify the following:				
Type of Use	Light Industrial	Light Industrial	N/A	
Gross floor area (sq. ft.)	27,915	27,915	N/A	-27,915
Open storage area (sq. ft.)	N/A	N/A	N/A	
If any enclosed activities, specify:	N/A	N/A	N/A	
Community Facility	☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No	
If "yes," specify the following:				
Type of Use	N/A	N/A	UG 4 General CF	
Gross floor area (sq. ft.)	N/A	N/A	12,730	12,730
Vacant Land	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes", describe:	N/A	N/A	N/A	
Publicly Accessible Open Space	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify type (mapped City, State, or Federal Parkland, wetland-mapped or otherwise known, other):	N/A	N/A	N/A	
Other Land Uses	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," describe:	N/A	N/A	N/A	
Parking				
Garages	☐ Yes ☐ No	☐ Yes ☑ No	☑ Yes ☐ No	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	0	0
No. of accessory spaces	N/A	N/A	27	27
Operating hours	N/A	N/A	24/7	
Attended or non-attended	N/A	N/A	non-attended	
Lots	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," specify the following:	TRUE	TRUE	TRUE	
No. of public spaces	N/A	N/A	N/A	
No. of accessory spaces	N/A	N/A	N/A	
Operating hours	N/A	N/A	N/A	
Other (includes street parking)	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If "yes," describe:	N/A	N/A	N/A	

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Population				
Residents	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify number:	7	7	540	533
Briefly explain how the number of residents was calculated:	2.38 person dwelling unit average per Brooklyn CD 8 (2017 ACS)			
Businesses	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No	
If "yes," specify the following:				
No. and type	Glass manufacturer, refrigerator manufacturer	Glass manufacturer, refrigerator manufacturer	8 local retail	
No. and type of workers by business	28	28	**63 total:** 9 residential employees; 47 local retail, 7 community center	35
No. and type of non-residents who are not workers	450	450	2767	2317
Briefly explain how the number of businesses was calculated:	Employees: 1 employee per 25 dwelling units; 3 employees per 1,000 SF for local retail and community facility; 1 employee per 1,000 SF manufacturing space. Patrons: 205 per 1,000 SF local retail; 15 per 1,000 SF light industrial, 103 per 1,000 SF medical office. (Per transportation factors.)			
Other (students, visitors, concert-goers, *etc*.)	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	
If any, specify type and number:	N/A	N/A	N/A	
Briefly explain how the number was calculated:				
Zoning				
Zoning classification	M1-1	M1-1	C6-3A; R7A/C2-4	
Maximum amount of floor area that can be developed	2.40	2.40	8.50	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Industrial, Commercial, Residential, Transportation, Vacant; M1-1, R6B, R7A, C2-4	Industrial, Commercial, Residential, Transportation, Vacant; M1-1, R6B, R7A, C2-4	Industrial, Commercial, Residential, Transportation, Vacant; M1-1, R6B, R7A, C2-4	
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

2. Environmental Review

Chapter 4: Land Use, Zoning, and Public Policy

The *CEQR Technical Manual* recommends procedures for analysis of land use, zoning and public policy to ascertain the impacts of a project on the Surrounding Area. Land use, zoning, and public policy are described in detail below. This section considers existing conditions, development trends, and zoning and other public policies in relation to the Projected Development Site and the Surrounding Area as well as the larger area in which the Proposed Actions may have an effect. Because the Proposed Actions would permit the development of multiple family residential uses with a larger bulk and would also reduce the parking requirements for commercial uses compared to existing zoning regulations, a preliminary assessment of Land Use, Zoning, and Public Policy is provided.

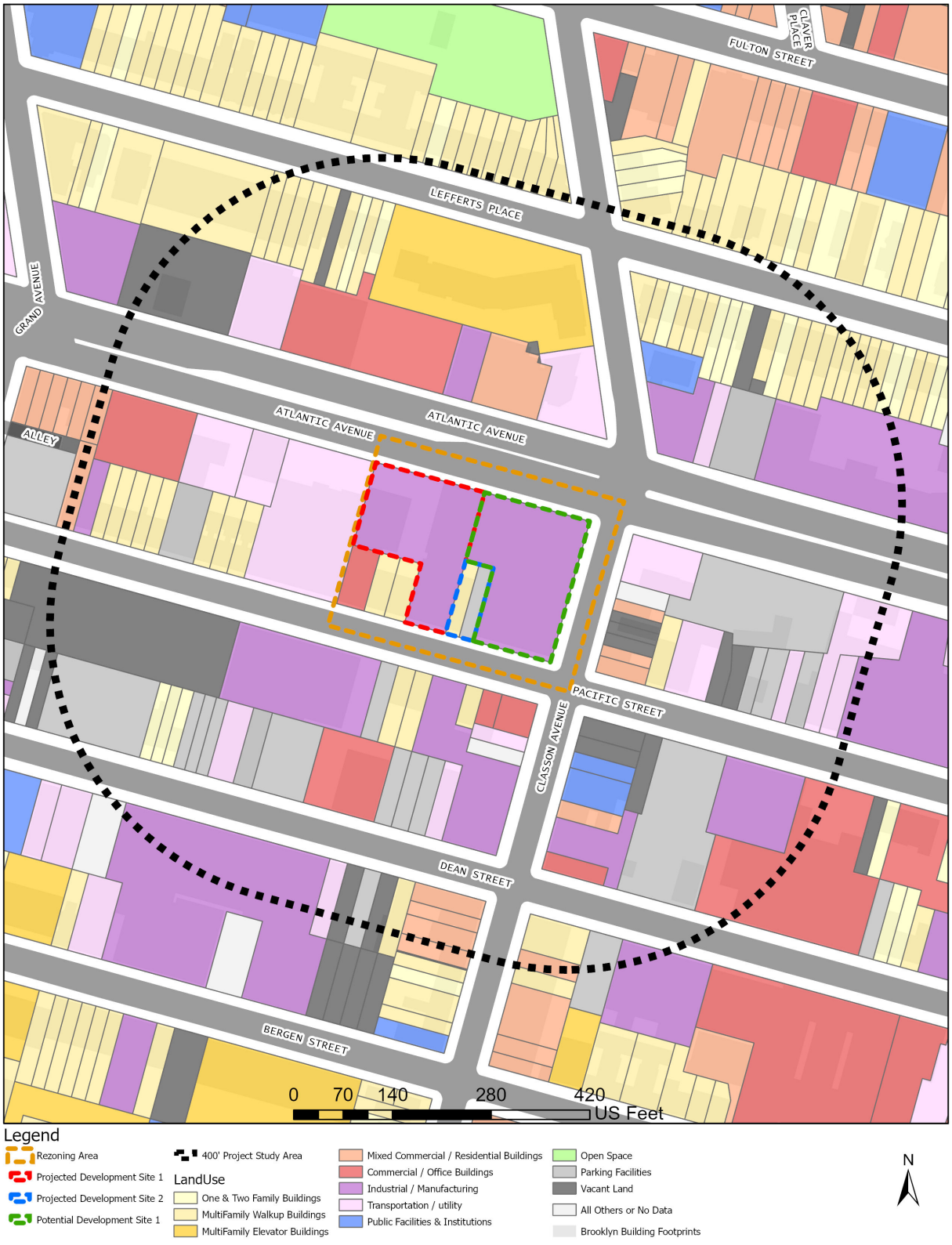
Methodology

Existing land uses were determined by reference to the New York City Zoning and Land Use (Zola) database and PLUTOTM 20v4 shapefiles. These uses were then confirmed through site visits. The evaluation of lots within the 400-foot Study Area was performed with reference to New York City Zoning Maps and the Zoning Resolution of the City of New York and served as the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Public Policy research was performed through an evaluation of New York City Department of City Planning (NYCDCP) and other city agencies programs and documentation.

Land Use

The *CEQR Technical Manual* suggests that a land use, zoning, and public policy study area should generally extend 400 feet from the Affected Area. Existing land uses within approximately 400 feet of the Affected Area are presented in **Figure 2.4-1**.

Figure 2.4-1: Land Use Map



Existing Conditions

Land Use Study Area

As shown in **Figure 2.4-1** and stated in **Section 1.3**, the surrounding area is predominantly manufacturing, multi-family residences, mixed commercial and residential buildings, transportation and utility uses, public facilities and institutions, and vacant land. The manufacturing buildings range from 1 to 3 stories in height. The residential buildings consist of multiple family apartment buildings ranging from 3 to 4 stories in height. Atlantic Avenue is a major thoroughfare in the area and contains a mix of high-density multi-family, commercial, and mixed residential and commercial uses. Pacific Street is mostly developed with light-industrial uses near the Affected Area before becoming predominantly residential to the west. Similarly, Classon Avenue is developed with light industrial uses near the Affected Area and becomes a mix of multi-family residential and mixed residential and commercial uses to the south.

Affected Area

A full breakdown of each lot within the Affected Area can be found in **Section 1.4**.

The Applicant-owned Development Site consists of two separate lots (Block 1125, Lots 29 and 33) along Atlantic Avenue. Lot 29 is an interior lot with 100 feet of frontage along Atlantic Avenue and is improved with a 3,915 GSF, one-story industrial building that was constructed around 1930. Lot 33 is a through-lot with 60 feet of frontage on Atlantic Avenue and Pacific Street, and is improved with a 24,000 GSF, two-story industrial building that was constructed around 1930. Both buildings are currently vacant.

Other lots within the Affected Area include a 2-story, 50,550 GSF industrial building operating as Cubesmart self-storage facility on lot 40 (1.91 FAR); vacant and unimproved lot 52; a 3-story, 2,700 GSF multi-family walk-up building with 3 dwelling units on lot 53 (1.35 FAR); 4-story 8-unit multi-family buildings with 6,000 GSF of floor area on lots 57 and 59 (2.50 FAR); and Lot 61, which is improved with a 3,200 GSF, 1-story building operating as a dog training, boarding, and daycare center (1.00 FAR).

Analysis

Future No-Action Condition

Land Use Study Area

There are seven active construction permits in the surrounding area, accounting for 46,552 gsf of development and 48 proposed dwelling units. The largest active development, which accounts for roughly 37% of the proposed floor area and dwelling units, is located at 1111 Fulton Street. It is a 19,179 gsf new residential building, which will include 18 dwelling units and will rise to a height of 7 stories.

In addition to the no-action projects discussed above, there is a proposed rezoning on the northern side of Atlantic Avenue at 1045 Atlantic Avenue that is expected to be constructed by the 2024 build year. The rezoning has two development scenarios: 1) a 17-story, mixed-use building with 357,436 GSF of residential uses (422 dwelling units, 127 of which would be permanently affordable), 28,334 GSF of commercial office uses, 34,470 GSF of commercial retail uses, 8,995 GSF of community facility (child care) uses, 39,950 GSF of below-grade accessory parking uses, 2,352 GSF of at-grade parking/loading uses, and 5,561 GSF of

mechanical uses; or 2) a 16-story, mixed-use building containing 113,587 GSF of commercial offices uses, 33,111 GSF of commercial retail uses (3.00 FAR of commercial use), 273,072 GSF of residential uses (5.00 FAR with 337 dwelling units, 84 to 101 of which would be permanently affordable), 43,640 GSF of below-grade accessory parking uses, 2,382 GSF of at-grade parking/loading uses, and 5,798 GSF of mechanical uses.

In addition, 840 Atlantic Avenue Rezoning, which is located 2 blocks away to the west of the Projected Development Sites along Atlantic Avenue, is another proposed rezoning under ULURP process with a build year of 2023. It would facilitate an 18-story mixed use development with 316 dwelling units (95 affordable units), 50,650 SF of retail and 7,490 SF of community facility space in the Prospect Heights neighborhood of Brooklyn, Community District 8.

Table 2.4-1: No-Action Developments

Address	Type	Land Use	Additional Floor Area (gsf)	Dwelling Units	Stories
1083 Pacific Street	New Building	Commercial	2,014	0	1
168 Lefferts Place	Alt 1 Enlargement	Residential	1,000	3	4
173 Lefferts Place	New Building	Residential	7,717	8	4
573 Classon Avenue	New Building	Residential	4,712	4	4
1111 Fulton Street	New Building	Residential	19,179	18	7
1010 Fulton Street	New Building	Residential	11,000	8	7
1002 Fulton Street	Alt 1 Enlargement	Residential	930	7	4
840 Atlantic Avenue*	New Building	Mixed-Use	376,432	316	18
1045 Atlantic Avenue*	New Building	Mixed-Use	477,098	422	17

gsf = Gross Square Feet
* Ongoing ULURP Projects

Affected Area

Within the Affected Area, existing conditions are expected to remain the same within the No-Action Condition. The residential lots fronting Pacific Street would continue to be legal, non-conforming uses within the existing M1-1 zoning district.

Future With-Action Condition

Land Use Study Area

Land use and development patterns in the study area are anticipated to remain unchanged in the future with the Proposed Actions. Any new development in the surrounding area would be consistent with the underlying zoning regulations.

Affected Area

Projected Development Site 1 (Block 1125, Lots 29 and 33)

Under the With-Action Condition, the Applicant-Owned lots (Projected Development Site 1) would assemble and develop with The Applicant's Proposed Development, with 16,000 sf within the proposed C6-3A district and 8,000 sf within the proposed R7A/C2-4 district. The site would be developed with two separate mixed-use commercial, community facility, and residential building towers totaling 238,873 GSF (172,800 ZSF; 7.20 FAR). Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) UG 6 commercial space (local retail) and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) general community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the Proposed Development, with 42 affordable units permanently set aside at or below 80% AMI.

Projected Development Site 2 (Block 1125, Lots 52 and 53)

The lots would assemble to form a 4,000-sf lot and would develop with a 21,816 GSF, 9-story (18,400 ZSF; 4.60 FAR) mixed-use residential and commercial building that rises to a height of 95 feet tall. The ground floor would contain 2,704 GSF (2,600 ZSF, 0.65 FAR) of local retail (UG 6) space. Floors two through nine would contain 17,064 GSF (15,800 ZSF, 3.95 FAR) of residential uses, with 17 total dwelling units (3 of which would be permanently affordable at or below 80% AMI). Seven residential accessory parking spaces would be required, and would be provided at cellar level within a 2,048 GSF parking garage.

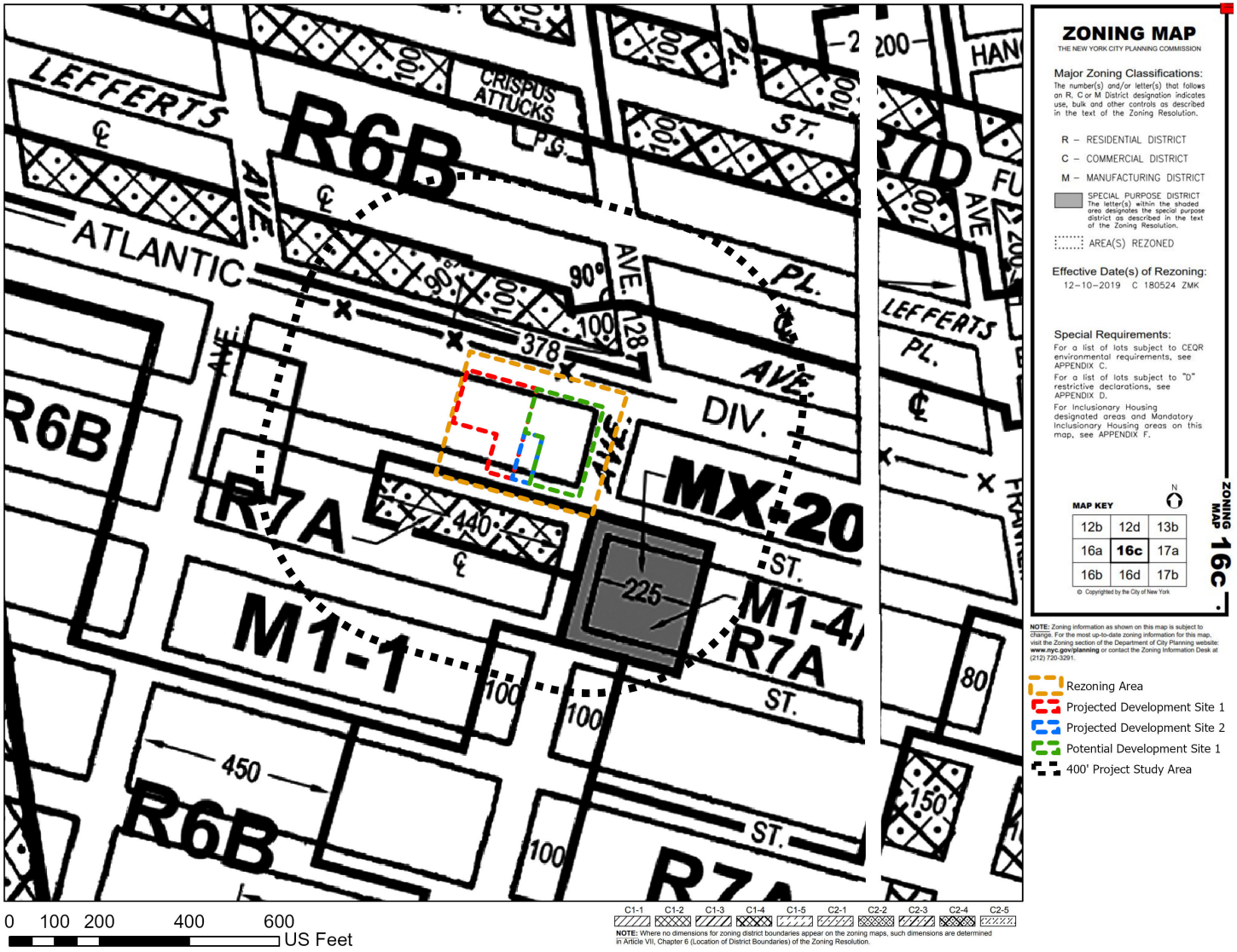
Conclusion

The Applicant believes that the density and uses permitted by the Proposed Actions would be consistent with nearby high-density mixed-use buildings mostly along Atlantic Avenue and Pacific Street to the west and Classon Avenue to the south. The Proposed Actions would not be incompatible with surrounding uses, which are predominantly residential and include commercial, and would not alter or accelerate development patterns in the area. Therefore, there would be no adverse impacts to land use as a result of the Proposed Actions, and further analysis is not required.

Zoning

The *CEQR Technical Manual* suggests that a zoning study area should extend 400 feet from the Affected Area. Existing zoning districts within approximately 400 feet of the Project Site are presented in **Figure 2.4-2**. The proposed zoning map amendment would affect the following lots: Block 1125, Lots 29, p/o 33, p/o 40, p/o 52, and p/o 53 from M1-1 to C6-3A, and Block 1125, Lots p/o 33, p/o 40, p/o 52, p/o 53, 57, 59, and 61 from M1-1 to R7A/C2-4.

Figure 2.4-2: Area to be Rezoned Overlaid Existing Zoning Map



Existing Conditions

Zoning Study Area

The zoning districts within 400 feet of the Affected Area are M1-1, M1-4/R7A (MX-20), R6B, R7A, R7D, and C2-4 commercial overlays.

Table 2.4-2: Zoning Districts in the Surrounding Area

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
M1-1	Light Manufacturing UGs 4-14, 16-17	1.0 FAR - Manufacturing 1.0 FAR - Commercial 2.4 FAR - Community Facility	1 per 300 sf
M1-4/R7A (MX-20)	Light Manufacturing UGs 4-14, 16-17	2.0 FAR - Manufacturing 4.6 FAR - Residential 2.0 FAR - Commercial 4.0 FAR - Community Facility	50% of DU; 0 for IRHU[1]
R6B	Contextual Residential UGs 1-4	2.2 FAR – Residential 2.0 FAR – Community Facility	50% of DU; 0 for IRHU
R7A	Contextual Residential UGs 1-4	4.6 FAR – Residential 4.0 FAR - Community Facility	50% of DU; 0 for IRHU
R7D	Contextual Residential UGs 1-4	5.6 FAR – Residential 4.2 FAR - Community Facility	50% of DU; 0 for IRHU
C2-4 Commercial Overlay	Local Retail UGs 1-9, 14	1.0 FAR - Commercial (R1-R5B) 2.0 FAR - Commercial (R5B - R10X)	1 per 1,000 sf

Source: Zoning Handbook, New York City Department of City Planning, 2019

Existing zoning districts in the surrounding area include:

M1-1

M1 districts are often developed with multistory lofts, one- or two-story warehouses characterized by loading bays, serving as a buffer between M2 or M3 districts of intensive industrial uses and adjacent residential or commercial districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. M1-1 Districts are mainly found in areas with one-story industrial buildings, such as the Flatlands neighborhood of Brooklyn. The FAR for manufacturing and commercial are both 1.0 in M1-1 districts while the FAR for community facility is higher, reaching 2.4.

Though one parking space per 300 square feet is common in M1-1 districts, the buildings are subject to parking requirements based on the type of use and size of an establishment. For example, a warehouse in

[1] Income-Restricted Housing Units

an M1-1 district requires one off-street parking space per 2,000 square feet of floor area or per every three employees, whichever would be less.

M1-4/R7A (MX-20)

The Special Mixed Use District MX-20 (R7A/M1-4) envelope is consistent with the R7A zoning districts. It permits medium-density residential development at a maximum FAR of 4.6 for developments with a permanent affordable housing set aside pursuant to the MIH program. The maximum building height is 95 feet after a setback from the base height of up to 75 feet. Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum of 9 floors. Off-street parking is required for 50 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone. Within the proposed MX district, the bulk regulations of Article IV, Chapter 3 would apply to manufacturing, commercial, and community facility uses.

M1-4 districts permit a maximum of 2.0 FAR for commercial or manufacturing use, and 6.5 for community facility uses. Parking is not required for industrial or commercial uses in the MX R7A/ M1-4 districts.

R6B

R6B districts are often traditional row house districts, which preserve the scale and harmonious streetscape of neighborhoods of four-story attached buildings developed during the 19th century. Many of these houses are set back from the street with stoops and small front yards that are typical of Brooklyn's "brownstone" neighborhoods, such as Park Slope, Boerum Hill and Bedford Stuyvesant.

The FAR of 2.0 and the mandatory Quality Housing regulations also accommodate apartment buildings at a similar four- to five-story scale. The base height of a new building before setback must be between 30 and 40 feet and the maximum height is 50 feet. For buildings providing a qualifying ground floor, the maximum base height and overall height increase by 5 feet. Higher maximum FAR are available for buildings participating in the Inclusionary Housing program or that provide certain senior facilities.

Off-street parking spaces are required for 50% of the dwelling units. However, requirements are lower for income-restricted housing units (IRHU) and are further modified within the Transit Zone. Parking can be waived if five or fewer spaces are required.

R7A

R7A is a contextual district where the Quality Housing bulk regulations are mandatory. These regulations utilize height limits to produce high lot coverage, seven- to nine- -story apartment buildings set at or near the street line. Designed to be compatible with older buildings found in medium-density neighborhoods, R7A districts are mapped along Prospect Park South and Ocean Parkway in Brooklyn, Jackson Heights in Queens, and in Harlem and along the avenues in the East Village in Manhattan.

The basic residential FAR in R7A districts is 4.0. Above a base height of 40 to 65 feet, or 75 feet if providing a qualifying ground floor, the building must set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 80 feet, or 85 feet if providing a qualifying ground floor. Higher maximum FAR and heights are available for buildings participating in the Inclusionary Housing Program or that provide certain senior facilities.

Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units (IRHU) and are further modified in certain areas, such as within the Transit Zone and the Manhattan Core, or for lots 10,000 square feet or less. Off-street parking requirements can be waived if 15 or fewer parking spaces are required.

R7D

R7D districts are medium-density contextual districts to promote new developments along transit corridors where Quality Housing bulk regulations are mandatory. The permitted uses within R7D districts are residential and community facility.

In R7D districts, the community facility FAR is 4.2 and the basic residential FAR is 4.2, which allows greater residential density than R7A districts and less than R7X districts. Above a base height of 60 to 85 feet, the building must set back by at least 10 feet on a wide street and 15 feet on a narrow street before rising to its maximum height of 100 feet, or 105 feet if providing a qualifying ground floor. Higher maximum residential FAR of 5.6, base height of 95 feet, and building height of 110 feet (115 feet with a qualifying ground floor) are available for buildings participating in the Inclusionary Housing Program or that provide certain senior facilities.

Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units (IRHU) and are further modified in certain areas, such as within the Transit Zone and the Manhattan Core, or for lots 10,000 square feet or less. Off-street parking requirements can be waived if 15 or fewer parking spaces are required.

C2-4 Commercial Overlay

C2-4 districts are commercial overlays mapped within residence districts. Mapped along streets that serve local retail needs, they are found extensively throughout the city's lower- and medium-density areas and occasionally in higher-density districts.

Typical retail uses include neighborhood grocery stores, restaurants and beauty parlors. In mixed buildings, commercial uses are limited to one or two floors and must always be located below the residential use.

When commercial overlays are mapped in R1 through R5 districts, the maximum commercial floor area ratio (FAR) is 1.0; when mapped in R6 through R10 districts, the maximum commercial FAR is 2.0. Commercial buildings are subject to commercial bulk rules.

Overlay districts differ from other commercial districts in that residential bulk is governed by the residence district within which the overlay is mapped. All other commercial districts that permit residential use are assigned a specific residential district equivalent. Unless otherwise indicated on the zoning maps, the depth of overlay districts ranges from 100 to 200 feet.

Affected Area

The Affected Area is zoned M1-1, which permits low-density light manufacturing developments along with commercial or community facility uses.

Analysis

Future No-Action Condition

Zoning Study Area and Affected Area

Within the 400-foot zoning study area, there is a proposed rezoning on the northern side of Atlantic Avenue at 1045 Atlantic Avenue that is expected to be constructed by the 2024 build year. A zoning map amendment from M1-1 to a C6-3A district and a zoning text amendment to create a new MIH area to facilitate a newly constructed 17-story mixed-use building with a total of 490,000 SF, including 426 units and 63,000 SF of commercial uses (8.5 FAR), is sought by private applicant Atlantic Brooklyn LLC at 1045 Atlantic Avenue in Bedford-Stuyvesant, Community District 3, Brooklyn.

No changes to zoning would occur in the future without the Proposed Actions in the Affected Area. Existing zoning patterns would remain, and the Affected Area would continue to be subject to M1-1 zoning regulations.

Future With-Action Condition

Zoning Study Area

Changes to zoning would only occur in the Affected Area in the future with the Proposed Actions.

Affected Area –C6-3A/R7A/C2-4

Block 1125, Lots 29, p/o 33, p/o 40, p/o 52, and p/o 53 would be rezoned from an existing M1-1 zoning district to a C6-3A zoning district. Meanwhile, Block 1125, Lots p/o 33, p/o 40, p/o 52, p/o 53, 57, 59, and 61 would be rezoned from an existing M1-1 zoning district to an R7A/C2-4 zoning district, bringing Lots 53, 57, 59, and 61 (currently legally nonconforming) into conformance with the Zoning Resolution.

Under the With-Action condition, the proposed C6-3A district would permit a maximum of 8.5 FAR for residential use, 6.0 FAR for commercial uses, and 7.5 for community facility uses. The maximum building height within the C6-3A zoning district is 175 feet after a setback from the base height of up to 125 feet. Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum of 17 floors. Off-street parking is required for 40 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone.

The proposed R7A/C2-4 zoning districts would permit a maximum of 4.6 FAR for residential use, 2.0 FAR for commercial use, and 4.0 FAR for community facility uses. The maximum building height within the R7A/C2-4 zoning district is 95 feet after a setback from the base height of up to 75 feet. Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum of 9 floors. Off-street parking is required for 50 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone.

In comparison with the existing M1-1 zoning districts mapped in the Affected Area currently, the proposed C6-3A and R7A/C2-4 zoning districts would not permit manufacturing uses and would allow for larger bulks and higher building heights within the Affected Area, which would enhance the zoning conformity in the surrounding area which is predominantly zoned as residential and commercial districts.

Conclusion

The Applicant believes that the proposed zoning would induce development consistent with nearby high-density mixed-use buildings mostly along Atlantic Avenue and Pacific Street to the west and Classon Avenue to the south. The proposed zoning district is mapped at the confluence of Atlantic Avenue and Classon Avenue, which, from the Applicant's perspective, is appropriate for a higher density of mixed residential, commercial, and community facility uses while maintaining the residential character of nearby side streets. The rezoning would not adversely affect surrounding land uses, nor would it be incompatible with those land uses. Therefore, no significant adverse impacts are anticipated to zoning, and further analysis is not required.

Public Policy

The project site is not part of, or subject to, an Urban Renewal Plan (URP), adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District (BID), Industrial Business Zone (IBZ), or the New York City Landmarks Law. The Proposed Action is also not a large publicly sponsored project, and as such, consistency with the City's PlaNYC 2030 for sustainability is not warranted.

The Proposed Actions include a Zoning Text Amendment to ZR Appendix F: Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas for Community District 8, Brooklyn, to establish the Affected Area as an MIH Area under Program Option 2. As a result, analysis of the Proposed Development's alignment with Housing New York is warranted.

Housing New York

Carried out by Housing Preservation and Development (HPD), Housing New York is the Mayor's plan to build or preserve 300,000 affordable homes by 2026. The plan outlines a comprehensive set of policies and programs to address the city's affordable housing crisis and retain the diversity and vitality of its neighborhoods. An analysis was provided for the Projected Development regarding how the Housing New York public policy would or would not be promoted in the No Action and With Action conditions.

Analysis

Existing Conditions

The Applicant-owned Projected Development Site 1 consists of two separate lots (Block 1125, Lots 29 and 33) along Atlantic Avenue. Lot 29 is an interior lot with 100 feet of frontage along Atlantic Avenue and is improved with a 3,915 GSF, one-story industrial building that was constructed around 1930. Lot 33 is a through-lot with 60 feet of frontage on Atlantic Avenue and Pacific Street, and is improved with a 24,000 GSF, two-story industrial building that was constructed around 1930. Both buildings are currently vacant.

Projected Development Site 2 consists of two separate lots (Block 1125, Lots 52 and 53) to the southeast of the Projected Development Site 1 along Pacific Street, including vacant and unimproved lot 52 and a 3-story, 2,700 GSF multi-family walk-up building with 3 dwelling units on lot 53 (1.35 FAR).

Other lots within the Affected Area include a 2-story, 50,550 GSF industrial building operating as Cubesmart self-storage facility on lot 40 (1.91 FAR); 4-story 8-unit multi-family buildings with 6,000 GSF of floor area on

lots 57 and 59 (2.50 FAR); and Lot 61, which is improved with a 3,200 GSF, 1-story building operating as a dog training, boarding, and daycare center (1.00 FAR).

Under the existing condition, the two projected development sites are improved with three one- to three-story buildings, totaling 2,700 GSF of residential uses and 27,915 GSF of manufacturing uses. There are no commercial uses or community facility on the two Projected Development Sites.

Future No-Action Condition

No changes to the residential units or manufacturing uses would occur in the future without the Proposed Actions. The existing buildings would remain.

Future With-Action Condition

In the future with the Proposed Actions, development on the two Projected Development Sites would add 227 residential units to the area, of which 45 would be set aside as permanently affordable units under MIH Option 2. In addition, 15,554 GSF of commercial spaces and 12,730 GSF of community facility uses would be provided on the sites. The developments would help foster diverse and livable neighborhoods with the mixed-use buildings consisting of residential, commercial, and community facility uses in an underutilized area and ensures the housing supply increases in an equitable way, building new affordable housing units for local community.

The Proposed Actions are consistent with the goals of Housing New York as an MIH area would be established over the Affected Area to introduce more affordable residential units to the area. The proposed developments on the two Projected Development Sites would set aside 45 dwelling units, far more than the total 3 existing market-rate residential units, as permanently affordable units for households making an income at or below 80% AMI, which makes up 20% of the total 227 project induced dwelling units. The affordable units provided on site would foster diverse and livable neighborhood, preserve the affordability and quality of the housing stock, and build new affordable housing for all New Yorkers.

Conclusion

The development that is projected as a result of the Proposed Actions would not create a land use conflict, nor would itself conflict with public policies and plans for the site or surrounding area. The Proposed Actions would also not result in significant material changes to existing regulations or policy. Therefore, no significant adverse impacts are anticipated to public policies and no further analysis is warranted.

Chapter 5: Socioeconomic Conditions

According to the *2020 CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. The following circumstances would typically require a socioeconomic assessment:

- The project would directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered. Displacement of less than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood. For projects exceeding this threshold, assessments of the direct residential displacement, indirect residential displacement, and indirect business displacement are appropriate.
- The project would directly displace more than 100 employees. For projects exceeding this threshold, assessments of direct business displacement and indirect business displacement are appropriate.
- The project would directly displace a business that is unusually important because its products or services are uniquely dependent on its location; that, based on its type or location, is the subject of other regulations or publicly adopted plans aimed at its preservation; or that serves a population uniquely dependent on its services in its present location. Information provided in Chapter 4, "Land Use, Zoning, and Public Policy," may be useful in determining whether an assessment is appropriate. If any of these conditions is considered likely, assessments of direct business displacement and indirect business displacement are appropriate.
- The project would result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood. Such a project may lead to indirect displacement. Typically, projects that are small to moderate in size would not have significant socioeconomic effects unless they are likely to generate socioeconomic conditions that are very different from existing conditions in the area. Residential development of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, assessments of indirect residential displacement and indirect business displacement are appropriate.
- The project would add to, or create, a retail concentration that may draw a substantial number of sales from existing businesses within the study area to the extent that certain categories of business close and vacancies in the area increase, thus resulting in a potential for disinvestment on local retail streets. Projects resulting in less than 200,000 square feet of retail on a single development site would not typically result in socioeconomic impacts. If the proposed development is located on multiple sites located across an Affected Area, a preliminary analysis is likely only warranted for retail developments in excess of 200,000 sq. ft. that are considered regional-serving (not the type of retail that primarily serves the local population). For projects exceeding these thresholds, an assessment of the indirect business displacement due to market saturation is appropriate.
- If the project is expected to affect conditions within a specific industry, an assessment is appropriate. For example, a citywide regulatory change that would adversely affect the economic and operational conditions of certain types of businesses or processes may affect socioeconomic conditions in a neighborhood: (1) if a substantial number of residents or workers depend on the goods or services provided by the affected businesses; or (2) if it would result in the loss or substantial diminishment of a particularly important product or service within the city. Since the range of possible types of projects that may require an analysis of specific industries varies, the lead agency, in consultation

with the Mayor's Office of Environmental Coordination (MOEC), should provide guidance as to whether an analysis is warranted.

Methodology

Typically, the socioeconomic study area boundaries are similar to those of the land use study area. The study area encompasses the project site and adjacent area within 400 feet, 0.25 mile, or 0.5 mile, depending on project size and area characteristics. The socioeconomic assessment seeks to examine the potential to change socioeconomic character relative to the study area population. For projects that result in an increase in residential population, the scale of the relative change is typically represented as a percent increase in population.

Analysis

Existing Conditions

Existing conditions within the Affected Area include 27,915 GSF of manufacturing uses—a glass manufacturer and a refrigerator manufacturer—that includes approximately 28 employees. The Affected Area also includes three dwelling units within 2,700 GSF.

Future No-Action Condition

In the future without the Proposed Actions, existing conditions would remain within the Affected Area. There is a proposed rezoning on the northern side of Atlantic Avenue at 1045 Atlantic Avenue that is expected to be constructed by the 2024 build year. The rezoning has two development scenarios: 1) a 17-story, mixed-use building with 357,436 GSF of residential uses (422 dwelling units, 127 of which would be permanently affordable), 28,334 GSF of commercial office uses, 34,470 GSF of commercial retail uses, 8,995 GSF of community facility (child care) uses, 39,950 GSF of below-grade accessory parking uses, 2,352 GSF of at-grade parking/loading uses, and 5,561 GSF of mechanical uses; or 2) a 16-story, mixed-use building containing 113,587 GSF of commercial offices uses, 33,111 GSF of commercial retail uses (3.00 FAR of commercial use), 273,072 GSF of residential uses (5.00 FAR with 337 dwelling units, 84 to 101 of which would be permanently affordable), 43,640 GSF of below-grade accessory parking uses, 2,382 GSF of at-grade parking/loading uses, and 5,798 GSF of mechanical uses.

Future With-Action Condition

In the future with the Proposed Actions the two manufacturing uses and three dwelling units would be replaced with the development that is projected on Projected Development Sites 1 and 2: 224 new dwelling units, 15,554 GSF of commercial local retail, and 12,730 GSF of UG 4 general community facility uses.

Preliminary Socioeconomic Assessment

<u>Direct Residential Displacement</u>

There are three residential dwelling units within the Affected Area under existing conditions. As per 2014-2018 American Community Survey (ACS), the Proposed Actions would lead to the direct displacement of 7 residents using the average of 2.42 persons per dwelling unit within Brooklyn Community District 8. Far less

than 500 residents would be directly displaced by the Proposed Actions, which is not expected to alter the socioeconomic character of a neighborhood as per *2020 CEQR Technical Manual*. Therefore, an assessment of direct residential displacement is not warranted.

Direct Business Displacement

The Proposed Actions would introduce 15,554 GSF of UG 6 commercial uses (local retail) into the area. Meanwhile, the existing 27,915 GSF of manufacturing uses and 28 workers would be displaced as a result. According to the *2020 CEQR Technical Manual*, for projects not exceeding the threshold of 100 employees, assessments of direct business displacement would not be required. Therefore, an assessment of direct business displacement is not warranted.

Indirect Residential Displacement

The Proposed Actions would result in a net induced development of 224 dwelling units, 45 of which would be permanently affordable. Pursuant to the *2020 CEQR Technical Manual*, for projects exceeding 200 dwelling units, assessments of indirect residential displacement are appropriate. Therefore, further analysis of the potential for indirect displacement due to increased rents is warranted.

Indirect Business Displacement due to Retail Market Saturation

The Proposed Actions are projected to result in the net incremental development of 12,730 GSF of community facility use and 15,554 GSF of commercial use. Pursuant to the *2020 CEQR Technical Manual*, for projects exceeding 200,000 square feet of retail spaces, assessments of indirect business displacement due to market saturation are appropriate. The commercial spaces of the projected development would be far below the threshold, and therefore further analysis of indirect business displacement is not warranted.

Adverse Effects on Specific Industries

The Proposed Actions would not affect a business that provides goods or services to a substantial number of residents or workers, and would not result in the loss or substantial diminishment of a particularly important product or service within the city. Therefore, no adverse impacts to any industries would occur as a result of the Proposed Actions.

Indirect Residential Replacement Analysis

1/4-Mile Study Area

Because the Proposed Actions would result in the induced development of over 200 residential units, further analysis of the potential for indirect impacts associated with increased rents was conducted, relying on the methodology of the *2020 CEQR Technical Manual*. Pursuant to *Chapter 5, Section 310 of the CEQR Technical Manual*, an initial study area of 1/4-mile radius is identified is appropriate. The Study Area was defined to include those census tracts that are more than 50% within a 1/4-mile radius of the Affected Area (**Figure 2.5-1**). The census tracts with more than 50 percent of their land area within a 1/4-mile radius of the Affected Area are census tracts 227 and 305.

Figure 2.5-1: Socioeconomic Study Area – 1/4 Mile

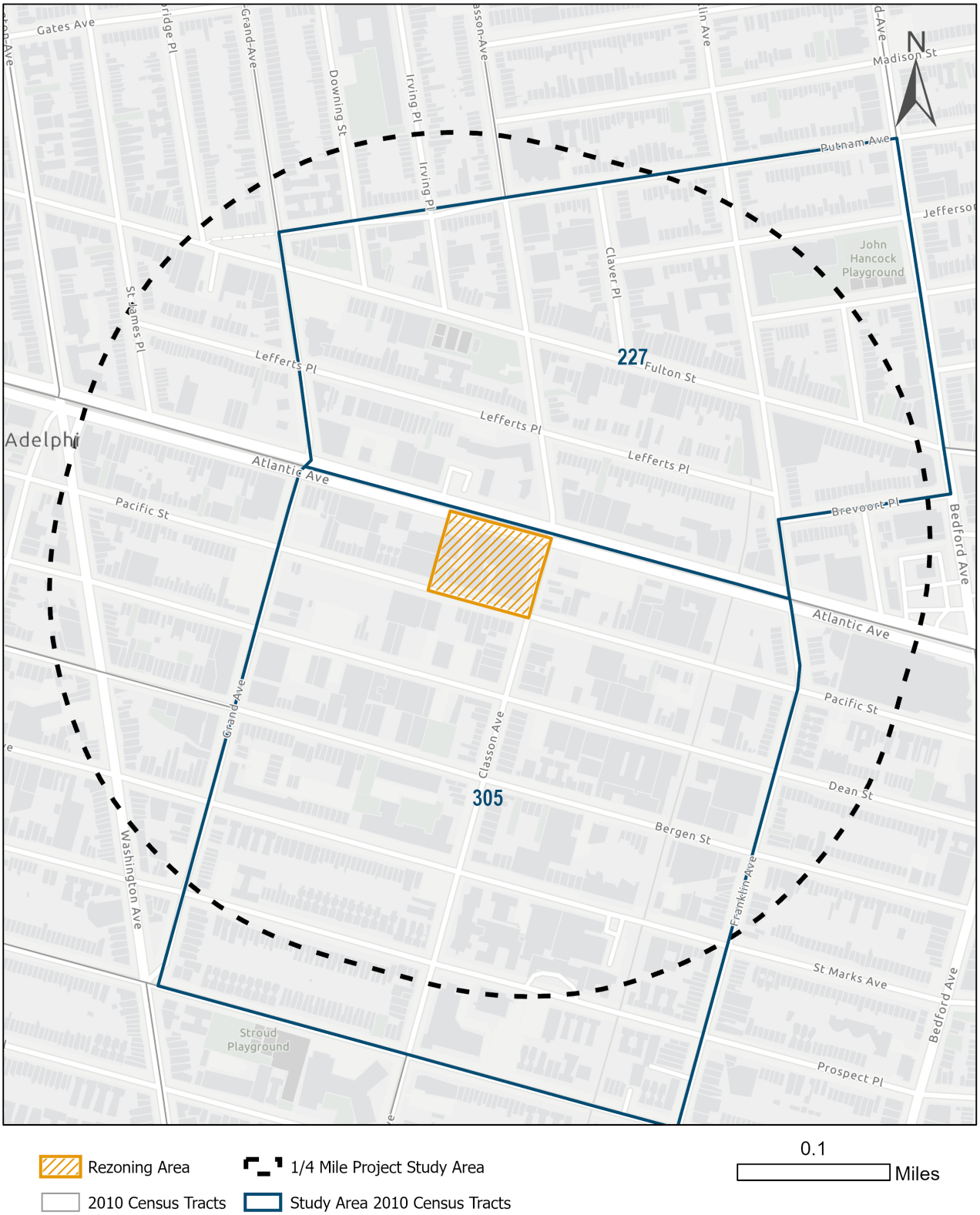


Table 2.5-1: Completed DOB Permits Within 1/4-mile Study Area Since 2010

ID	Census Tract	Address	Job Type	Permit Year	Complete Year	Class A Initial Units	Class A Proposed Units	Class A Net Units	Ownership
1	227	35 Claver Pl	Alteration	2001	2012	0	1	1	Private For-Profit: Corporation
2	227	1185 Fulton St	New Building	2004	2014	0	2	2	Private For-Profit: Partnership
3	227	71 Jefferson Ave	Alteration	2005	2013	2	3	1	Private For-Profit: Individual
4	227	1078 Fulton St	New Building	2007	2011	0	45	45	Private For-Profit: Partnership
5	227	8 Spencer Pl	Alteration	2006	2016	9	6	-3	Private For-Profit: Individual
6	227	15 Jefferson Ave	Alteration	2006	2012	2	3	1	Private For-Profit: Individual
7	227	39 Claver Pl	Alteration	2006	2010	2	3	1	Private For-Profit: Individual
8	227	1006 Fulton St	Alteration	2009	2010	6	6	0	Private For-Profit: Individual
9	227	161 Lefferts Pl	Alteration	2007	2010	0	2	2	Private For-Profit: Individual
10	227	174 Lefferts Pl	Alteration	2009	2011	7	7	0	Private For-Profit: Corporation
11	227	190 Lefferts Pl	Alteration	2009	2010	1	5	4	Private For-Profit: Corporation
12	227	176 Lefferts Pl	Alteration	2009	2011	1	5	4	Private For-Profit: Corporation
13	227	208 Lefferts Pl	Alteration	2011	2014	1	4	3	Private For-Profit: Partnership
14	227	196 Lefferts Pl	Demolition	2010	2010	3	0	-3	Government, City: HPD
15	227	579 Classon Ave	Alteration	2011	2012	2	4	2	Private For-Profit: Individual
16	227	1082 Fulton St	Alteration	2011	2012	3	7	4	Private For-Profit: Individual
17	227	82 Irving Pl	New Building	2011	2013	0	28	28	Private For-Profit: Partnership
18	227	66 Putnam Ave	Alteration	2013	2019	1	2	1	Private For-Profit: Individual
19	227	514 Classon Ave	Alteration	2011	2016	2	3	1	Private For-Profit: Individual
20	227	40 Putnam Ave	New Building	2012	2013	0	59	59	Private For-Profit: Partnership
21	227	482 Franklin Ave	New Building	2012	2015	0	93	93	Private For-Profit: Partnership
22	227	135 Lefferts Pl	New Building	2013	2015	0	8	8	Private For-Profit: Corporation
23	227	170 Putnam Ave	New Building	2013	2014	0	3	3	Private For-Profit: Corporation
24	227	516 Classon Ave	New Building	2013	2016	0	16	16	Private For-Profit: Corporation
25	227	196 Lefferts Pl	New Building	2012	2013	0	3	3	Private For-Profit: Corporation
26	227	457 Franklin Ave	New Building	2012	2013	0	2	2	Private For-Profit: Individual
27	227	96 Lefferts Pl	Demolition	2012	2012	2	0	-2	Private For-Profit: Corporation
28	227	15 Brevoort Pl	Alteration	2012	2015	8	3	-5	Private For-Profit: Individual

ID	Census Tract	Address	Job Type	Permit Year	Complete Year	Class A Initial Units	Class A Proposed Units	Class A Net Units	Ownership
29	227	88 Lefferts Pl	New Building	2013	2016	0	8	8	Private Non-Profit: Partnership
30	227	84 Lefferts Pl	New Building	2013	2016	0	7	7	Private For-Profit: Partnership
31	227	1088 Fulton St	Alteration	2012	2013	2	2	0	Private For-Profit: Partnership
32	227	80 Lefferts Pl	New Building	2014	2016	0	8	8	Private For-Profit: Other
33	227	76 Lefferts Pl	New Building	2013	2016	0	8	8	Private For-Profit: Other
34	227	94 Lefferts Pl	New Building	2013	2017	0	4	4	Private For-Profit: Corporation
35	227	535 Classon Ave	New Building	2014	2015	0	38	38	Private For-Profit: Partnership
36	227	96 Lefferts Pl	New Building	2014	2017	0	4	4	Private For-Profit: Corporation
37	227	186 Putnam Ave	New Building	2013	2015	0	14	14	Private For-Profit: Individual
38	227	1192 Bedford Ave	New Building	2013	2015	0	6	6	Private For-Profit: Individual
39	227	92 Lefferts Pl	New Building	2016	2017	0	4	4	Private For-Profit: Corporation
40	227	29 Spencer Pl	Alteration	2013	2015	7	14	7	Private For-Profit: Partnership
41	227	1008 Fulton St	New Building	2014	2017	0	6	6	Private For-Profit: Partnership
42	227	1035 Fulton St	New Building	2014	2016	0	35	35	Private For-Profit: Partnership
43	227	1068 Fulton St	New Building	2017	2019	0	41	41	Private For-Profit: Partnership
44	227	1004 Fulton St	Alteration	2015	2016	3	6	3	Private For-Profit: Individual
45	227	109 Lefferts Pl	Alteration	2014	2015	1	2	1	Private For-Profit: Individual
46	227	1190 Bedford Ave	New Building	2013	2015	0	6	6	Private For-Profit: Partnership
47	227	184 Lefferts Pl	Alteration	2013	2015	3	2	-1	Private For-Profit: Corporation
48	227	125 Lefferts Pl	Alteration	2014	2015	0	6	6	Private For-Profit: Corporation
49	227	127 Lefferts Pl	Alteration	2014	2015	0	7	7	Private For-Profit: Corporation
50	227	110 Putnam Ave	Alteration	2014	2017	2	4	2	Private For-Profit: Partnership
51	227	1047 Fulton St	Demolition	2014	2014	3	0	-3	Private For-Profit: Other
52	227	1045 Fulton St	Demolition	2014	2014	3	0	-3	Private For-Profit: Other
53	227	1043 Fulton St	Demolition	2014	2014	1	0	-1	Private For-Profit: Other
54	227	1041 Fulton St	Demolition	2014	2014	1	0	-1	Private For-Profit: Other
55	227	1041.5 Fulton St	Demolition	2014	2014	1	0	-1	Private For-Profit: Other
56	227	1041A Fulton St	Demolition	2014	2014	1	0	-1	Private For-Profit: Other
57	227	1043 Fulton St	New Building	2017	2020	0	37	37	Private For-Profit: Partnership

ID	Census Tract	Address	Job Type	Permit Year	Complete Year	Class A Initial Units	Class A Proposed Units	Class A Net Units	Ownership
58	227	1234 Bedford Ave	Alteration	2014	2015	2	9	7	Private For-Profit: Individual
59	227	91 Irving Pl	Alteration	2015	2017	0	1	1	Private For-Profit: Individual
60	227	1007 Atlantic Ave	New Building	2015	2017	0	50	50	Private For-Profit: Partnership
61	227	459 Franklin Ave	Alteration	2016	2017	1	2	1	Private For-Profit: Individual
62	227	1078 Fulton St	Alteration	2015	2016	45	45	0	Private For-Profit: Partnership
63	227	82 Putnam Ave	Alteration	2016	2017	3	3	0	Private For-Profit: Partnership
64	227	1134 Fulton St	New Building	2015	2020	0	182	182	Private For-Profit: Partnership
65	227	573 Classon Ave	New Building	2017	2020	0	4	4	Private For-Profit: Individual
66	227	6 Spencer Pl	Alteration	2017	2019	0	4	4	Private For-Profit: Corporation
67	227	1057 Fulton St	Alteration	2017	2019	0	13	13	Private For-Profit: Partnership
68	227	36 Claver Pl	Alteration	2016	2017	2	2	0	Private For-Profit: Corporation
69	227	47 Jefferson Ave	Alteration	2016	2019	4	2	-2	Private For-Profit: Individual
70	227	27 Jefferson Ave	Alteration	2017	2019	2	4	2	Private For-Profit: Partnership
71	227	84 Putnam Ave	Alteration	2018	2020	3	2	-1	Private For-Profit: Corporation
72	227	35 Claver Pl	Alteration	2017	2018	13	44	31	Private Non-Profit: Partnership
73	227	192 Lefferts Pl	Alteration	2018	2020	1	2	1	Private For-Profit: Corporation
74	227	1002 Fulton St	Alteration	2019	2020	3	7	4	Private For-Profit: Corporation
75	227	39 Jefferson Ave	Alteration	2018	2019	4	4	0	Private For-Profit: Individual
76	227	1163 Fulton St	Demolition	2019	2019	3	0	-3	Government, City: City Agency
77	227	82 Putnam Ave	Alteration	2018	2018	3	2	-1	Private For-Profit: Individual
78	305	519 Park Pl	Alteration	2003	2011	4	4	0	Government, City: Other
79	305	545 Prospect Pl	Alteration	2005	2012	0	159	159	Private For-Profit: Corporation
80	305	565 Prospect Pl	Alteration	2010	2011	72	86	14	Private For-Profit: Corporation
81	305	392 St Marks Ave	New Building	2004	2013	0	24	24	Private For-Profit: Partnership
82	305	500 St Marks Ave	Alteration	2009	2012	0	65	65	Private For-Profit: Corporation
83	305	480 St Marks Ave	Alteration	2010	2012	71	71	0	Private For-Profit: Corporation
84	305	892 Bergen St	New Building	2007	2010	0	38	38	Private For-Profit: Corporation
85	305	887 Bergen St	New Building	2008	2015	0	9	9	Private For-Profit: Corporation
86	305	840 Bergen St	New Building	2007	2012	0	67	67	Private For-Profit: Partnership

ID	Census Tract	Address	Job Type	Permit Year	Complete Year	Class A Initial Units	Class A Proposed Units	Class A Net Units	Ownership
87	305	804 Bergen St	New Building	2006	2012	0	9	9	Private For-Profit: Individual
88	305	871 Bergen St	New Building	2007	2014	0	16	16	Private For-Profit: Corporation
89	305	629 Classon Ave	Alteration	2008	2010	2	2	0	Private For-Profit: Partnership
90	305	542 St Marks Ave	New Building	2007	2011	0	36	36	Private For-Profit: Partnership
91	305	692 Franklin Ave	Alteration	2007	2013	2	2	0	Private For-Profit: Individual
92	305	801 Bergen St	New Building	2008	2012	0	31	31	Private For-Profit: Partnership
93	305	420 Prospect Pl	Alteration	2008	2011	8	8	0	Private Non-Profit: Individual
94	305	521 St Marks Ave	New Building	2009	2011	0	38	38	Private For-Profit: Partnership
95	305	515 St Marks Ave	Alteration	2011	2012	8	8	0	Private For-Profit: Partnership
96	305	469 Park Pl	Alteration	2009	2010	8	12	4	Private For-Profit: Corporation
97	305	461 Park Pl	Alteration	2010	2010	8	12	4	Private For-Profit: Corporation
98	305	635 Classon Ave	Alteration	2010	2013	2	2	0	Private For-Profit: Partnership
99	305	914 Bergen St	Alteration	2010	2013	3	3	0	Private For-Profit: Individual
100	305	585 Park Pl	Alteration	2011	2011	6	8	2	Private For-Profit: Partnership
101	305	658 Classon Ave	Alteration	2011	2013	2	2	0	Private For-Profit: Individual
102	305	497 St Marks Ave	New Building	2013	2016	0	147	147	Private For-Profit: Partnership
103	305	912 Bergen St	New Building	2015	2018	0	12	12	Private For-Profit: Partnership
104	305	1080 Pacific St	Demolition	2013	2013	2	0	-2	Private For-Profit: Individual
105	305	506 St Marks Ave	Alteration	2013	2015	0	6	6	Private For-Profit: Corporation
106	305	588 Franklin Ave	Alteration	2013	2015	3	4	1	Private For-Profit: Partnership
107	305	641 Classon Ave	Alteration	2013	2013	2	2	0	Private For-Profit: Individual
108	305	433 Prospect Pl	Alteration	2013	2015	2	2	0	Private For-Profit: Individual
109	305	473 Park Pl	Alteration	2014	2017	8	17	9	Private For-Profit: Partnership
110	305	529 Park Pl	New Building	2017	2020	0	8	8	Private For-Profit: Partnership
111	305	533 Park Pl	Alteration	2016	2016	2	7	5	Private For-Profit: Individual
112	305	537 Park Pl	Alteration	2016	2016	2	6	4	Private For-Profit: Individual
113	305	1040 Dean St	New Building	2015	2017	0	120	120	Private For-Profit: Partnership
114	305	434 Prospect Pl	Alteration	2015	2016	6	3	-3	Private For-Profit: Individual
115	305	912 Bergen St	Demolition	2015	2015	2	0	-2	Private For-Profit: Partnership

ID	Census Tract	Address	Job Type	Permit Year	Complete Year	Class A Initial Units	Class A Proposed Units	Class A Net Units	Ownership
116	305	876 Bergen St	New Building	2015	2017	0	16	16	Private For-Profit: Individual
117	305	621 Grand Ave	Alteration	2015	2017	2	2	0	Private For-Profit: Individual
118	305	916 Bergen St	New Building	2017	2018	0	12	12	Private For-Profit: Partnership
119	305	496 Prospect Pl	New Building	2017	2019	0	6	6	Private For-Profit: Partnership
120	305	440 St Marks Ave	Alteration	2018	2019	2	2	0	Private For-Profit: Partnership
121	305	880 Bergen St	Alteration	2016	2017	120	133	13	Private For-Profit: Corporation
122	305	552 Prospect Pl	New Building	2019	2020	0	22	22	Private For-Profit: Individual
123	305	496 Prospect Pl	Demolition	2017	2017	1	0	-1	Private For-Profit: Partnership
124	305	808A Bergen St	Alteration	2017	2019	4	4	0	Private For-Profit: Partnership
125	305	441 Prospect Pl	Alteration	2017	2020	2	2	0	Private For-Profit: Individual
126	305	594 Franklin Ave	Alteration	2017	2018	4	4	0	Private For-Profit: Corporation
127	305	906 Bergen St	Demolition	2017	2017	2	0	-2	Private For-Profit: Partnership
128	305	908 Bergen St	Demolition	2017	2017	2	0	-2	Private For-Profit: Partnership
129	305	430 St Marks Ave	Alteration	2018	2020	2	2	0	Private For-Profit: Individual
130	305	810 Bergen St	Alteration	2018	2018	4	4	0	Private For-Profit: Condo/Co-Op
131	305	500 Prospect Pl	Alteration	2019	2020	2	2	0	Private For-Profit: Individual
132	305	486 Prospect Pl	Alteration	2018	2019	4	7	3	Private For-Profit: Partnership
133	305	910 Bergen St	Demolition	2018	2018	2	0	-2	Private For-Profit: Individual
Total						**547**	**2,238**	**1,691**	

Existing Conditions

As stated in *CEQR Technical Manual*, to better understand the trends of changing socioeconomic conditions of the Study Area that may potentially displace a vulnerable population, it is useful to include data from the most recent census as well as data from the completed DOB permits in the previous decade when determining the existing population of the Study Area. The data adopted to determine the existing population includes 2010 decennial census data and DCP Housing Database Project-Level Files.

Based on the 2010 decennial estimates, the total population of the two census tracts within the 1/4-mile Study Area is 9,003 residents. According to the Project-Level DCP Housing Database, 133 permits were completed within the two census tracts in the 1/4-Mile Study Area since April 1, 2010. As shown in **Table 2.5-1** above, an increment of 1,691 Class A dwelling units were introduced into the 1/4-Mile Study Area as a result of the completed DOB permits. The 1,691 dwelling units multiplied by the average household size (2.42) for Brooklyn Community District 8 (2015-2019 ACS) comes out to 4,092 additional residents. In total, there would be 13,095 existing residents in the 1/4-Mile Study Area.

Future No-Action Condition

The No-Action Condition for the Study Area, projecting to the 2024 build year, is based on the household size and known developments within the Study Area. A review of active major construction projects, approved BSA applications, and approved ULURP actions was undertaken to determine known developments in the area, where developments with less than 18 dwelling units were excluded due to their small size with limited impact on the socioeconomic condition. The 840 Atlantic Avenue Rezoning and the 1045 Atlantic Avenue Rezoning will also be included in this analysis, as discussed above in Chapter 4, Land Use, and Scenario 1, which maximizes residential uses, will be considered as it is more conservative in terms of the Socioeconomics analysis. As shown in **Table 2.5-2** below, a total of 7 proposed projects with more than 18 dwelling units, resulting in 911,373 GSF of development and 887 proposed dwelling units, were identified. The proposed 887 dwelling units multiplied by the average household size (2.42) for Brooklyn CD 8 (2015-2019 ACS) comes out to 2,147 additional residents. The No-Action population for the Study Area would be the 2,147 additional residents plus the existing Study Area population of 13,095, for a total No-Action population of 15,242 residents.

Table 2.5-2: No-Action Developments within Census Tracts 227 and 305

Address	Land Use	Permit Type	SF	DU	Story
108 Downing Street	Residential	New Building	55,518	50	8
1111 Fulton Street	Residential	New Building	19,179	18	7
906 Bergen Street	Residential	New Building	22,856	18	8
552 Prospect Place	Residential	New Building	34,195	22	6
550 Prospect Place	Residential	New Building	45,757	41	7
840 Atlantic Avenue	Mixed-Use	New Building	376,432	316	18
1045 Atlantic Avenue	Mixed-Use	New Building	357,436	422	17
Total			**911,373**	**887**	

Future With-Action Condition

Compared to No-Action Conditions, the Proposed Actions would introduce 224 more dwelling units. Assuming an average household size of 2.42 persons, there would be 542 incremental residents resulting from the Proposed Actions. The Future With-Action population, then, would be 15,784 residents, or an increase of 3.56 percent.

Analysis

Step 1

Step 1 of the socioeconomics analysis requires a determination of whether or not the Proposed Actions would add a new population to the study area with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the study area without the project.

Study Area Household Income

Referencing the NYC Planning Population FactFinder, the study area census tracts 227 and 305 have a median household income of $78,744, per the 2014-2018 ACS. In comparison, the 2006-2010 ACS reported the median household income for the census tracts as $53,355. Although this change is not considered statistically significant, it can be viewed as directionally accurate and indicative of increasing household incomes within the study area. For non-family households the income levels for the 2006-2010 period were reported as a median of $53,736, and the 2014-2018 period indicates a median income of $82,635. Again, although these numbers are not considered significantly significant, they can be considered directionally accurate. The household and nonfamily incomes show an observable trend towards higher earning residents within the study area census tracts.

Study Area Market Rent

To determine market rents for the study area, the website StreetEasy[2] was consulted. For the study area census tracts, rental prices ranged from $1,350 to $5,995, which is indicative of an area in transition that has seen a large number of private rezonings and development in recent years. The range of market rents is shown below in **Table 2.5-3**, along with two columns showing the estimated annual household income to afford the rent. Typically, rents are estimated to be 30% of the household incomes.

Table 2.5-3: StreetEasy Market Rent in the Study Area

Bedrooms	Low Rent	High Rent	Annual Household Income Estimate (Low)	Annual Household Income Estimate (High)
Studio	$1,350	$2,850	$54,000	$114,000
1BR	$1,500	$3,595	$60,000	$143,800
2BR	$1,725	$5,995	$69,000	$239,800
3BR	$2,250	$4,900	$90,000	$196,000

[2] https://streeteasy.com/blog/data-dashboard/

Proposed Building Household Income and Market Rent Estimates

Since new development tends to be at the higher end of the rents, the third quantile of market rent range in the study area would be referred as the potential rent of the proposed market-rate units, which is approximately $2,475 for studio, $3,071 for one-bedroom, $4,928 for two-bedroom, and $4,238 for three-bedroom**.** Accordingly, the estimated annual household income to afford the rent would be $99,000 for studio, $122,850 for one-bedroom, $197,100 for two-bedroom, and $169,500 for three-bedroom**.**

The Proposed Actions would introduce an increment of 224 dwelling units on the two Projected Development Sites, with 45 affordable units permanently set aside at or below 80% AMI. The expected household income in the proposed market-rate units would be approximately $99,000 for studio, $122,850 for one-bedroom, $197,100 for two-bedroom, and $169,500 for three-bedroom as per StreetEasy market rent data. As described above, since the proposed affordable units would be permanently set aside at or below 80% AMI, the maximum expected household income in the proposed affordable units would be $85,920 for a household of three people in 2021.

As analyzed above, the household income and market rents of the proposed dwelling units on the two Projected Development Sites would be on the higher end of the existing market rate rents and household income. Although 45 affordable units would be permanently set aside at or below 80% AMI, the overall average income of the introduced population would likely be higher than that of the surrounding study area. Therefore, the analysis will continue to Step 2.

Step 2

Step 2 of a socioeconomics analysis requires determining if the Proposed Actions would increase the study area's population in an amount large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area. If the population increase is less than five percent within the study area, further analysis is not warranted as the change would not be expected to affect real estate market conditions.

As discussed above, the With-Action Condition population would result in a 3.56 percent increase over the No-Action Condition, which would be below the threshold requiring further analysis.

Conclusion

Induced development resulting from the Proposed Actions would continue established trends of population growth in the area, as illustrated by the significant number of active major construction projects within the 1/2-Mile Study Area. As indicated above, though the household income and market rents of the proposed dwelling units on the two Projected Development Sites would be on the higher end, the Proposed Actions are anticipated to result in a 3.56 percent increase to the 1/4-Mile Study Area population, which is below the threshold of 5 percent which would require further analysis. Therefore, the Proposed Actions would not be expected to result in significant adverse impacts to socioeconomic conditions, and further analysis is not required.

Chapter 7: Open Space

Open space is defined as publicly or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment.

Pursuant to Chapter 7, Section 100 of the *2020 CEQR Technical Manual*, Open Space Resources are defined as active and/or passive, and may include, but is not limited to, the following:

- Parks operated or managed by the City, State, or Federal governments and include neighborhood and regional parks, beaches, pools, golf courses, boardwalks, playgrounds, ballfields, and recreation centers that are available to the public at no cost or through a nominal fee, as in the case of recreation centers and golf courses;
- Open space designated through regulatory approvals (such as zoning), including large-scale permits that prescribe publicly accessible open space, such as public plazas;
- Outdoor schoolyards if available to the public during non-school hours;
- Publicly-accessible institutional campuses;
- Esplanades;
- Designated greenways, as shown on the City's Bike Map, and defined as multi-use pathways for non-motorized recreation and transportation along natural and manmade linear spaces such as rail and highway rights-of-way, river corridors, and waterfront spaces;
- Landscaped medians with seating;
- Housing complex grounds, if publicly accessible;
- Nature preserves, if publicly accessible;
- Gardens, if publicly accessible.

The *CEQR Technical Manual* defines the need for an open space assessment if the proposed action would have a direct or indirect effect on open space resources. Direct effects would occur if the proposed action would result in the physical loss of a public open space; change of use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether temporary or permanent. Indirect effects would occur if the proposed action would result in an increase of population sufficiently large enough to noticeably diminish the ability of an area's open space to serve future population.

Direct effects to open space are addressed in the sections for those specific technical areas where warranted. Construction impacts to open space are not anticipated as there would be no physical loss of public open space, no change in existing open space so that it no longer serves the same user population, would not limit public access, and would not increase noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness. An assessment of the effects of the Proposed Actions related to shadows on open space resources is provided in **Chapter 8: Shadows**.

Methodology

According to the guidelines of the City's *CEQR Technical Manual* for analysis of residential development, census tracts with at least half of their geographic area within a one-half mile radius of the Affected Area comprise the open space study area. Using current population figures, an open space ratio is calculated for both the future no-action and future with-action conditions, expressed as the amount of open space acreage per 1,000 user population. Typically, a comparison is made to the median open space ratio, which is 1.50 acres per 1,000 residents, and the city's planning goal of 2.50 acres per 1,000 residents. A reduction in the open space ratio increment of more than 5 percent over future no-action conditions generally warrants a more detailed analysis, unless the open space ratio is below the citywide average, in which case even a small reduction could be considered significant.

In addition to field surveys, information from the NYC Department of City Planning's Community District Needs Statements, NYC Parks Department website, and U.S. Census data were utilized in preparing the open space analysis.

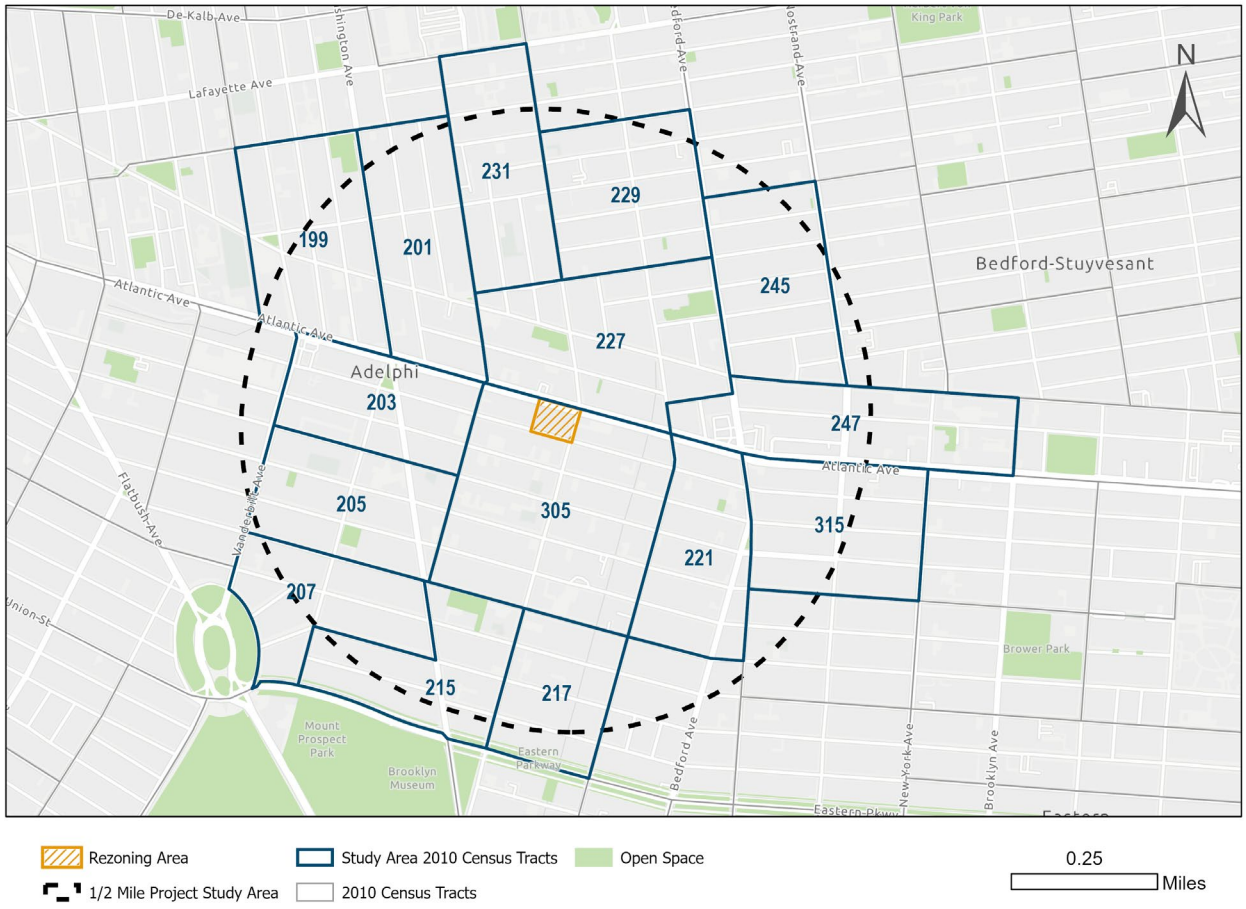
Preliminary Open Space Assessment

The Proposed Actions would result in a net increment of 230,074 GSF of development, including 220,717 GSF of residential floor area, 15,554 GSF of commercial floor area, and 12,730 GSF of community facility floor area. Meanwhile, a reduction of 27,915 GSF of manufacturing floor area would occur as a result of the replacement of the existing buildings. The Proposed Actions are projected to result in the incremental development of 224 dwelling units within the Affected Area. Assuming an average occupancy of 2.42 persons based on the average household size within Brooklyn Community District 8 (2014-2018 ACS 5-Year Survey), incremental population introduced as a result of the Proposed Actions would be approximately 542 residents. Adding together the increase in commercial floor area and community facility floor area as well as the decrease in manufacturing floor area, there would be approximately 35 more employees as a result of the Proposed Actions. The Affected Area is within an area that is identified as underserved by open space, and therefore the threshold for assessment of the potential for indirect impacts is 50 new residents or 125 additional employees. Therefore, an assessment of indirect effects on public open space resources is warranted. The Proposed Actions would introduce fewer than 125 additional employees, as such the preliminary assessment addresses the residential population introduced by the Proposed Actions.

Study Area Definition

In accordance with the guidelines established in the City's *2020 CEQR Technical Manual*, the open space study area is defined to analyze both the nearby open spaces and the population using those open space resources. It is generally defined by a reasonable walking distance that users would travel to reach local open spaces and recreational areas. Pursuant to the *2020 CEQR Technical Manual*, the open space study area includes all U.S. Census Tracts that have 50 percent or more of their area within a half-mile radius of the Affected Area for residential users. As shown in **Figure 2.7-1**, the Census Tracts with 50% or more of their area within the 1/2-mile study area are 199, 201, 203, 205, 207, 215, 217, 221, 227, 229, 231, 245, 247, 305, and 315.

Figure 2.7-1: Open Space Study Area Census Tracts



Existing Condition

Based on the 2014-2018 ACS, the study area defined above, as of 2018, had a population of 59,407 residents, as shown in **Table 2.7-1** below.

Table 2.7-1: Study Area Population 2018

Census Tract	2018 Population
199	3,504
201	3,808
203	1,825
205	2,918
207	4,521
215	5,544
217	3,962
221	3,991
227	3,654
229	3,841
231	3,607
245	4,534
247	2,561
305	6,350
315	4,787
Total	**59,407**

No-Action Condition

No residential development would occur in the future without the Proposed Actions within the Affected Area. There are 79 active construction permits with 1,322 proposed new dwelling units within the open space study area. It should be noted that 840 Atlantic Avenue Rezoning (C 210249 ZMK, N 210250 ZRK) and 1045 Atlantic Avenue Rezoning (C 210276 ZMK, N 210277 ZRK) are currently at public review phase under the ULURP process, which should be considered as no-build projects and be included in the baseline analysis for open space. As per the documents under public review, 840 Atlantic Avenue Rezoning would facilitate an 18-story mixed-use development with 316 dwelling units, 50,650 SF of retail, and 7,490 SF of community facility space by 2023. Meanwhile, 1045 Atlantic Avenue Rezoning would facilitate a 17-story mixed-use building with a total of 490,000 SF, including 426 units and 63,000 SF of commercial uses by 2024. In total, the two rezonings would introduce 742 additional dwelling units into the area. Adding the 1,322 proposed new dwelling units from the active construction permits, there would be 2,064 dwelling units from all the no-build projects.

Using the same 2.42 residents per household figure as above, the No-Action Condition would have 4,995 new residents introduced by the 79 active construction projects and the 2 rezonings to the study area by the 2024 build year. The No-Action population would therefore be the existing population of 59,407 residents plus the 4,995 new residents introduced by the active construction permit projects and rezonings, for a total no-action population of 64,402 residents.

With-Action Condition

The With-Action population would be the No-Action population of 64,402 residents described above plus the 542 residents anticipated as a result of the Proposed Actions. The With-Action population would be 64,944 residents.

Table 2.7-2: Existing, No-Action, and With-Action Populations

Existing	No-Action	With-Action
59,407	64,402	64,944

Existing = 2014-2018 American Community Survey; No-Action = Existing plus 2,064 proposed dwelling units; With-Action = No-Action plus 542 additional residents from the Projected Development Site 1 and 2

Open Space Resources

There are 10 open space resources with regular open access to the public within the study area identified in **Table 2.7-3**. There are 23.13 acres of open spaces resources in the Study Area—17.10 are considered active and 6.03 are considered passive based on field visits and a review of open space site plans. The location of these resources, as well as community gardens present in the Study Area, are shown in **Figure 2.7-2.**

Though community gardens are not considered as open space resources under many circumstances given their small size and limited public accessibility, Prospect Heights Community Farm is included in the quantitative analysis as it is open to public on a constant and regular basis.

Table 2.7-3: Open Space Resources

Name	Address	Ownership	Acreage	% Active	% Passive	Total Active	Total Passive	Features
P.S. 93 Playground*	Herkimer St. bet. New York Ave. and Brooklyn Ave.	NYC DOE	0.41	75	25	0.31	0.10	Pg
P.S. 09 Playground*	St Marks Ave. bet. Vanderbilt Ave. and Underhill Ave.	NYC DOE	0.96	75	25	0.72	0.24	Pg
Crispus Attucks Playground	Classon Ave. bet. Fulton St. and Lefferts Pl.	NYC DPR	0.93	75	25	0.70	0.23	BC, Ba, HC, Pg, SS
Stroud Playground	Sterling Pl. to Park Pl. between Classon Ave. and Washington Ave.	NYC DPR	1.19	75	25	0.89	0.30	BC, Ba, HC, Pg, SS
John Hancock Playground	Bedford Ave., Hancock St., Jefferson Ave.	NYC DPR	1.55	75	25	1.16	0.39	BC, HC, Pg, SS
Underhill Playground	Underhill Ave. bet. Prospect Pl. and Park Pl.	NYC DPR	0.59	75	25	0.44	0.15	Ba, HC, Pg, SS
Greene Playground	Greene Ave. bet. Waverly Ave. and Washington Ave.	NYC DPR	1.26	75	25	0.95	0.32	BC, Ba, HC, Pg, SS
Eastern Parkway**	Eastern Pkwy. bet. Grand Army Plaza and Ralph Ave.	NYC DPR	15.91	75	25	11.93	3.98	Bi, GW
Lowry Triangle	Underhill Ave., Pacific St., Washington Ave.	NYC DPR	0.11	0	100	0	0.11	Be
Prospect Heights Community Farm***	St Marks Ave. bet. Vanderbilt Ave. and Underhill Ave.	Brooklyn Alliance of Neighborhood Gardens	0.21	0	100	0	0.21	CG
Total			**23.13**	**74**	**26**	**17.10**	**6.03**	

* This is a Schoolyards to Playgrounds site regularly open to the public during non-school hours.
**Only the portions of Eastern Parkway within the study area are included as acreage in the table.
*** The community garden is open to public on a constant and regular basis (Open hour information could be found at https://www.phcfarm.com/)
SS = Spray Showers; Pg = Playgrounds; Bi = Bicycling; BC = Basketball Courts; Ba = Bathrooms; Be = Benches; HC = Handball Courts; GW = Greenway; CG = Community Garden

Figure 2.7-2: Open Space Location in Study Area



Analysis

Existing Condition

The study area has 23.12 acres of open space and an existing residential population of 59,407. The open space ratio (OSR) under existing conditions is 0.39 acres per thousand residents.

No-Action Condition

In the future without the Proposed Actions, the population for the Study Area in the 2024 build year is forecasted to be 64,402 and is projected to be served by the same 23.12 acres of open space as in the existing condition. With this population, the OSR would be 0.359. The OSR is far below the citywide average of 1.5 acres per thousand people and reflects the area's shortfall of open spaces.

With-Action Condition

The Proposed Actions would result in an increase in the No-Action population by 542 residents by the 2024 build year. The total 2024 build year With-Action population would be 64,944. With this increase in population, the OSR would be 0.356 acres per 1,000 residents, or a 0.83 percent reduction from the No-Action OSR.

Under the existing, No-Action, and With-Action conditions, the OSR in the area would be far below 1.5 acres per thousand residents, which is the citywide average. In the event that a Study Area has a low open space ratio (e.g., below the citywide average of 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 nonresidential users), the *CEQR Technical Manual* recommends preparing a detailed analysis if the Proposed Action would reduce the OSR by even a small decrease, which could be less than 5%. Given the analysis above, the Proposed Actions would reduce the OSR by 0.83 percent to 0.356 acres per 1,000 residents. Considering the fact that the area has an extremely low OSR and the OSR decrease induced by the Proposed Development would be 0.83 percent, less than 1 percent, an additional qualitative open space assessment is warranted.

Study Area Open Space Assessment

In the future with the Proposed Actions, the Proposed Development would not cause increased shadows, noise, or air pollutant emissions that would affect the usefulness of any open space in the study area, whether on a permanent or temporary basis. Furthermore, the Proposed Actions would not change the use of a publicly accessible open space so that it no longer serves the same user population, nor would it limit public access to any open spaces.

While not included in the calculation of OSR in the analysis above, there is an abundance of open space resources located south of the open space study area, including Prospect Park, Mt. Prospect Park, Brooklyn Botanic Garden, Grand Army Plaza, and Dr. Ronald McNair Park.

- Prospect Park, a large 526.25-acre open space resource, is located approximately 1 mile southwest of the Projected Development Sites (an approximately 20-minute walk distance). The flagship park is featured with a zoo, the first urban-area Audubon Center in the nation, an ice rink, a band shell, a carousel, and dozens of athletic and recreational facilities.

- Mt. Prospect Park, a 7.79-acre park located on Eastern Parkway near Underhill Avenue, is seated approximately 0.9 miles to the southwest of the Projected Development Sites (an approximately 17-minute walk distance). It is featured with multiple public facilities, including play equipment, swings, game tables, benches, a spray shower, a drinking fountain, a bathroom, fenced dog-friendly areas, and plenty grass and trees.

- Brooklyn Botanical Garden, a stunning 52-acre garden with over 14,000 taxa of plants, is located approximately 0.8 miles south of the Projected Development Sites (an approximately 17-minute walk distance).

- Grand Army Plaza, the oval at the main entrance of Prospect Park located approximately 0.9 miles to the southwest of the Projected Development Sites (an approximately 17-minute walk distance), is meant to provide a wide and picturesque approach to the park, which incorporates a large memorial arch monument and sculpture groups and holds farmer's market every Saturday. The Plaza also marks the beginning of the Eastern Parkway, along which there are multiple walking, running, and bike paths for active outdoor activities.

- Dr. Ronald McNair Park is located approximately 0.7 miles to the south of the Projected Development Sites (an approximately 13-minute walk distance). This 1.36-acre park includes a pyramidal monument and bronze portrait in memory of Dr. Ronald Erwin McNair, benches, and grasses.

Given the short distance from the Projected Development Sites to these additional open space resources, the Applicant believes that it is reasonable to assume that these open space resources could provide the residents of the study area as well as those who would reside in the future Proposed Development with a high-quality open space for both active and passive outdoor activities.

It should also be noted that the proposed contextual R7A/C2-4 zoning district would require that any new residential development adhere to the Quality Housing Program regulations. The Quality Housing Program regulations require that the residential developments include open space amenities such as tree plantings, landscaping, and recreational spaces. These amenities would improve open space quality and conditions on the Projected Development Sites and help alleviate future open space shortfalls. Specifically, the Proposed Development on Projected Development Site 1 is expected to incorporate an approximately 77-foot-wide urban living room semi-open space on the ground floor for public use along the sidewalk on Atlantic Avenue (See **Figure 2.7-3**), which would be featured with wall art and benches. Besides, several street trees will be planted along Atlantic Avenue in front of the Proposed Development on Projected Development Site 1, which would help enhance walkability and improve the pedestrian experience.

Moreover, the Proposed Development would also provide private rooftop deck spaces for the residents on the 10th, 13th, and 17th floors (See **Figure 2.7-4**). Some of the units would also have private outdoor balconies or terraces to ameliorate the current conditions of deficient open spaces within the area. However, as these recreation open spaces would be private space, it would not mitigate the shortfalls in the study area's OSR.

Figure 2.7-3: Rendering of the Proposed Urban Living Room Space



Figure 2.7-4: Proposed Development Panorama Rendering



Conclusion

Based on the analysis above, the Proposed Actions would reduce the OSR of the study area by 0.83 percent from 0.359 acres per 1,000 residents under No-Action conditions to 0.356 acres per 1,000 residents under With-Action conditions. The CEQR TM says that "…the existing open space ratio may be so low that even an open space ratio changes of less than 1 percent may result in potential significant open space impacts. In that case, the potential for open space impacts should be further assessed." Although the area has a relatively low OSR and the OSR decrease induced by the Proposed Actions would be 0.83 percent, there is an abundance of additional open space resources located south of the open space study area, including Prospect Park, Mt. Prospect Park, Brooklyn Botanic Garden, Grand Army Plaza, and Dr. Ronald McNair Park, which are not included in the OSR calculation and would help ameliorate the open space deficiency within the study area. Furthermore, the Proposed Development would incorporate an urban living room space with public access and plant a few street trees along Atlantic Avenue, which would help enhance walkability and improve the pedestrian experiences. Meanwhile, private rooftop deck spaces, in-unit balconies and terraces for the future residents in the Proposed Development further ameliorate the current conditions of deficient open spaces within the area, though these private open space resources would not mitigate the shortfalls in the area's OSR with the limited accessibility. Therefore, though the Proposed Actions would bring 542 additional residents to the 0.5-mile study area underserved by open spaces, significant adverse impacts to open space resources are not expected, and further analysis is not required.

Chapter 8: Shadows

The *CEQR Technical Manual* defines a shadow as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space or feature. An incremental shadow is the additional or new shadow that a building or other built structure resulting from a proposed action would cast on a sunlight-sensitive resource during the year. The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. Shadows can have impacts on publicly accessible open spaces or natural features by adversely affecting their use and important landscaping and vegetation. In general, increases in shadow coverage make parks feel darker and colder, affecting the experience of park patrons. Shadows can also have impacts on historic resources whose features are sunlight-sensitive, such as stained-glass windows, by obscuring the features or details, which make the resources significant.

The duration and dimensions of shadows are determined by the geographic location of the area from which the shadow is cast and the time of day and season. Shadows cast during the morning and evening, when the sun is low in the sky, are longer, while midday shadows are shorter in length. Shadows in winter, when the sun arcs low across the southern sky, are also longer throughout the day than at corresponding times in spring and fall seasons. In summer, the high arc of the sun casts shorter shadows than at any other time of year, and early and late shadows during the summer are cast farther towards the south than shadows cast in early and late winter months.

The *CEQR Technical Manual* states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource.

The sunlight-sensitive resources of concern are those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved such as handball or basketball courts, places containing no seating areas and no vegetation, no unusual or historic plantings, or containing only unusual or historic plantings that are shade tolerant. These types of facilities do not need to be analyzed for shadow impacts. Additionally, it is generally not necessary to assess resources located to the south of projected development sites, as shadows cast by the action-generated development would not be cast in the direction of these resources. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with the *CEQR Technical Manual*.

Methodology

This preliminary analysis of shadows follows the guidelines set forth in the *2020 CEQR Technical Manual* for a preliminary assessment (Section 310). According to the *2020 CEQR Technical Manual*, a preliminary shadow assessment includes the development of a base map showing the site location in relationship to any sunlight-sensitive resources as per guidelines provided in the *2020 CEQR Technical Manual*. Following these

guidelines, the longest shadow study area is determined, and a Tier 1 screening assessment is conducted to determine if any sunlight-sensitive resources fall within the study area. If no resources are identified, no further analysis would be required. If sunlight-sensitive resources lay within the longest shadow study area, the next tier of screening assessment should be conducted. This preliminary assessment includes a basic description of the proposed project that would be facilitated by the Proposed Actions in order to determine whether a more detailed assessment would be appropriate.

Analysis

Projected Development Site 1 is to be developed with a 175-foot-tall tower with a 15-foot-tall bulkhead on the roof at the northern portion of the rezoning area and a 95-foot-tall tower with a 15-foot bulkhead on the roof at the southern portion of the rezoning area. Projected Development Site 2 is to be developed with a 95-foot-tall building with a 15-foot-tall bulkhead. Potential Development Site 1 is to be developed with a 175-foot-tall tower with a 15-foot-tall bulkhead on the roof at the northern portion of the rezoning area and a 95-foot-tall tower with a 15-foot bulkhead on the roof at the southern portion of the rezoning area. This development is greater than 50-foot tall and is in the vicinity of potentially sunlight sensitive resources. Accordingly, a preliminary assessment of shadows is warranted.

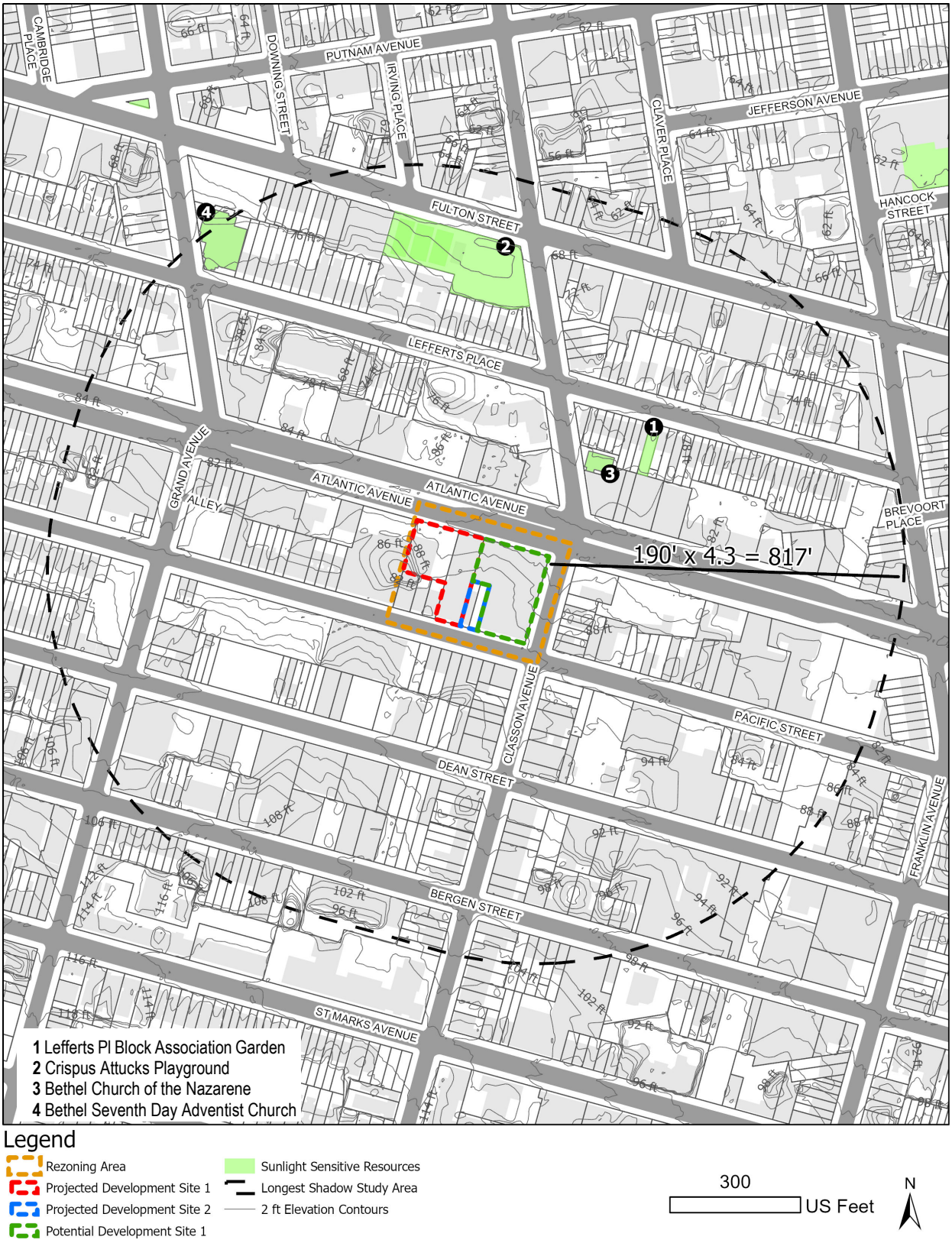
Tier 1 Shadow Screening Assessment

The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, a detailed shadow analysis may be warranted to determine the extent and duration of the net incremental shadow resulting from the project. The effects of shadows on a sunlight-sensitive resource are site-specific; therefore, as directed in the *CEQR Technical Manual*, the screening assessment was performed for the relevant Projected Development Site to determine whether it falls within the range of maximum possible shadow cast on potential sunlight sensitive resources as described above. To determine this, a Tier 1 Screening Assessment was performed in accordance with the *CEQR Technical Manual*. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the site of the proposed project and a perimeter around the site's boundary with a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. A map as shown in **Figure 2.8-1** was prepared placing NYC Department of Parks Resources and Selected Facilities and Program Sites provided on NYC.gov Department of City Planning GIS portal, as well as a list of park and public spaces provided from NYC.gov DOITT- GIS and Mapping Portal, as well as a screen of SHPO and NYC Landmark Listed Properties. After this a buffer map was prepared to display the maximum possible shadow of 817 feet, which could be cast from the Projected Development Sites in the proposed rezoning area. This shadow cast was derived by multiplying the height of 190 feet (the maximum possible height of 175 feet under the proposed rezoning with MIH bonus plus a 15-foot bulkhead) by 4.3 (the CEQR Technical Manual multiplier representing the maximum shadow cast from any object as being 4.3 times its height). The potentially impacted area of shadow from the projected sites was then compared to those resources identified above to see if any fell within the shadow cast area.

Based on the Tier 1 analysis in **Figure 2.8-1**, it was determined that two sunlight-sensitive resources, Lefferts Pl Block Association Garden and Crispus Attucks Playground, are within reach of the longest possible shadow that could be cast from the Projected Development associated with the requested rezoning within the Affected Area. Additionally, by letter dated August 18, 2021, LPC identified two additional sunlight

sensitive resources in the radius of the proposed buildings—Bethel Church of the Nazarene, located at 595 Classon Avenue, and Bethel Seventh Day Adventist Church, located at 457 Grand Avenue; both churches are located north of the Affected Area, within the S/NR listed Clinton Hill South Historic District. Therefore, a Tier 2 Assessment is required to determine what impacts, if any, may occur as a result of the Proposed Actions on Lefferts Pl Block Association Garden, Crispus Attucks Playground, Bethel Church of the Nazarene, or Bethel Seventh Day Adventist Church.

Figure 2.8-1: Tier 1 Shadow Assessment

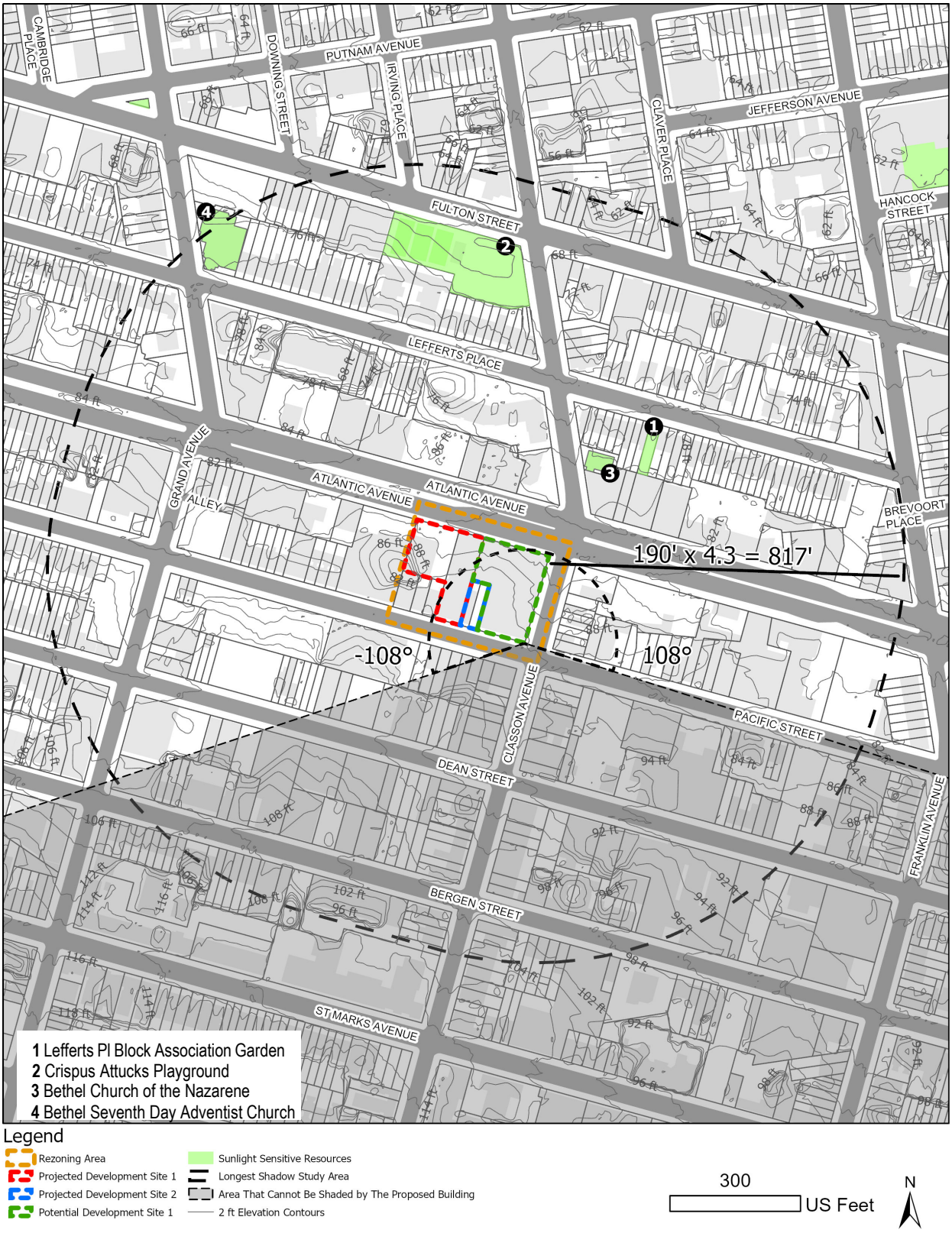


Tier 2 Shadow Screening Assessment

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest shadow study area, a Tier 2 screening assessment should be performed. Because of the path the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. For a Tier 2 screening assessment, sunlight-sensitive resources within the triangular area cannot be shaded by new development sites, and are screened out. The complementing portion to the north within the longest shadow study area is the area that can be shaded by the proposed project.

As shown in **Figure 2.8-2**, the Tier 2 screening assessment showed that the Lefferts Pl Block Association Garden (Block 2020, Lot 19; Resource 1), the Crispus Attucks Playground (Block 2015, Lot 34; Resource 2), Bethel Church of the Nazarene (Block 2020, Lot 6; Resource 3), and Bethel Seventh Day Adventist Church (Block 2015, Lot 2; Resource 4), are inside of the -108/+180 area, and therefore a Tier 3 screening would be required.

Figure 2.8-2: Tier 2 Shadow Assessment



Tier 3 Shadow Screening Assessment

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource is within the area that could be shaded by the Proposed Project, a Tier 3 screening assessment should be performed. Because the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast almost directly westward. Throughout the day, they would shift clockwise (moving northwest, then north, then northeast) until sunset, when they would fall east. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the project site. For a Tier 3 screening assessment, if the assessment determines that no shadows from the development would reach any of the sunlight-sensitive resources on any of the representative analysis days, then no further assessment for those days is needed. If, however, in the absence of intervening buildings shadows from the proposed buildings would reach sunlight-sensitive resources on any of the representative analysis days, then a detailed shadow analysis would be warranted for those days.

As shown in **Figure 2.8-3** to **Figure 2.8-6** below, shadows from the projected buildings would reach Lefferts Pl Block Association Garden on two analysis days (December 21st and March 21st/September 21st); Bethel Church of the Nazarene on two analysis days (December 21st and March 21st/September 21st); and Bethel Seventh Day Adventist Church on one analysis day (December 21st). The summary of the Tier 3 screening assessment is also provided in **Table 2.8-1** below. As a result, a detailed shadow analysis for Sunlight Sensitive Resources 1, 3, and 4 is required.

Figure 2.8-3: Tier 3 Screening December 21st (Winter Solstice)

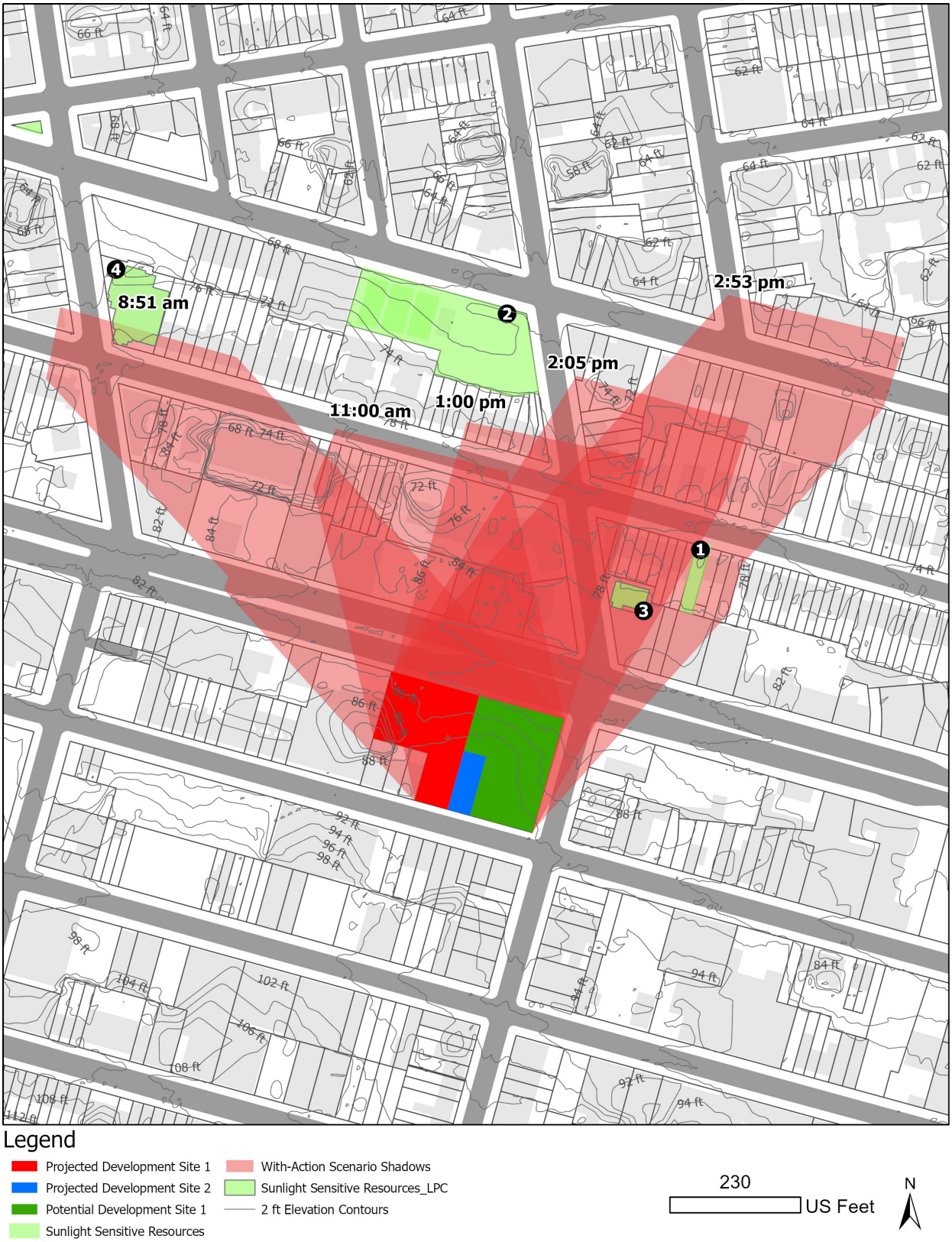


Figure 2.8-4: Tier 3 Screening March 21st/September 21st (Vernal and Autumnal Equinoxes)

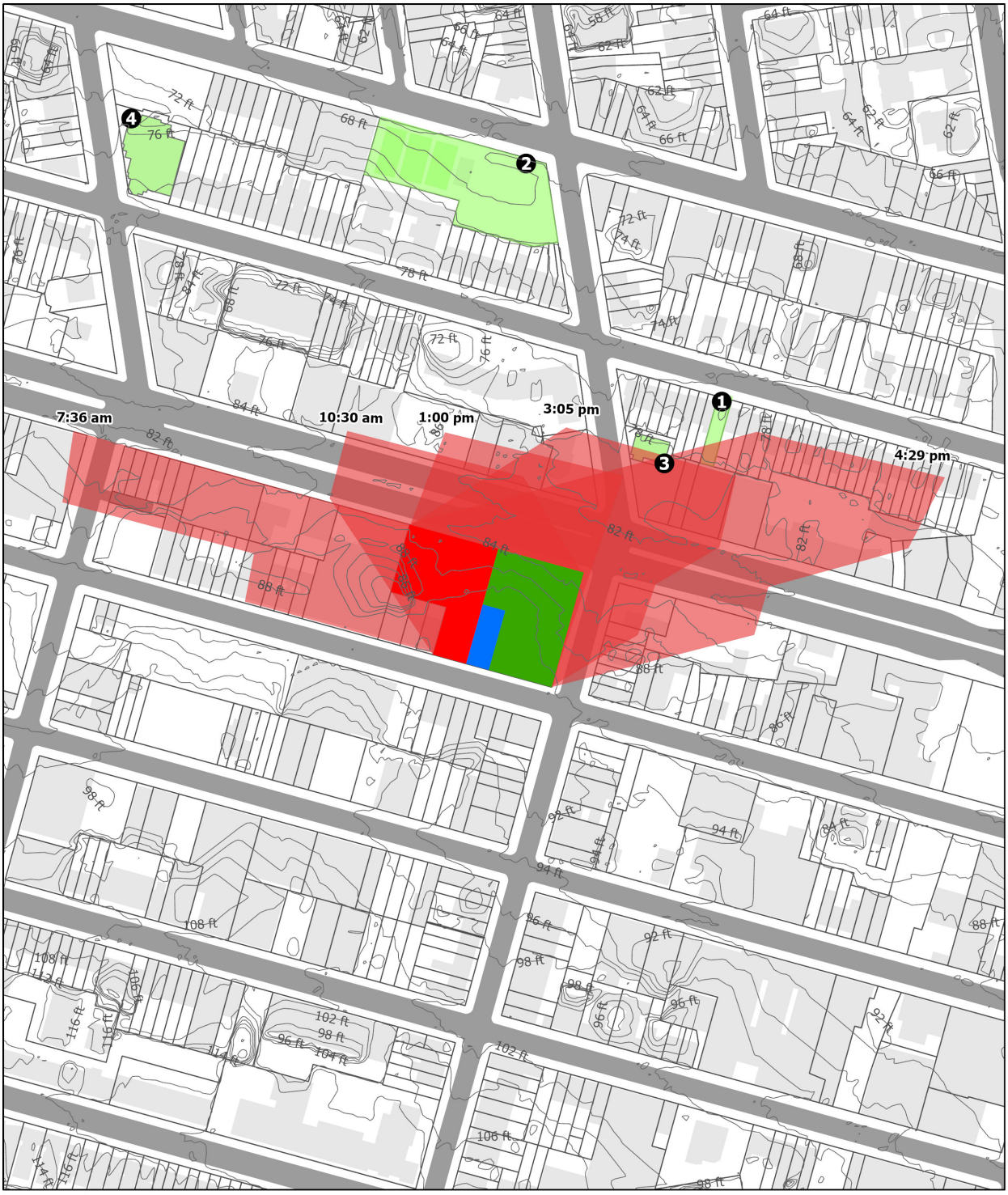


Figure 2.8-5: Tier 3 Screening May 6th/August 6th

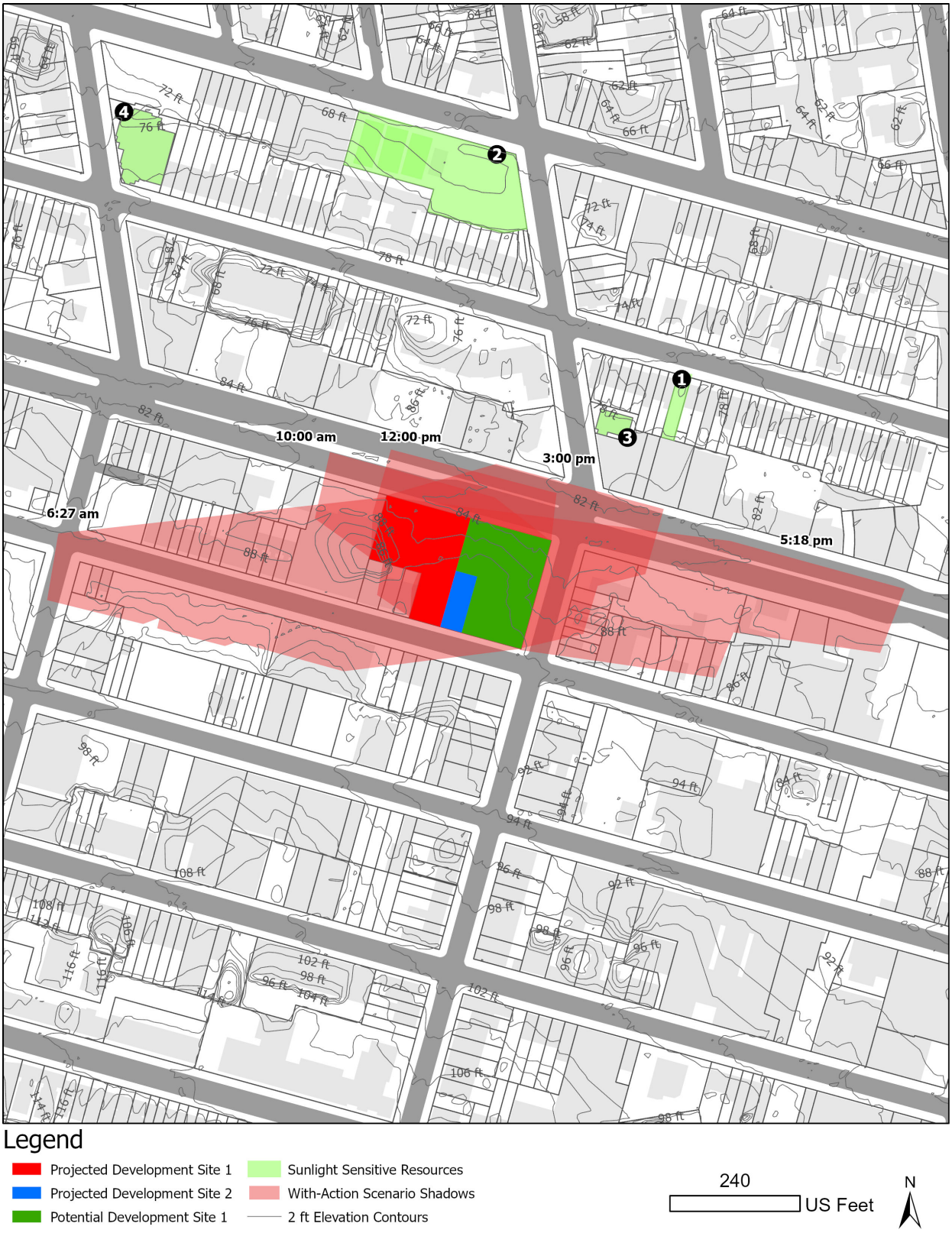


Figure 2.8-6: Tier 3 Screening June 21st (Summer Solstice)



Table 2.8-1: Tier 3 Shadows Screening Assessment Table

Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	Lefferts Pl Block Association Garden			
Shadow enter - exit times	2:05 pm - 2:53 pm	3:05 PM - 4:29 pm	-	-
Incremental Shadow Duration	48 Minutes	1 Hour 24 Minutes	-	-
Sunlight Sensitive Resource 2	Crispus Attucks Playground			
Shadow enter - exit times	-	-	-	-
Incremental Shadow Duration	-	-	-	-
Sunlight Sensitive Resource 3	Bethel Church of the Nazarene			
Shadow enter - exit times	1:09 pm - 2:53 pm	2:25 pm - 4:29 pm	-	-
Incremental Shadow Duration	1 Hour 44 Minutes	2 Hours 4 Minutes	-	-
Sunlight Sensitive Resource 4	Bethel Seventh Day Adventist Church			
Shadow enter - exit times	8:51 am - 9:07 am	-	-	-
Incremental Shadow Duration	16 Minutes	-	-	-
Note: Daylight savings time not used				

Detailed Shadow Analysis

The *CEQR Technical Manual* states that a detailed shadow analysis is warranted when the screening analyses do not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resources. The purpose of the detailed analysis is to determine the extent and duration of shadows that fall on a sunlight-sensitive resource as a result of the proposed project. The results of the Tier 3 shadow analysis on the identified resources of concern were summarized above in **Table 2.8-1**, and the shadows cast by the Projected and Potential Development Sites were shown above from **Figure 2.8-3** through **Figure 2.8-6.**

Based on the Findings of the Tier 3 Shadow Analysis, the Proposed Actions would cast shadows on the Lefferts Pl Block Association Garden (Resource 1), Bethel Church of the Nazarene (Resource 3), and Bethel Seventh Day Adventist Church (Resource 4). Therefore, detailed shadow diagrams are provided below from **Figure 2.8-7** through **Figure 2.8-9** to show the existing shadow condition and the incremental shadow of the Projected Buildings for December 21st and March 21st/ September 21st. The shadows of intervening buildings were included in the detailed shadow analysis in order to identify the incremental shadows cast by the Projected Buildings and the summary of the detailed incremental shadows from the Projected Buildings is provided in **Table 2.8-3** below.

Figure 2.8-7: Detailed Incremental Shadows December (2:05 PM)

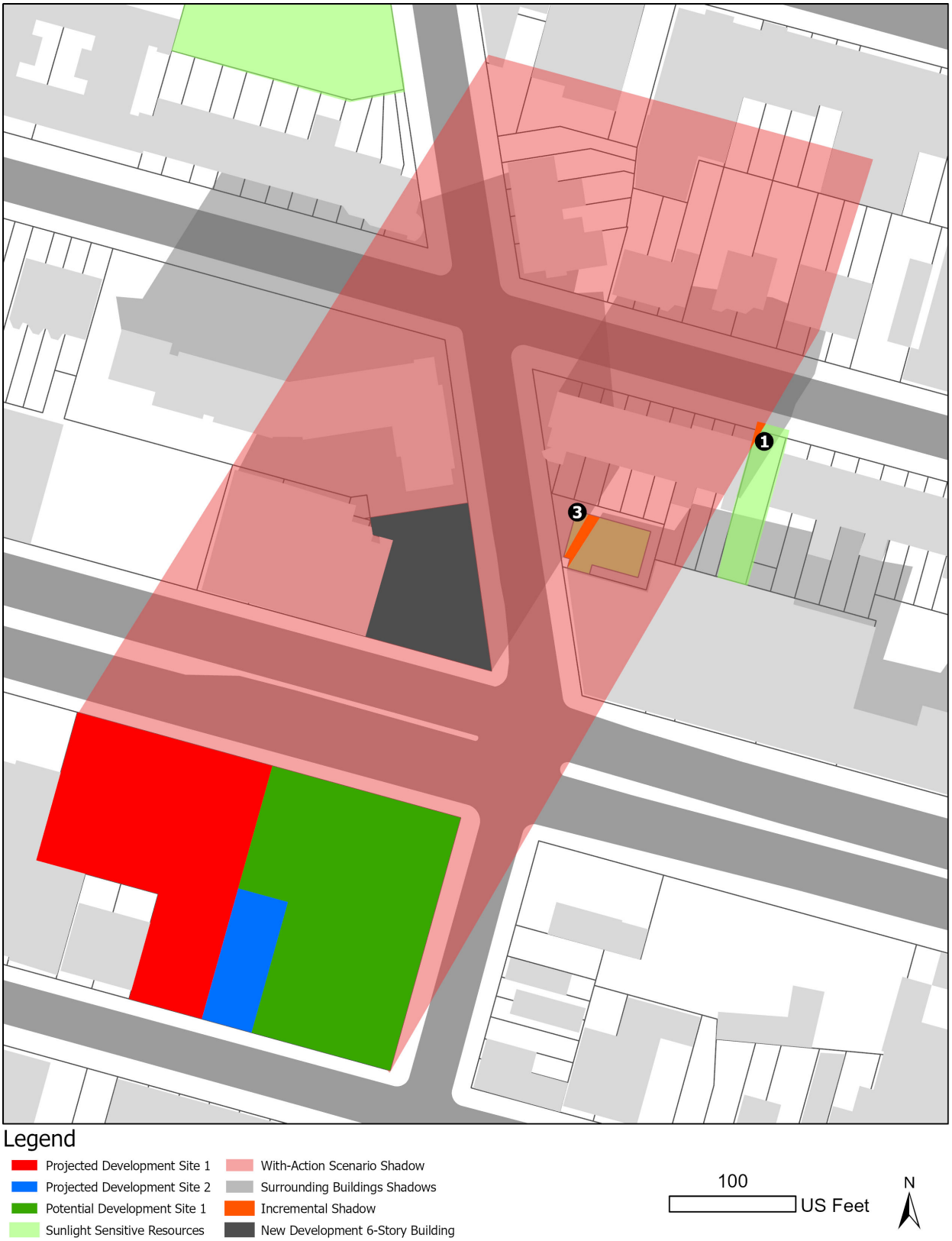


Figure 2.8-8: Detailed Incremental Shadows September/March (3:00 PM)

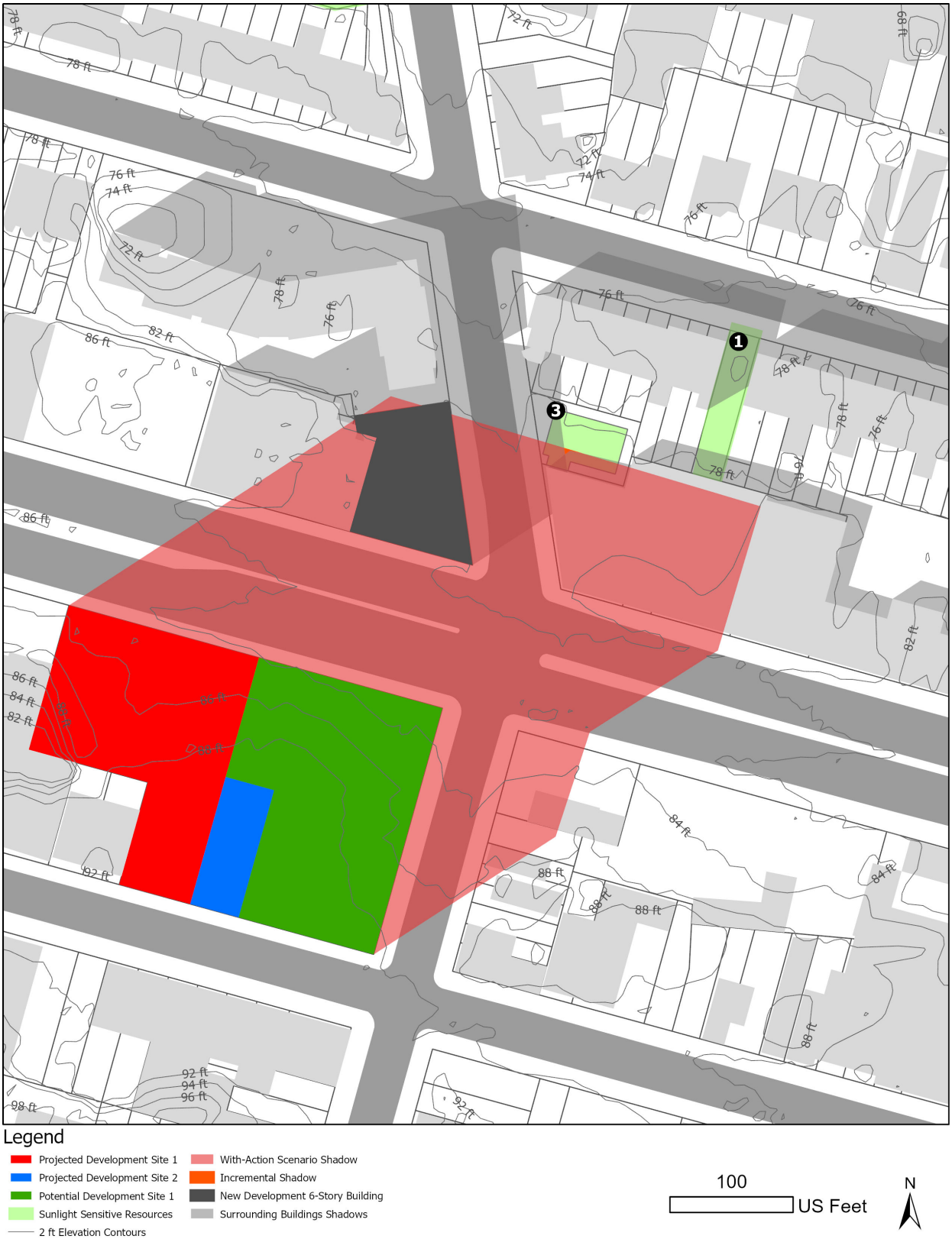


Figure 2.8-9: Detailed Incremental Shadows September/March (4:00 PM)

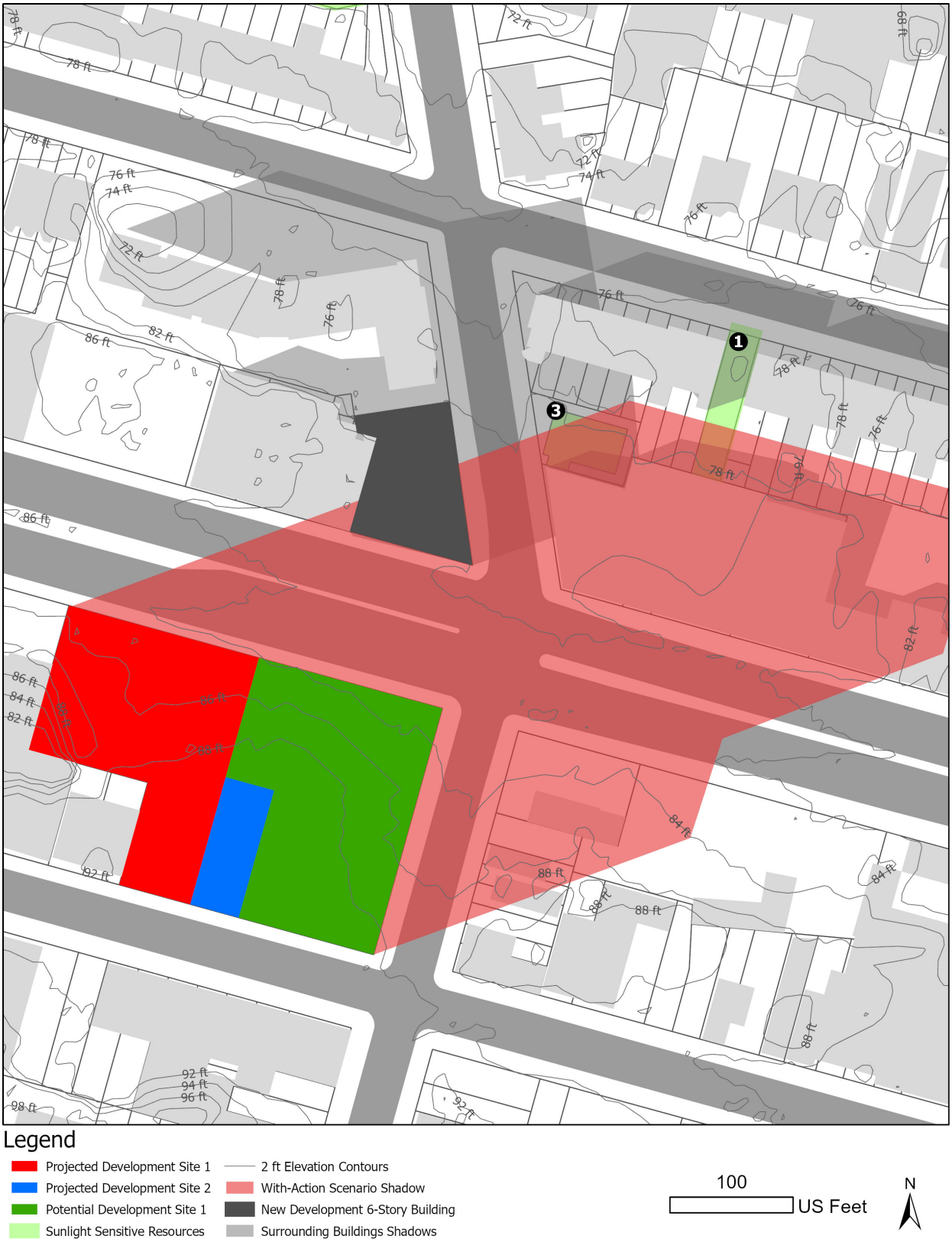


Photo 2.8-1: Lefferts Pl Block Association Garden (Sunlight Sensitive Resource 1)



Lefferts Pl Block Association Garden is a .07-acre community garden. This garden is meant to be used as a community space where younger community residents can be tutored and taught more about the basics of gardening, and where movies open to the public can be screened.

Photo 2.8-2: Bethel Church of the Nazarene (Sunlight Sensitive Resource 3)



Bethel Church of the Nazarene was constructed in 1930 and is a State and National Register (S/NR) listed architectural resource, and is also a part of the Clinton Hill South Historic District. The building was listed on both the State register and the National register in 1986, and features a stone façade and stained glass windows.

Photo 2.8-3: Bethel Seventh Day Adventist Church (Sunlight Sensitive Resource 4)



Bethel Seventh Day Adventist Church was constructed in 1928 and is an S/NR listed architectural resource, as well as a part of the Clinton Hill South Historic District. The building was listed on both the State register and the National register in 1986, and is of brick construction with various stained glass windows.

Determination of Shadow Impact Significance

The *CEQR Technical Manual* states that the determination of significance of shadow on a sunlight-sensitive resource is based on: (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. Determining whether this impact is significant or not, under CEQR, depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

For open space and natural resources, the uses and features of a resource is an indicator of its sensitivity to shadows. Shadows occurring during the cold-weather months, for example, generally do not affect the growing season of outdoor vegetation. This sensitivity is assessed for warm-weather-dependent features such as vegetation that could be affected by a loss of sunlight during the growing season, and for features (such as benches) that could be affected by a loss of winter sunlight. Generally, four to six hours a day of sunlight, particularly in the growing season, is often a minimum requirement. Where the incremental shadows from the project fall on sunlight-sensitive features or uses, the analysis assesses the loss of sunlight relative to sunlight that would be available without the project.

As stated in the *CEQR Technical Manual*, to determine impact significance, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- *Vegetation* - A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project). Or, a reduction in direct sunlight exposure where the sunlight-sensitive feature of the resource is already subject to substandard sunlight (i.e., less than minimum time necessary for its survival).
- *Open Space Utilization* - A substantial reduction in the usability of open space as a result of increased shadow.
- *For Any Sunlight-Sensitive Feature of a Resource* - Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

Conclusion

Sunlight Sensitive Resource 1 (Lefferts Pl Block Association Garden)

Served as passive open space, Sunlight Sensitive Resource 1, Lefferts Pl Block Association Garden, is a community garden located on Lefferts Place between Classon Avenue and Franklin Avenue. The 0.07-acre garden features seating area, trees, and multiple flower beds. The major plant species in the community garden include annuals and perennials. As its name suggests, annuals typically cannot survive the winter months under normal conditions and needs to be replanted annually. There are two sub-categories under perennials – deciduous and evergreens. Deciduous plants and trees shed their leaves and store their energy (sugars and starches) in the roots for the winter months; whereas evergreens continue photosynthesis in the

winter, but at extremely low levels and do not require sunlight during the dormant stage. Though 45% of the garden is dedicated to food production with fruit-bearing trees at the site, a site visit to the community garden indicates that the existing fruit trees should be considered deciduous, meaning that the trees shed leaves and are not growing in the winter months.

As shown in **Table 2.8-2** below, shadows from the Projected Buildings would cover the garden for a 48-minute period in December and would leave approximately 5 hours of direct sunlight. The shadows cast by the Projected Buildings would enter the community garden on its northwestern corner at 2:05 PM and exit the garden at 2:53 PM in the early afternoon, slowly covering the whole sunlight-sensitive resource in the 48-minute period. However, as shown in **Figure 2.8-7**, there would not be any incremental shadows from the Projected Buildings as the new development to the north of the Projected Development Sites across Atlantic Avenue has already cast shadows on the community garden during this 48-minute time period.

The majority of the community garden area is taken up by vegetation, including annuals and perennials, which are not growing during the winter seasons as described above. Since the existing fruit trees are considered deciduous, a sub-category under perennials, which shed leaves and are not growing in the winter months. Meanwhile, the weather in December is cold and is not considered growing season for vegetations. Therefore, it is reasonable to believe that the shadows derived from the Projected Buildings would not have significant adverse impact on the vegetation in December. Besides the vegetation, the outdoor seating area in the community garden, which could be affected by a loss of winter sunlight, would also receive at least 5-hour direct sunlight in the cold-weather months. Therefore, the Vegetation and the Open Space Utilization of this resource would not be significantly impacted for the December analysis period.

For the March 21st/September 21st analysis period of Sunlight Sensitive Resource 1, there would be 1 hour and 24 minutes of shadows cast from the Projected Buildings on the community garden, leaving 7 hours and 29 minutes of sunlight. Taking into account the surrounding intervening buildings, the incremental shadows would last for 49 minutes on the southern portion of the garden. Though the shadows cast from the Projected Buildings intersect almost half of the area at the southern portion of the garden during the period of 1 hour and 24 minutes, the shadows are not static and the movement of the shadows leaves every part of the garden with direct sunlight of more than 7 hours, which is considered sufficient sunlight for vegetation in the growth seasons compared to the four- to six-hour minimum of direct sunlight specified in the *CEQR Technical Manual*. The duration of shadows cast on the playground is shown to be limited, and there would be no adverse impacts for the March 21st/September 21st analysis period on the Vegetation or Open Space Utilization.

Among the four analysis days, the shadows cast from the Projected Buildings would affect the sunlight sensitive resource, Lefferts Pl Block Association Garden, on December 21st and March 21st/September 21st for limited extent and duration. No adverse impact is expected on the Vegetation or Open Space Utilization of the community garden and therefore no further analysis is warranted.

Table 2.8-2: Detailed Incremental Shadows on Sunlight Sensitive Resource 1

Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 1	Lefferts Pl Block Association Garden			
Shadow enter - exit times	2:05 pm - 2:53 pm	3:40 PM - 4:29 pm	-	-
Incremental Shadow Duration	48 Minutes (no incremental here)	49 Minutes	-	-
Note: Daylight savings time not used				

Sunlight Sensitive Resource 3 (Bethel Church of the Nazarene)

Although the Tier 3 shadows table indicates that the Bethel Church of the Nazarene will be covered by shadows for 1 hour and 44 minutes on the December 21st analysis period and 2 hours and 4 minutes during the March 21st/September 21st analysis period, after adding in nearby buildings the incremental shadow is significantly reduced.

Table 2.8-3: Detailed Incremental Shadows on Sunlight Sensitive Resource 3

Analysis Day	21-Dec	March 21 / September 21	May 6 / August 6	21-Jun
Timeframe Window	8:51 a.m. - 2:53 p.m.	7:36 a.m. - 4:29 p.m.	6:27 a.m. - 5:18 p.m.	5:57 a.m. - 6:01 p.m.
Sunlight Sensitive Resource 3	Bethel Church of the Nazarene			
Shadow enter - exit times	1:09 pm - 2:27 pm	2:25 pm - 3:52 pm	-	-
Incremental Shadow Duration	1 Hour 18 Minutes	1 Hour 27 Minutes	-	-
Note: Daylight savings time not used				

As shown in **Table 2.8-3** and **Figure 2.8-7** through **Figure 2.8-9** above, for December and March/September analysis periods, the church would be covered in shadow by surrounding area buildings throughout the day, with only a small incremental shadow being cast by the Proposed Actions on the roof of the church—away from the stained glass windows on the western façade. Because the Proposed Actions' incremental shadows would not affect the stained-glass windows, which are the sunlight-sensitive feature of the church, there would be no impacts on the enjoyment or appreciation of the sunlight-sensitive features of the historic resource. Further, the shadows from the Proposed Actions would not reach the interior of the church, and would therefore not affect the character or quality of the religious structure.

Sunlight Sensitive Resource 4 (Bethel Seventh Day Adventist Church)

Project-generated shadows would be cast on the eastern and southern façade of the church for 16 minutes in the December analysis period, from 8:51 am to 9:07 am. Because the sunlight sensitive features of the building are facing away from the shadows cast from the project, and the incremental shadow would only last for 16 minutes, no impacts from project-generated shadows are expected to occur. Therefore, the Proposed Actions would not have a significant adverse impact on the Bethel Seventh Day Adventist Church, and further analysis is not required.

Chapter 9: Historic and Cultural Resources

An assessment of historic and cultural resources is usually necessary for projects that are located in close proximity to historic or landmark structures or districts, or for projects that require in-ground disturbance, unless such disturbance occurs in an area that has been formerly excavated, according to the CEQR Technical Manual.

The term "historic resources" defines districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, architectural and archaeological importance. In assessing both historic and cultural resources, the findings of the appropriate city, state, and federal agencies are consulted. Historic resources include: the New York City Landmarks Preservation Commission (LPC) designated landmarks, interior landmarks, scenic landmarks, and historic districts; locations being considered for landmark status by the LPC; properties/districts listed on, or formally determined eligible for, inclusion on the State and/or National Register (S/NR) of Historic Places; locations recommended by the New York State Board for Listings on the State and/or National Register of Historic Places and National Historic Landmarks.

Methodology

Archaeological and architectural resources usually need to be assessed for projects that would result in any in-ground disturbance. In-ground disturbance is any disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site.

For projects that may affect historic or cultural resources, the first step in evaluating a project's potential effects on historic resources is to consider what area the project might affect and then identify historic resources—whether officially recognized or eligible for such recognition—within that area. The area of subsurface work for the proposed project is considered the impact area for archaeological resources while the study area for architectural resources is the area in which any resources may be affected by the project, which is defined by the radius of 400 feet from the borders of the project site for most proposals.

After the study areas have been established, all known archaeological and architectural resources within the study areas are identified, and the potential for unknown resources is investigated. It is recommended that lead agencies and applicants contact LPC for archaeological and architectural resources review. Based on the report from LPC, if any listed historic or cultural resources are located in the study areas, then further analysis of the project's impact on these resources must be performed. The proposed project's effects on any designated or potential archaeological and architectural resources are then analyzed under Existing, No-Action, and With-Action condition. The assessment specifically considers whether the project may result in disturbance or destruction of those archaeological and architectural resources as a result of the Proposed Actions.

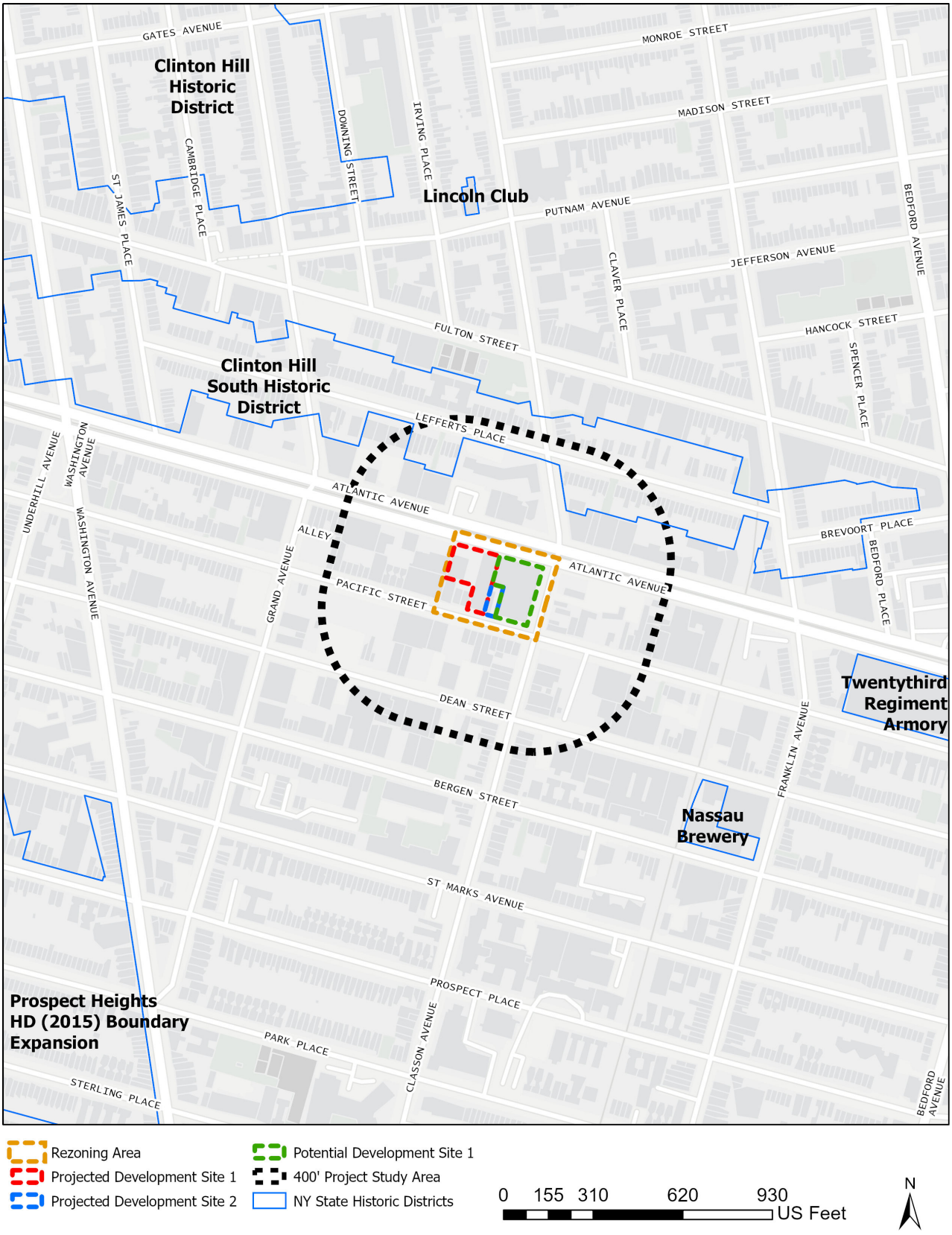
Architectural Resources

Per *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the proposed action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the project site plus an approximately 400-foot radius around the Proposed Action area.

To determine whether the projected development has the potential to affect nearby off-site historic or architectural resources, the study area was screened for historic and architectural resources. No architectural resources were found in the project area that were considered historic or significant.

The LPC was contacted for their initial review of the project's potential to impact nearby historic or architectural resources, and by letter dated July 24, 2020 indicating that S/NR Listed Clinton Hill South Historic District is located within the study radius (see **Appendix A**). **Figure 2.9-1** shows the location of the identified historic district that intersects with the 400-foot study area. Therefore, an analysis on the potential impacts of the Proposed Actions on the architectural resource is warranted.

Figure 2.9-1: Historic Districts Within 400-Foot Study Area



Analysis

Existing Condition

The Clinton Hill South Historic District, covered a ribbon area roughly from Lefferts Place to Brevoort Place between Washington Avenue and Bedford Place, consists of 246 largely residential contributing buildings built between the 1850s and 1922, including fine examples of Neo-Grec style row houses. Also in the district are a number of early 20th century apartment buildings in the Colonial Revival style. The district was listed on the National Register of Historic Places on 7/17/1986.

Currently, the historic district is featured with low-rise multi-family walk-up residential row houses with smooth brownstone fronts, pronounced deep cornices, heavy entryways, and charming incised window ornaments. The quiet tree-lined streets within the district provide the residents with a unique leisure and joyful living environment in the hectic city.

Future No-Action Condition

In the future without the Proposed Actions, the existing conditions of Clinton Hill South Historic District would remain. In the No-Action Scenario, the buildings within the historic district would still be walk-up residential row houses complying with the underlying R6B zoning district. In addition, though the occupants in the buildings on the Projected Development Sites may change, no non-conforming uses or new development would happen within the Affected Area without the Proposed Actions.

Future With-Action Condition

In the future with the Proposed Actions, it is expected that the existing Clinton Hill South Historic District would be the same as the existing conditions. No alteration or demolition of the existing buildings within the district would happen as a result of the Proposed Actions, and the proposed buildings on the Projected Development Sites, two new mixed-use community facility, commercial, and residential developments, would not pose any changes to the historic resource's setting or context.

Since the Clinton Hill South Historic Site is located less than 400 feet from the Study Area radius, the construction activity happening on the Projected Development Site 1 (Block 1125, Lots 29 and 33) and Projected Development Site 2 (Block 1125, Lots 52 and 53) may induce temporary changes to the tranquil and neat block environment surrounding the architectural resources within the historic district. However, the construction activity is expected to last for approximately 18 months, of which the major exterior construction that may have an impact on the architectural resources would last no more than 12 months. Therefore, the Applicant believes that the Proposed Actions would have a limited temporary impact on the architectural resources in the Clinton Hill South Historic District.

Conclusion

According to the *CEQR Technical Manual*, significant adverse impacts to historic and cultural resources could potentially result if a proposed action affects those characteristics that make a resource eligible for LPC designation or S/NR listing. The Future With-Action Scenario's potential for significant adverse impacts on historic resources were assessed in accordance with **Table 2.9-1** to determine (a) whether there would be a physical change to any designated resource or its setting, and (b) if so, is the change likely to diminish the

qualities of the resource that make it important (including non-physical changes such as context or visual prominence). The assessment of the potential for impacts on significant resources are described below.

Table 2.9-1: Possible Impacts to Historic and Cultural Resources

Construction resulting in ground disturbance, including construction of temporary roads and access facilities, grading, and landscaping.
Below-ground construction, such as excavation or installation of utilities.
Physical destruction, demolition, damage, alteration or neglect of all or part of an historic property.
Changes to the architectural resource that cause it to become a different visual entity, such as a new location, design, materials, or architectural features.
Isolation of the property from, or alteration of, its setting or visual relationship with the streetscape. This includes changes to the resource's visual prominence so that it no longer conforms to the streetscape in terms of height, footprint, or setback; is no longer part of an open setting; or can no longer be seen as part of a significant view corridor.
Introduction of incompatible visual, audible, or atmospheric elements to a resource's setting.
Replication of aspects of the resource so as to create a false historical appearance.
Elimination or screening of publicly accessible views of the resource.
Construction-related impacts such as falling objects, vibration, dewatering, flooding, subsidence, or collapse.
Introduction of significant new shadows, or significant lengthening of the duration of existing shadows, over an historic landscape or an historic structure to the extent that the architectural details that distinguish that resource as significant are obscured.

Source: Table 8-1 CEQR Technical Manual

The Proposed Actions would not result in any types of visual and contextual impacts to the known historic resources within the Study Area, as all the new buildings that could be developed under the Proposed Actions would be commercial, residential, or community facility structures of heights and bulk consistent with those urban design features of the area. The Proposed Actions would not introduce any incompatible visual, audible, or atmospheric elements to the settings of historic resources. As discussed in the Urban Design section below (See **Chapter 10, Urban Design and Visual Resources**), the proposed building would be designed to be visually compatible and consistent with existing developments, but would not be replicated so as to create a false historical appearance. Additionally, the significant views of the historic architectural resource identified above will not be adversely affected by the Proposed Actions.

The architectural resources in the project study area include Neo-Grec style walk-up residential row houses and the Proposed Actions aim to encourage the design of new development that is in character with the area, which is predominately residential, commercial, and mixed-use. Publicly accessible views of the resources would not be blocked, because the new development would occur on existing block and lot, and maximum building height would be limited and capped according to the sky exposure plane. In addition, as more fully described in the Shadows section (See **Chapter 8, Shadows**), there would be no significant adverse impacts to historic resources with sunlight dependent features. Most resources would not be affected by incremental shadow and where resources would be subject to varying amounts of incremental shadow as a result of the Proposed Actions, the increments would not be significant due to their limited extent and other site-specific factors.

The Projected Development Site does not contain historic architectural resources and is not adjacent to or within 90 feet of any identified historic architectural resources. Therefore, no direct impacts or indirect construction-related effects via ground-borne construction activities are anticipated. Only temporary changes

resulting from construction would be noticeable in the area, but would be relatively minor due to the intervening Atlantic Avenue thoroughfare, which serves as a natural barrier between the construction and the historic neighborhood.

Therefore, significant adverse impacts to architectural resources are not expected because of the Proposed Actions, and further analysis is not warranted.

Cultural and Archaeological Resources

Unlike the architectural evaluation of a study area that extends beyond the footprint of a project's block and lot lines, the analysis of potential and/or projected impacts to archaeological resources is controlled by the actual footprint of the limits of soil disturbance. Archeological resources are physical remains, usually subsurface, of the prehistoric and historic periods such as burials, foundations, artifacts, wells and privies. The *CEQR Technical Manual* requires a detailed evaluation of a project's potential effect on the archeological resources if it would potentially result in an in-ground disturbance to an area not previously excavated.

The Proposed Actions would result in new in-ground construction on the Projected Development Sites. As noted, the LPC was contacted for their initial review of the project's potential to impact nearby cultural or archaeological resources, and a response was received on July 24, 2020 (see **Appendix A**). The LPC has indicated that no cultural resource of archaeological significance is associated with the study area. Therefore, significant adverse impacts to archaeological resources are not expected because of the Proposed Actions, and further analysis is not warranted.

Chapter 10: Urban Design and Visual Resources

According to the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Pursuant to the *2020 CEQR Technical Manual*, an assessment of Urban Design may be warranted when a Proposed Action may affect one or more of the elements that contribute to the pedestrian experience of an area, specifically the arrangement, appearance, and functionality of the built environment.

The proposed rezoning of the Affected Area from M1-1 to C6-3A and R7A/C2-4 would alter permitted use, bulk, and height within the Affected Area. Therefore, further analysis is warranted. The differences between existing and proposed zoning, with regards to those aspects of zoning affecting urban design, are presented in the following **Table 2.10-1**.

Table 2.10-1: No-Action and With-Action Zoning

	No-Action	With-Action	
Zoning	M1-1	C6-3A	R7A/C2-4
Permitted Uses	Manu., Com., CF	Com., Res., CF	Com., Res., CF
Maximum FAR	Manu. and Com.: 1.00 CF: 2.40	Com: 6.00 Res.: 8.50 CF: 7.50	Com: 2.00 Res.: 4.60 CF: 4.00
Maximum Height	Sky Exposure Plane	Base Height: 125 feet Building Height: 175 feet (w/QGF)	Base Height: 75 feet Building Height: 95 feet (w/QGF)
Lot Coverage (corner lot)	100%	100%	100%

Com. = Commercial; CF = Community Facility; Manu. = Manufacturing; Res. = Residential; QGF = Qualifying Ground Floor

Existing Conditions

The Affected Area consists of multiple lots in Block 1125 along Atlantic Avenue and Classon Avenue in Crown Heights neighborhood, Brooklyn, which is described in detail in **Sections 1.4** and **Chapter 4.**

The existing land uses in the 400-foot surrounding area primarily consist of manufacturing, multi-family residences, mixed commercial and residential buildings, transportation and utility uses, public facilities and institutions, and vacant land. The manufacturing buildings range from 1 to 3 stories in height. The residential buildings consist of multiple family apartment buildings ranging from 3 to 4 stories in height. Atlantic Avenue is a major thoroughfare in the area and contains a mix of high-density multi-family, commercial, and mixed residential and commercial uses. Pacific Street is mostly developed with light-industrial uses near the Affected Area before becoming predominantly residential to the west. Similarly, Classon Avenue is developed with light industrial uses near the Affected Area and becomes a mix of multi-family residential and mixed residential and commercial uses to the south.

The area to the east and south has the same mix of uses as the block of the Affected Area. The mix of uses in these areas is comprised of parking facilities, transportation and utility uses, industrial and manufacturing uses, vacant land, public facilities and institutions, mixed commercial and residential buildings, a multifamily walk-up building, and commercial and office buildings.

The built form in the area varies by use, and generally consist of low-rise industrial and commercial buildings and one- to eight-story multi-family residential buildings. The manufacturing and industrial buildings are mostly one story in height, with a few that are either two or four stories.

The Applicant-owned Projected Development Site 1 consists of two separate lots (Block 1125, Lots 29 and 33) along Atlantic Avenue. Lot 29 is an interior lot with 100 feet of frontage along Atlantic Avenue and is improved with a 3,915 GSF, one-story industrial building that was constructed around 1930. Lot 33 is a through-lot with 60 feet of frontage on Atlantic Avenue and Pacific Street, and is improved with a 24,000 GSF, two-story industrial building that was constructed around 1930. Both buildings are currently vacant.

Projected Development Site 2 consists of two separate lots (Block 1125, Lots 52 and 53) to the southeast of the Projected Development Site 1 along Pacific Street, including vacant and unimproved lot 52 and a 3-story, 2,700 GSF multi-family walk-up building with 3 dwelling units on lot 53 (1.35 FAR).

Other lots within the Affected Area include a 2-story, 50,550 GSF industrial building operating as Cubesmart self-storage facility on lot 40 (1.91 FAR); 4-story 8-unit multi-family buildings with 6,000 GSF of floor area on lots 57 and 59 (2.50 FAR); and Lot 61, which is improved with a 3,200 GSF, 1-story building operating as a dog training, boarding, and daycare center (1.00 FAR).

The traffic grid is regular to the south of Atlantic Avenue and is irregular to the north of Atlantic Avenue as a result of angle change of the north and south streets. The surrounding area has major commercial thoroughfares including Atlantic Avenue, Classon Avenue, and Pacific Street. The area is well-served by transit, and is within a Transit Zone. The Franklin Avenue A and C train subway stations area are both located approximately 800 feet northeast of the Affected Area near the corner of Fulton Street and Franklin Avenue. The Atlantic Avenue transportation hub, including the Atlantic Terminal served by seven Long Island Rail Road lines (Babylon/ Far Rockaway/ Hempstead/ Long Beach/ Port Jefferson/ Ronkonkoma/ West Hempstead) and the Atlantic Avenue Barclays Center Station served by ten NYC subway lines (2/ 3/ 4/ 5/ B/ D/ N/ Q/ R/ W), is located approximately one-mile northwest of the Affected Area. Stops for six bus lines (B25/ B26/ B45/ B48/ B49/ B65) are in the immediate area.

Sidewalks, ranging from 15 feet to 20 feet wide, are in fair condition with paved surface, sufficient street trees, and regular street lights throughout the study area except that the sidewalks along Atlantic Avenue and Classon Avenue near the Affected Area need improvements regarding the cracks on the paved sidewalk surface and the limited number of street trees and lights. All the intersections are under good control with properly functioning traffic lights and clear crossing markings, securing the safety of the pedestrians when crossing the streets.

The ground-level photographs of the site area under the existing condition are shown in **Figure 2.10-2**, **Figure 2.10-5**, **Figure 2.10-9**, and **Figure 2.10-12** below.

Analysis

Future No-Action Condition

In the future without the Proposed Actions, it is expected that while tenants within the residential, manufacturing, and retail buildings may change, the overall use of these buildings within the study area would remain the same. Any physical changes to buildings in the study area would comply with designated zoning

regulations and other surrounding districts. The maximum allowable building envelope within the M1-1 zoning district under the No-Action condition are shown in **Figure 2.10-3, Figure 2.10-6, Figure 2.10-10**, and **Figure 2.10-13** below. The envelopes on the three development sites are displayed in different color for clear renderings: Projected Development Site 1 in white with red dashed outline, Projected Development Site 2 in red, Potential Development Site 1 in grey.

Pedestrian activity within the study area under Future No-Action Condition would not experience dramatic changes compared to that in the existing conditions. The sidewalks would be expected to remain in existing fair condition with street trees and lights. The surrounding area would primarily consist of manufacturing, multi-family residences, mixed commercial and residential buildings, transportation and utility uses, public facilities and institutions, and vacant land. The manufacturing buildings range from 1 to 3 stories in height. The residential buildings consist of multiple family apartment buildings ranging from 3 to 4 stories in height.

No significant changes to the area's urban character are anticipated. No changes to the area's views to the adjacent parks and open spaces are also expected.

Future With-Action Condition

Projected Development Site 1 (Block 1125, Lots 29 and 33; Non-Applicant Lots)

The Applicant-Owned lots would assemble with 16,000 sf within the proposed C6-3A district and 8,000 sf within the proposed R7A/C2-4 district. The site would be developed with two separate mixed-use commercial, community facility, and residential building towers totaling 238,873 GSF (172,800 ZSF; 7.20 FAR). Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall.

The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) UG 6 commercial space (local retail) and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) general community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the Proposed Development, with 42 affordable units permanently set aside at or below 80% AMI, which would make up 20% of the total residential units provided on the Development Site.

The Proposed Development would have three entrances for residential, community facility, and commercial respectively along Atlantic Avenue. Meanwhile, there would be four entrances for residential, commercial, community facility, and parking ramp respectively along Pacific Street. The sidewalk along Atlantic Avenue would be widened to 27 feet and the sidewalk along Pacific Street would remain its existing condition.
Projected Development Site 2 (Block 1125, Lots 52 and 53; Non-Applicant Lots)

The non-Applicant owned lots would assemble with a merged lot area of 4,000 sf and be developed with a 21,816 GSF (18,400 ZSF; 4.60 FAR) 9-story mixed-use residential and commercial building that rises to a height of 95 feet tall. The ground floor would contain 2,704 GSF (2,600 ZSF, 0.65 FAR) of local retail (UG 6) space. Floors two through nine would contain 17,064 GSF (15,800 ZSF, 3.95 FAR) of residential uses, with 17 total dwelling units (3 of which would be permanently affordable at or below 80% AMI). Seven residential

accessory parking spaces would be required, and would be provided at cellar level within a 2,048 GSF parking garage.

Potential Development Site (Block 1125, Lot 40; Non-Applicant Lot)

Block 1125, Lot 40 would be developed with two separate mixed-use commercial and residential buildings totaling 232,046 GSF (188,853 ZSF; 7.14 FAR). Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The buildings would contain parking at the cellar level with 71 residential parking spaces and 26 commercial parking spaces within a 29,100 GSF parking garage. The ground floor would contain 26,408 GSF (25,392 ZSF, 0.96 FAR) of local retail and 176,538 GSF (163,461 ZSF, 6.18 FAR) of residential space. There would be 177 total dwelling units (35 of which would be permanently affordable at or below 80% AMI).

Under the Future With-Action Condition, the street condition would be improved: the existing street lights and trees would remain while the sidewalk width along Atlantic Avenue would be widened to 27 feet. The Proposed Actions would introduce development that is larger in scale than surrounding buildings but with similar uses with surrounding area. The two new mid- to high-rise developments with ground floor commercial and community facility uses, currently improved with low-rise manufacturing buildings, walk-up residential buildings, and parking facilities, would improve the pedestrian experience and provide locally serving retail uses.

The urban design figures under the With-Action condition are shown in **Figure 2.10-4, Figure 2.10-7, Figure 2.10-8, Figure 2.10-11,** and **Figure 2.10-14** below. The proposed buildings on the three development sites are displayed in different color for clear renderings: Projected Development Site 1 in white with red dashed outline, Projected Development Site 2 in red, Potential Development Site 1 in grey. It should be noted that there is another rezoning project located at 1045 Atlantic Avenue, the applicant of which proposes two development scenarios on the site (residential and commercial). As the 1045 Atlantic Avenue project is adjacent to the Projected Development Sites and the proposed building is visible to the pedestrians at one Urban Design analysis perspective, the buildings of different development scenarios are added to show a more comprehensive change of the urban design elements in the surrounding area in the 2024 built year.

Conclusion

The development facilitated by the Proposed Actions would not adversely impact any of the constituent urban design elements or impact the overall character of the neighborhood. It would not significantly change the pedestrian experience, nor would it disturb the vitality, walkability, or the visual character of the area. Instead, with sidewalk widened and the local retail and community facility service provided on-site, the Proposed Development would improve the pedestrian experience in the area. The development with ground floor commercial uses would improve walkability and the visual character of the area, and would also provide locally serving retail uses. Therefore, the Proposed Actions would not result in any significant adverse impact to the constituent elements of Urban Design, and a detailed analysis is not warranted.

Figure 2.10-1: Urban Design Study Area – Photomontage Locations

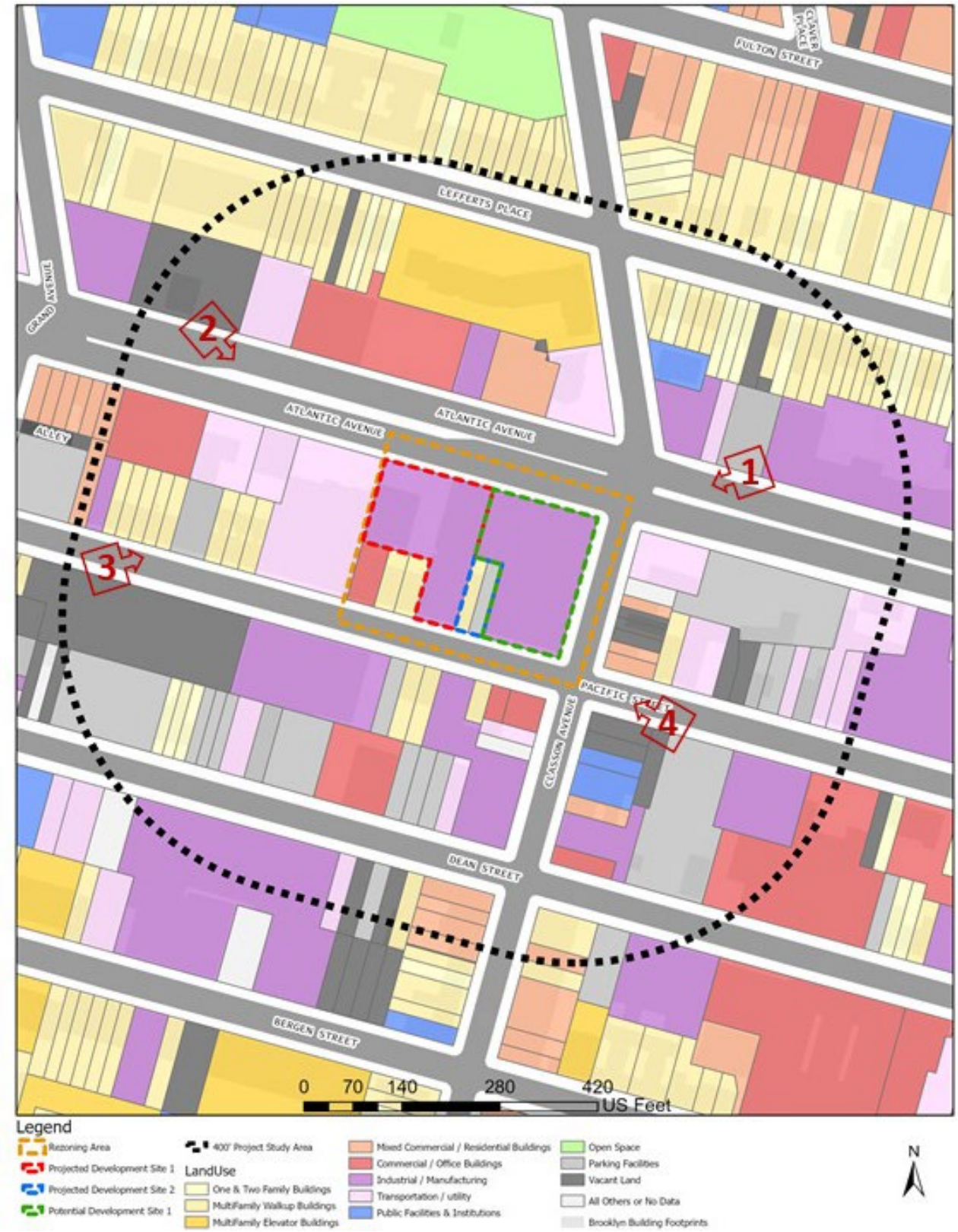


Figure 2.10-2: Existing Condition 1: Looking Southwest at Atlantic Avenue & Classon Avenue



Figure 2.10-3: No-Action Condition 1: Looking Southwest at Atlantic Avenue & Classon Avenue



Figure 2.10-4: With-Action Condition 1: Looking Southwest at Atlantic Avenue & Classon Avenue

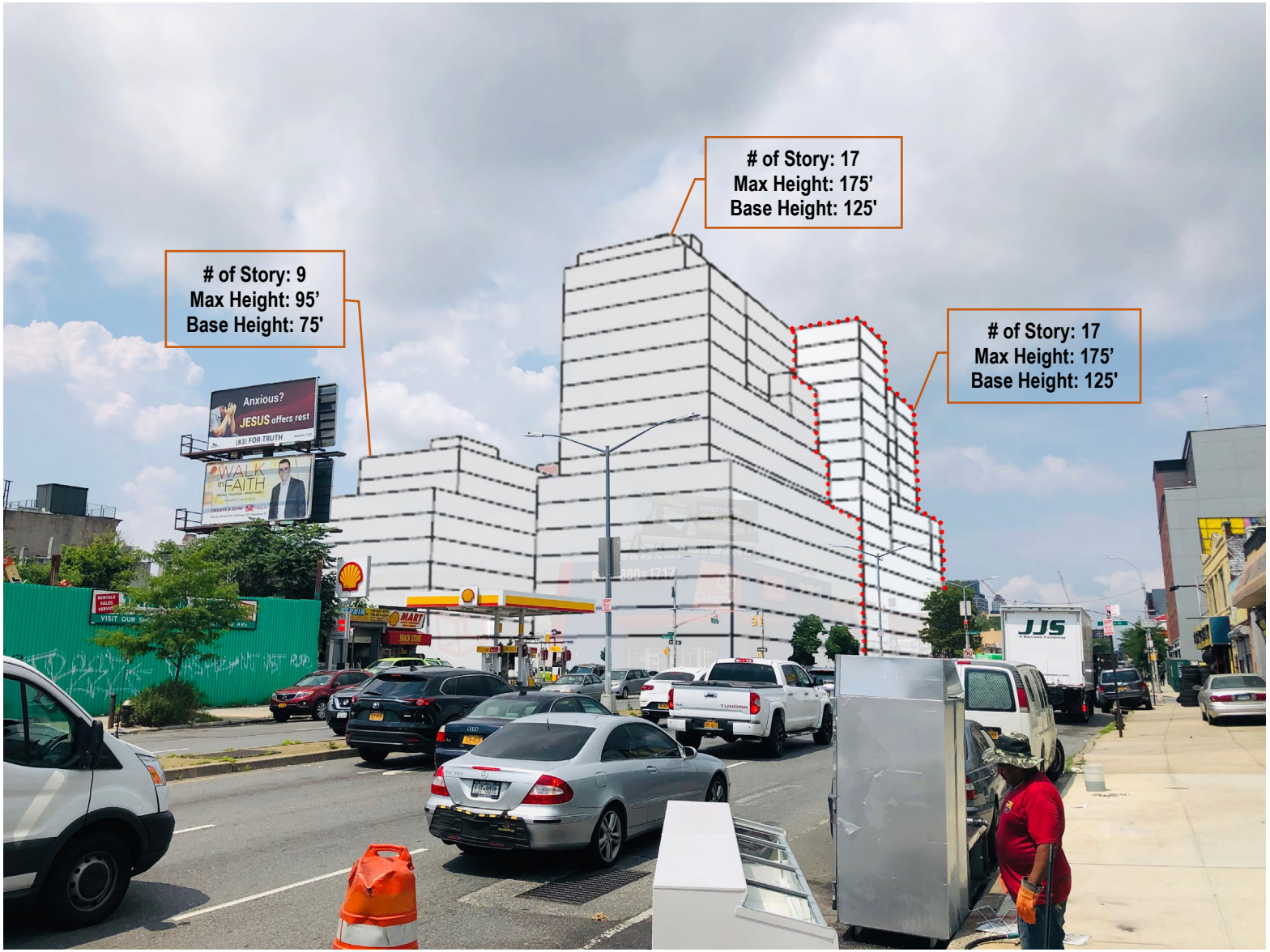


Figure 2.10-5: Existing Condition 2: Looking Southeast at Atlantic Avenue



Figure 2.10-6: No-Action Condition 2: Looking Southeast at Atlantic Avenue



Figure 2.10-7: With-Action Condition 2: Looking Southeast at Atlantic Avenue (1045 Atlantic Avenue Rezoning Residential Scenario included)

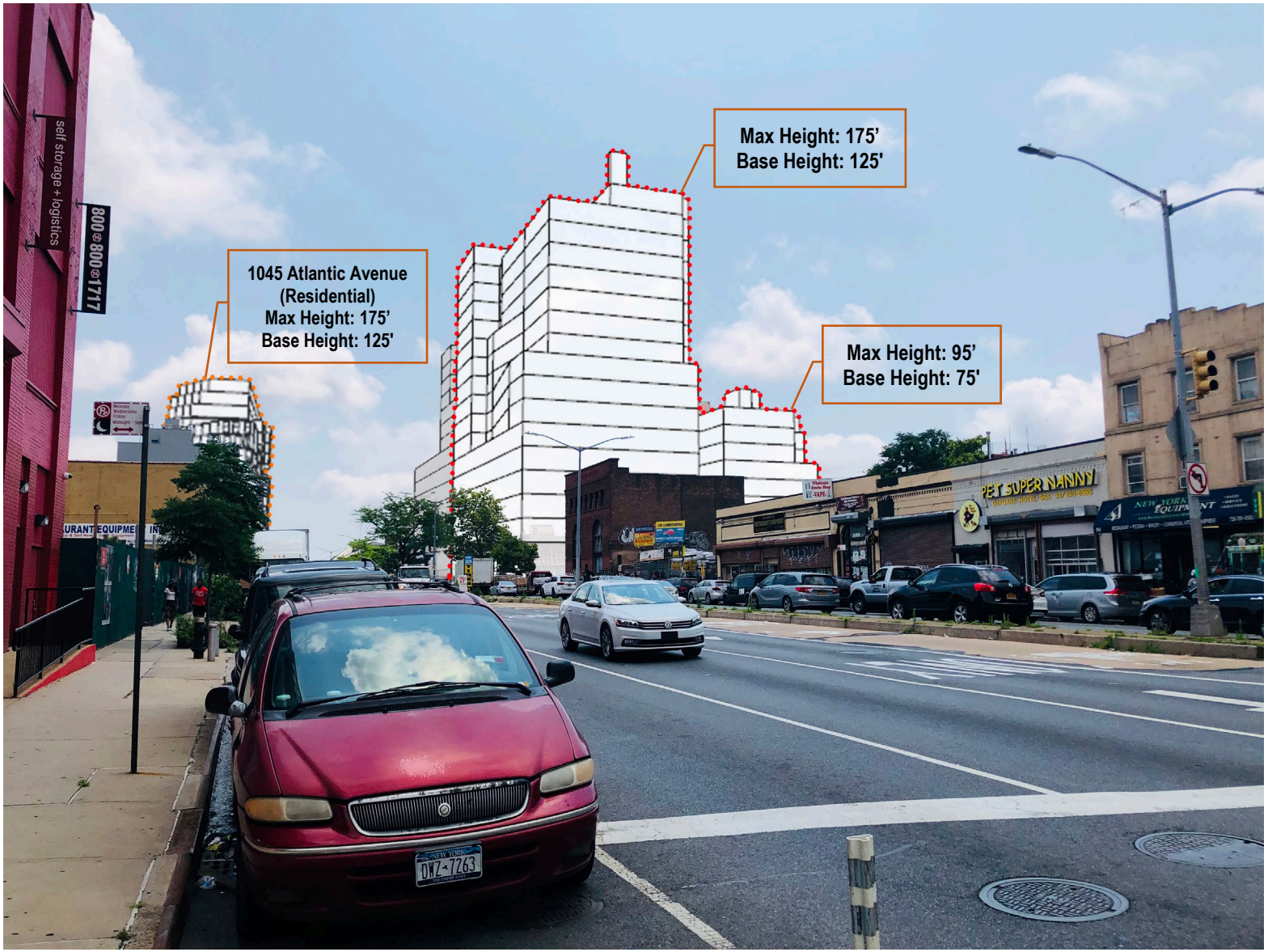


Figure 2.10-8: With-Action Condition 2: Looking Southeast at Atlantic Avenue (1045 Atlantic Avenue Rezoning Commercial Scenario included)

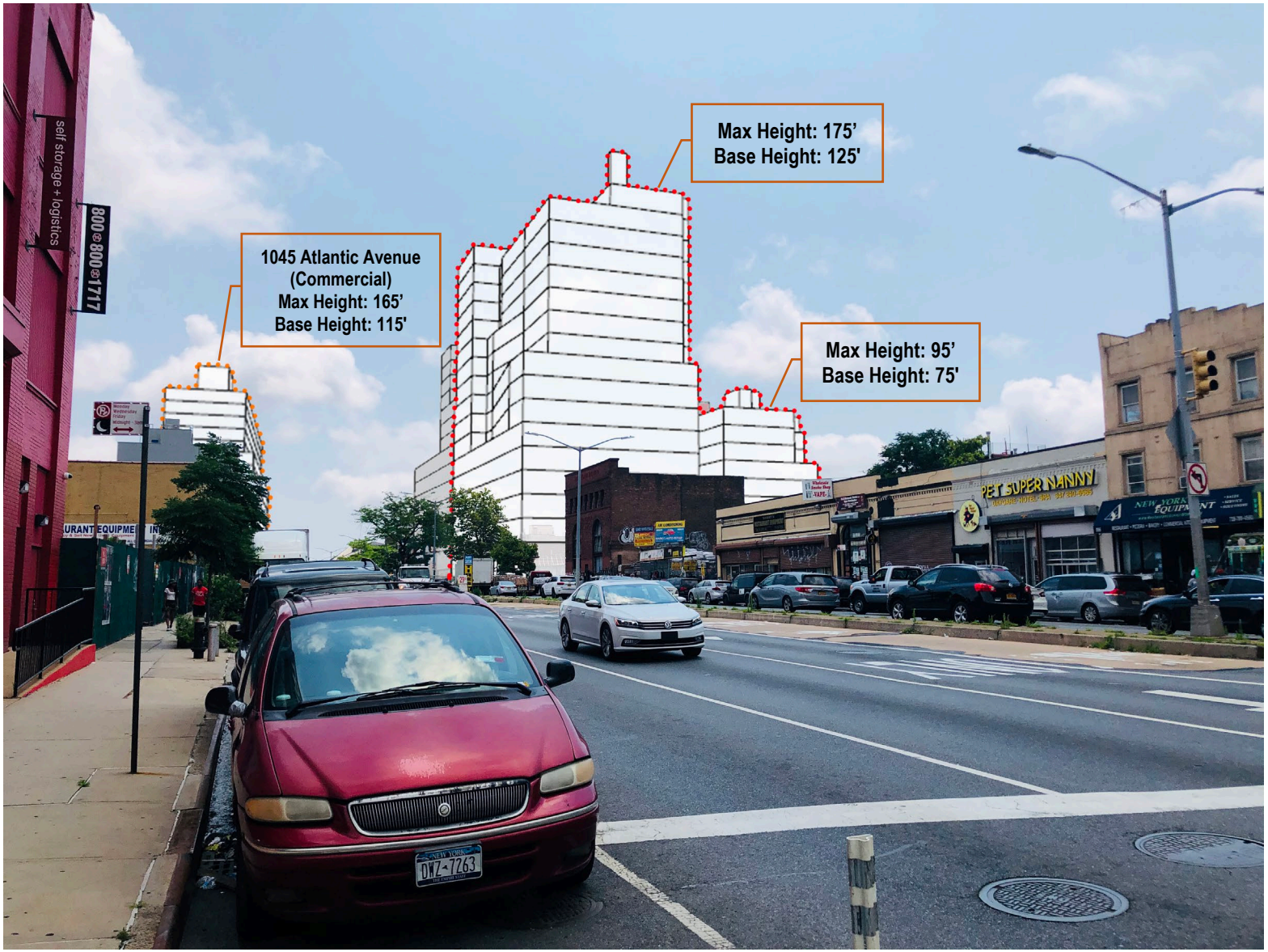


Figure 2.10-9: Existing Condition 3: Looking Northeast at Pacific Street



Figure 2.10-10: No Action Condition 3: Looking Northeast at Pacific Street



Figure 2.10-11: With-Action Condition 3: Looking Northeast at Pacific Street

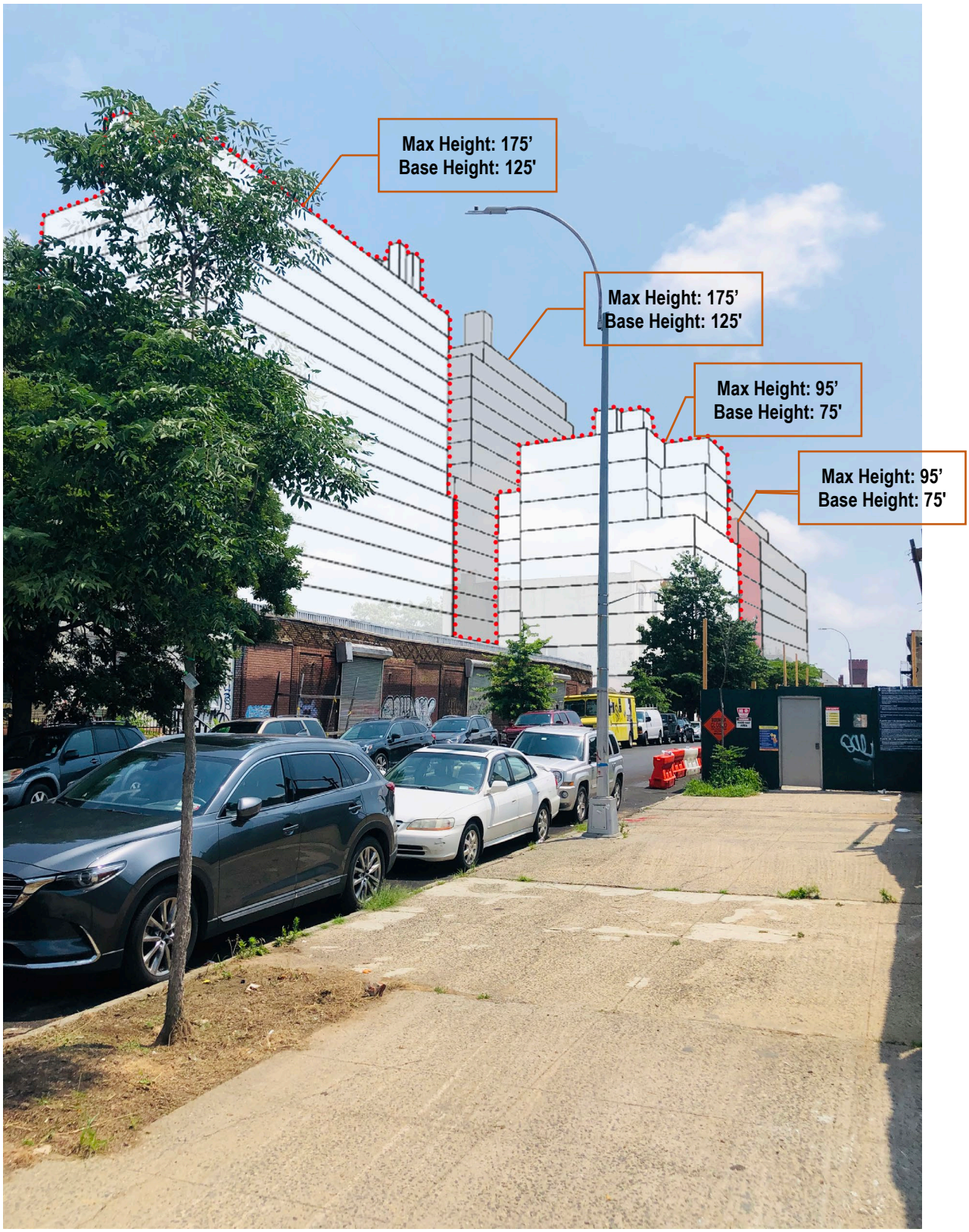


Figure 2.10-12: Existing Condition 4: Looking Northwest at Pacific Street and Classon Avenue



Figure 2.10-13: No-Action Condition 4: Looking Northwest at Pacific Street and Classon Avenue



Figure 2.10-14: With-Action Condition 4: Looking Northwest at Pacific Street and Classon Avenue



Chapter 12: Hazardous Materials

According to the *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous material exists on a site, and (b) an action would increase pathways to their exposure, or (c) an action would introduce new activities or processes using hazardous materials.

Methodology

The hazardous materials assessment begins with a Phase 1 ESA, which is a qualitative evaluation of the environmental conditions present at a site, based on a review of available information, site observations, and interviews. Pursuant to the *2020 CEQR Technical Manual*, the Phase 1 ESA is conducted in accordance with the standards established by the current ASTM Phase 1 ESA Standard and includes research and field observations to determine whether the site may contain contamination from either past or present activities on the site or as a result of activities on adjacent or nearby properties. If a potential Recognized Environmental Conditions (RECs) is identified during this assessment, then building any subsurface investigations are usually conducted as part of a Phase II ESA to confirm the presence and extent of the contamination.

Analysis

Projected Development Site 1, consisting of Block 1125 Lots 29 and 33 of 12,000 SF each, is owned by the Applicant. Lot 29 is an interior lot with 100 feet of frontage along Atlantic Avenue and is improved with a 3,915 GSF, one-story industrial building that was constructed around 1930. Lot 33 is a through-lot with 60 feet of frontage on Atlantic Avenue and Pacific Street, and is improved with a 24,000 GSF, two-story industrial building that was constructed around 1930. Both buildings are currently vacant.

Projected Development Site 2, consisting of Block 1125 Lots 52 and 53, is not owned by the Applicant. Lots 52 and 53 are both 2,000 sf interior lots with 20 feet of frontage along Pacific Street. Lot 52 is vacant and unimproved and used as a parking lot. Lot 53 is improved with a 3-story, 2,700 GSF multi-family walk-up building with 3 dwelling units. The building was originally constructed in 1930 and altered in 1999.

The proposed rezoning would allow for residential, commercial, and community facility uses to be built with a higher FAR in the proposed C6-3A and R7A/C2-4 districts. Accordingly, a Phase I and a Phase II Environmental Site Assessment (ESA) were conducted for the Applicant-owned Projected Development Site 1 by EBI Consulting (EBI) on January 22, 2020 and February 6, 2020 respectively. A copy of the reports is included as an Attachment. The Phase I and Phase II ESA will be reviewed by the Department of Environmental Protection.

Phase I Environmental Site Assessment

The purpose of a Phase I ESA is to determine whether any type of environmental hazard exists within or adjacent to the project site. Environmental hazards may include, but are not be limited to, hazardous/toxic wastes or raw chemicals stored, dumped, or spilled on the site, underground and above ground storage of petroleum or hazardous materials; asbestos within the building materials/structures; and identification of potential off-site sources of hazardous waste contamination, such as industrial facilities adjacent to the subject property.

Recognized Environmental Conditions (RECs) are defined as the presence or likely presence of any hazardous substances or petroleum products under conditions that indicate an existing release, past release, or a material threat of a release into structures on the property or into the ground, groundwater or surface waters of the property. De minimis RECs are those that do not present a threat to health or the environment and would not be the subject of an enforcement action by a government agency. All RECs, excluding de minimis RECs, were considered in the Phase I.

EBI has performed a Phase I Environmental Site Assessment on January 22, 2020 in conformance with the scope and limitations of ASTM Practice E 1527-13. The following conditions were observed:

- Recognized Environmental Condition (RECs): There are three RECs associated with the Subject Property. A former gasoline service station located on the northwestern portion of the Subject Property, which was in operation from circa 1928 until the early 1980s, is considered a REC. Several potential former gasoline/fuel oil storage tanks located on the eastern portion of the Subject Property on a Sanborn map dated 1951 is also considered a REC. Furthermore, a historical review suggests that an auto repair facility and manufacturing operations occurred at the Subject Property and on the adjoining properties.
- Historical Recognized Environmental Condition (HRECs): There are no HRECs associated with the Subject Property.
- Controlled Recognized Environmental Condition (CRECs): There are no CRECs associated with the Subject Property.
- Other: Surficial oil staining on the area beneath the hydraulic lift was identified by EBI. No cracks, penetrations, or other potential pathways to the subsurface were observed in proximity to the identified staining. In addition, EBI conducted a limited visual screening survey for the presence of asbestos-containing materials (ACM) at the Subject Property. EBI identified friable suspect ACM in the form of sheetrock/joint compound composite material, and non-friable suspect ACM in the form of vinyl floor tile and associated mastic, sheet vinyl flooring and associated mastic, various construction mastics and caulking and roofing materials. Additional sampling, removal, and disposal arrangements may be necessary should building construction or renovation activities be conducted.

Based on the findings of the Phase 1 ESA, RECs were identified related to the Subject Property. Therefore, the development of Projected Development Site 1 under the Proposed Action may have the potential for adverse impacts related to hazardous materials. Therefore, a Phase 2 ESA is warranted to further investigate the RECs identified in Phase 1 ESA.

Phase II Environmental Site Assessment

The primary objective of the Phase II ESA is to evaluate the potential impact to the Subject Property from the recognized environmental conditions (RECs) identified in the Phase I ESA prepared by EBI (January 22, 2020) for the purpose of providing sufficient information regarding the nature and extent of contamination to assist in making informed business decisions about the property; and where applicable, providing the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA. The investigation focused on nature of former operations as a gasoline filling station at Subject Property.

On February 6, 2020, EBI conducted a Phase II ESA to assess subsurface conditions in the area of the former filling station. A total of six soil borings were advanced at the Subject Property. All of the soil borings were advanced using direct push drilling methods. The samples were submitted to a New York certified laboratory, Alpha Analytical, for analyses. The soil samples were analyzed for volatile organic compounds (VOCs) analysis via EPA Method 8260, Petroleum Aromatic Hydrocarbons (PAHs) list via EPA Method 8260, and Lead via EPA method 6010.

The analytical results revealed concentrations of PAHs, and Lead detected above the laboratory method detection limits and state standards. The analytical results also revealed concentrations of VOCs detected above the laboratory detection limits. Carbon tetrachloride was detected above the New York State Department of Health Decision Matrix A for Soil Vapor Concertation Criteria. The result is less than the EPA Commercial Vapor Intrusion Screen Level (VISL).

Based on the above information, the Subject Property has been impacted with PAHs above the NYCP51: New York DEC CP-51 Soil Cleanup Levels Criteria per NY CP-51 Soil Cleanup Levels dated October 21, 2010, and NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006. Based on field observation, which identified the presence of historic fill material, the PAHs detected are likely related to the presence of the historic fill, and are not related to the historic site used as a filling station or a petroleum release.

The detection of carbon tetrachloride on the site is likely attributed to the presence of stored refrigerant and the use of refrigerants to recharge the compressors of commercial freezers and refrigerators during sample collection. Based on the results of the soil vapor testing conducted, a vapor intrusion condition does not exist at the property.

Conclusion

Based on the findings and conclusions of Phase I and Phase II ESA, no further investigations are warranted at this time. However, it is recommended that in the event any future excavation/construction activities are proposed, further assessment of the historic fill material should be conducted. In the event that impacted soil is identified, the oversight of the subsurface activities should be conducted by an environmental professional and any impacted soil and groundwater should be handled and disposed in accordance with the applicable regulatory regulations. Because Projected Development Site 1 is improved with existing buildings that are currently habited by residential uses or active businesses, further remedial investigation work is not possible. An E-Designation will therefore be required.

The E-Designation language related to Hazardous Materials is as follows:

E-Designation (E-637)

Projected Development Site 1: Block 1125, Lots 29 and 33 (Site under the control or ownership of the applicant)

Based on prior on-site and/or surrounding area land uses which could result in environmental contamination and testing is not physically possible during the CEQR process, DEP concurs with the EAS recommendation that an (E) (**E-637)** Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The (E) (**E-637)** Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Projected Development Site 2: Block 1125, Lots 52 and 53 and Potential Development Site 1: Block 1125, Lot 40 (Sites not under the control or ownership of the applicant)

Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP recommends that an (E) Designation (**E-637)** for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject properties (Block 1125, Lots 40, 52, and 53). The (E) Designation (**E-637)** will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

An (E) Designation (E-637) for hazardous materials for Projected Development Site 1: Block 1125, Lots 29 33, Projected Development Site 2 (Block 1125, Lots 52 and 53) and Potential Development Site 1 (Block 1125, Lot 40). Projected Development Site 1 (Block 1125 Lots 29 and 33). The details related to E-637 are as follows.

E-637 Requirements

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I and Phase II of the site along with a soil, groundwater, and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination

is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The Applicant must complete such remediation as determined necessary by OER. The Applicant should then provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

With this **E-637** designation in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted.

Chapter 16: Transportation

Pursuant to CEQR Technical Manual methodology, a transportation assessment may be necessary when a proposed action would alter the transportation network by closing, opening, or realigning an element of the transportation system such as a roadway, pedestrian way, or transit route, or if it would generate new trips on the transportation network. The objective of the transportation analyses is to determine whether a proposed project may have a potential significant impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists and vehicles), on- and off-street parking, or goods movement.

Methodology

The CEQR Technical Manual states that a preliminary trip generation assessment should be prepared to determine whether a quantified analysis of any technical areas of the transportation system is necessary. Except in unusual circumstances, a further quantified analysis would typically not be needed for a technical area if the proposed development would result in fewer than the following increments:

- 50 peak hour vehicle trips;
- 200 peak hour subway/rail or bus transit riders (or 50 bus trips in a single direction on a single route during a peak hour); or
- 200 peak hour pedestrian trips.

The CEQR Technical Manual also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted. This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network, as well as an assessment of transportation safety in the study area.

Analysis

Future No-Action Condition

Block 1125 Lots 29 and 33, the Projected Development Site 1, as well as Block 1125 Lots 52 and 53, the Projected Development Site 2, would remain unchanged under the No-Action Condition with a combined 30,615 GSF, consisting of 2,700 GSF residential use (3 dwelling units) and 27,915 GSF manufacturing use. It doesn't provide parking spaces on site as required in a M1-1 district.

Future With-Action Condition

Pursuant to the Proposed Actions, Projected Development Site 1 (Block 1125, Lots 29 and 33) would be developed under RWCDS with a 238,873 GSF (172,800 ZSF; 7.20 FAR) mixed-use commercial, community facility, and residential building of two separate towers. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) UG 6 commercial space (local retail) and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) general community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the

Proposed Development, with 42 affordable units permanently set aside at or below 80% AMI, which would make up 20% of the total residential units provided on the Development Site.

Meanwhile, Projected Development Site 2 (Block 1125, Lots 52 and 53) would assemble with a merged lot area of 4,000 sf and be developed with a 21,816 GSF (18,400 ZSF; 4.60 FAR) 9-story mixed-use residential and commercial building that rises to a height of 95 feet tall. The ground floor would contain 2,704 GSF (2,600 ZSF, 0.65 FAR) of local retail (UG 6) space. Floors two through nine would contain 17,064 GSF (15,800 ZSF, 3.95 FAR) of residential uses, with 17 total dwelling units (3 of which would be permanently affordable at or below 80% AMI). Seven residential accessory parking spaces would be required, and would be provided at cellar level within a 2,048 GSF parking garage.

In total, there would be 224 dwelling units, 15,554 GSF local retail space, 12,730 GSF community facility space incremented as a result of the new buildings on the two development sites.

Preliminary Assessment

Based on the Affected Area's location, it is within Traffic Zone 2. According to Table 16-1 of the 2020 CEQR Technical Manual, a residential development of fewer than 200 residential units, 15,000 square feet of local retail, or 25,000 square feet of community facility space, or a weighted average below 1.00 of any of the above, typically does not warrant further assessment of the potential for adverse effects on Transportation. Incremental development under the Proposed Actions, compared to No-Action conditions, would consist of 224 more residential dwelling units (1.12 weighted average) and an increase of 15,554 GSF of local retail space (1.04 weighted average) and 12,730 GSF of community facility space (0.51 weighted average), which results in a weighted average of 2.67 for the Proposed Actions. Therefore, a Tier 1 trip generation is required.

Tier 1 Trip Generation

For Tier 1 trip generation, data from CEQR TM, East New York FEIS, ACS 2015-2019, and local retail data provided by NYCDOT was integrated for the traffic generation model. As **Table 2.16-1** shows, the assumption of the travel factors is determined based on the listed data sources. **Table 2.16-2** shows the person trips, vehicular trips, and pedestrian trips generated from the trip factors in **Table 2.16-1**.

Table 2.16-1: Travel Factors for 1034 Atlantic Avenue Rezoning

	Local Retail		Residential		Light Industrial		Community Facility	
Trip Generation	(1)		(1)		(2)		(4)	
Weekday	205		8.075		14.7		76	
Saturday	240		9.6		2.2		39	
	per 1,000 sf		per dwelling unit		per 1,000 sf		per 1,000 sf	
Linked-trip	(1)							
	25%							
Temporal Distribution	(1)		(1)		(2)		(4)	
AM	3.00%		10.00%		13.20%		11.00%	
MD	19.00%		5.00%		11.00%		13.00%	
PM	10.00%		11.00%		14.20%		9.00%	
Sat MD	10.00%		8.00%		10.70%		17.00%	
Modal Splits	(5)		(3)		(6)		(4)	
Auto	11%		7%		30%		24%	
Taxi	0%		2%		1%		6%	
Bus	2%		5%		14%		59%	
Subway	3%		78%		39%		9%	
Walk/Other	84%		7%		17%		2%	
In/Out Splits	In (2)	Out (2)	In (2)(7)	Out (2)(7)	In (2)	Out(2)	In (2)	Out (2)
AM	50%	50%	20%	80%	88%	12%	62%	38%
MD	50%	50%	51%	49%	50%	50%	47%	53%
PM	50%	50%	65%	35%	12%	88%	35%	65%
Sat MD	55%	45%	51%	49%	47%	53%	49%	51%
Vehicle Occupancy	(7)		AM/PM (3)(7)	MD/SAT (3)(7)	(2)		AM/PM (4)	MD/Sat (4)
Auto	1.20		1.10	1.10	1.2		1.50	1.50
Taxi	1.20		1.40	1.40	1.2		1.50	1.50
Truck Trip Generation	(1)		(1)		(2)		(2)	
Weekday	0.35		0.06		0.67		0.29	
Saturday	0.04		0.02		0.67		0.29	
Temporal Distribution	(1)		(1)		(2)		(2)	
AM	8.00%		12.00%		14.00%		3.00%	
MD	11.00%		9.00%		9.00%		11.00%	
PM	2.00%		2.00%		1.00%		1.00%	
Saturday	11.00%		9.00%		0.00%		0.00%	
In/Out Splits	In (2)	Out (2)	In (2)	Out (2)	In (1)	Out (1)	In (2)	Out (2)
AM/MD/PM/Sat	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%

1 = 2014 CEQR Technical Manual
2 = East New York FEIS
3 = 5-year ACS Journey to Work (2015 - 2019) for Kings County Tracts 201, 203, 205, 207, 215, 217, 219, 221, 227, 247, and 305
4 = Data provided by NYC DOT for Medical Office
5 = Data provided by NYC DOT for Local Retail in Brooklyn
6 = 5-year ACS Reverse Journey to Work (2012 - 2016) for Kings County Tracts 201, 203, 205, 207, 215, 217, 219, 221, 227, 247, and 305
7 = 809 Atlantic Avenue EAS, 2019

Table 2.16-2: Estimated Person/Vehicular Trips

	Local Retail		Residential		Light Industrial		Community Facility		Total	
Size (gsf)	15,554 gsf		224 du		-27,915 gsf		12,730 gsf			
Peak Hour Trips										
AM	72		181		-54		106		305	
MD	454		90		-45		126		625	
PM	239		199		-58		87		467	
Sat MD	280		172		-7		84		530	
Person Trips										
AM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	4	4	3	11	-14	-2	16	10	8	22
Taxi	0	0	1	3	0	0	4	2	4	5
Bus	1	1	2	7	-7	-1	39	24	35	31
Subway	1	1	28	113	-18	-3	6	4	17	115
Walk/Other	30	30	3	11	-8	-1	1	1	26	40
Total	36	36	36	145	-48	-6	66	40	90	215
MD	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	25	25	3	3	-7	-7	14	16	36	38
Taxi	0	0	1	1	0	0	4	4	4	5
Bus	5	5	2	2	-3	-3	35	39	38	43
Subway	7	7	36	35	-9	-9	5	6	40	39
Walk/Other	191	191	3	3	-4	-4	1	1	192	192
Total	227	227	46	44	-23	-23	59	67	310	316
PM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	13	13	10	5	-2	-15	7	14	28	17
Taxi	0	0	3	2	0	0	2	3	5	4
Bus	2	2	6	3	-1	-7	18	33	26	32
Subway	4	4	101	54	-3	-20	3	5	105	43
Walk/Other	100	100	9	5	-1	-8	1	1	109	98
Total	120	120	129	70	-7	-51	30	57	272	195
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	17	14	7	6	-1	-1	10	10	32	29
Taxi	0	0	2	2	0	0	2	3	4	4
Bus	3	3	4	4	0	0	24	25	31	32
Subway	5	4	69	66	-1	-1	4	4	76	72
Walk/Other	129	106	6	6	-1	-1	1	1	136	112
Total	154	126	88	84	-3	-3	41	43	280	250
Vehicle Trips										
AM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	3	3	2	10	-12	-2	11	6	4	18
Taxi	0	0	1	2	0	0	3	2	3	4
Taxi Balanced	0	0	1	4	-1	0	5	3	6	8
Truck	0	0	1	1	-1	-1	0	0	0	0
Total	4	4	4	15	-14	-3	16	10	10	25
MD	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	21	21	3	3	-6	-6	9	11	28	29
Taxi	0	0	1	1	0	0	2	3	3	3
Taxi Balanced	0	0	1	2	0	0	5	5	6	7
Truck	0	0	1	1	-1	-1	0	0	0	0
Total	21	21	5	5	-7	-7	14	16	34	36
PM	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	11	11	9	5	-2	-13	5	9	23	12
Taxi	0	0	2	1	0	0	1	2	3	3
Taxi Balanced	0	0	4	2	0	-1	2	5	6	6
Truck	0	0	0	0	0	0	0	0	0	0
Total	11	11	13	7	-2	-14	7	14	29	18
Saturday	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	14	12	6	6	-1	-1	7	7	26	23
Taxi	0	0	1	1	0	0	2	2	3	3
Taxi Balanced	0	0	3	3	0	0	3	3	6	6
Truck	0	0	0	0	0	0	0	0	0	0
Total	14	12	9	8	-1	-1	10	10	32	29

The increments induced by the Proposed Development are calculated through the traffic generation model. As **Table 2.16-3** shows, the number of trips increased wouldn't exceed the threshold for MTA bus or subway trips. Meanwhile, the number of pedestrian trips, including not only "walk" trips, but also trips of other modes that usually have a pedestrian component, is expected to be 264, 543, 413, and 459 during weekday AM, midday, and PM peak hour, and Saturday peak hour respectively, far more than the 200-pedestrian threshold. As for vehicular trips, Weekday Midday and Saturday Midday peak hours would anticipate an incremental amount of more than 50 vehicular trips. Therefore, a Tier 2 trip assignment is warranted for the Proposed Development.

Table 2.16-3: Traffic Increments of Proposed Development Compared with CEQR Thresholds

Peak Hour	AM Peak Hour	Midday Peak Hour	PM Peak Hour	Saturday Peak Hour
Total Walk Only Trip-Ends	67	383	208	248
Walk Only Threshold	200	200	200	200
Total Subway Trip-Ends	132	78	148	148
Subway Threshold	200	200	200	200
Total MTA Bus Trip-Ends	65	81	58	63
MTA Bus Threshold	200	200	200	200
Total Pedestrian Trip-Ends	264	543	413	459
Pedestrian Threshold	200	200	200	200
Total Vehicular Trip-Ends	35	70	47	62
Vehicular Threshold	50	50	50	50

Highlighted cells denote trips in exceedance of 200 pedestrians or 50 vehicles per peak hour

Level 2 Screening Assessment

As part of the Level 2 screening assessment, project-generated trips were assigned to specific intersections and pedestrian elements near the project site. Further quantified analyses to assess the potential impacts of the proposed project on the transportation system would be warranted if the trip assignments were to identify key intersections incurring 50 or more peak hour vehicle-trips or pedestrian elements incurring 200 or more peak hour pedestrian-trips.

Site Access and Egress

Vehicular

Access and egress to the project site was conservatively analyzed to be primarily at the entrance/exits to the parking garage on Pacific Street. This location was applied to Autos, Trucks, and Taxis in order to conduct a conservative analysis.

Pedestrian

The proposed project has numerous entrance/exits for pedestrian trips that are specific to each site and land use. Pedestrians were assigned to specific frontages based on their trip purpose. Where a location had multiple entrances/exits on the same frontage, a singular point was used, similar to the above vehicular trip assignments. The proximity to Atlantic Avenue was taken into account. Additionally, as the block in the project area are long East-to-West and short North-to-South, vehicular trips were assumed to take largely efficient routes, with minimal zig-zagging throughout the neighborhood.

Traffic

As shown previously in **Table 2.16-3**, incremental vehicle trips resulting from the proposed project would exceed the CEQR Level-1 screening threshold during the Weekday Midday and Saturday Midday peak hours. The most likely travel routes to and from the project site, prevailing travel patterns, commuter origin-destination (O-D) summaries from the most recent census data, the configuration of the roadway network, and the anticipated locations of site access and egress by site and land use were examined and utilized to perform vehicular trip assignments. All vehicular trips (auto, taxi, truck) were conservatively assumed to enter the proposed project location via the parking garage entry on Pacific Street. Census Transportation Planning Product Reverse Journey to Work and Journey to Work (2012 – 2016) data was utilized to determine the relative O-D points of trips. The proximity to Atlantic Avenue was taken into account. Additionally, as the block in the project area are long East-to-West and short North-to-South, vehicular trips were assumed to take largely efficient routes, with minimal zig-zagging throughout the neighborhood.

Summary

A summary of projected intersection volumes by peak hour are shown in **Table 2.16-4** and in **Figure 2.16-1 - Figure 2.16-4**. Project generated vehicle movement maps are in **Appendix E**. In total, no intersections in any time period are projected to experience greater than 50 project generated vehicular trip ends. As a result, a detailed Level-of-Service (LOS) analysis would not be warranted for vehicular trips. Additionally, as a detailed vehicular LOS would not be warranted, and the proposed development is not eliminating existing parking facilities, in accordance with the *CEQR TM* Section 313.4, a parking utilization study is not warranted.

Pedestrians

As shown previously in **Table 2.16-3**, incremental pedestrian trips resulting from the proposed project would exceed the CEQR Level-1 screening threshold during the Weekday AM, Midday, PM, and Saturday Midday peak hours. Level 2 pedestrian trip assignments were individually developed for all the proposed uses, as shown in **Figure 2.16-5 - Figure 2.16-8** and discussed below. Project generated pedestrian movement maps are in **Appendix E**.

Table 2.16-4: Vehicular Intersection Summary

Intersections	Weekday AM	Weekday MD	Weekday PM	Saturday MD
1 - Lefferts Blvd and Grand Avenue	1	3	3	3
2 - Lefferts Blvd and Classon Avenue	1	3	3	3
3 - Lefferts Blvd and Franklin Avenue	6	19	16	18
4 - Atlantic Avenue and Grand Avenue	1	4	4	4
5 - Atlantic Avenue and Classon Avenue	1	4	4	4
6 - Atlantic Avenue and Franklin Avenue	7	23	21	22
7 - Pacific Street and Grand Avenue	25	36	18	29
8 - Pacific Street and Classon Avenue	10	34	29	32

Figure 2.16-1: Weekday AM Vehicular Intersections

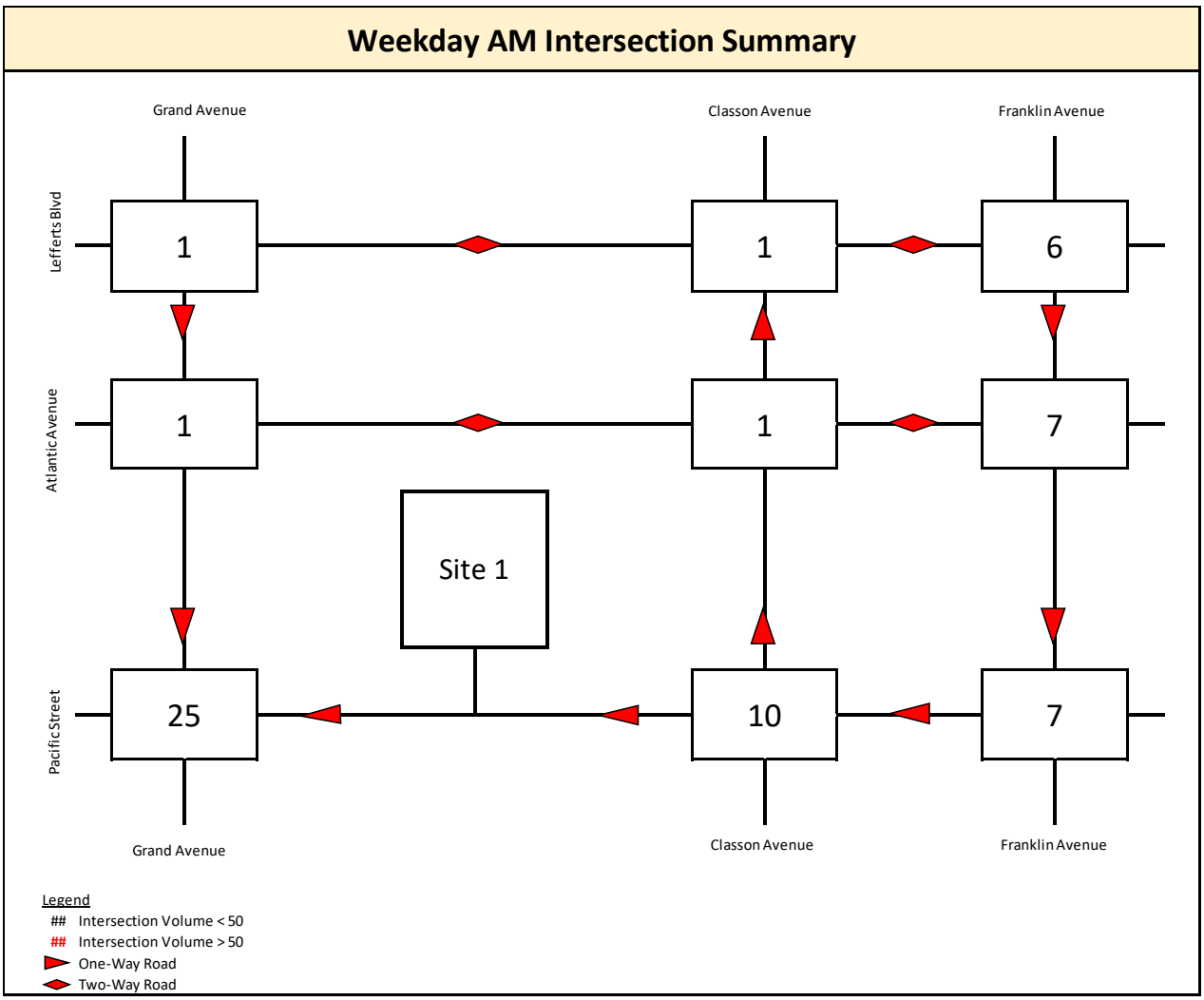


Figure 2.16-2: Weekday Midday Vehicular Intersections

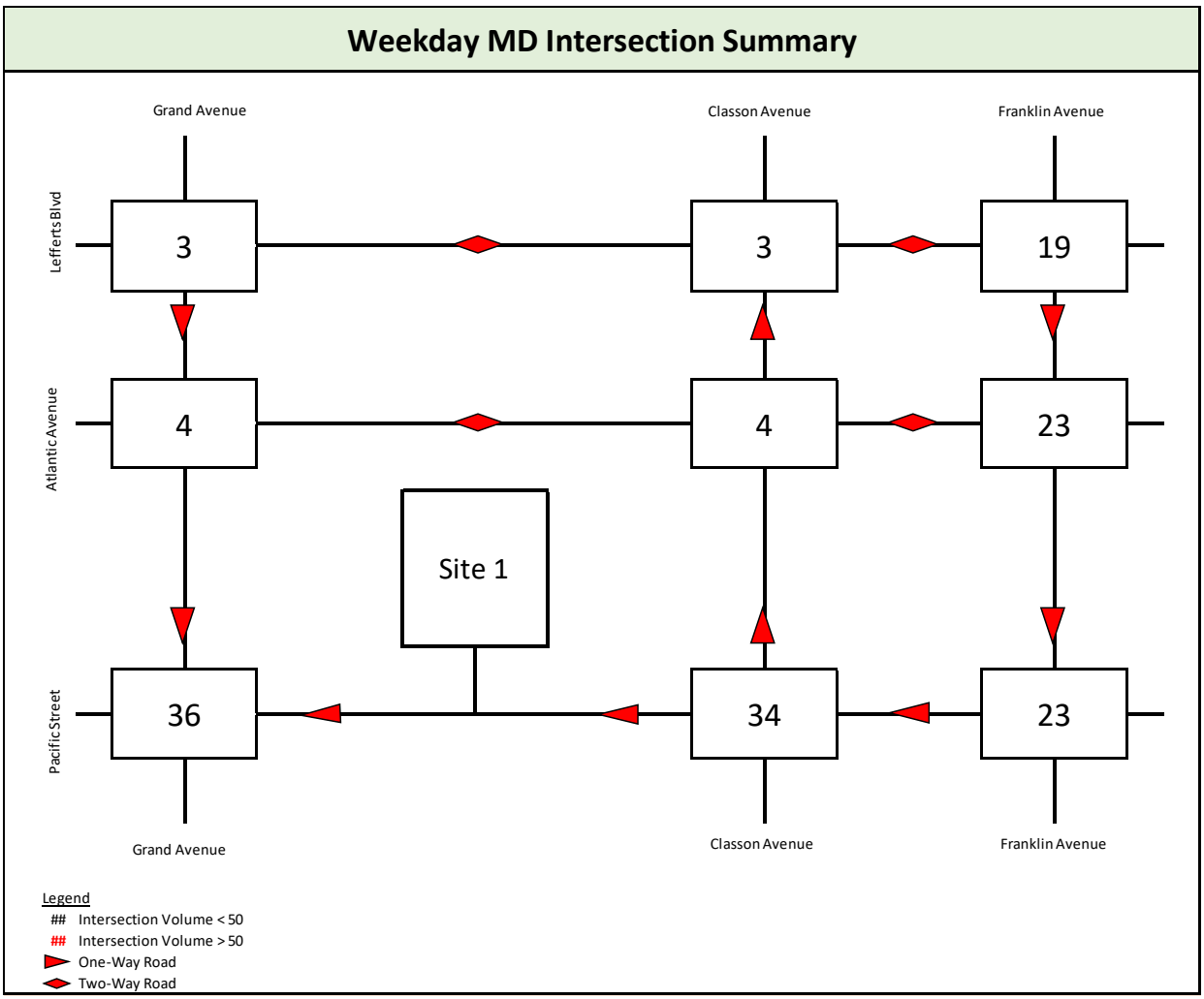


Figure 2.16-3: Weekday PM Vehicular Intersections

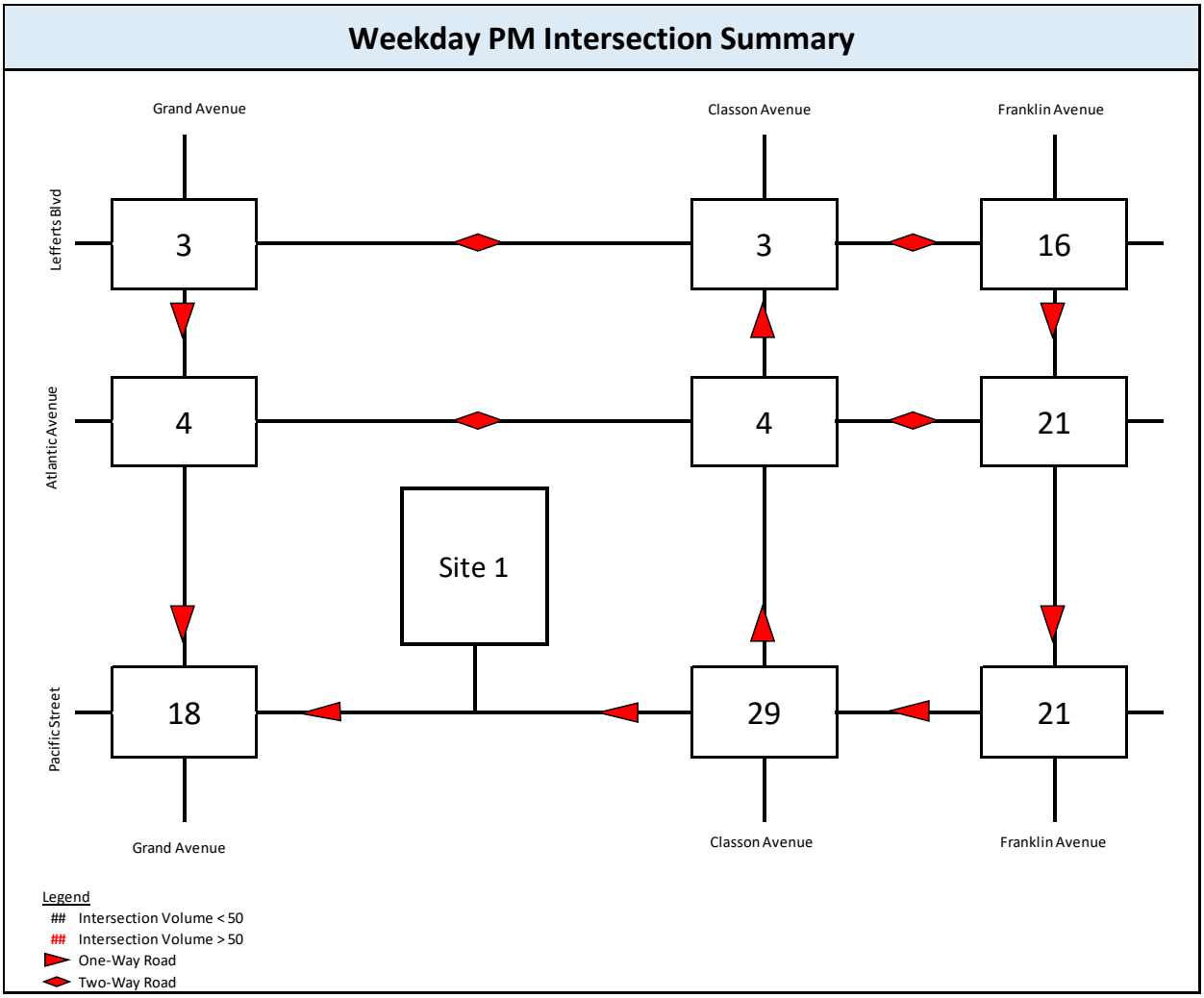


Figure 2.16-4: Saturday Midday Vehicular Intersections

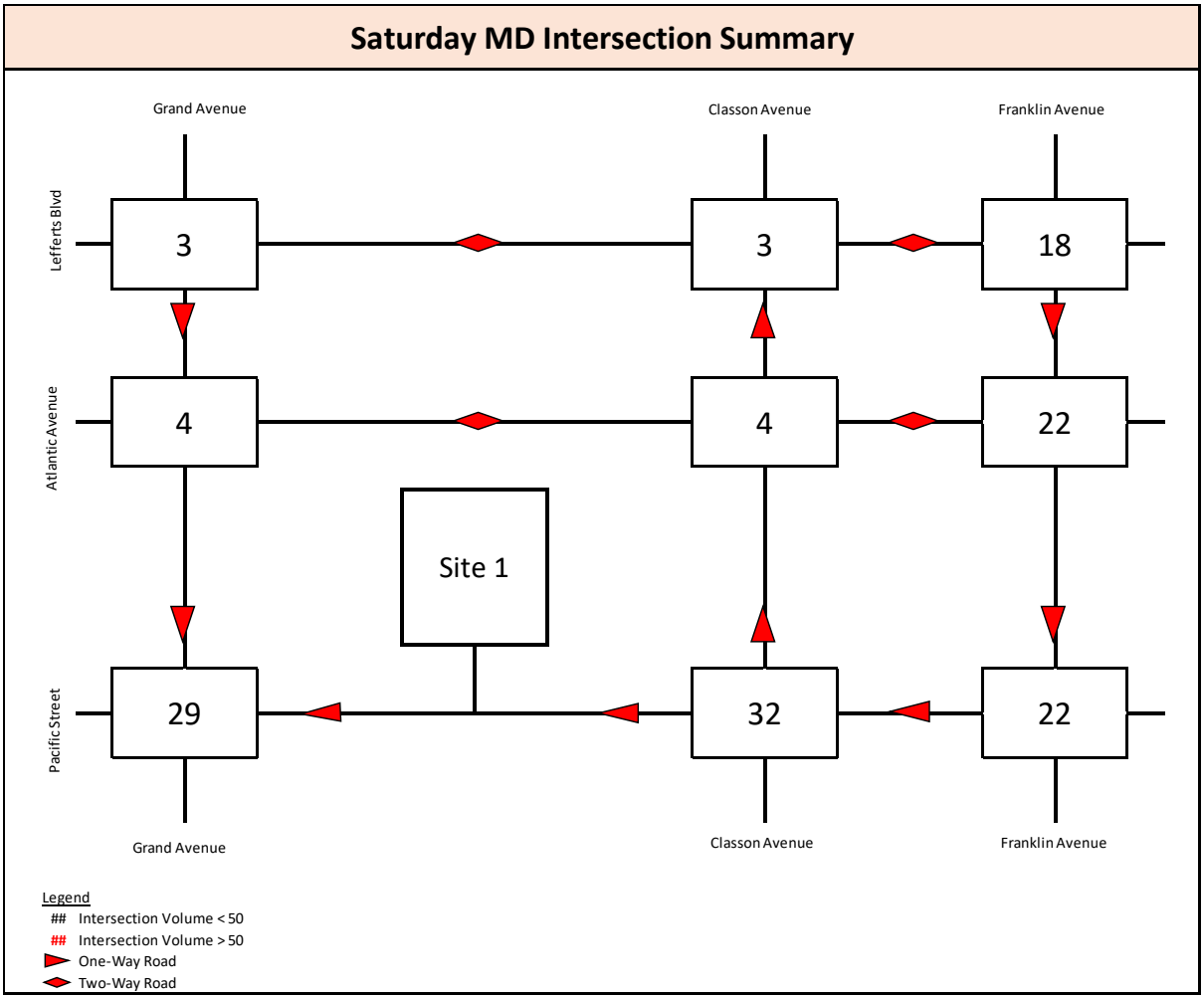


Figure 2.16-5: Weekday AM Pedestrian Elements

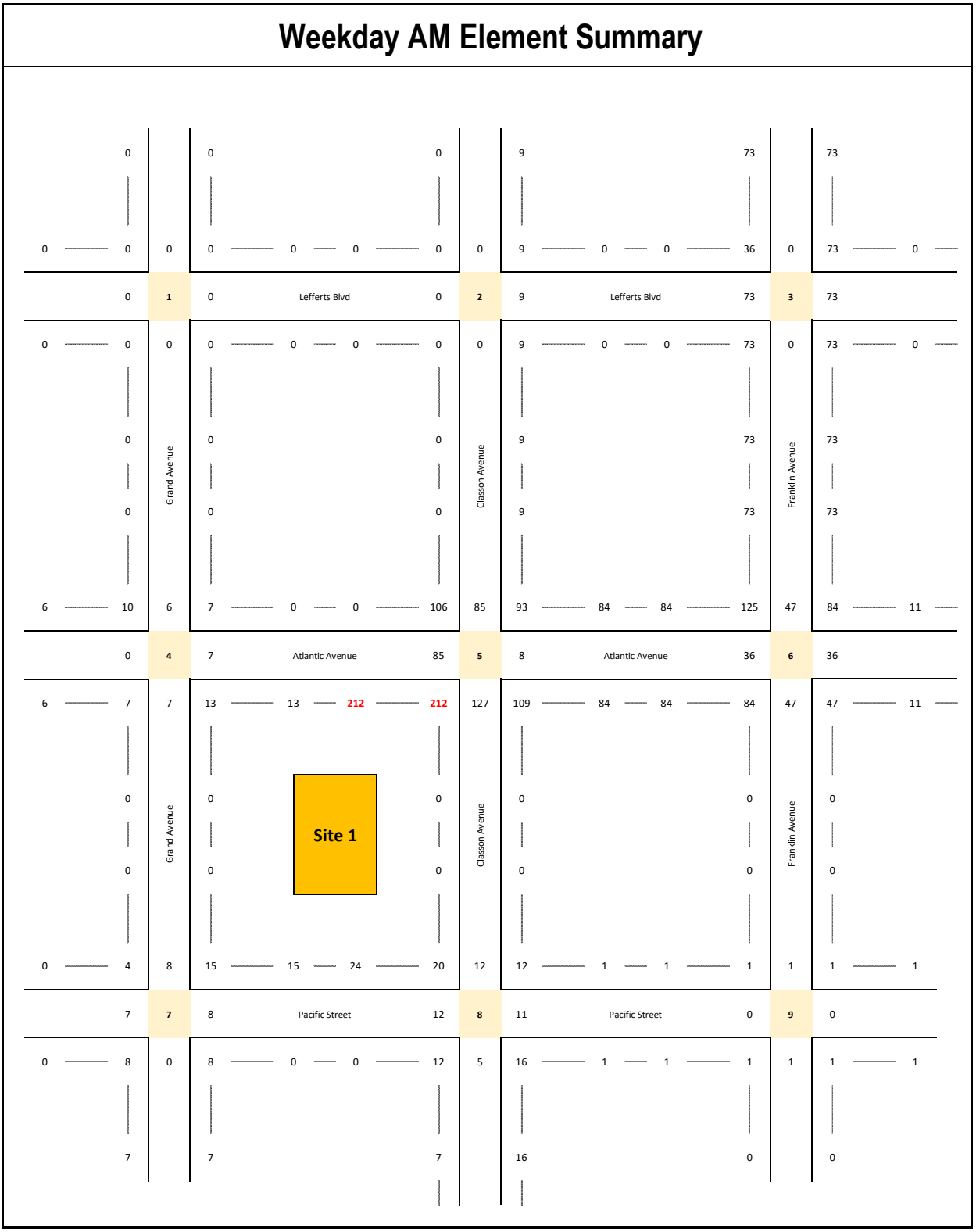


Figure 2.16-6: Weekday Midday Pedestrian Elements

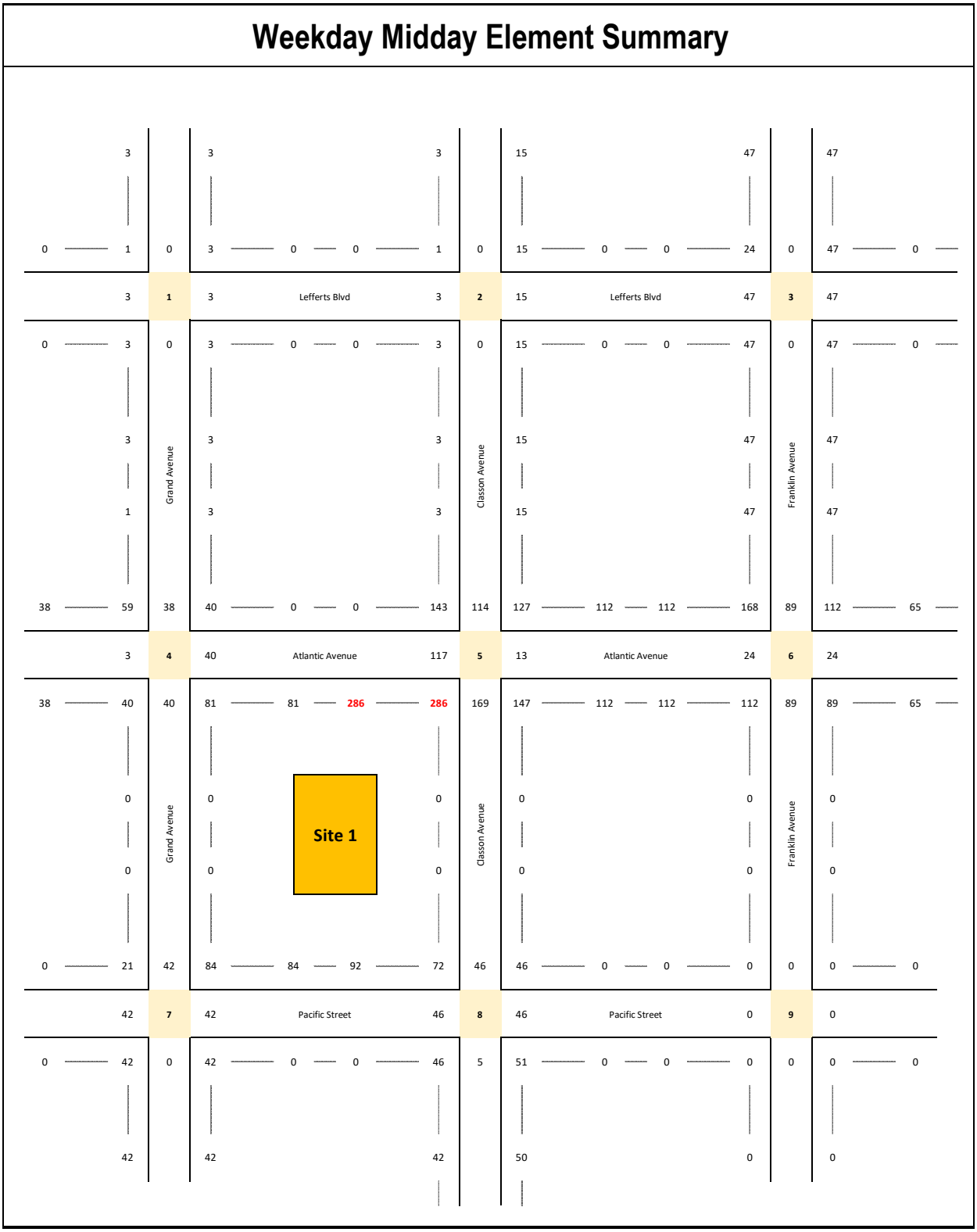


Figure 2.16-7: Weekday PM Pedestrian Elements

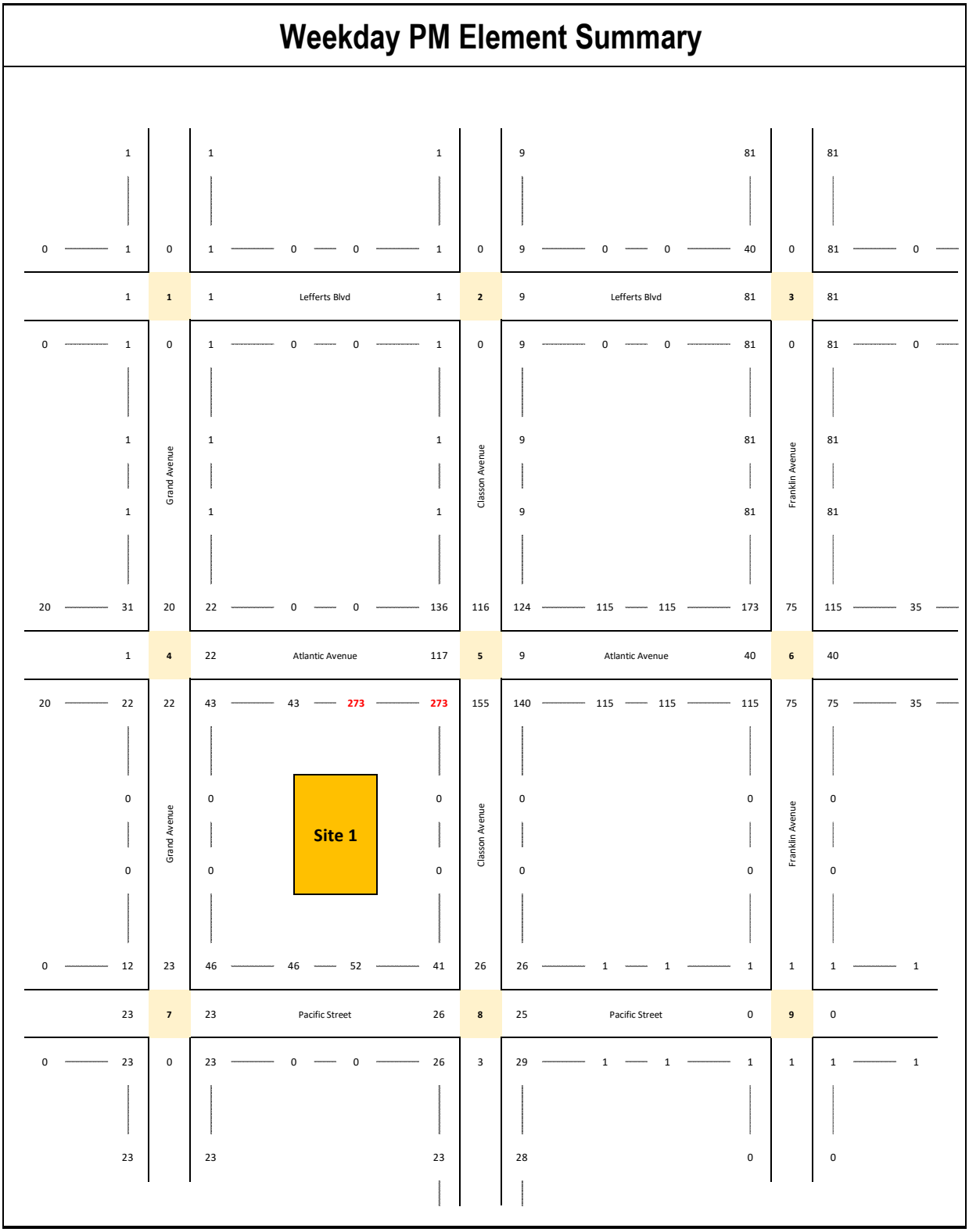
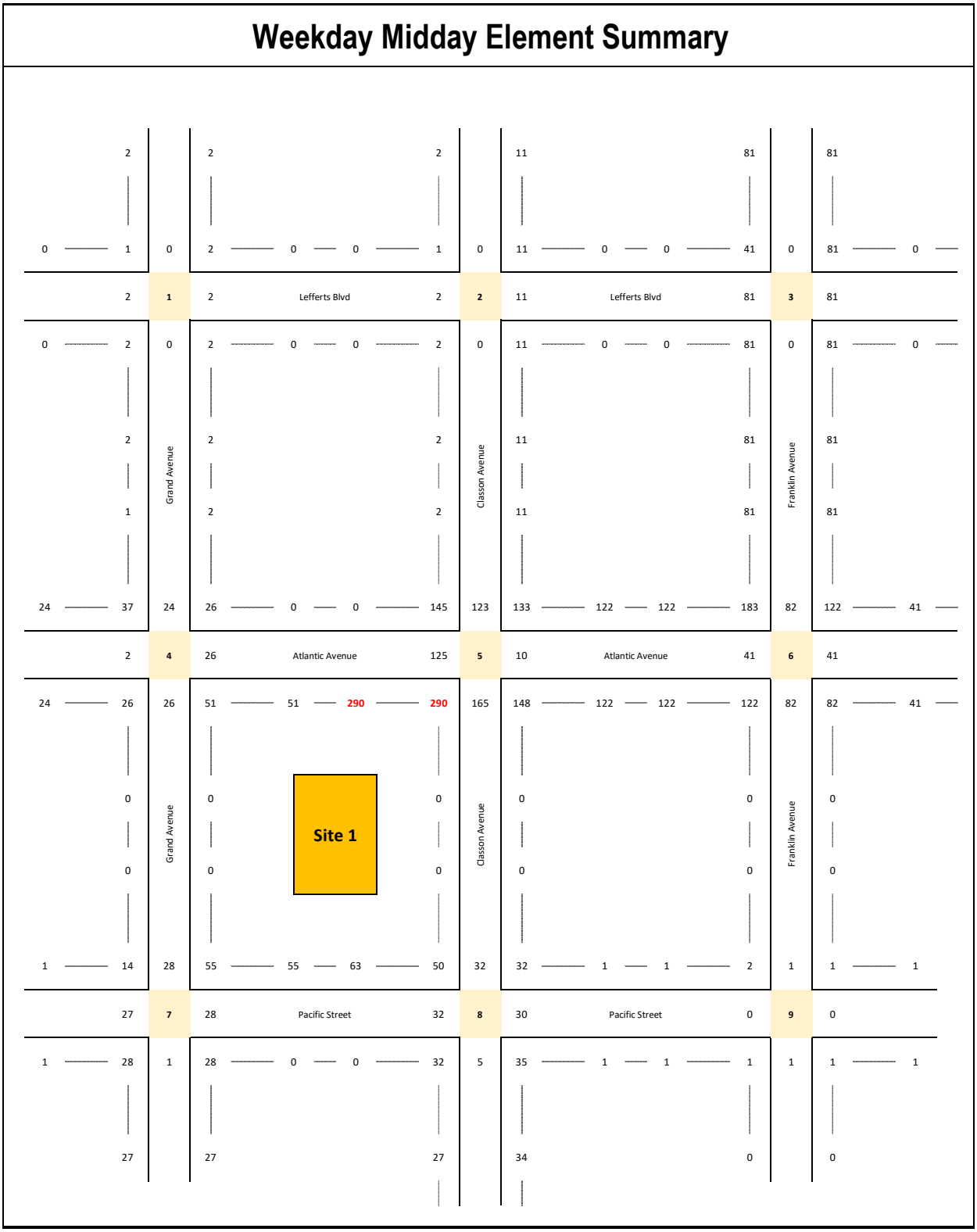


Figure 2.16-8: Saturday Midday Pedestrian Elements



Auto, Taxi, and Truck Trips
For all uses, motorists would park at the on-site parking lots. Therefore, the passengers of these vehicles would not traverse the pedestrian street network.

MTA Bus Trips
The location of bus stops, the bus lines that serve each stop, the route each line covers, and the connections these lines allow for, were considered and applied to bus riders traveling to and from the project site. Specifically, the B25 and B48 were considered as major East/West and North/South routes, respectively.

Subway Trips
The nearest subway station to the project site is the Franklin Avenue C station, approximately ¼ mile to the Northeast. All subway riders were projected to use the Franklin Avenue C station to the Northeast.

Walk-Only Trips
Pedestrian walk-only trips were developed by distributing project-generated trips throughout the network based on the relative population weight of all census tracts within a ¼ mile radius using the 2015 – 2019 ACS 5-Year Table B1003. The specific entrance / exit pedestrians used based on their trip purpose and the specifics of the street network surrounding the site were taken into account as well as the land use characteristics of the surrounding neighborhood.

Summary
Based on the detailed assignment of pedestrian trips, one corner reservoir and one sidewalk have been selected for detailed LOS analysis during the Weekday Midday, PM, and Saturday Midday peak hours. Sidewalk, corner reservoir, and crosswalk volumes are summarized in **Table 2.16-5, Table 2.16-6,** and **Table 2.16-7**, respectively.

Table 2.16-5: Sidewalk Projected Pedestrian Trip Summary

Sidewalks	Weekday AM	Weekday MD	Weekday PM	Saturday MD
South sidewalk on Atlantic Avenue between Site entrance / exit and Classon Avenue	**212**	**286**	**273**	**290**
North sidewalk on Pacific Street between Site entrance / exit and Classon Avenue	24	92	52	63

Highlighted cells indicate locations where detailed LOS analysis is warranted

Table 2.16-6: Corner Projected Pedestrian Trip Summary

Corners	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Atlantic Avenue and Classon Avenue				
Northeast	93	127	124	133
Southeast	109	147	140	148
Southwest	**212**	**286**	**273**	**290**
Northwest	106	143	136	145
Pacific Avenue and Classon Avenue				
Northeast	12	46	26	32
Southeast	16	51	29	35
Southwest	12	46	26	32
Northwest	20	72	41	50

Highlighted cells indicate locations where detailed LOS analysis is warranted

Table 2.16-7: Crosswalk Projected Pedestrian Trip Summary

Crosswalks	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Atlantic Avenue and Classon Avenue				
North	85	114	116	123
East	8	13	9	10
South	127	169	155	165
West	85	117	117	125
Pacific Avenue and Classon Avenue				
North	12	46	26	32
East	11	46	25	30
South	5	5	3	5
West	12	46	26	32

Highlighted cells indicate locations where detailed LOS analysis is warranted

Transit

As shown previously in **Table 2.16-3**, incremental subway rider trips resulting from the proposed project would not exceed the CEQR Level-1 screening threshold during the Weekday AM, Midday, PM, and Saturday Midday peak hours. Subway riders were assigned to stations and directions as described above based on their origin and destination points. As a result, no Subway station would experience greater than 200 new project generated subway riders, and as such a detailed LOS analysis would not be warranted.

Transportation Analysis Methodology

Pedestrian Operations

The adequacy of the study area's sidewalks, crosswalks, and corner reservoir capacities in relation to the demand imposed on them is evaluated based on the methodologies presented in the 2010 HCM, pursuant to procedures details in the *2020 CEQR Technical Manual (CEQR TM)*. Detailed LOS impact analysis was performed on the specific pedestrian elements noted above.

The primary performance measure for sidewalks and walkways is pedestrian space, expressed as square feet per pedestrian (SFP), which is an indicator of the quality of pedestrian movement and comfort. The calculation of the sidewalk SFP is based on the pedestrian volumes by direction, the effective sidewalk or walkway width, and average walking speed. The SFP forms the basis for a sidewalk LOS analysis. The determination of sidewalk LOS is also dependent on whether the pedestrian flow being analyzed is best described as "non-platoon" or "platoon." Non-platoon flow occurs when pedestrian volume within the peak 15-minute period is relatively uniform, whereas, platoon flow occurs when pedestrian volumes vary significantly with the peak 15-minute period. Such variation typically occurs near bus stops, subway stations, and/or where adjacent crosswalks account for much of the walkway's pedestrian volume.

Corner reservoirs are not easily measured in terms of free pedestrian flow, as they are influenced by the effects of traffic signals. Street corners must be able to provide sufficient space for a mix of standing pedestrians (queued to cross a street) and circulating pedestrians (crossing the street or moving around the corner). The HCM methodologies apply a measure of time and space availability based on the area of the corner reservoir, the timing of the intersection signal, and the estimated space used by circulating pedestrians.

The total "time-space" available for these activities, expressed in square feet per second, is calculated by multiplying the net area of the corner (in square feet) by the signal's cycle length. The analysis then determines the total circulation time for all pedestrian movements at the corner per signal cycle (expressed as pedestrians per second). The ratio of net time-space divided by the total pedestrian circulation volume per signal cycle provides the LOS measurement of square feet per pedestrian (SFP). The LOS standards for corner reservoirs are summarized in **Table 2.16-8**. The *CEQR TM* specifics acceptable LOS in Central Business Districts (CBD) as mid-LOS D or better, while acceptable LOS in non-CBD areas is LOS C or better.

Table 2.16-8: Level of Service Criteria for Pedestrian Elements

LOS	Sidewalks		Corner Reservoirs and Crosswalks
	Non-Platoon Flow	Platoon Flow	
A	> 60 SFP	> 530 SFP	> 60 SFP
B	> 40 and ⩽ 60 SFP	> 90 and ⩽ 530 SFP	> 40 and ⩽ 60 SFP
C	> 24 and ⩽ 40 SFP	> 40 and ⩽ 90 SFP	> 24 and ⩽ 40 SFP
D	> 15 and ⩽ 24 SFP	> 23 and ⩽ 40 SFP	> 15 and ⩽ 24 SFP
E	> 8 and ⩽ 15 SFP	> 11 and ⩽ 23 SFP	> 8 and ⩽ 15 SFP
F	⩽ 8 SFP	⩽ 11 SFP	⩽ 8 SFP
Note: SFP = square feet per pedestrian Sources: *CEQR Technical Manual*			

Significant Adverse Impact Criteria

Corner Reservoirs

The determination of significant adverse corner reservoir impacts is based on a sliding scale using the following formula: Y >= X / 9.0 – 0.31, where Y is the decrease in pedestrian space in SFP and X is the No-Action pedestrian space in SFP. Since a decrease in pedestrian space within acceptable levels would not constitute a significant adverse impact, this formula would apply only if the With-Action pedestrian space falls short of LOS C in non-CBD areas of mid-LOS D in CBD areas. **Table 2.16-9** summarizes the sliding scale guidance provided by the *CEQR TM* for determining potential significant adverse corner reservoir impacts.

Sidewalks

There are two sliding-scale formulas for determining significant adverse sidewalk impacts. For non-platoon flow, the determination of significant adverse sidewalk impacts is based on the sliding scale using the following formula: Y ⩾ X/9.0 – 0.31, where Y is the decrease in pedestrian space in SFP and X is the No-Action pedestrian space in SFP. For platoon flow, the sliding-scale formula is Y ⩾ X/(9.5 – 0.321). Since a decrease in pedestrian space within acceptable levels would not constitute a significant adverse impact, these formulas would apply only if the With-Action pedestrian space falls short of LOS C in non-CBD areas or mid-LOS D in CBD areas. **Table 2.16-10** summarizes the sliding scale guidance provided by the CEQR Technical Manual for determining potential significant adverse sidewalk impacts.

Table 2.16-9: Significant Adverse Impact Guidance for Corner Reservoirs

Sliding Scale Formula: *Y ³ X/9.0 – 0.31*			
Non-CBD Areas		**CBD Areas**	
No-Action Pedestrian Space (X, SFP)	**With-Action Pedestrian Space Reduction (Y, SFP)**	**No-Action Pedestrian Space (X, SFP)**	**With-Action Pedestrian Space Reduction (Y, SFP)**
25.8 to 26.6	³ 2.6	–	–
24.9 to 25.7	³ 2.5	–	–
24.0 to 24.8	³ 2.4	–	–
23.1 to 23.9	³ 2.3	–	–
22.2 to 23.0	³ 2.2	–	–
21.3 to 22.1	³ 2.1	21.3 to 21.5	³ 2.1
20.4 to 21.2	³ 2.0	20.4 to 21.2	³ 2.0
19.5 to 20.3	³ 1.9	19.5 to 20.3	³ 1.9
18.6 to 19.4	³ 1.8	18.6 to 19.4	³ 1.8
17.7 to 18.5	³ 1.7	17.7 to 18.5	³ 1.7
16.8 to 17.6	³ 1.6	16.8 to 17.6	³ 1.6
15.9 to 16.7	³ 1.5	15.9 to 16.7	³ 1.5
15.0 to 15.8	³ 1.4	15.0 to 15.8	³ 1.4
14.1 to 14.9	³ 1.3	14.1 to 14.9	³ 1.3
13.2 to 14.0	³ 1.2	13.2 to 14.0	³ 1.2
12.3 to 13.1	³ 1.1	12.3 to 13.1	³ 1.1
11.4 to 12.2	³ 1.0	11.4 to 12.2	³ 1.0
10.5 to 11.3	³ 0.9	10.5 to 11.3	³ 0.9
9.6 to 10.4	³ 0.8	9.6 to 10.4	³ 0.8
8.7 to 9.5	³ 0.7	8.7 to 9.5	³ 0.7
7.8 to 8.6	³ 0.6	7.8 to 8.6	³ 0.6
6.9 to 7.7	³ 0.5	6.9 to 7.7	³ 0.5
6.0 to 6.8	³ 0.4	6.0 to 6.8	³ 0.4
5.1 to 5.9	³ 0.3	5.1 to 5.9	³ 0.3
< 5.1	³ 0.2	< 5.1	³ 0.2

Notes:
SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No-Action pedestrian space in SFP.
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*.

Table 2.16-10: Significant Adverse Impact Guidance for Sidewalks

Non-Platoon Flow				Platoon Flow			
Sliding Scale Formula: $Y^3 X/9.0 - 0.31$				Sliding Scale Formula: $Y^3 X/(9.5 - 0.321)$			
Non-CBD Areas		CBD Areas		Non-CBD Areas		CBD Areas	
No-Action Ped. Space (X, SFP)	With-Action Ped. Space Reduc. (Y, SFP)	No-Action Ped. Space (X, SFP)	With-Action Ped. Space Reduc. (Y, SFP)	No-Action Ped. Space (X, SFP)	With-Action Ped. Space Reduc. (Y, SFP)	No-Action Ped. Space (X, SFP)	With-Action Ped. Space Reduc. (Y, SFP)
–	–	–	–	43.5 to 44.3	^{3}4.3	–	–
–	–	–	–	42.5 to 43.4	^{3}4.2	–	–
–	–	–	–	41.6 to 42.4	^{3}4.1	–	–
–	–	–	–	40.6 to 41.5	^{3}4.0	–	–
–	–	–	–	39.7 to 40.5	^{3}3.9	–	–
–	–	–	–	38.7 to 39.6	^{3}3.8	38.7 to 39.2	^{3}3.8
–	–	–	–	37.8 to 38.6	^{3}3.7	37.8 to 38.6	^{3}3.7
–	–	–	–	36.8 to 37.7	^{3}3.6	36.8 to 37.7	^{3}3.6
–	–	–	–	35.9 to 36.7	^{3}3.5	35.9 to 36.7	^{3}3.5
–	–	–	–	34.9 to 35.8	^{3}3.4	34.9 to 35.8	^{3}3.4
–	–	–	–	34.0 to 34.8	^{3}3.3	34.0 to 34.8	^{3}3.3
–	–	–	–	33.0 to 33.9	^{3}3.2	33.0 to 33.9	^{3}3.2
–	–	–	–	32.1 to 32.9	^{3}3.1	32.1 to 32.9	^{3}3.1
–	–	–	–	31.1 to 32.0	^{3}3.0	31.1 to 32.0	^{3}3.0
–	–	–	–	30.2 to 31.0	^{3}2.9	30.2 to 31.0	^{3}2.9
–	–	–	–	29.2 to 30.1	^{3}2.8	29.2 to 30.1	^{3}2.8
25.8 to 26.6	^{3}2.6	–	–	28.3 to 29.1	^{3}2.7	28.3 to 29.1	^{3}2.7
24.9 to 25.7	^{3}2.5	–	–	27.3 to 28.2	^{3}2.6	27.3 to 28.2	^{3}2.6
24.0 to 24.8	^{3}2.4	–	–	26.4 to 27.2	^{3}2.5	26.4 to 27.2	^{3}2.5
23.1 to 23.9	^{3}2.3	–	–	25.4 to 26.3	^{3}2.4	25.4 to 26.3	^{3}2.4
22.2 to 23.0	^{3}2.2	–	–	24.5 to 25.3	^{3}2.3	24.5 to 25.3	^{3}2.3
21.3 to 22.1	^{3}2.1	21.3 to 21.5	^{3}2.1	23.5 to 24.4	^{3}2.2	23.5 to 24.4	^{3}2.2
20.4 to 21.2	^{3}2.0	20.4 to 21.2	^{3}2.0	22.6 to 23.4	^{3}2.1	22.6 to 23.4	^{3}2.1
19.5 to 20.3	^{3}1.9	19.5 to 20.3	^{3}1.9	21.6 to 22.5	^{3}2.0	21.6 to 22.5	^{3}2.0
18.6 to 19.4	^{3}1.8	18.6 to 19.4	^{3}1.8	20.7 to 21.5	^{3}1.9	20.7 to 21.5	^{3}1.9
17.7 to 18.5	^{3}1.7	17.7 to 18.5	^{3}1.7	19.7 to 20.6	^{3}1.8	19.7 to 20.6	^{3}1.8
16.8 to 17.6	^{3}1.6	16.8 to 17.6	^{3}1.6	18.8 to 19.6	^{3}1.7	18.8 to 19.6	^{3}1.7
15.9 to 16.7	^{3}1.5	15.9 to 16.7	^{3}1.5	17.8 to 18.7	^{3}1.6	17.8 to 18.7	^{3}1.6
15.0 to 15.8	^{3}1.4	15.0 to 15.8	^{3}1.4	16.9 to 17.7	^{3}1.5	16.9 to 17.7	^{3}1.5
14.1 to 14.9	^{3}1.3	14.1 to 14.9	^{3}1.3	15.9 to 16.8	^{3}1.4	15.9 to 16.8	^{3}1.4
13.2 to 14.0	^{3}1.2	13.2 to 14.0	^{3}1.2	15.0 to 15.8	^{3}1.3	15.0 to 15.8	^{3}1.3
12.3 to 13.1	^{3}1.1	12.3 to 13.1	^{3}1.1	14.0 to 14.9	^{3}1.2	14.0 to 14.9	^{3}1.2
11.4 to 12.2	^{3}1.0	11.4 to 12.2	^{3}1.0	13.1 to 13.9	^{3}1.1	13.1 to 13.9	^{3}1.1
10.5 to 11.3	^{3}0.9	10.5 to 11.3	^{3}0.9	12.1 to 13.0	^{3}1.0	12.1 to 13.0	^{3}1.0
9.6 to 10.4	^{3}0.8	9.6 to 10.4	^{3}0.8	11.2 to 12.0	^{3}0.9	11.2 to 12.0	^{3}0.9
8.7 to 9.5	^{3}0.7	8.7 to 9.5	^{3}0.7	10.2 to 11.1	^{3}0.8	10.2 to 11.1	^{3}0.8
7.8 to 8.6	^{3}0.6	7.8 to 8.6	^{3}0.6	9.3 to 10.1	^{3}0.7	9.3 to 10.1	^{3}0.7
6.9 to 7.7	^{3}0.5	6.9 to 7.7	^{3}0.5	8.3 to 9.2	^{3}0.6	8.3 to 9.2	^{3}0.6
6.0 to 6.8	^{3}0.4	6.0 to 6.8	^{3}0.4	7.4 to 8.2	^{3}0.5	7.4 to 8.2	^{3}0.5
5.1 to 5.9	^{3}0.3	5.1 to 5.9	^{3}0.3	6.4 to 7.3	^{3}0.4	6.4 to 7.3	^{3}0.4
< 5.1	^{3}0.2	< 5.1	^{3}0.2	< 6.4	^{3}0.3	< 6.4	^{3}0.3

Notes:
SFP = square feet per pedestrian; Y = decrease in pedestrian space in SFP; X = No-Action pedestrian space in SFP.
Sources:
New York City Mayor's Office of Environmental Coordination, *CEQR Technical Manual*.

Detailed Pedestrian Analysis

As described above, Level 1 and 2 screening analysis were prepared to identify the pedestrian elements that warrant a detailed analysis. Based on the assignment of pedestrian trips, one sidewalk and one corner reservoir were selected for analysis.

2020 Existing Conditions

Pedestrian data was collected in January 2021 in accordance with procedures outlined in the *CEQR TM*. Initially attempts were made to deploy cameras for multi-hour volumes, but were unsuccessful due to uncontrollable factors. As a result, alternative manual counts were sought. Philip Habib Associates ("PHA") was consulted regarding field data collection as they collected data at overlapping locations during November 2020 for the 1045 Atlantic Avenue EAS. As a result, manual field data collection was performed during the peak hours PHA had calculated at the study elements warranting detailed LOS analysis in this study. These peak hours are Weekday 8:00am – 9:00pm, 12:00pm – 1:00pm and 5:00pm – 6:00pm as well as on Saturdays from 12:00p – 1:00pm.

The 2021 Existing peak hour pedestrian volumes for Weekday AM, Midday, PM, and Saturday Midday are shown in **Figure 2.16-9 - Figure 2.16-12**. A summary of the Existing conditions pedestrian analysis results is presented below in **Table 2.16-11** and **Table 2.16-12** for corner reservoirs and sidewalks, respectively. All corner reservoir and sidewalk analysis locations currently operate at favorable LOS A. Peak hour factor (PHF) calculations and daily Existing pedestrian volumes are shown in **Appendix E**.

Figure 2.16-9: Weekday AM Existing Pedestrian Summary

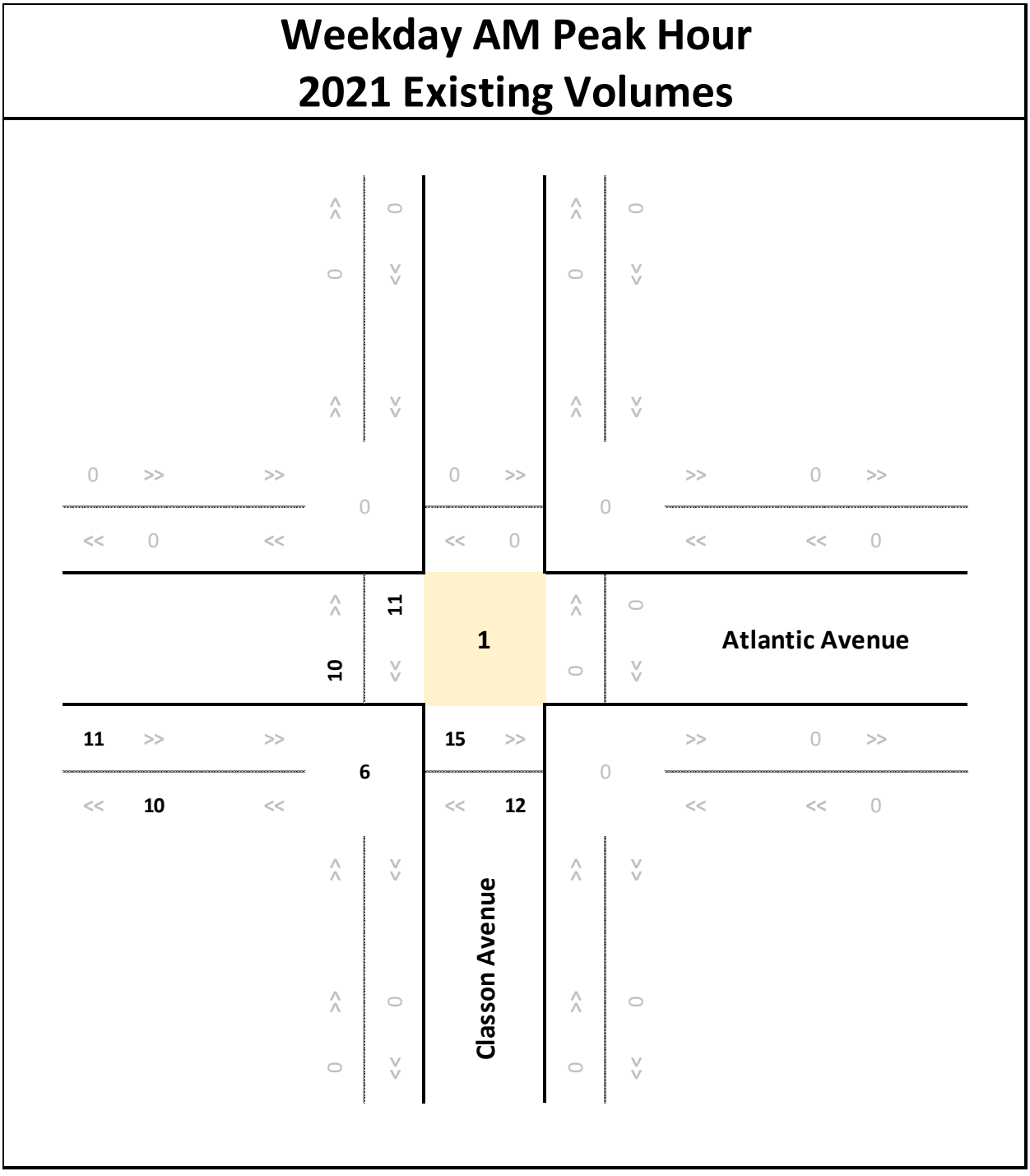


Figure 2.16-10: Weekday Midday Existing Pedestrian Summary

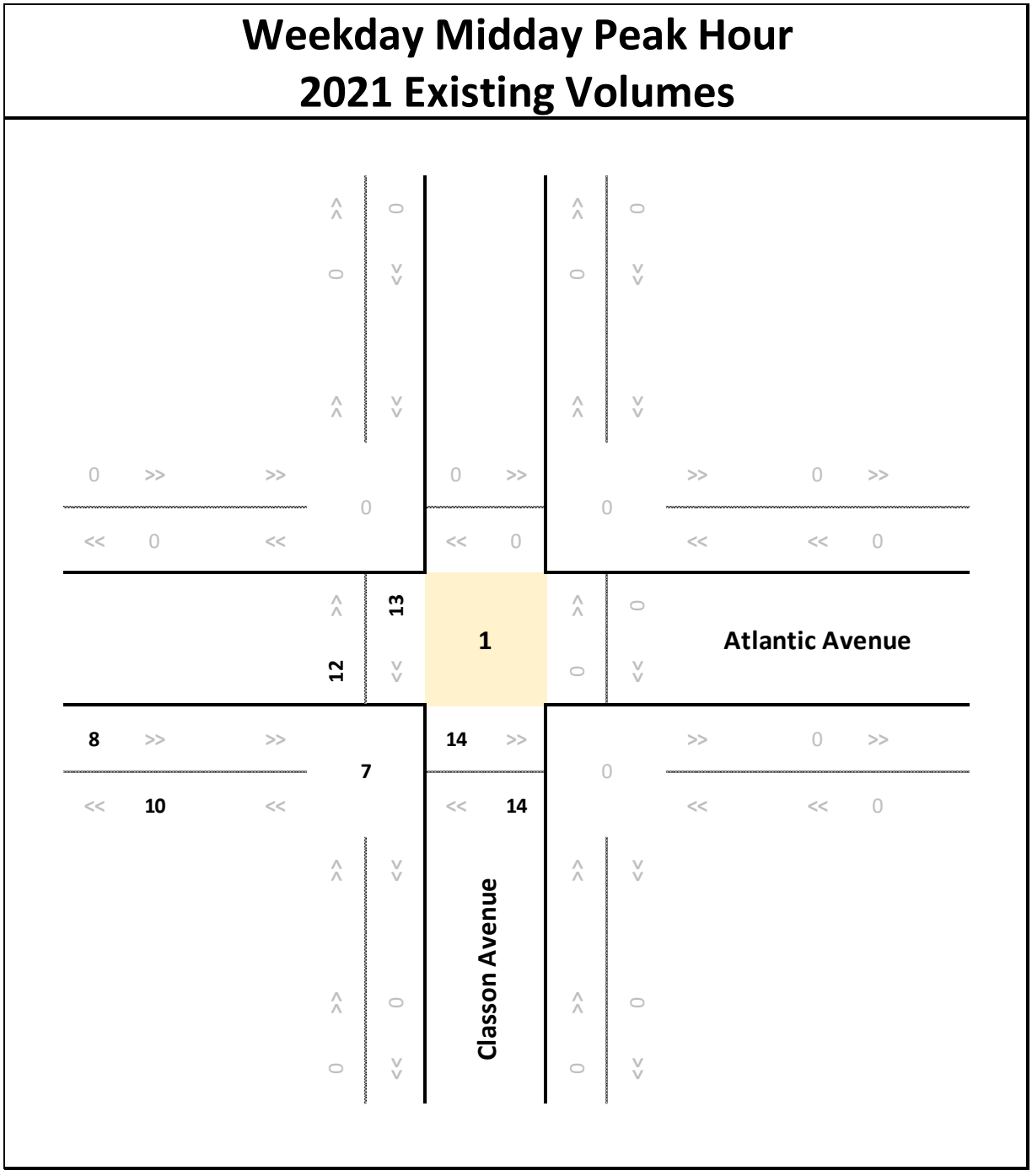


Figure 2.16-11: Weekday PM Existing Pedestrian Summary

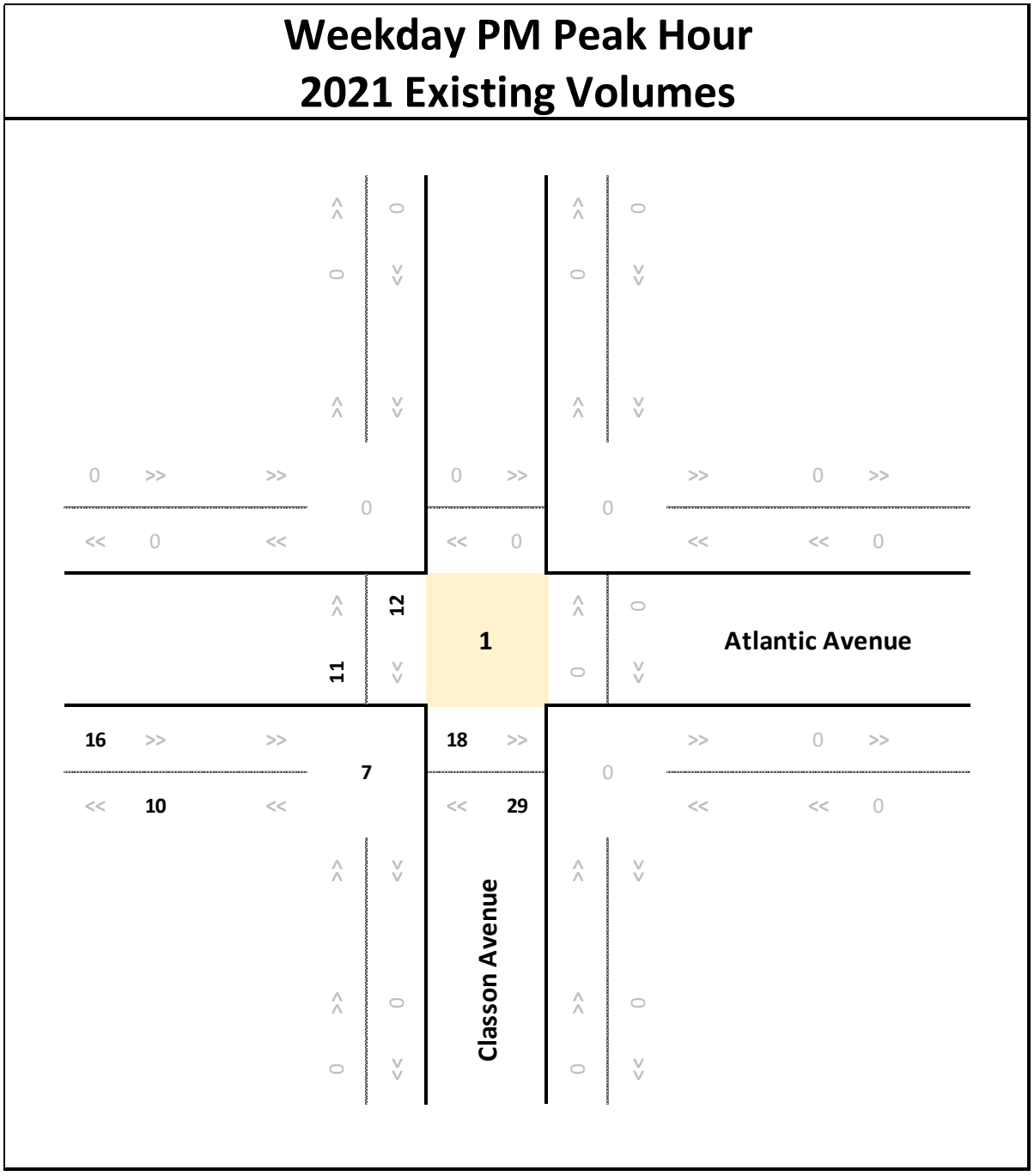


Figure 2.16-12: Saturday Midday Existing Pedestrian Summary

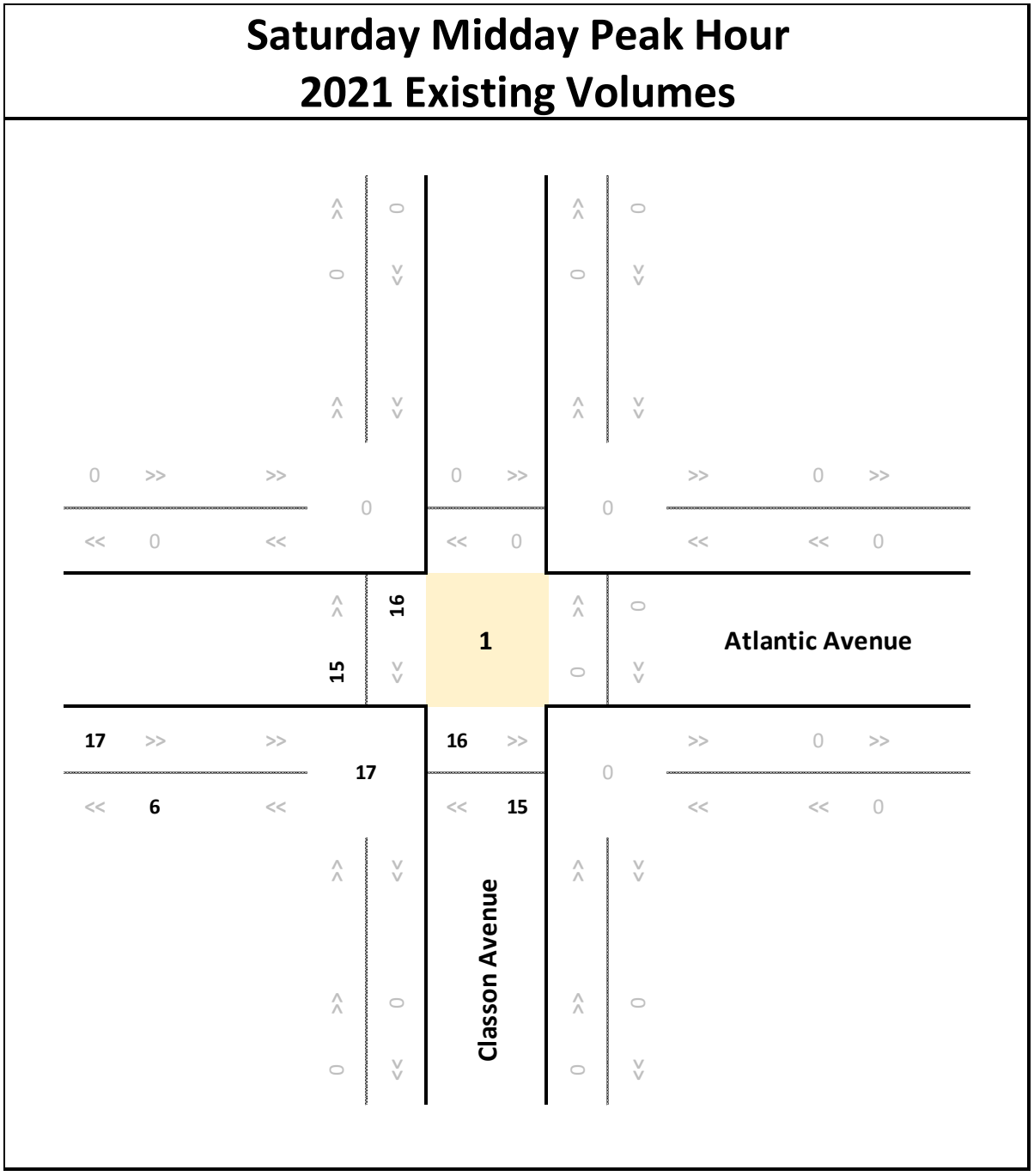


Table 2.16-11: Existing Corner Level of Service

Corners		Existing Conditions	
Weekday AM		**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	2,219	A
Weekday Midday		**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	2,102	A
Weekday PM		**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	1,392	A
Saturday Midday		**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	1,625	A

Table 2.16-12: Existing Sidewalk Level of Service

Sidewalks	Existing Conditions	
Weekday AM	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,423	A
Weekday Midday	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,250	A
Weekday PM	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,250	A
Saturday Midday	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,423	A

2024 No-Action Condition

The 2024 No-Action condition pedestrian volumes were generated by combining pedestrian trips from discrete No-Action projects in the study area that exceeded metrics in Table 16-1 of the *CEQR TM* with estimated 2024 pedestrian volumes grown from the exiting conditions pedestrian volumes using the *CEQR TM* annual background growth rates.

The 2024 No-Action peak hour pedestrian volumes are shown in **Figure 2.16-13 – Figure 2.16-16**. A summary of the No-Action condition pedestrian analysis results is presented below in **Table 2.16-13** and **Table 2.16-14** for corner reservoirs and sidewalks, respectively. All corner reservoir and sidewalk analysis locations are projected to operate at favorable LOS A during the 2024 No-Action condition.

Figure 2.16-13: Weekday AM No-Action Pedestrian Summary

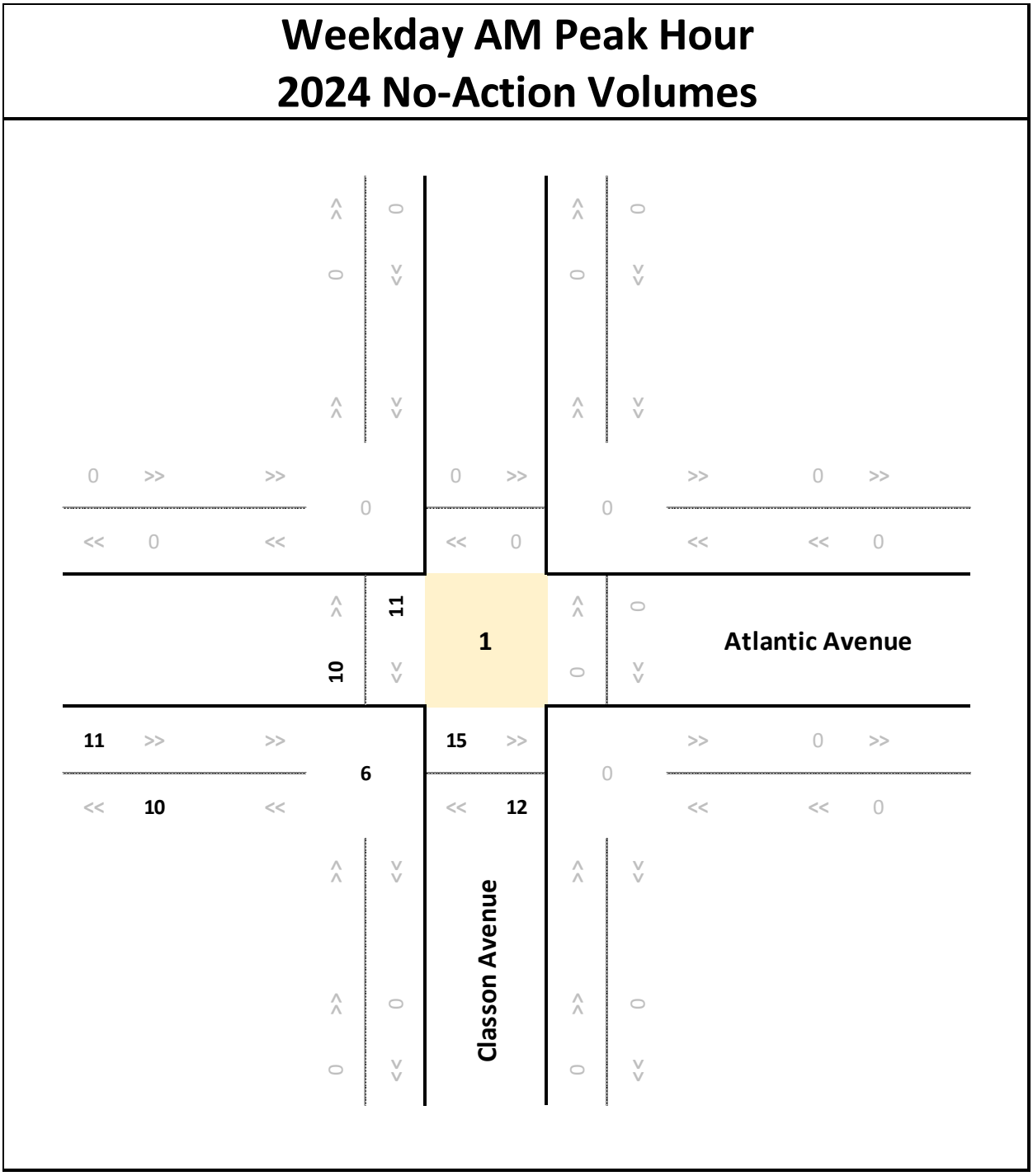


Figure 2.16-14: Weekday Midday No-Action Pedestrian Summary

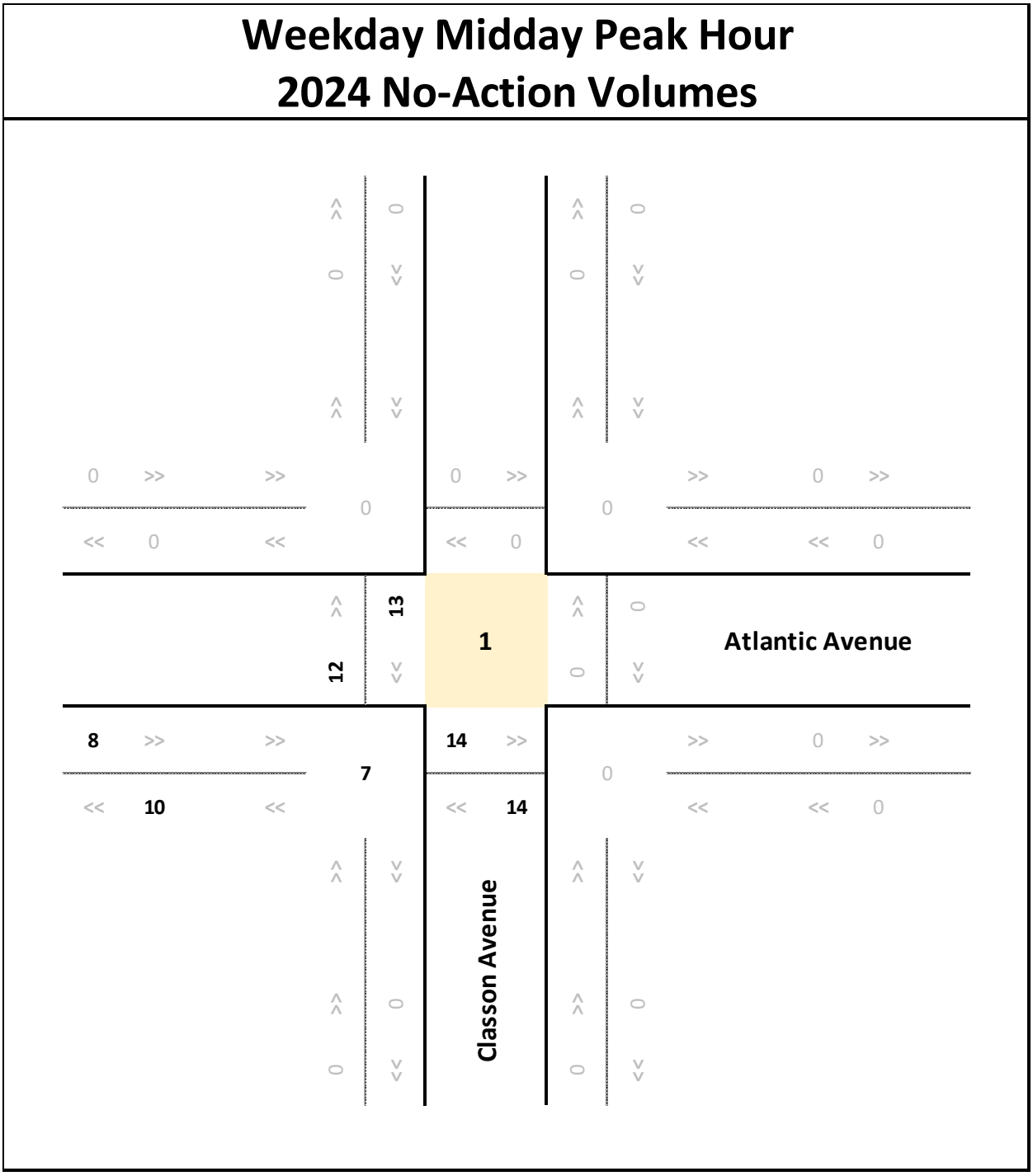


Figure 2.16-15: Weekday PM No-Action Pedestrian Summary

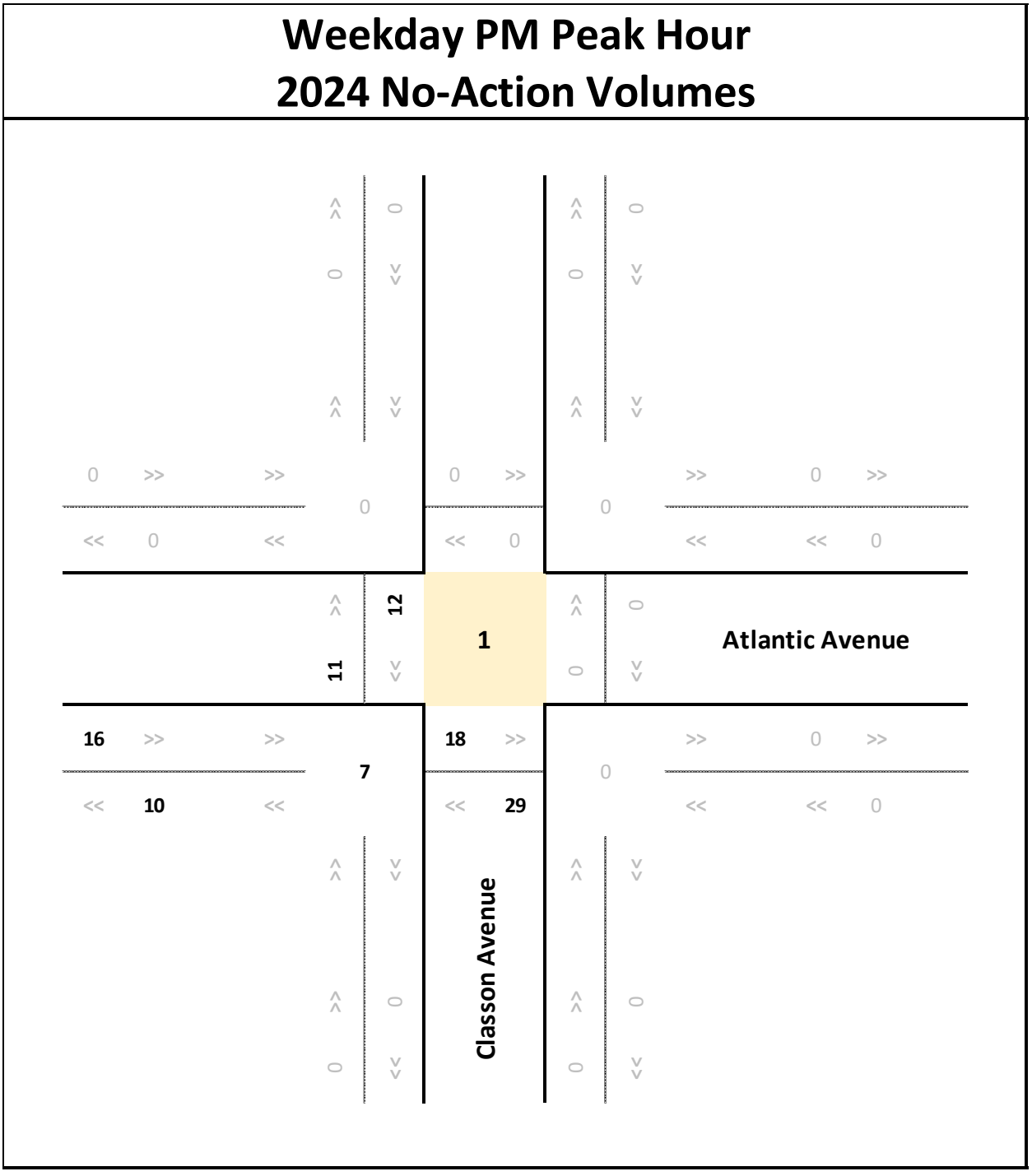


Figure 2.16-16: Saturday Midday No-Action Pedestrian Summary

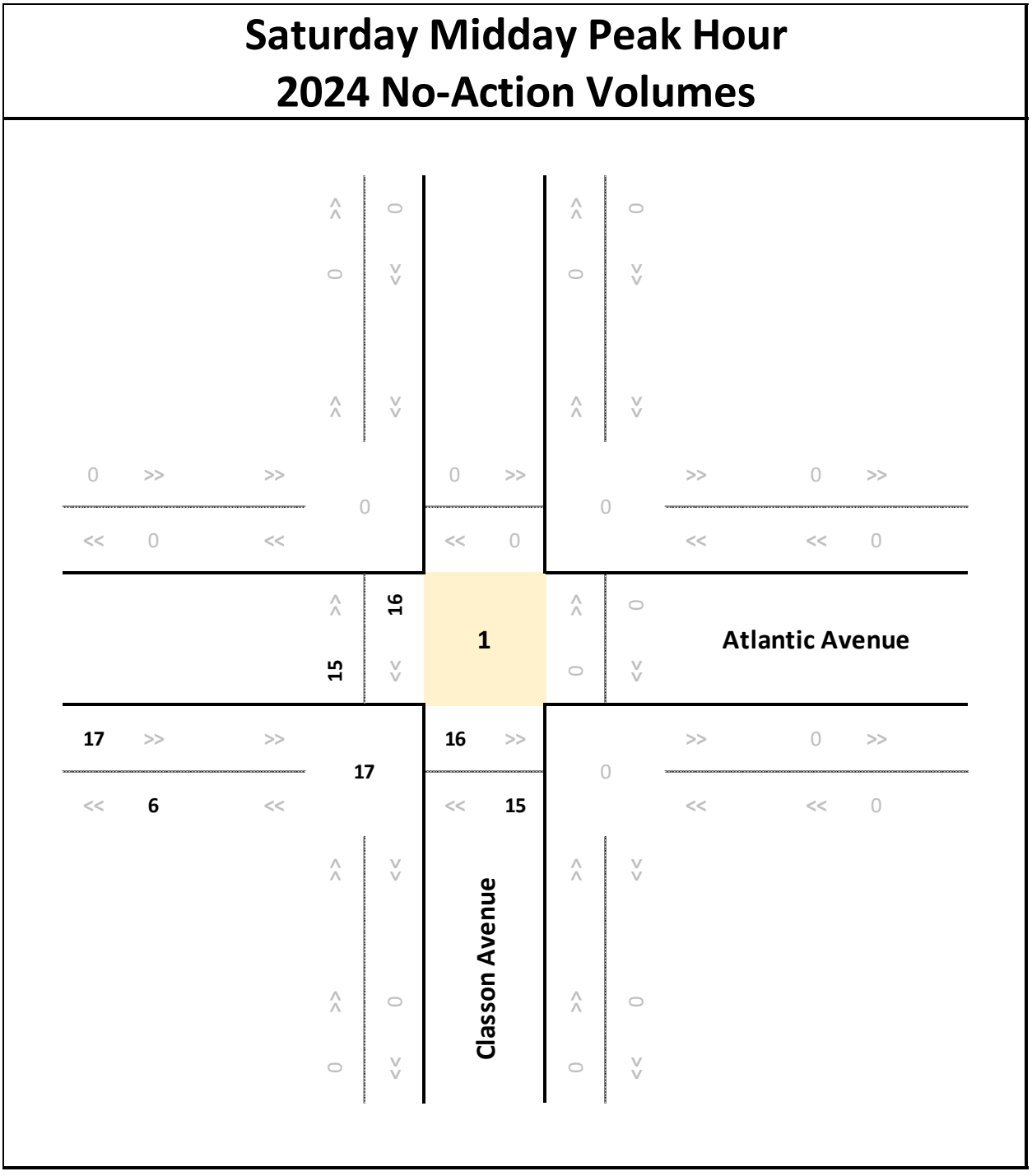


Table 2.16-13: No-Action Corner Level of Service

Corners		Existing Conditions		No-Action Conditions	
Weekday AM		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	2,219	A	2,185	A
Weekday Midday		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	2,102	A	2,071	A
Weekday PM		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	1,392	A	1,371	A
Saturday Midday		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	1,625	A	1,600	A

Table 2.16-14: No-Action Sidewalk Level of Service

Sidewalks	Existing Conditions		No-Action Conditions	
Weekday AM	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,423	A	2,387	A
Weekday Midday	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,250	A	2,217	A
Weekday PM	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,250	A	2,217	A
Saturday Midday	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,423	A	2,387	A

2024 With-Action Condition

The 2024 With-Action condition pedestrian volumes were generated by combining the project generated pedestrian trip increments to the 2024 No-Action condition pedestrian volumes.

The 2024 With-Action peak hour pedestrian volumes are shown in **Figure 2.16-17 - Figure 2.16-20**. A summary of the Existing conditions pedestrian analysis results is presented below in **Table 2.16-15** and **Table 2.16-16** for corner reservoirs and sidewalks, respectively. All corner reservoir and sidewalk analysis locations are projected to operate at favorable LOS A or B under the 2024 With-Action condition.

Figure 2.16-17: AM Midday With-Action Pedestrian Summary

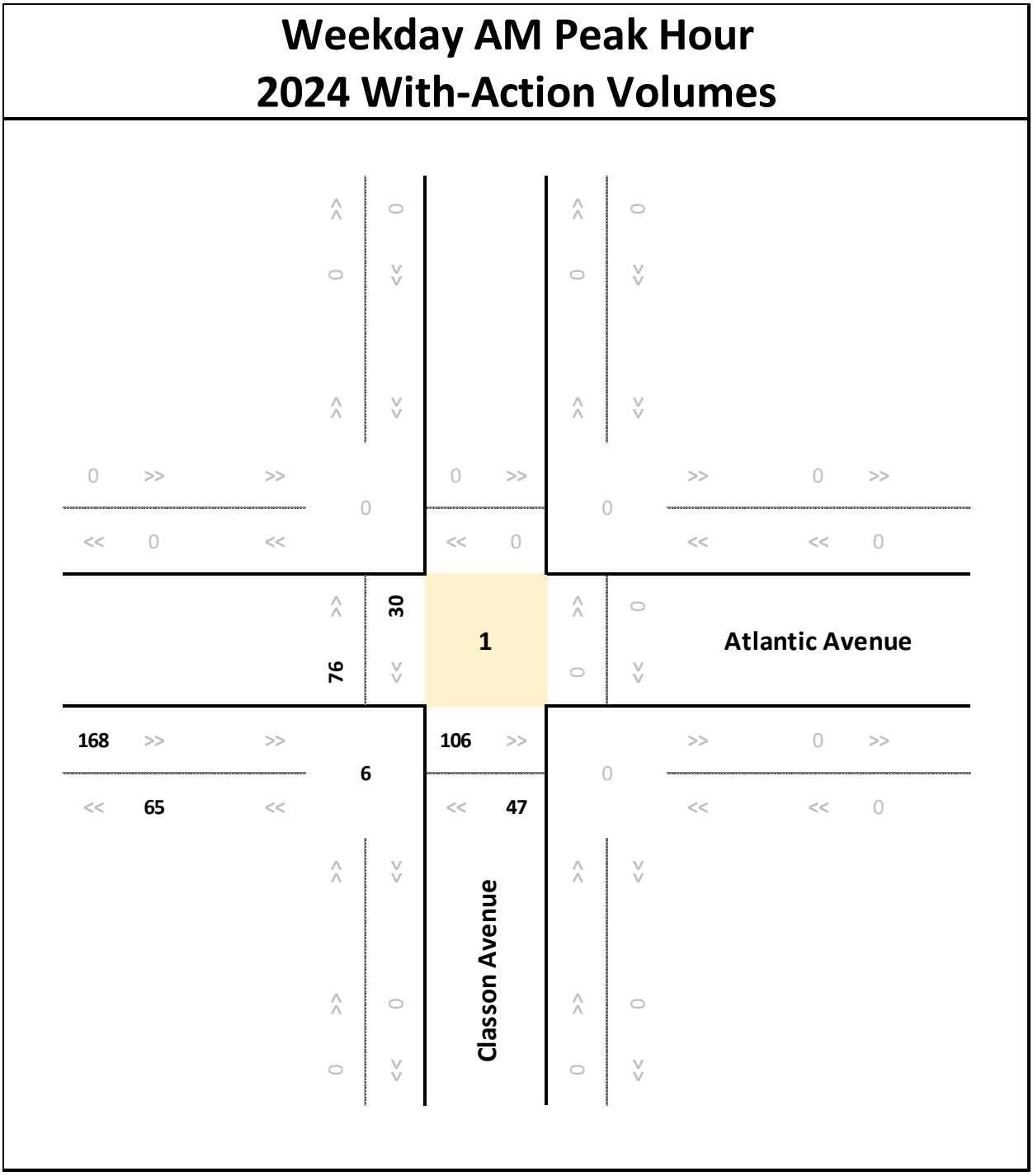


Figure 2.16-18: Weekday Midday With-Action Pedestrian Summary

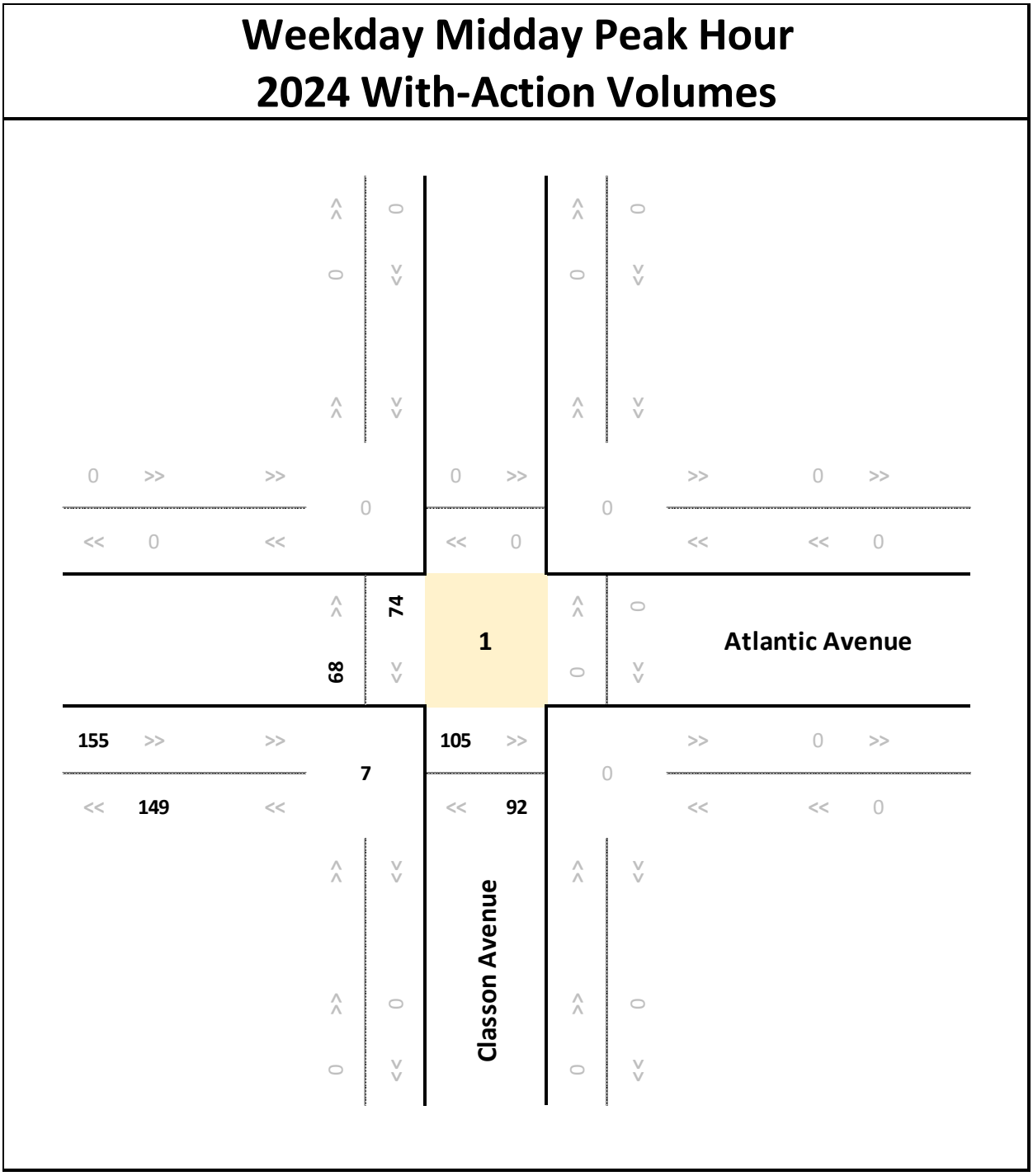


Figure 2.16-19: Weekday PM With-Action Pedestrian Summary

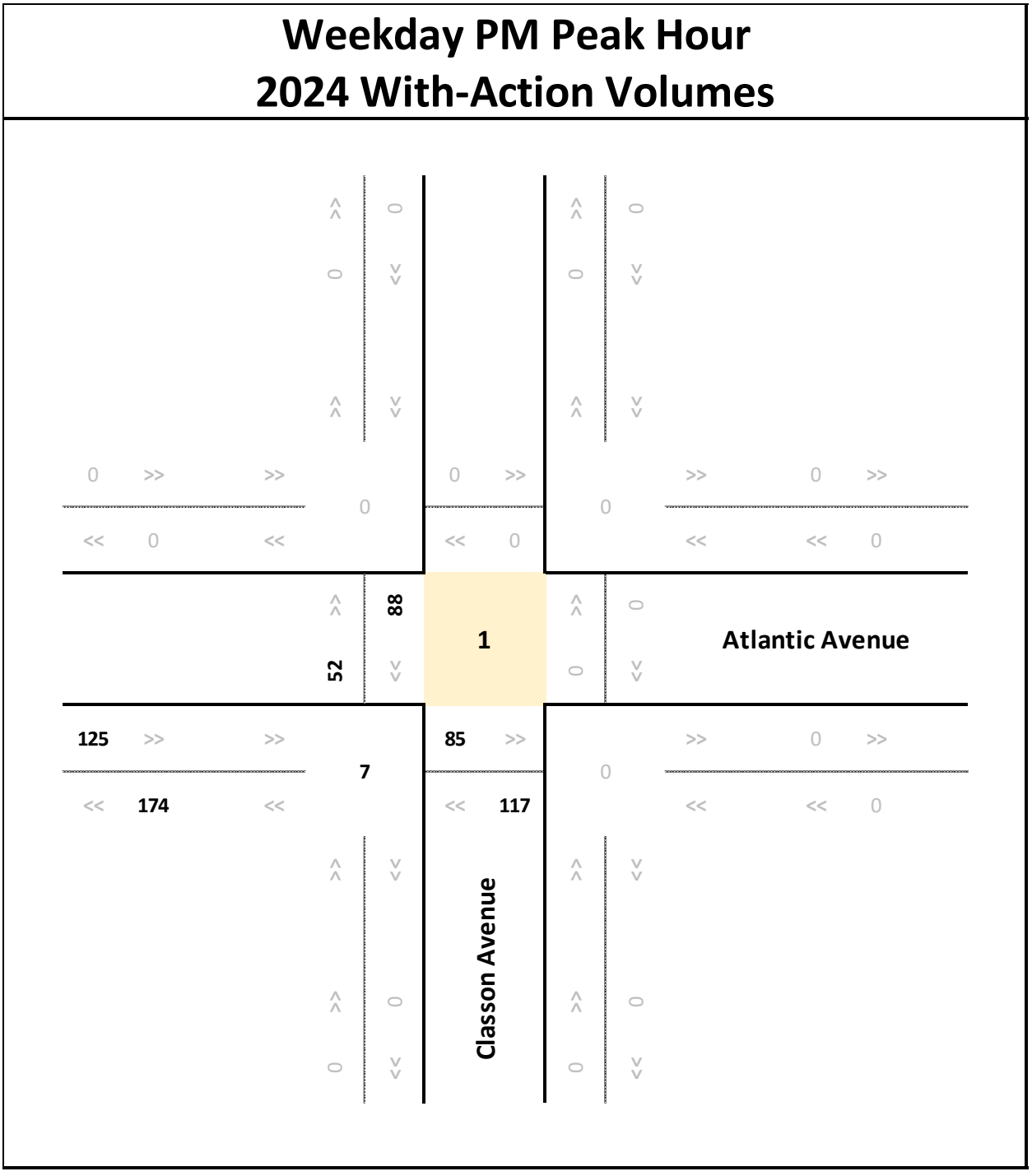


Figure 2.16-20: Saturday Midday With-Action Pedestrian Summary

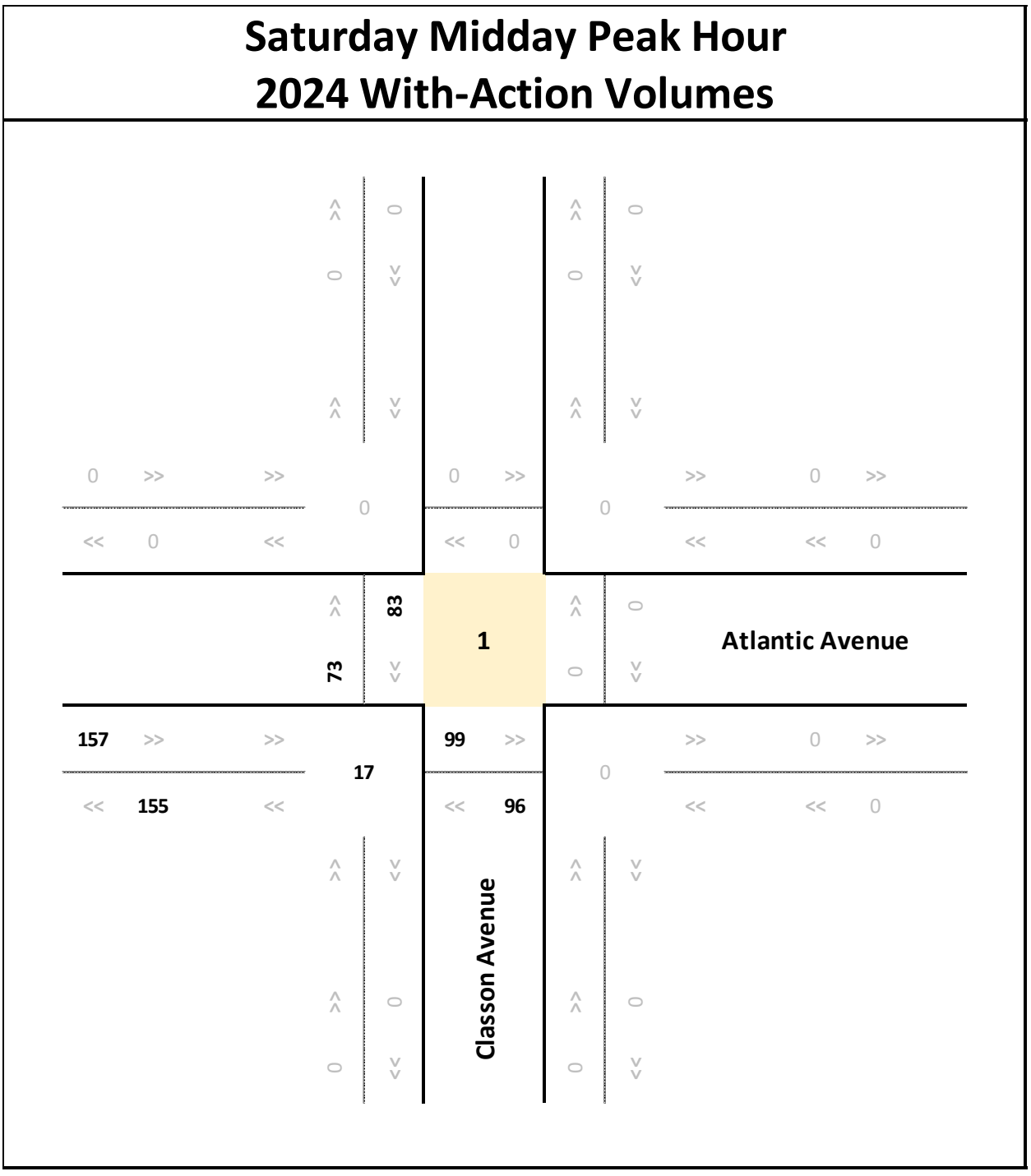


Table 2.16-15: With-Action Corner Level of Service

Corners		No-Action Conditions		With-Action Conditions	
Weekday AM		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	2,185	A	425	A
Weekday Midday		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	2,071	A	356	A
Weekday PM		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	1,379	A	288	A
Saturday Midday		**sf/ped**	**LOS**	**sf/ped**	**LOS**
Atlantic Avenue and Classon Avenue	Southwest Corner	1,600	A	317	A

Table 2.16-16: With-Action Sidewalk Level of Service

Sidewalks	No-Action Conditions		With-Action Conditions	
Weekday AM	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,387	A	213	B
Weekday Midday	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,217	A	129	B
Weekday PM	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,217	A	196	B
Saturday Midday	**sf/ped**	**LOS**	**sf/ped**	**LOS**
South sidewalk on Atlantic Avenue between Project Entrance / Exit and Classon Avenue	2,387	A	171	B

Vehicular and Pedestrian Safety Evaluation

Crash data for the study area intersections were obtained from NYC DOT for the period between January 1, 2018 and December 31, 2020. The data obtained quantify the total number of reportable crashes (involving fatality, injury, or more than $1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of vehicular crashes with pedestrians and bicycles at each location.

During the January 1, 2018 to December 31, 2020 three-year period, a total of 199 reportable and non-reportable crashes, 0 fatalities, 66 injuries, and 12 pedestrian/bicycle-related crashes occurred at the study

intersections. A rolling yearly total of crash data identifies no study intersections as a high crash location. **Table 2.16-17** below depicts total crash characteristics by intersection during the study period, as well as a breakdown of pedestrian and bicycle crashes by year and location.

Table 2.16-17: Crash Summary

Intersection	All Crashes by Year			Total Injuries	Total Fatalities	Pedestrian Crashes by Year			Bicycle Crashes by Year		
	2018	2019	2020			2018	2019	2020	2018	2019	2020
1 - Lefferts Blvd and Grand Avenue	1	3	2	1	0	0	0	0	0	0	0
2 - Lefferts Blvd and Classon Avenue	11	1	4	6	0	0	0	0	0	0	0
3 - Lefferts Blvd and Franklin Avenue	4	6	1	5	0	0	0	0	0	0	0
4 - Atlantic Avenue and Grand Avenue	22	17	9	17	0	1	1	0	1	1	0
5 - Atlantic Avenue and Classon Avenue	13	14	12	15	0	0	0	0	0	0	0
6 - Atlantic Avenue and Franklin Avenue	18	17	7	15	0	0	0	0	0	0	0
7 - Pacific Street and Grand Avenue	4	2	2	2	0	0	0	1	0	0	1
8 - Pacific Street and Classon Avenue	9	6	2	4	0	1	1	0	1	1	0
9 - Pacific Street and Franklin Avenue	6	3	3	1	0	0	0	1	0	0	1
Grand Total	88	69	42	66	0	2	2	2	2	2	2

Source: NYCDOT January 1, 2018 to December 31, 2020 crash data.

Notes: highlighted intersections are high crash locations

Parking Analysis

For the Purpose of this analysis, the Transportation Study Area was identified as a ¼ mile radius surrounding the Project Site. A quarter mile represents a 5-7-minute walk, or a reasonable walking distance between a point of departure and a destination. This parking study analyzes whether the available parking supply present within walking distance to the project site can accommodate the parking demand projected from the proposed development.

This assessment uses the following methodological approach to assess the potential impact of the Proposed Project.

1) Identify and On and Off-street Public Parking Options Proximate to Project Site.

2) Determine Existing Parking Utilization and Supply
    a. Identify observed on- and off-street parking supply and utilization in the quarter mile radius of 1034 Atlantic Avenue (Project Site) during a weekday from 9:00pm to 11:00pm and between 2:00pm and 3:00pm on the same day.

3) Identify Future Parking Demand with Proposed Development
    a. Determine the peak parking demand of the proposed project using an accumulation model and factors derived from the ITE Manual, Fifth Edition.
    b. Determine whether the available parking supply of will meet the project with-action parking demand.

4) Identify and Define Available Public Transportation Options Near Project Site.

Existing On-Street Conditions

As noted above, the Proposed Development would provide 20 parking spaces. Since the with-action scenario includes a mixture of residential, commercial, and community facility uses, it is

anticipated that there would be peak parking overnight for residential uses and mid-afternoon for commercial and community facility uses, with reduced demand in the morning and weekend peak periods.

An inventory of existing parking regulations within a ¼-mile radius of the Development Site was compiled from field surveys and on-line sources. On-street public parking is generally governed by alternate-side-of-the-street regulations to facilitate street cleaning, with more restrictive regulations in place at locations where additional traffic flow capacity is needed, especially during the weekday AM and PM peak periods. Based on existing curbside parking regulations, and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, as shown in **Figure 2.16-21,** there are a total of approximately 2,075 legal curbside parking spaces within ¼-mile of the Project Site.

Based on data collected during field surveys conducted in November 2020, existing on-street parking within the overall parking study area is approximately 79 percent utilized during mid-afternoon periods, and 97 percent in the evening periods.

As shown in **Table 2.16-17**, approximately 418 on-street parking spaces are currently available within the study area during mid-afternoon period, and 71 on-street parking spaces are available within the evening period. There is also one off-street public parking facility within walking distance of the project site with available capacity discussed below.

Table 2.16-17: Existing Weekday Midday On-Street Parking Utilization in the Study Area

March 5, 2020 Parking Numbers @ 3:00PM			
On-Street Capacity	Utilized Spaces	Estimated Total Utilization	Available Capacity
2,075	1,635	79%	418
November 19, 2020 Parking Numbers @ 12:00AM			
On-Street Capacity	Utilized Spaces	Estimated Total Utilization	Available Capacity
2,075	2,004	97%	71

Figure 2.16-21: Parking Study Area



Off-Street Public Parking Availability

In addition to evaluating the availability of curbside parking and its capacity to meet potential demand generated from the Proposed Development, a survey of area off-street public parking facilities was identified**.** There is one existing parking lot that can be utilized to satisfy project-generated demand for short-term parking that is just outside of the quarter-mile study area, but is easily within a 7-minute walk of the Project Site, and could easily be utilized by project occupants. Field observations and brief interviews with the parking garage attendants during the aforementioned peak periods revealed that the Enterprise Washington Garage was filled at approximately 50% capacity during the observed peak weekday hours; which is a typical occupancy rate according to the parking garage attendants.

Table 2.16-18: Existing Combined Off-Street and On-Street Parking Capacity & Availability

Peak Period	On-Street Spaces	Off-Street Spaces	Total Spaces	Demand	Estimated Total Utilization	Available Capacity
3:00 PM	2,075	50	2,125	1,635	77%	490
12:00 AM	2,075	50	2,125	2,004	94%	121

The Future Without the Proposed Development (No-Action Condition)

Parking demand in the parking study area will increase by the build year of 2024. Demand is likely to increase due to three planned re-zonings in the area that would add 381 new dwelling units, 26,025 GSF of local retail, and 4,378 GSF of medical community facility uses. The projects would also add 91 parking spaces. The three projects are listed below in **Table 2.16-19.**

Table 2.16-19: No-Action Projects

Address	DU	Commercial GSF	CF GSF	Parking Spaces
1010 Pacific Street	128	7,056	4,378	49
1050 Pacific Street	103	15,790	0	42
505 Grand Avenue	68	9,360	0	0
Total	299	32,206	4,378	91

DU = Dwelling Units; CF = Community Facility

Based on the development from the No-Action projects, the demand during the 3:00 PM peak hour would increase by 89 vehicles, and the overnight peak hour demand would increase by 106 vehicles. **Table 2.16-20** shows the No-Action parking capacity and availability with the addition of the no-build projects discussed above.

Table 2.16-20: No-Action Parking Capacity and Availability

Weekday Mid-Afternoon				
	On-Street Spaces	Demand	Estimated Total Utilization	Available Capacity
No-Action	2,216	1,724	78%	492
Weekday Evening				
No-Action	2,216	2,110	95%	106

The Future With-Action Condition

A parking accumulation study was performed on the proposed development using the land use factors derived from the Fifth Edition of the ITE Manual. Based on the types of uses proposed, it was determined that midweek parking accumulation demand represents a worst-case condition compared to weekend. The peak hour parking demand resulting from the proposed development would be 163 spaces during the 2-3 PM period and 187 spaces for the overnight period. Additionally, 20 parking spaces would be added as part of the proposed project.

The existing demand, No-Action project parking demand, and the Proposed Project's parking demand is shown below in **Table 2.16-21**. The Proposed Actions would result in a parking utilization percentage increase of two percent in the afternoon peak period and three percent during the overnight peak period. While some drivers arriving to the ¼-mile parking study area may have to travel a greater distance (e.g., between a ¼- and ½-mile) to search for available parking, this reduction in capacity of parking assets is not considered significant according to the 2014 *CEQR Technical Manual* criteria due to the many additional (rail, transit) alternative modes of transportation.

Table 2.16-21: With-Action Weekday Peak Parking Utilization in the Study Area

Weekday Mid-Afternoon				
	Total Spaces*	Demand	Estimated Total Utilization	Available Capacity
Existing	2125	1635	77%	490
No-Action	2216	1724	78%	492
With-Action	2236	1798	80%	438
Weekday Evening				
	Total Spaces*	Demand	Estimated Total Utilization	Available Capacity
Existing	2125	2004	94%	121
No-Action	2216	2110	95%	106
With-Action	2236	2191	98%	45
*On-street plus off-street spaces				

Identify and Define Available Public Transportation Options Near Project Site

The area is well-served by transit. The Franklin Avenue A and C train subway stations are both located approximately 800 feet northeast of the Affected Area near the corner of Fulton Street and Franklin Avenue. In addition, the Atlantic Avenue transportation hub, including the Atlantic Terminal served by seven Long Island Rail Road lines (Babylon/ Far Rockaway/ Hempstead/ Long Beach/ Port Jefferson/ Ronkonkoma/ West Hempstead) and the Atlantic Avenue Barclays Center Station served by ten NYC subway lines (2/ 3/ 4/ 5/ B/ D/ N/ Q/ R/ W), is located approximately one mile northwest of the Affected Area.

There are six bus lines (B25/ B26/ B45/ B48/ B49/ B65) that are accessible to users in the area. The B25 bus, which connects Downtown Brooklyn/ Dumbo and Broadway Junction via Fulton Street, has two bus stops on different directions located two blocks north of the Affected Area near the corner of Fulton Street and Classon Avenue. Serving as a link between Downtown Brooklyn and Ridgewood via Fulton Street and Halsey Street, the B26 bus line runs one block further north than the B25 bus, which has two bus stops on different directions near the corner of Classon Avenue and Putnam Avenue. The B45 bus, which runs

between Downtown Brooklyn and Crown Heights along Washington Avenue near the Affected Area, has two bus stops on

different directions located two blocks west of the Affected Area near the corner of Atlantic Avenue and Washington Avenue. The B48 bus operates on Classon Avenue between the Prospect Park Station in Lefferts Gardens and Meeker Avenue in Greenpoint with a bus stop adjacent to the Affected Area near the corner of Classon Avenue and Atlantic Avenue. The B49 bus, which has a stop east of the Affected Area near the corner of Atlantic Avenue and Franklin Avenue, operates between Manhattan Beach (Kingsborough Community College via Bedford Avenue) and Fulton Street in Bedford-Stuyvesant via Ocean Avenue and Rogers Avenue. The B65 bus, which has a stop southeast of the Affected Area near the corner of Dean Street and Classon Avenue, operates between the Fulton Mall in Downtown Brooklyn and Ralph Avenue in Crown Heights via Bergen Street and Dean Street.

Parking Study Conclusion

Based on the findings of the parking analysis, the proposed project generates a parking demand of 163 spaces in the midday peak hour and 187 parking spaces in the evening peak hour. The utilization demand for the midday peak hour would increase from 78 percent to 80 percent, and the evening peak hour would increase from 95 percent to 98 percent. The midday peak hour would have an available capacity of 438 spaces, while the evening peak hour would have an available capacity of 45 spaces. Per the CEQR Technical Manual, this impact is not considered significant due to the many additional (rail, transit) alternative modes of transportation near the proposed project location.

Transportation Conclusion

The Proposed Actions would facilitate a new mixed-use development that would generate more than 200 pedestrian trips during AM, MD, PM, and Saturday peak hours. Assigning the project-induced pedestrian trips for the four peak hours based on the population distribution in the bounding census tracts and the location of the public transits, it is determined that Pedestrian Level of Service Analysis is warranted for any pedestrian elements as there are pedestrian elements with the potential to generate more than 200 incremental pedestrian trips. Therefore, no further analysis is necessary for Transportation.

Chapter 17: Air Quality

When assessing the potential for air quality significant impacts, the *CEQR Technical Manual* seeks to determine a Proposed Action's effect on ambient air quality, or the quality of the surrounding air. Ambient air can be affected by motor vehicles, referred to as "mobile sources," or by fixed facilities, referred to as "stationary sources." This can occur during operation and/or construction of a project being proposed. The pollutants of most concern are carbon monoxide, lead, nitrogen dioxide, ozone, relatively coarse inhalable particulates (PM_{10}), fine particulate matter ($PM_{2.5}$), and sulfur dioxide. The *CEQR Technical Manual* generally recommends an assessment of the potential impact of mobile sources on air quality when an action increases traffic or causes a redistribution of traffic flows, creates any other mobile sources of pollutants (such as diesel train usage), or adds new uses near mobile sources (e.g., roadways, parking lots, garages). The *CEQR Technical Manual* generally recommends assessments when new stationary sources of pollutants are created, when a new use might be affected by existing stationary sources, or when stationary sources are added near existing sources and the combined dispersion of emissions would impact surrounding areas.

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis framework, as mandated by the State Environmental Review Act, follows the New York City Environmental Quality Review 2020 Technical Manual.

Mobile Sources

According to the *CEQR Technical Manual*, projects, whether site- specific or generic, may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic; create any other mobile sources of pollutants (such as diesel trains, helicopters etc.); or add new uses near mobile sources (roadways, garages, parking lots, etc.). Projects requiring further assessment include:

- Projects that would result in placement of operable windows, balconies, air intakes or intake vents generally within 200 feet of an atypical source of vehicular pollutants.
- Projects that would result in the creation of a fully or partially covered roadway, would exacerbate traffic conditions on such a roadway, or would add new uses near such a roadway.
- Projects that would generate peak hour auto traffic or divert existing peak hour traffic of 170 or more auto trips in this area of the City.
- Projects that would generate peak hour heavy- duty diesel vehicle traffic or its equivalent in vehicular emissions resulting from 12 or more heavy-duty diesel vehicles (HDDVs) for paved roads with average daily traffic of fewer than 5,000 vehicles, 19 or more HDDVs for collector roads, 23 or more HDDVs for principal and minor arterials, or 23 or more HDDVs for expressways and limited-access roads.
- Projects that would result in new sensitive uses (e.g., schools or hospitals) adjacent to large existing parking facilities or parking garage exhaust vents.
- Projects that would result in parking facilities or applications requesting the grant of a special permit or authorization for parking facilities; or projects that would result in a sizable number of other mobile sources of pollution (e.g., a heliport or a new railroad terminal).
- Projects that would substantially increase the vehicle miles traveled in a large area.

The Proposed Actions would not result in operable windows or air intakes within 200 feet of an atypical roadway. It would not result in creation of a covered roadway or affect any covered roadway. Peak hour trip generation is far below the 170-car threshold, as per the transportation section, as potentially warranting further assessment (see EAS Short Form screen). The project would not create a new sensitive receptor adjacent to large parking facilities. The project would not result in creation of a new parking facility. The project would result in the incremental generation of 34 vehicles on a local road (Pacific Street), and fails the PM $_{2.5}$ screening. As such, a mobile source analysis is required.

Intersection Analysis

The Proposed Actions project-generated traffic failed the $PM_{2.5}$ screen; therefore, a detailed analysis is required. The intersection of Pacific Street and Classon Avenue, during the Midday peak-hour period, was identified as the worst impacted intersection, based on the $PM_{2.5}$ HDDVs screen. The EPA's Mobile Vehicle Emission Simulator 2014 (MOVES2014b version) was utilized to predict vehicular emissions. Dust generated by vehicle travelling on paved roadways were added to MOVES emissions to estimate total $PM_{2.5}$ emissions. $PM_{2.5}$ concentrations (24-hour and annual averaging times) at sensitive receptors were modeled with the EPA's CAL3QHCR Gaussian dispersion model. Impact concentrations were evaluated with the NYC Guidelines, *de minimis*, threshold standards.

The peak-hour project-generated traffic was provided by the transportation analysis for this project. Existing traffic count and classification was provided by the noise analysis for this project. The *CEQR Technical Manual* annual background growth rate of 0.50 percent was used to account for general background traffic growth in the area and to predict the No-Action traffic.

$PM_{2.5}$ background concentrations were obtained from the New York State Department of Environmental Conservation (NYSDEC) 2019 annual report at the Division Street monitoring station. This monitoring station is a federally-mandated monitoring station, part of the network maintained by the NYSDEC. Significant $PM_{2.5}$ impact concentrations for mobile source analysis were evaluated as follows:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard.
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations).

Table 2.17-1 shows the background concentrations and *de minimis* thresholds:

Table 2.17-1: The NAAQS, 2019 Background Concentrations, and *de minimis*.

Pollutant	Averaging Period	National and State Standards	Background Concentration	*de minimis*	Monitoring Station
$PM_{2.5}$	24-Hour	35 µg/m^3	19.7 µg/m^3	7.65 µg/m^3	Division Street
	Annual	12 µg/m^3	9.0 µg/m^3	0.1 µg/m^3	

Detailed Analysis

Methodology

Mobile source impacts are a function of vehicular related emissions and pollutants' dispersion. Emissions of vehicular mechanical components (exhaust, crank case, break ware, and tire wear) were generated with the EPA's MOVES2014b. Fugitive Road dust emissions were added to estimate total particulate matter emissions. Pollutants' concentrations at sensitive receptors were modeled with Lakes Environmental CALRoad, the commercial version of EPA's CAL3QHCR dated 13196 Gaussian dispersion model.

The Midday peak hour period traffic was analyzed for both the annual and 24-hour averaging times (tier 1 approach). Kings County 2024 projected vehicle population and MOVES county database (both obtained from the NYSDEC) were used to further classify vehicle types and engines technologies. The project-generated traffic (autos and trucks) was added to the No-Action to project the with-action traffic. No-Action traffic was assumed to travel at 15-mile per hour and With-Action at 10-mile per hour.

The MOVES model was run for the time scale of January Midday (12 PM to 1 PM) weekday. MOVES inputs of inspection/maintenance, fuel data, age distribution, and meteorology were obtained from the NYSDEC.

In addition to vehicular mechanical and combustible related $PM_{2.5}$ emissions, vehicle related $PM_{2.5}$ emissions of dust generated by vehicles traveling on roadways were added to estimate total particulate matter emission factors for the short-term analysis (annual fugitive dust emission is negligible based on guidance on similar projects). Classon Avenue is a minor arterial roadway and Pacific Street is a paved roadway.[3] Slit loading factors of 0.4 and 0.1 g/m^2 for paved and arterial roadways, respectively, were obtained from the *CEQR Technical Manual,* and the equation from Section 13.2.1-3 of EPA's AP-42 manual was used to calculate each link fugitive dust emission factor. In addition, the conservative assumptions of "dry" road condition was used for the short-term calculation (precipitation reduced silt loading).

Dispersion analysis was conducted using the EPA's CAL3QHCR dispersion model version 13196 (Lakes Environmental CALRoad commercial version). $PM_{2.5}$ concentrations were predicted with model-ready meteorology data, obtained from New York City Department of City Planning (DCP). Models specified settling and deposition velocities of 0-meter per second, 60-minute averaging time, and urban surface roughness of 370-centimeter (applicable to apartment buildings land use) for the With-Action scenario. Roadways were modeled as free flowing, at grade, links.

Short-term receptors were placed in the middle of sidewalks at 1.8-meter heights and around the intersection in spaced intervals. Annual receptors were placed 15-meter from the curb side at 1.8-meter heights and in

[3] https://gis.dot.ny.gov/html5viewer/?viewer=FC

spaced intervals. The map application built into Lakes Environmental CALRoad and NYC GIS database were used to spatially locate links and receptors.

The With-Action traffic was analyzed for the 24-hour $PM_{2.5}$, as required by the NYC Guidelines *de minimis*. For the annual $PM_{2.5}$, only the With-Action traffic was analyzed, and the No-Action was assumed to result in zero (0) µg/m^3. This approach is conservative as the increment between the With-Action and No-Action is maximized.

Dispersion Analysis Results

The With-Action 24-hour and annual $PM_{2.5}$ concentrations were evaluated with the NYC Guideline, *de minimis*. **Table 2.17-2** shows the dispersion analysis results.

Table 2.17-2: Dispersion Analysis Results

Pollutant and Averaging Time	Modeled Concentration	Increment	Threshold Concentration	Threshold Standard
$PM_{2.5}$ 24-hour	1.08	1.08	7.65	*de minimis*
$PM_{2.5}$ Annual With-Action (1)	0.02	0.02	0.1 µg/m^3	*de minimis*

Note:
1. The annual No-Action was assumed to be 0 µg/m^3, maximizing the annual With-Action to No-Action increment concentration.

As seen in **Table 2.17-2**, the Proposed Actions $PM_{2.5}$ increment concentrations do not exceed the *de minimis* (24-hour or annual averaging times). Therefore, no significant adverse air quality impacts are expected at intersections effected by the project-generated traffic.

Stationary Sources

According to the *2020 CEQR Technical Manual*, projects may result in stationary source air quality impacts when one or more of the following occurs:

- New stationary sources of pollutants are created (e.g., emission stacks for industrial plants, hospitals, and other large institutional uses).
- Certain new uses near existing (or planned future) emissions stacks are introduced that may affect the use.
- Structures near such stacks are introduced so that the structures may change the dispersion of emissions from the stacks so that surrounding uses are affected.
- Fossil fuels (fuel oil or natural gas) for heating/hot water, ventilation, and air conditioning systems are used.
- Large emission sources are created (e.g., solid waste or medical-waste incinerators, cogeneration facilities, asphalt/concrete plants, or power-generating plants, etc.).
- New sensitive uses are located near a large emission source.
- Medical, chemical, or research labs are created or result in new uses being located near them.
- Operation of manufacturing or processing facilities is created.
- New sensitive uses created within 400 feet of manufacturing or processing facilities.

- New uses created within 400 feet of a stack associated with commercial, institutional, or residential developments (and the height of the new structures would be similar to or greater than the height of the emission stack).
- Potentially significant odors are created.
- New uses near an odor-producing facility are created.
- "Non-point" sources that could result in fugitive dust are created.
- New uses near nonpoint sources are created.
- A generic or programmatic action is introduced that would change or create a stationary source or that would expose new populations to such a station

Analysis Framework

The stationary source analysis will study the potential impacts of the Projected Development Site 1, Projected Development Site 2, and Potential Development Site on nearby receptors. The Reasonable Worst Case Development Scenario for Projected Development Site 1, Projected Development Site 2, and the Potential Development Site are described below.

Air Pollutants and Applicable Standards/Guidelines

Criteria Pollutants

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO_2) is a main concern related to the burning of natural gas. Emitted NOx from the burning of fossil fuel gradually convert to NO_2 in a chemical reaction that is affected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO_2 impact.
- Ozone (O_3) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.
- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.
- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO_2) emission is principally associated with stationary sources that burn oil or coal. These fuels contain sulfur that bond to oxygen atoms in the burning process.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The NO_2, SO_2 and $PM_{2.5}$ standards together with their health-related averaging periods are presented in **Table 2.17-3**.

Table 2.17-3: National and New York State Ambient Air Quality

Pollutant	Averaging Period	National and State Standards
NO_2	Maximum 1-Hour Concentration	0.10 ppm (188 µg/m^3)
	Annual Arithmetic Average	0.053 ppm (100 µg/m^3)
$PM_{2.5}$	24-Hour Concentration	35 µg/m^3
	Average of 3 Consecutive Annual Means	12 µg/m^3
SO_2	Maximum 1-Hour Concentration	75 ppb (196 µg/m^3)
	Annual Arithmetic Mean	30 ppb (80 µg/m^3)

New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the NYSDEC has established guidelines for maximum allowable concentration of "noncriteria pollutants," which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were published on February 12, 2021.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

NYC Interim Guidelines

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ significant impact criteria (based on concentration increments). These criteria are called *de minimis* and they are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. As outlined in the *CEQR Technical Manual,* $PM_{2.5}$ significant impacts are evaluated as follow:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 µg/m^3 at any receptor location for stationary sources.

Background Concentrations

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring stations to the concentrations of criteria pollutants in the ambient air of the project area. Background concentrations of NO_2, SO_2, and $PM_{2.5}$—the criteria pollutants relevant for HVAC system fueled by natural gas or fuel oil #2 analysis—were obtained from the NYSDEC's annual report for 2019 at the nearest monitoring stations. **Table 2.17-4** shows the background concentrations.

Table 2.17-4: Background Concentrations (NYSDEC 2019 Report)

Pollutant	Averaging Period	National and State Standards	Background Concentration	Monitoring Station
NO_2	98th Percentile of Daily Maximum 1-hour averaged over last 3 years	188 µg/m3	55.1 ppb (103.6 µg/m3)	Queens College 2
	Annual Arithmetic Mean	100 µg/m3	14.18 ppb (26.8 µg/m3)	
$PM_{2.5}$	24-Hour average of 98th percentile for last 3 years	35 µg/m3	19.7 µg/m^3	Division Street (F)
	Average of last 3 years annual means	12 µg/m3	9.0 µg/m^3	
SO_2	99th Percentile of Daily Maximum 1-hour averaged over last 3 years	196 µg/m3	5.17 ppb (13.51 µg/m3)	Queens College 2
	Annual Arithmetic Mean	80 µg/m3	0.36 ppb (0.96 µg/m3)	

The *de minimis* criteria for $PM_{2.5}$ was evaluated as described in the NYC Interim Guidelines. The concentration increments are presented below:

- 24-hour $PM_{2.5}$ 7.65 µg/m^3
- Annual $PM_{2.5}$ 0.3 µg/m^3

Heating and Hot Water Systems

The Proposed Project Area consists of Block 1125, Lots 29, 61, 59, 57, 33, 53, 52, and 40, and is located within the Crown Heights neighborhood of Brooklyn, Community District 8. Projected Development Site 1 (Block 1125, Lots 29 and 33), the Applicant's owned property, would be assemble and develop with the Applicant's Proposed Development. Projected Development Site 1 Reasonable Worst Case Development Scenario (RWCDS) would facilitate the development of two separate mixed-use, predominantly residential, building towers. Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area, would rise to a height of 17 stories at 175 feet tall, and contain 198,953 gsf. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area, would rise to a height of 9 stories at 95 feet tall, and would contain 32,980 gsf. There will then be a 6,940 gsf cellar level parking garage with 20 spaces underneath both buildings. Per the site plans, provided by the building architect for this project, a 60-foot-wide rear yard above the ground floor would separate the towers.

Projected Development Site 2 (Block 1125, Lots 52 and 53; non-Applicant Lots) RWCDS would facilitate a 9-story, 95-foot-tall, mixed-use, predominantly residential building. The building would contain 21,816 gsf, of which 2,048 gsf are cellar level parking garage.

Potential Development Site (Block 1125, Lot 40; non-Applicant Lots) RWCDS would facilitate a 17-story, 175-foot-tall, mixed-use, predominantly residential building. The building would contain 232,046 gsf, of which 29,100 gsf are cellar level parking garage.

Per the *CEQR Technical Manual*, the HVAC analysis considers the potential for emissions from the HVAC system of the proposed project to significantly impact existing land uses (project-on-existing), and the potential of the proposed project to significantly impact each other (project-on-project). Based on CEQR guidelines, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system(s) boiler emissions can be significant. The screening analysis

determines the threshold of development size below which the action would not have a significant impact. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

While there are no existing buildings similar or greater in height in the 400 feet area surrounding the Projected or Potential Development Sites, the Proposed Actions 1010 Pacific Street (CEQR No. 16DCP134K) would facilitate the development of 115 feet tall buildings on Block 1133, which is located on the south side of Pacific Street, and directly across the street from the Proposed Project. In addition, the Proposed Actions 1050 Pacific Street (CEQR No. 17DCP205K), which facilitate the development of 95 feet tall buildings facing Classon Avenue on Block 1134, is located approximately 90 feet from Potential Development Site 1. These Proposed Action were considered in the HVAC systems analysis.

Screening Assessment

The potential for the heat and hot water system(s) to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used by the HVAC system, the height of the stack venting the emissions, the distance to the nearest building of similar or greater height, the building's use which effects the emissions, and the square footage of the development that would be served by the system. The *CEQR Technical Manual* screening analysis is based on these factors. A detailed analysis is required if the screening analysis failed.

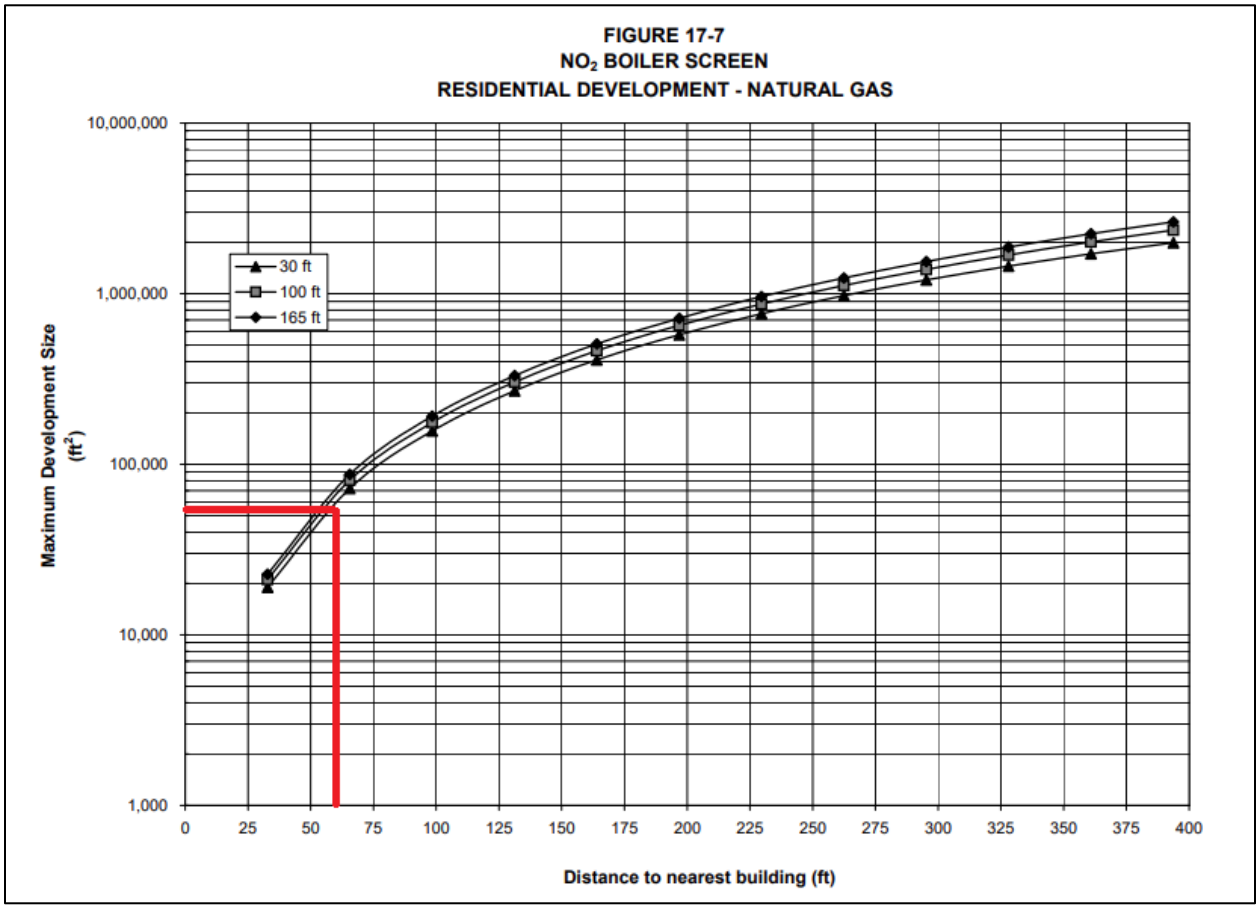
As determined in the detailed analysis, natural gas would be the type of fuel used in the Potential Development Site and Projected Development Site 1 Tower 1 and Tower 2 HVAC systems. Electric power would be utilized for Projected Development Site 2 HVAC system. As such, screening analyses were conducted for natural gas fueled boilers serving residential building(s).

As screening analysis is only applicable to a single smokestack, for the purposes of a cumulative screening analysis emissions from multiple stacks were combined in a single stack situated as close as possible to the receiving building. In addition, as the RWCDSs would facilitate 95 feet tall and 175 feet tall buildings, project-on-existing screening analyses were conducted for the 95 feet tall buildings and for the 175 feet tall buildings.

<u>Project-on-Existing</u>

- The Projected Development Site 1 Tower 2 and Projected Development Site 2 on existing land uses: A hypothetical HVAC system serving a 52,748 gsf residential building (the RWCDS combined floor area of Projected Development Site 1 Tower 2 Projected Development Site 2, excluding parking facilities gsf). Natural gas would be the type of fuel used in the system and the stack would be located above the RWCDS height of 95-foot. A distance of 60 feet was applied, which is the distance to Block 1133, Lot 45 (part of the Proposed Actions 1010 Pacific Street, CEQR No. 16DCP134K). **Figure 2.17-1** (using Figure 17-7 of the *CEQR Technical Manual Appendices*) shows the screening analysis.

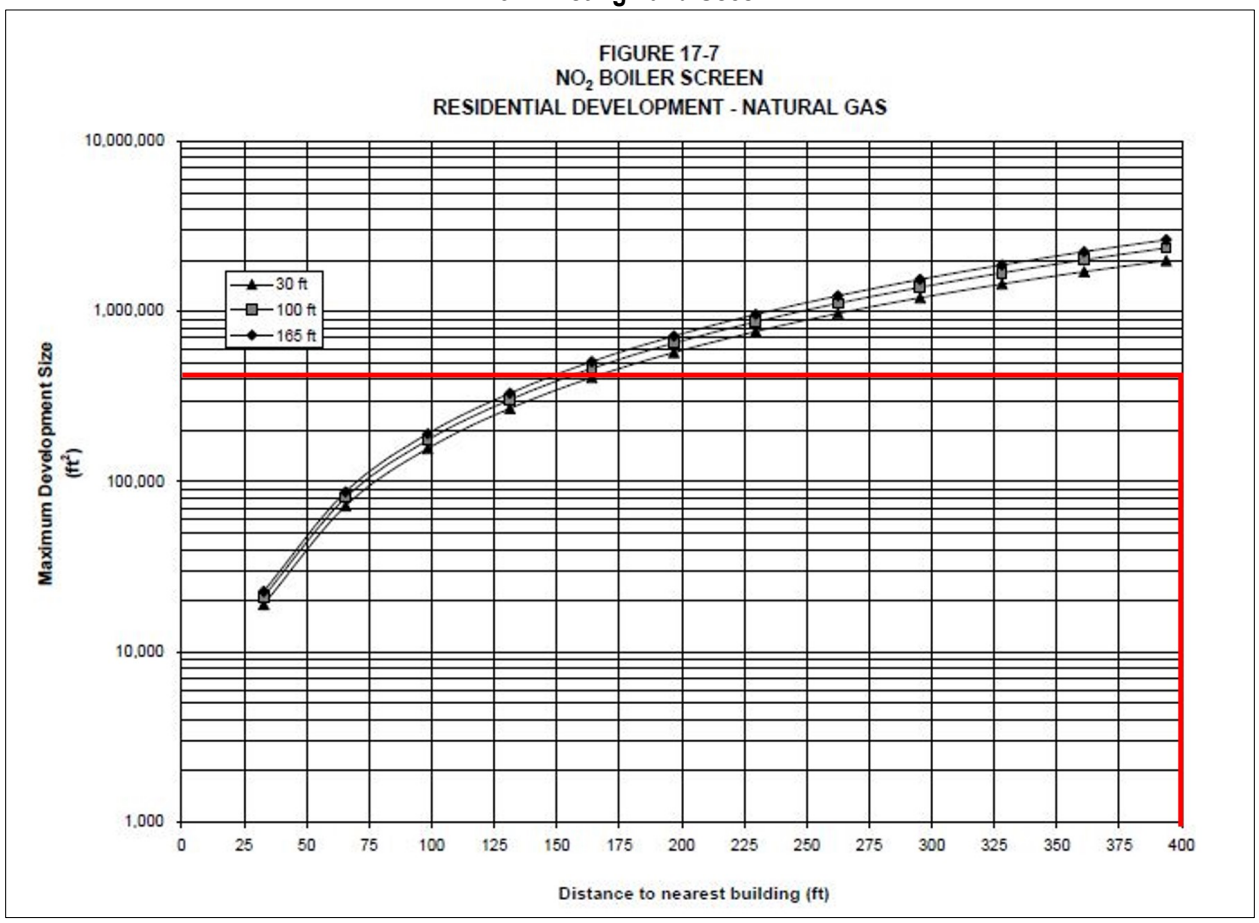
Figure 2.17-1: The Project Development Site 1 Tower 2 and Projected Development Site 2 Screening Analysis on Existing Land Uses



As seen in the screening analysis (using Figure 17-7 of the *CEQR Technical Manual Appendices*), the line is below the curve. As such, Project Development Site 1 Tower 2 and Projected Development Site 2 pass the HVAC screening analysis on existing land uses.

- The Projected Development Site 1 Tower 1 and Potential Development Site on existing land uses: A hypothetical HVAC system serving a 401,899 gsf residential building (the RWCDS combined floor area of Projected Development Site 1 Tower 1 and Potential Development Site, excluding parking facilities gsf). Natural gas would be the type of fuel used in the system and the stack would be located above the RWCDS height of 175-foot. A distance of 400 feet was applied as no other building in the area is equal or greater in height (175-foot high).

Figure 2.17-2: The Project Development Site 1 Tower 1 and Potential Development Site 2 Screening Analysis on Existing Land Uses



As seen in the screening analysis (using Figure 17-7 of the *CEQR Technical Manual Appendices*), the line is below the curve. As such, Project Development Site 1 Tower 1 and Potential Development Site 2 pass the HVAC screening analysis on existing land uses.

Project-on-Project

Projected Development Site 1 Tower 1 and the Potential Development Site are both 175-foot-tall and are adjacent. Projected Development Site 1 Tower 2 and Projected Development Site 2 are both 95-foot-tall and are adjacent. Projected Development Site 2 is adjacent to Potential Development Site. Therefore, the screening analysis are not applicable, and detailed analyses are required.

Applicable Air Pollutants – Descriptions, Standards and Guidelines

Natural gas would be the type of fuel used in the Projected Development Sites' heating and hot water systems. Per the *CEQR Technical Manual*, nitrogen dioxide (NO_2) is the pollutant of concern of natural gas fueled boilers. However, particulate matter with aerodynamic diameter of less than or equal to 2.5 micrometer ($PM_{2.5}$) was also evaluated because the developments would use low-NOx burner (low-NOx burner reduces nitrogen oxides emissions, but not particulate matter emissions).

The US Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for seven of the most common air pollutants—known as "criteria" pollutants. The presence of these pollutants in ambient air is generally due to numerous diverse and widespread sources of emissions. The NAAQS primary standards are designed to protect the public health with an adequate margin of safety. The NAAQS secondary standards are designed to protect the public welfare from adverse effects, including those related to effects on soils, water, vegetation, visibility, and other aspects. As required by the Clean Air Act, EPA periodically conducts comprehensive reviews of the scientific literature on health and welfare effects associated with exposure to criteria air pollutants. In addition, the NAAQS have been adopted as the ambient air quality standards for the State of New York.

The New York State Department of Environmental Conservation (NYSDEC) measures air pollutants at more than 50 sites across the state using continuous and/or manual instrumentation. These sites are a mix of federally-mandated and supplemental monitoring networks. The primary NAAQS and background concentrations, from the nearest federally-mandated monitoring station(s), of the pollutants that a detailed analysis was conducted for are presented in **Table 2.17-5**.

Table 2.17-5: The NAAQS and 2019 Background Concentrations

Pollutant	Averaging Period	National and State Standards	Background Concentration	Concentration Unit	Monitoring Station
NO_2	1-Hour	188	103.6	µg/m^3	Queens College
	Annual	100	26.8		
$PM_{2.5}$	24-Hour	35	19.7		Division Street
	Annual	12	9.0		

<u>NO_2 NAAQS</u>

The 1-hour NO_2 NAAQS was promulgated in the United States in February 2010. The 1-hour standard is based on a percentile rank from the annual distribution of daily maximum 1-hour values, averaged across the number of years processed. The 1-hour NO_2 modeled design value is based on the 98th percentile, or 8th highest, of the daily maximum 1-hour values across the year. For typical multi-year modeling analysis based on 5 years of National Weather Service (NWS) meteorological data, the modeled design value is the 5-year average of the 8th highest values for NO_2.

Nitrogen oxide (NOx) emissions from combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions is then gradually converted to NO_2. For determining compliance with the 1-hour standard, the EPA has developed a three-tiered modeling approach: a) Tier 1, the most conservative approach, assumes a full (100%) conversion of NOx to NO_2. b) Tier 2 is the Ambient Ratio Method 2 (ARM2) which assumes ambient equilibrium between NO and NO_2. AERMOD multiplies Tier 1 concentrations with default ambient ratios, or source-specific NO_2/NO_x in-stack ratio (ISR) data. The national default minimum and maximum ambient ratios for the primary facility are 0.5 and 0.9, respectively. c) Tier 3, which is the most precise approach, accounts for the chemical transformation of NO emitted from the stack to NO_2 within the source plume using hourly ozone background concentrations.

<u>$PM_{2.5}$ NYC Guidelines</u>

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ and/or 8-hour CO averaging time significant impact criteria (based on concentration increments). These criteria, *de minimis*, are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the predicted concentrations associated with the Proposed Actions are less than the *de minimis* criteria, the concentrations are not considered to be significant. Stationary source detailed analysis was required only for $PM_{2.5}$ (CO is not a pollutant of concern for HVAC systems, based on the *CEQR Technical Manual*). $PM_{2.5}$ significant impact concentrations are evaluated as follows:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations).

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

The $PM_{2.5}$ *de minimis* (concentrations' increments) threshold criterions for stationary sources (HVAC systems are stationary sources) are 24-hour $PM_{2.5}$ concentration increment of 7.7 $\mu g/m^3$ and annual $PM_{2.5}$ concentration increments of 0.3 $\mu g/m^3$ (applicable to stationary sources).

Air Dispersion Analysis

A stationary source modeling was conducted to evaluate the potential impacts associated with the boilers stacks emissions. Lakes Environmental MPI executable was used in the analysis. The MPI executable take advantage of computers with multiple processors, reducing run-time significantly. Lakes Environmental has adjusted the US EPA AERMOD source code and recompiled the model to parallelize the processing of receptors. The latest MPI executable (used in the analysis) modified the EPA's AERMOD latest executable model version 211112. AERMOD modeling application incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The model was run with the regulatory default option and for both with and without downwash effect options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. All analyses were conducted using five consecutive years of meteorological data (2015-2019), obtained from the NYSDEC. Surface data used in the analysis is from LaGuardia Airport, upper air data is from Brookhaven station, New York. According to the NYSDEC, the meteorological data was processed using the latest versions of AERMINUTE, AERSURFACE and AERMET. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period. Population in Kings County, obtained from the U.S. Census Bureau (July 2019), was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions.

The pollutant of concern for natural gas fueled boilers is NO_2; however, $PM_{2.5}$ was also analyzed. The boilers' energy intensities were calculated based on the developments RWCDSs, excluding parking facilities gsf, and energy consumption rate, obtained from the *CEQR Technical Manual Appendices*, corresponding to residential use in the buildings. $PM_{2.5}$ emissions were calculated based on emission factors published in the EPA's AP-42 manual for external combustion sources.[4] NO2 emission rates emitted from natural gas fueled boilers equipped with low-NOx burners were calculated based on emission factor obtained from the NYC Department of City Planning (DCP). All fuel was assumed to be consumed during the 100-day (or 2,400 hour) heating season, based on the *CEQR Technical Manual*. In addition, the Projected Development Site 2 boiler energy intensity was restricted to 70 percent heating capacity. **Table 2.17-6** shows the boilers' energy intensities and pollutants emission rates.

Table 2.17-6: RWCDS HVAC Systems Short-term and Annual Emission Rates

Site ID	Development Site RWCDS Floor Area (gsf)	Boiler's Energy Intensity (MMBtu); Type of Fuel	Pollutant	Short-term Emission Rate (g/s)	Annual Emission Rate (g/s)
Projected Development Site 1 Tower 1	198,953	5.00; Natural gas low-NOx	NO_2	2.29E-02	6.29E-03
			$PM_{2.5}$	4.69E-03	1.29E-03
Projected Development Site 1 Tower 2	32,980	0.83; Natural gas low-NOx	NO_2	3.80E-03	1.04E-03
			$PM_{2.5}$	7.78E-04	2.13E-04
Projected Development Site 2	19,768	0.35(1); Natural gas low-NOx	NO_2	1.60E-03	4.37E-04
			$PM_{2.5}$	3.26E-04	8.94E-05
Potential Development Site	202,946	5.10; Natural gas low-NOx	NO_2	2.34E-02	6.41E-03
			$PM_{2.5}$	4.79E-03	1.31E-03
Note: 1. Boiler's energy intensity restricted to 70 percent of maximum heating capacity.					

The *CEQR Technical Manual* default stack's diameter and exhausts exit velocity were applied to Projected Development Site 1 Tower 2 and Projected Development Site 2 stacks (their boiler energy intensities are less than 1 million Btu). Projected Development Site 1 Tower 1 and Potential Development Sites' boiler stacks' diameters were estimated based on values obtained from the New York City Department of Environmental Protection (DEP) "CA Permit" database for corresponding boiler sizes (i.e., rated heat input or million Btu per hour)[5], and the stacks' exit velocities calculated based on the fuel dry volume of combustion components per unit of heat content. The stacks' exit temperatures were assumed to be 426°K, which is appropriate for boilers, based on DEP "CA Permit" database. The boilers stacks were placed 3 feet above the roofline and as close as possible to the receiving building, and a stack(s) set back distance(s) was specified if impact was predicted.

The Projected Development Site 2 and Potential Development Site were modeled as buildings that cover their entire lot(s) area(s) (the wall façade located on the outer lot lines) and rise to their RWCDSs heights. Projected Development Site 1 towers spatial locations were based on the site plans, provided by the building architect for this project. Buildings in the surrounding area were accounted for in the downwash effect on

[4] EPA. *Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1:* Chapter 1: External Combustion Sources, https://www3.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf. July 1998.
[5] DEP "CA Permit" database obtained from the New York City Department of City Planning, February 2020.

plums dispersions (BPIP). These included the development sites of the Proposed Actions 1010 Pacific Street (CEQR No. 16DCP134K) and the Proposed Actions 1050 Pacific Street (CEQR No. 17DCP205K). Receptors on the receiving building(s) were placed on all wall façade from the ground floor to the roof-top height(s) in spaced intervals.

The US Geological Service (USGS) National Elevation Dataset (NED) 1/3 arc-second resolution (GeoTIFF dataset), the terrain data set recommended by the EPA for use in the United States for regulatory purposes, was used to process buildings base elevations. The base elevations of receptors and stacks were set to their building's base elevations. Roof heights of buildings in the area were obtained from the NYC Building Footprint database[6] and the New York City Department of Building (DOB) for buildings that are under construction or recently constructed.

$PM_{2.5}$ concentrations were modeled with the 1st highest concentration (the *de minimis* design value). The 1-hour NO_2 concentrations were modeled with the 8th highest concentration (the NAAQS design value), and a Tier 1 or Tier 2 (ARM 2) approaches. The national default minimum and maximum ambient ratios of 0.5 and 0.9, respectively, were applied in the Tier 2 approach. In addition, monthly seasonal adjustment factor (for the short-term analyses) of 1 (maximum emission) was used during the heating season (Oct. through May) and 0.35 otherwise, based on NYC DCP guidance.

Each pollutant averaging time was modeled twice; with and without downwash effect options. The predicted concentrations are the highest concentration of these. NO_2 modeled (increment) concentrations were added to the background concentrations. $PM_{2.5}$ modeled concentrations were evaluated with the *de minimis* design values for stationary sources. The HVAC dispersions analysis results are shown in **Table 2.17-7**.

[6] City of New York, nyc-geo-metadata (May 03, 2016); https://data.cityofnewyork.us/Housing-Development/Building-Footprints/nqwf-w8eh

Table 2.17-7: HVAC Dispersion Analysis Results

Pollutant and Averaging Time	Modeled (Increment) Concentration ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Evaluated Concentration ($\mu g/m^3$)	Threshold Concentration ($\mu g/m^3$)	Threshold Standard
Cumulative Concentration at Projected Development Site 1 Tower 1					
1-hour NO_2	78.85	103.59	182	188	NAAQS
Annual NO_2	0.80	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	4.64	19.7	4.6	7.65	*de minimis*
Annual $PM_{2.5}$	0.14	9.0	0.14	0.3	*de minimis*
Cumulative Concentration at Potential Development Site					
1-hour NO_2	82.40	103.59	186	188	NAAQS
Annual NO_2	1.48	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	7.38	19.7	7.4	7.65	*de minimis*
Annual $PM_{2.5}$	0.28	9.0	0.28	0.3	*de minimis*
Tower 2-on-Projected 2					
1-hour NO_2	42.87	103.59	146	188	NAAQS
Annual NO_2	0.62	26.8	27	100	NAAQS
24-hour $PM_{2.5}$	2.80	19.7	2.8	7.65	*de minimis*
Annual $PM_{2.5}$	0.12	9.0	0.12	0.3	*de minimis*
Projected 2-on-Tower 2					
1-hour NO_2	49.42	103.59	153	188	NAAQS
Annual NO_2	0.75	26.8	28	100	NAAQS
24-hour $PM_{2.5}$	3.33	19.7	3.3	7.65	*de minimis*
Annual $PM_{2.5}$	0.15	9.0	0.15	0.3	*de minimis*

The concentrations shown in **Table 2.17-7** were predicted with certain restrictions to ensure that no significant adverse air quality impact(s) would occur. The restrictions for the Proposed Actions are specified in the Air Quality E-Designations that would be placed on the Development Site(s). The E-Designation language related to the heating and hot water systems is as follows:

(E) Designation

Block 1125 Lot 29 and 33 (Projected Development Site 1 Tower 1): Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 178 feet above grade, and that the stack is located at least 140 feet from the eastern lot line of Lot 33 facing Classon Avenue to avoid any potential significant adverse air quality impacts.

Block 1125 Lot 29 and 33 (Projected Development Site 1 Tower 2): Any new residential, commercial, or community facility development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 98 feet above grade, and that the stack is located at least 45 feet from the eastern lot

line of Lot 33 facing Classon Avenue and at least 135 feet from the northern lot line of Lot 33 facing Atlantic Avenue to avoid any potential significant adverse air quality impacts.

Block 1125 Lots 52 and 53 (Projected Development Site 2): ***Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the HVAC equipment energy intensity is no greater than 0.35 million Btu, the stack is located at the building's highest level or at least 98 feet above grade, and that the stack is located at least 30 feet from the eastern lot line of Lot 52 facing Classon Avenue and at least 40 feet from the northern lot line of Lot 52 or Lot 53 facing Atlantic Avenue to avoid any potential significant adverse air quality impacts.***

Block 1125 Lot 40 (Potential Development Site): ***Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC), and hot water system(s) and must be fitted with low NOx (30 ppm) burners, ensure that the stack is located at the building's highest level or at least 178 feet above grade, and that the stack is located at least 90 feet from the western lot line facing Grand Avenue to avoid any potential significant adverse air quality impacts.***

Conclusion

Based on the analysis, conditions associated with the Proposed Actions HVAC systems would not result in any violations of the ambient air quality standards. Therefore, there is no reason to believe that the Proposed Actions HVAC systems would potentially cause any significant adverse air quality impacts, and further assessment is not warranted.

Industrial Emissions

The Proposed Actions would introduce a sensitive land use into the area. Accordingly, a preliminary screening was conducted to determine if there are any potential sources of industrial process emissions that could affect project occupants. Industrial sources were identified through a site visit within a 400-foot study area and the DEP CATS search.

400-Foot Study Area

The Affected Area is located within a M1-1 zoning district, and the surrounding area is a mixture of residential, commercial, and industrial properties. The 400-foot radius was screened for potential sources of industrial emissions and is shown below in **Figure 2.17-3 and Table 2.17-8**. Based on field observations and reviews of DCP land use maps, 23 sites were identified as industrial/manufacturing land uses. Based on review of the DEP CATS database, there were two expired permits identified at sites 7 and 13 and two active permits identified at site 23. The results of the search were verified by DEP via the Air Permits email, and the appropriate DEP Air Permit Request form was submitted.

Table 2.17-8: Industrial/Manufacturing within 400 feet of the Affected Area

Site ID	Block	Lot	Address	Current Use	Industrial Permit Search Results
1	1141	33	904 Dean Street	Light Manufacturing	No Record
2	1125	33	1042 Atlantic Avenue	Light Manufacturing	No Record
3	1133	55	626 Classon Avenue	Warehouse	No Record
4	1141	69	813 Bergen Street	Heavy Manufacturing	No Record
5	1141	28	892 Dean Street	Warehouse	No Record
6	2020	77	1041 Atlantic Avenue	Industrial	No Record
7	1133	32	998 Pacific Street	Warehouse	PB041607
8	1125	80	989 Pacific Street	Light Manufacturing	No Record
9	1133	54	624 Classon Avenue	Warehouse	No Record
10	2020	86	1035 Atlantic Avenue	Warehouse	No Record
11	1125	29	1034 Atlantic Avenue	Warehouse	No Record
12	1125	40	1050 Atlantic Avenue	Warehouse	No Record
13	2020	1	1025 Atlantic Avenue	Warehouse	PB425403
14	1133	45	1024 Pacific Street	Light Manufacturing	No Record
15	1134	96	953 Dean Street	Warehouse	No Record
16	1134	2	643 Classon Avenue	Warehouse	No Record
17	1133	57	630 Classon Avenue	Warehouse	No Record
18	2019	60	999 Atlantic Avenue	Warehouse	No Record
19	1133	46	1026 Pacific Street	Light Manufacturing	No Record
20	1134	17	1058 Pacific Street	Heavy Manufacturing	No Record
21	1133	53	622 Classon Avenue	Warehouse	No Record
22	1142	12	964 Dean Street	Light Manufacturing	No Record

Site 7: 998 Pacific Street (Block 1133/Lot 32):

According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by 1010 Pacific Owner LLC and is classed as a Warehouse. Based upon review of the DEP CATS database and Air Permit Request Services, the permit related to 998 Pacific Street is PB041607. This permit included emissions from a paint spray booth and woodworking, and it expired on April 5, 2008. Equity conducted a site investigation through Google Street View to see the current use of the property. Based on images from July 2019, the building is abandoned and vacant, with no signs and multiple broken windows. Therefore, there is no need to further investigate this site because there are no emission sources present.

Site 13: 1025 Atlantic Avenue (Block 2020/Lot 1):

According to NYC's Zoning and Land Use Map (ZoLa), this property is owned by 1025 Realty Corp. and is classed as a Warehouse. Based upon review of the DEP CATS database and Air Permit Request Services, the permit related to 1025 Atlantic Avenue is PB425403. This permit included emissions from a paint spray booth, and it expired on December 10, 2004. Equity conducted a site investigation through Google Street View to see the current use of the property. Based on images from June 2019, the building is used as an

auto body garage specifically for tires, rims, and balancing. Therefore, no further investigate is required for this site because there are no emission sources present.

In addition to the sites discussed above, three auto repair shops were identified within the 400-foot boundary of the Projected and Potential Development Sites. Mario's Auto Repair (1008 Atlantic Avenue), Bismillah Auto Repair (1062 Atlantic Avenue), and Meineke Car Care Center (1029 Atlantic Avenue), are all auto inspection/mechanic shops that are not potential sources of industrial process emissions that could affect project occupants.

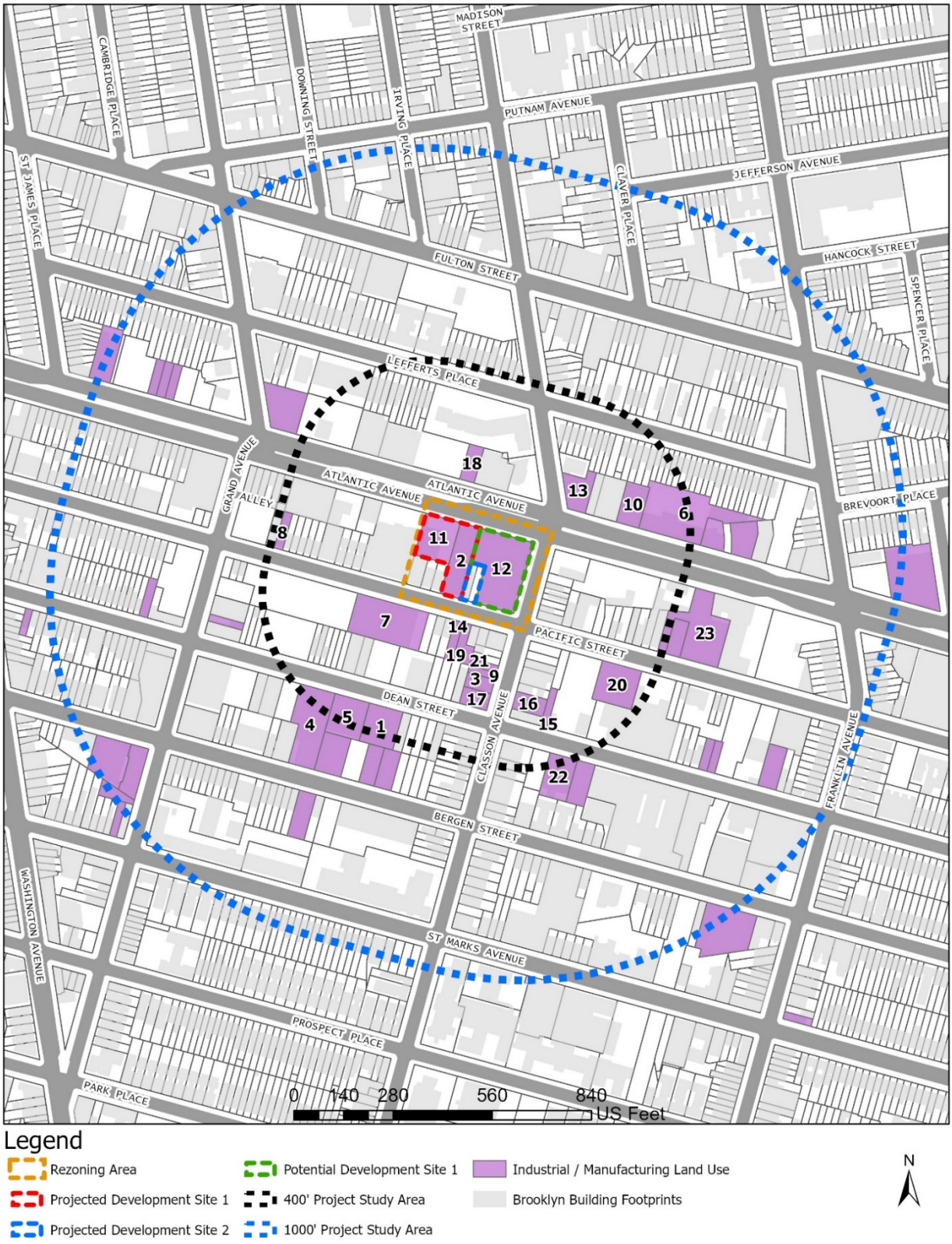
1,000-Foot Study Area

The surrounding area within a radius of 1,000 feet of the Affected Area was screened for potential large source industrial emissions. Based on field observations and reviews of DCP land use maps, no such sources were identified.

Conclusion

As indicated above in **Table 2.17-8,** there are two active industrial emissions permits within 400-foot study area. Both permits are registered to the same facility and they both pass the CEQR screening process. No large industrial emission sources were identified within the 1,000-foot study area. Additionally, there is no evidence present to conclude that there are illegal unpermitted air emissions present in the study area. Therefore, there does not appear to be any potentially significant impact in terms of air toxics to project occupants.

Figure 2.17-3: Industrial Emissions Screening



Chapter 19: Noise

Introduction

The Proposed Actions would create noise-sensitive residential development. Therefore, an assessment of the potential for adverse effects on project occupants from ambient noise is warranted. The projected development would not create a significant stationary noise generator. Additionally, project-generated traffic would not double vehicular traffic on nearby roadways, and therefore would not result in a perceptible increase in vehicular noise. Therefore, this noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development. The predominant noise source at the Affected Area is vehicular traffic on surrounding streets.

Methodology

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound.

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud.

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common frequency weightings used are the A- and C-weightings. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighting is the most commonly used for environmental measurements, and sound levels measured using this weighting are denoted as dBA. The letter “A” indicates that the sound has been filtered to reduce the strength of very low and very high frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting.

Table 2.19-1: Noise Levels of Common Sources

Sound Source	SPL (dB(A))
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A)Is perceived as a doubling or halving in SPL.	
Source: 2020 CEQR Technical Manual	

The following is typical of human response to relative changes in noise level:

- 3-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA change is perceived as a doubling or halving of the noise level.

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the L_{eq} than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.
- L_{max} is the highest SPL measured during a given period of time. It is useful in evaluating L_{eq}s for time periods that have an especially wide range of noise levels.
- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.

The sound level exceeded during a given percentage of a measurement period is the percentile-exceeded sound level (L_X). Examples include L_{10}, L_{50}, and L_{90}. L_{10} is the A-weighted sound level that is exceeded 10% of the measurement period.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law (i.e., the SPL changes in inverse proportion to the square of the distance from the sound source).

In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For "line" sources, such as vehicles on a street, the SPL drops off at a rate of 3 dBA with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

Noise Standards and Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Quality Review (CEQR) noise exposure guidelines for exterior noise levels. As shown in **Table 2.19-2** below, noise standards classify noise exposure into four categories based on noise level limits and land use, for vehicular traffic, rail, and aircraft noise sources: Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable. The *CEQR Technical Manual* defines attenuation requirements for buildings based on exterior noise exposure levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA (L_{10} *or Ldn, depending on the source*) or below.

Table 2.19-2: Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1.Outdoor area requiring serenity and quiet[2]		$L_{10} \leq 55$ dBA	Ldn < 60 dBA						
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		55<L_{10}≤65 dBA	Ldn < 60 dBA	65<L_{10}≤80 dBA	Ldn < 60 dBA	L_{10}>80dBA	Ldn < 75 dBA
3. Residence, residential hotel or motel	7 am to 10 pm	$L_{10} \leq 65$ dBA		65<L_{10}≤70 dBA		70<L_{10}≤80 dBA		L_{10}>80dBA	
	10 pm to 7 am	L10≤55 dBA		55<L_{10}≤70 dBA		70<L_{10}≤80 dBA		L_{10}>80dBA	
4. School, museum, library, court house of worship, transient hotel or motel, public meeting room, auditorium, out- patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM- 10 PM)		Same as Residential Day (7 AM –10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM –10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Source: New York City Department of Environmental Protection (adopted policy 1983).

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;

1 Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

2 Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.

3 One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

4 External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Table 2.19-3: CEQR TM Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise Level with Proposed Project	70 < L_{10} ≤ 73	73 < L_{10} ≤ 76	76 < L_{10} ≤ 78	78 < L_{10} ≤ 80	80 < L_{10}
Attenuation[1]	(i) 28 dB(A)	(ii) 31 dB(A)	(iii) 33 dB(A)	(iv) 35 dB(A)	36 + (L_{10} - 80)[2] dB(A)

Source: New York City of Environmental Protection

Notes:

1 The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office uses and meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.

2 Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.

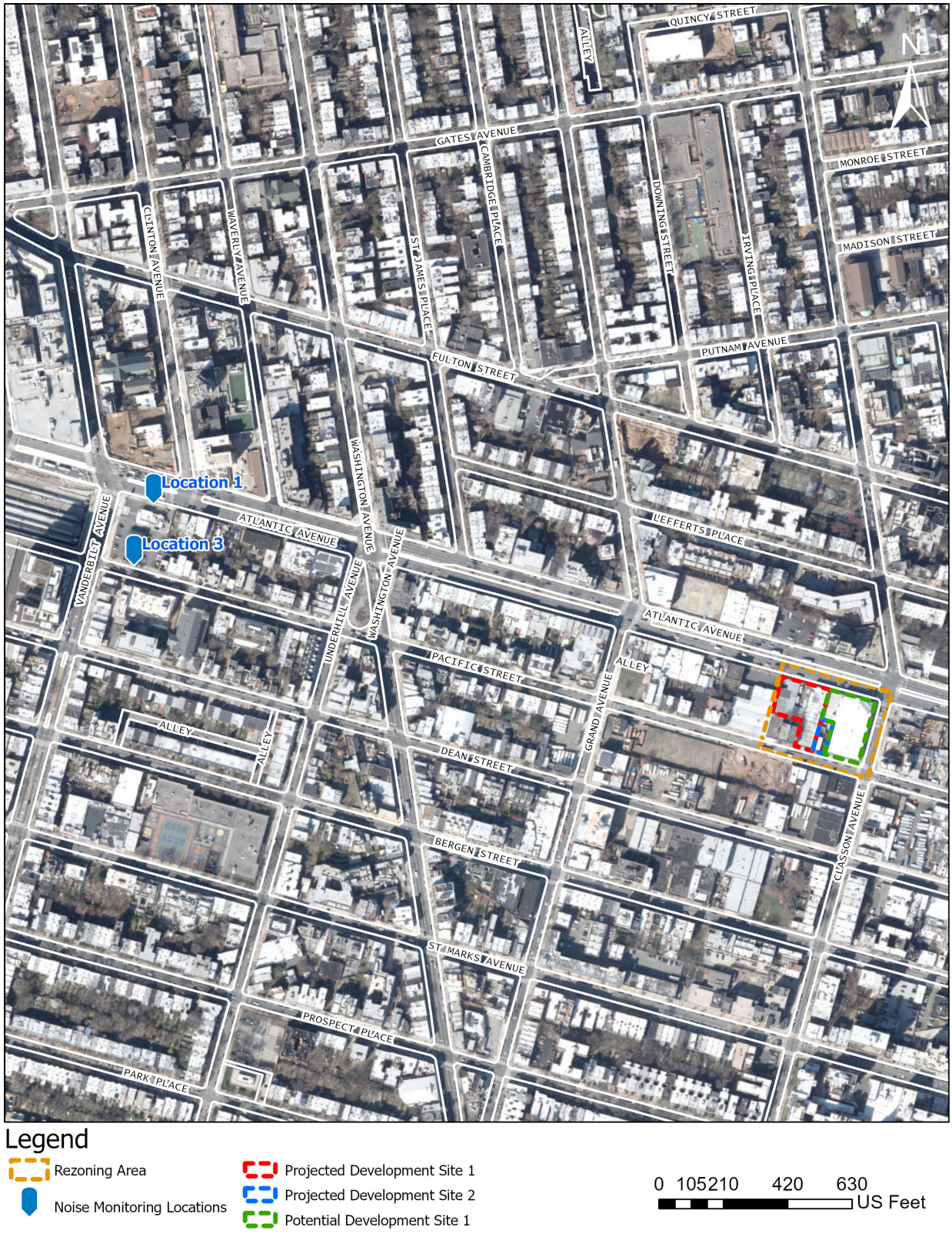
Measurement Location and Equipment

Due to the COVID-19 pandemic, New York City Department of Transportation indefinitely suspended all traffic related data collection indefinitely as of March 2020. Due to the inability to collect in-field measurements, measurements from a previously approved action will be applied to the Project Site. The noise readings and noise attenuation from 840 Atlantic Avenue (20DCP162K) will be used for this analysis.

Because the predominant noise sources in the area of the proposed project consist of vehicular traffic, 840 Atlantic Avenue noise monitoring was conducted during peak vehicular travel periods (AM, Midday, PM, and School PM) on a typical midweek day. From the 840 Atlantic Avenue EAS, pursuant to *CEQR Technical Manual* Methodology, measurements were collected for 20-minute periods. For the purposes of this analysis the following two (2) locations will be applied; Location One (1) was collected along Atlantic Avenue between Vanderbilt Avenue and Underhill Avenue and Location Three (3) was collected along Pacific Street between Vanderbilt Avenue and Underhill Avenue. The noise monitoring results will be directly applied to the Project Site as the monitored locations are similar to the Project Site. The noise monitoring locations are shown in **Figure 2.19-1** below.

From the 840 Atlantic Avenue Rezoning, noise monitoring was conducted using a Brüel & Kjær Type 4189 ½-inch microphone connected to a Brüel & Kjær Model 2250 Type 1 (as defined by ANSI) sound level meter. This assembly was mounted at a height of five feet above the ground surface on a tripod and at least six feet away from any sound-reflecting surfaces to avoid major interference with source sound levels that were being measured. The meter was calibrated before and after readings with a Brüel & Kjær Type 4231 sound level calibrator using the appropriate adaptor. The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in units of dBA. Measured quantities included Leq, L1, L10, L50, and L90. A windscreen was used during all sound measurements except for calibration. Only traffic related noise was measured; noise from other sources (e.g., emergency sirens, aircraft flyovers, etc.) was excluded from the measured noise levels. Weather conditions were noted to ensure a true reading as follows: wind speed under 12 mph; relative humidity under 90 percent; and temperature above 14oF and below 122oF (pursuant to ANSI Standard S1.13-2005).

Figure 2.19-1: Noise Monitoring Locations



Measurement Conditions

840 Atlantic Avenue Rezoning Monitoring was conducted during typical midweek conditions, on Tuesday April 16, 2019 and Tuesday May 7, 2019. The weather was dry and wind speeds were moderate during all monitoring periods. The sound meter was calibrated before and after each monitoring session.

Existing Conditions

Based on the 840 Atlantic Avenue Rezoning noise measurements, the predominant source of noise is vehicular traffic. **Table 2.19-4** and **Table 2.19-5** below contain the results for the measurements taken at the 1010 Pacific Street Project Site:

Table 2.19-4: Measured Noise Levels (dB(A)) at Location 1

Tuesday April 16, 2019 and Tuesday May 7, 2021			
Time	AM	MD	PM
L_{max}	87.8	85.3	89.1
L_{10}	**73.6**	**71.3**	69.8
L_{eq}	**71.0**	68.2	67.4
L_{50}	68.9	65.3	65.9
L_{90}	64.4	61.7	62.2
L_{min}	60.2	60.2	58.2

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to the 2020 CEQR Technical Manual

Table 2.19-5: Measured Noise Levels (dB(A)) at Location 3

Tuesday April 16, 2019 and Tuesday May 7, 2021				
Time	AM	MD	PM	SC PM
L_{max}	85.5	85.3	85.5	88.6
L_{10}	69.5	67.7	67.4	**70.8**
L_{eq}	66.6	65.7	65.0	**70.2**
L_{50}	64.9	64.6	62.3	69.5
L_{90}	59.9	61.7	57.4	68.2
L_{min}	54.7	58.5	55.3	66.1

Note: **Bold** denotes L_{10} or L_{eq} noise level exceedances, according to the 2020 CEQR Technical Manual

Stationary Source

All of the future buildings' mechanical systems (i.e., heating ventilation, and air conditioning systems) would be designed to meet all applicable noise regulations and requirements and would be designed to produce noise levels that would not result in any significant increase in ambient noise levels. In addition, the building mechanical systems would be designed with enclosures where necessary to meet all applicable noise regulations (i.e., Subchapter 5 §24-227 of the New York City Noise Control Code and the New York City Department of Buildings' Building Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, the Proposed Actions would not result in any significant increases in ambient noise levels.

Determination of Impacts/Building Attenuation Requirements - (E) Designation (E-637)

The *2020 CEQR Technical Manual* contains noise exposure guidelines. For a residential or community facility use such as would occur under the Proposed Actions, an L_{10} of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. An L_{10} of between 70 and 80 dB(A) is identified as marginally unacceptable general external exposure.

As per the results of the 840 Atlantic Avenue noise monitoring, the maximum L_{10} measured at monitoring Location 1 was 73.6 dB(A) during the AM peak period. The maximum L_{10} measured at monitoring Location 3 was 70.8 during the SC PM period. The L_{10} noise levels at the both locations are expected to increase to marginally by 0.04 dB(A) by the 2023 build year due to No-Action background traffic growth.

Based on the readings collected from the 840 Atlantic Avenue Rezoning, as shown in **Figure 2.19-2** below, a 31 dB(A) window/wall attenuation would be required for the northern façade (Atlantic Avenue) and a 31 dB(A) window/wall attenuation would be required for the eastern (Classon Avenue) and western facades for 50' from the north. The remainder of the eastern (Classon Avenue) and western facades would require a 28 dB(A) window/wall attenuation. The southern (Pacific Street) façade would require a 28 dB(A) window/wall attenuation. An (E) Designation (**E-637)** related to noise is to be placed on the 1034 Atlantic Avenue Projected Development Site 1 and 2, and Potential Development Site 1 as follows:

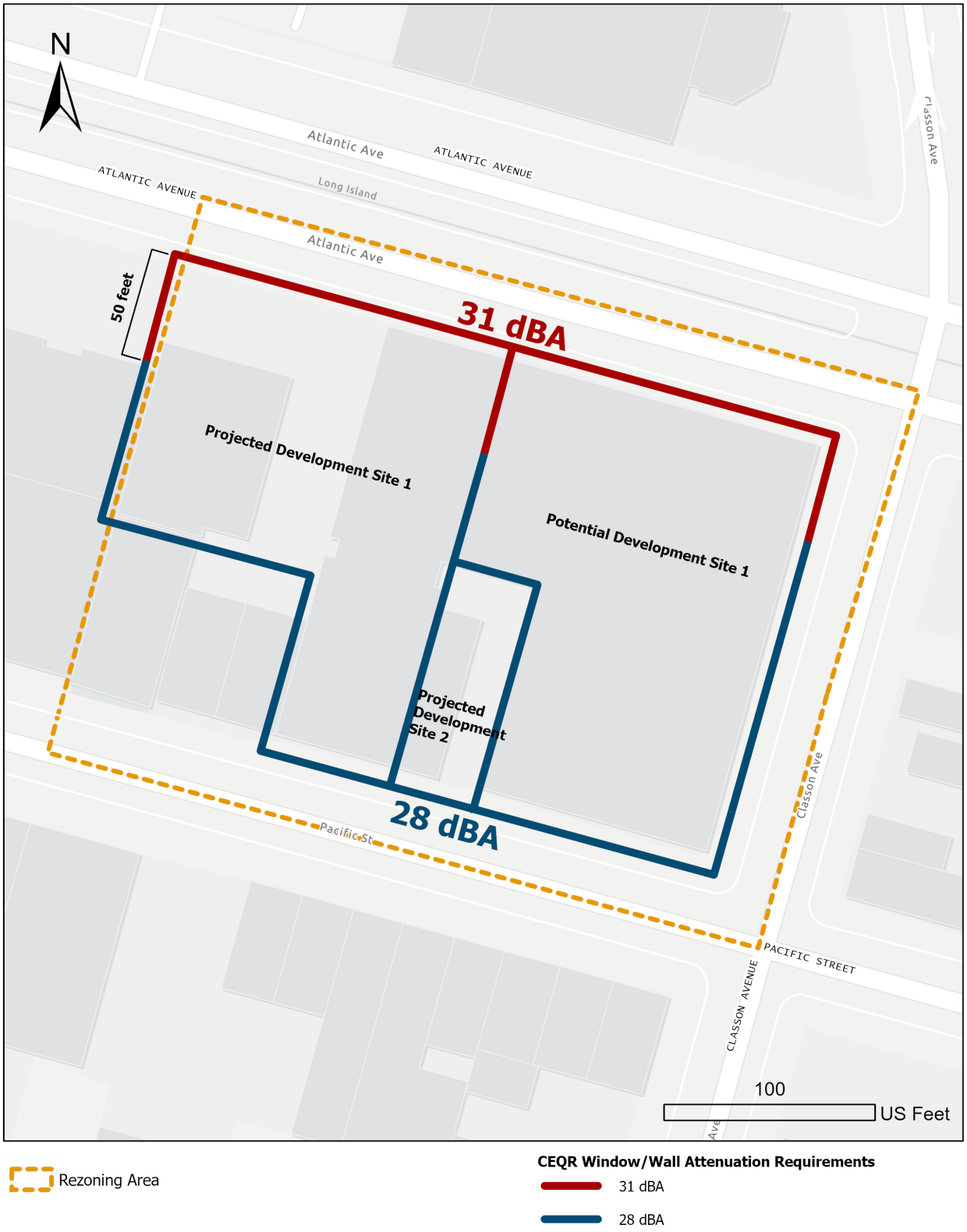
Projected Development Site 1 (Block 1125 / Lots 29 and 33): In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing Atlantic Avenue and the facades facing Classon Avenue within 50 feet of Atlantic Avenue and the facades facing Grand Avenue within 50 feet of Atlantic Avenue and 28 dBA of attenuation on all other facades to maintain an interior noise level not greater than 45 dBA for residential and community facility uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Projected Development Site 2 (Block 1125 / Lot 52 and 53): In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 28 dBA of attenuation on all facades to maintain an interior noise level not greater than 45 dBA for residential uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Potential Development Site 1 (Block 1125 / Lot 40): In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on the facades facing Atlantic Avenue and the facades facing Classon Avenue within 50 feet of Atlantic Avenue and the facades facing Grand Avenue within 50 feet of Atlantic Avenue and 28 dBA of attenuation on all other facades to maintain an interior noise level not greater than 45 dBA for residential uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

With the implementation of the (E) Designation (**E-637)** designation, no significant adverse impacts related to noise would occur. Therefore, the Proposed Actions would not result in any potentially significant adverse stationary or mobile source noise impacts, and further assessment is not warranted.

Figure 2.19-2: Noise Window Attenuation Requirements*



* Attenuation requirement for commercial office uses would be 5 dBA less.

Chapter 21: Neighborhood Character

According to the *2020 CEQR Technical Manual*, a neighborhood character assessment considers how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. Thus, to determine a project's effects on the neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered together. These elements may include land use, zoning, public policy, socioeconomic conditions, open space, historic and cultural resources, urban design, visual resources, shadows, transportation, and noise. The study area for a preliminary analysis of neighborhood character is typically consistent with the study areas of the relevant technical areas under CEQR that contribute to the defining elements of the neighborhood. The study area should generally extend to a 400-foot radius around the Affected Area.

Preliminary Analysis

Existing Conditions

The 400-foot study area is generally bounded by Atlantic Avenue to the north, Classon Avenue to the east, Pacific Street to the south, and Grand Avenue to the west, which is characterized by an eclectic of manufacturing, multi-family residences, mixed commercial and residential buildings, transportation and utility uses, public facilities and institutions, and vacant land. The predominant land uses in the study area are light industrial and residential. The manufacturing buildings range from 1 to 3 stories in height. The residential buildings consist of multiple family apartment buildings ranging from 3 to 4 stories in height.

Atlantic Avenue is a major thoroughfare in the area and contains a mix of high-density multi-family, commercial, and mixed residential and commercial uses. Pacific Street is mostly developed with light-industrial uses near the Affected Area before becoming predominantly residential to the west. Similarly, Classon Avenue is developed with light industrial uses near the Affected Area and becomes a mix of multi-family residential and mixed residential and commercial uses to the south.

The area to the east and south have the same mix of uses as the block of the Affected Area. The mix of uses in these areas is comprised of parking facilities, transportation and utility uses, industrial and manufacturing uses, vacant land, public facilities and institutions, mixed commercial and residential buildings, a multifamily walk-up building, and commercial and office buildings.

The built form in the area varies by use, and generally consist of low-rise industrial and commercial buildings and one- to eight-story multi-family residential buildings. The manufacturing and industrial buildings are mostly one story in height, with a few that are either two or four stories.

The Applicant-owned Projected Development Site 1 consists of two separate lots (Block 1125, Lots 29 and 33) along Atlantic Avenue. Lot 29 is an interior lot with 100 feet of frontage along Atlantic Avenue and is improved with a 3,915 GSF, one-story industrial building that was constructed around 1930. Lot 33 is a through-lot with 60 feet of frontage on Atlantic Avenue and Pacific Street, and is improved with a 24,000 GSF, two-story industrial building that was constructed around 1930. Both buildings are currently vacant.

Projected Development Site 2 consists of two separate lots (Block 1125, Lots 52 and 53) to the southeast of the Projected Development Site 1 along Pacific Street, including vacant and unimproved lot 52 and a 3-story, 2,700 GSF multi-family walk-up building with 3 dwelling units on lot 53 (1.35 FAR).

Other lots within the Affected Area include a 2-story, 50,550 GSF industrial building operating as Cubesmart self-storage facility on lot 40 (1.91 FAR); 4-story 8-unit multi-family buildings with 6,000 GSF of floor area on lots 57 and 59 (2.50 FAR); and Lot 61, which is improved with a 3,200 GSF, 1-story building operating as a dog training, boarding, and daycare center (1.00 FAR).

Future No-Action Condition

Under a future condition with No-Action, the Projected Development Site 1 (Block 1125, Lots 29 and 33) and Projected Development Site 2 (Block 1125, Lots 52 and 53) would remain in the existing condition, and no changes are anticipated. It is expected that the existing uses within the Affected Area would remain in the future without the Proposed Actions. Therefore, for the purposes of this analysis, it is assumed that the constituent elements of neighborhood character in the No-Action Condition would be consistent with the existing conditions.

Future With-Action Condition

The proposed C6-3A and R7A/C2-4 zoning districts would permit high- to medium-density mixed-use residential, commercial, and community facility development with a permanent affordable housing set aside pursuant to the MIH program, which, the Applicant believes, would fit in with the existing zoning districts within the study area.

Under the With-Action condition, the proposed C6-3A districts would permit a maximum of 8.5 FAR for residential use, 6.0 FAR for commercial uses, and 7.5 for community facility uses. The maximum building height within the C6-3A zoning district is 175 feet after a setback from the base height of up to 125 feet. Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum of 17 floors. Off-street parking is required for 40 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone.

The proposed R7A/C2-4 zoning districts would permit a maximum of 4.6 FAR for residential use, 2.0 FAR for commercial use, and 4.0 FAR for community facility uses. The maximum building height within the R7A/C2-4 zoning district is 95 feet after a setback from the base height of up to 75 feet. Buildings must set back above the maximum base height to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum of 9 floors. Off-street parking is required for 50 percent of the residential dwelling units but is not required for income-restricted housing units within the Transit Zone.

In comparison with the existing M1-1 zoning districts mapped in the Affected Area currently, the proposed C6-3A and R7A/C2-4 zoning districts would not permit manufacturing uses and would allow for larger bulks and higher building heights within the Affected Area, which would enhance the zoning conformity in the surrounding area which is predominantly zoned as residential and commercial districts.

With the Proposed Actions, two new mixed-use buildings are expected to be built on Proposed Development Site 1 (Block 1125, Lots 29 and 33) and Proposed Development Site 2 (Block 1125, Lot 52 and 53).

Projected Development Site 1 (Block 1125, Lots 29 and 33) would assemble with 16,000 sf within the proposed C6-3A district and 8,000 sf within the proposed R7A/C2-4 district. The site would be developed with two separate mixed-use commercial, community facility, and residential building towers totaling 238,873 GSF (172,800 ZSF; 7.20 FAR). Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) UG 6 commercial space (local retail) and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) general community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed. There would be 210 dwelling units within the Proposed Development, with 42 affordable units permanently set aside at or below 80% AMI, which would make up 20% of the total residential units provided on the Development Site.

Projected Development Site 2 (Block 1125, Lots 52 and 53) would assemble with a merged lot area of 4,000 sf and be developed with a 21,816 GSF (18,400 ZSF; 4.60 FAR) 9-story mixed-use residential and commercial building that rises to a height of 95 feet tall. The ground floor would contain 2,704 GSF (2,600 ZSF, 0.65 FAR) of local retail (UG 6) space. Floors two through nine would contain 17,064 GSF (15,800 ZSF, 3.95 FAR) of residential uses, with 17 total dwelling units (3 of which would be permanently affordable at or below 80% AMI). Seven residential accessory parking spaces would be required, and would be provided at cellar level within a 2,048 GSF parking garage.

In order to determine the Proposed Actions' potential effects on neighborhood character, the elements that contribute to a neighborhood's context and feeling are considered both separately and cumulatively. The examination focuses on whether a defining feature of the neighborhood's character may be significantly affected, as further described below:

- **Land Use, Zoning, and Public Policy (See Chapter 4):** The Proposed Actions would not adversely impact the neighborhood in terms of land use, zoning, or public policy. Though the proposed rezoning would effectuate developments of residential, commercial, and community facility uses at a higher density than that is currently allowed within the study area, the permitted uses would be in character with the existing mixed residential, commercial, light industrial, and institutional uses and the density would be consistent with the existing R7A/C2-4 zoning districts in the area. Accordingly, the Proposed Action would not alter the overall land use patterns in the area or jeopardize the intent of the zoning resolution.

- **Socioeconomic Conditions (See Chapter 5):** Induced development resulting from the Proposed Actions would continue established trends of population growth in the area, would not add new population with much higher average incomes compared to the average incomes of the existing populations, and would not significantly affect socioeconomic conditions.

- **Open Space (See Chapter 7):** The Proposed Actions would reduce the OSR by 0.83% from 0.359 acres per 1,000 residents under No-Action conditions to 0.356 acres per 1,000 residents under With-Action conditions. Though the area has a relatively low OSR, the OSR decrease induced by the Proposed Development would be 0.83%, which is far less than the threshold of 5% as per *CEQR*

Technical Manual. Therefore, the Proposed Actions would not result in a significant adverse impact on open space within the study area.

- **Shadows (See Chapter 8):** The shadows derived from the Projected Development Sites associated with the Proposed Actions would reach the sunlight sensitive resource, Lefferts Pl Block Association Garden, on two analysis days in December and March/September. On December 21st and March 21st/September 21st, the shadows derived from the Projected Buildings would only affect the sunlight sensitive resource for a 48-minute and 1-hour-24-minute period in the afternoon respectively with limited extent and duration. No adverse impact is expected on the Open Space Utilization or vegetation of the garden and therefore no further analysis is warranted.

- **Historic and Cultural Resources (See Chapter 9):** Though the LPC review identified that one known Architectural resource, Clinton Hill South Historic District (S/NR eligible property), intersects with the 400-foot study area, no potential impacts associated with the Proposed Development on the identified historic resources would occur. The Proposed Actions would not result in any types of visual and contextual impacts to the known historic resources within the 400-foot radius or introduce any incompatible visual, audible, or atmospheric elements to the settings of historic resources. The Projected Development Site doesn't contain historic architectural resources and is not adjacent to or within 90 feet of any identified historic architectural resources. As a result, no direct impacts or indirect construction-related effects via ground-borne construction activities are anticipated. Only temporary changes related to the construction activity to the existing environment surrounding the architectural resources is expected for a limited construction period of 18 months. After the completion of the construction, the environment of the architectural resources would be the same as the existing condition. Therefore, significant adverse impacts to architectural resources are not expected because of the Proposed Actions, and further analysis is not warranted.

- **Urban Design and Visual Resources (See Chapter 10):** The development facilitated by the Proposed Actions would not adversely impact any of the constituent urban design elements or impact the overall character of the neighborhood as it would not significantly change the pedestrian experience, nor would it disturb the vitality, walkability, or the visual character of the area. The development with ground floor commercial uses would improve walkability and the visual character of the area, and would also provide needed local serving retail uses.

- **Hazardous Materials (See Chapter 12):** A Phase I ESA was prepared for the Projected Development Sites, where RECs were identified related to the Subject Properties. Thus, a Phase II ESA was then conducted to evaluate the potential impact to the Projected Development Sites from the RECs identified in the Phase I ESA. Based on the findings of Phase I and Phase II ESA, no further investigations are warranted at this time. However, it is recommended that in the event any future excavation/construction activities are proposed, further assessment of the historic fill material should be conducted. Therefore, an E-Designation will be mapped on Projected Development Site 1. With the (E) designation in place, no significant adverse impacts related to hazardous materials are expected.

- **Transportation (See Chapter 16):** The Proposed Actions would not result in a development that would have significant adverse impact on transportation within the study area.

- **Air Quality (See Chapter 17):** The Proposed Actions would not result in a development that would have significant adverse impact on the air quality within the study area or would receive industrial emissions that would have significant adverse impact on the project occupants. The HVAC screening result showed that the nearest building of equal or greater height to the Projected Development is located approximately 2,300 feet away and therefore significant impact on the air quality of the area from the Proposed Development is unlikely. Meanwhile, there are no active industrial emissions permits or large industrial emission sources within the 400- or 1,000-foot study areas. Additionally, there is no evidence present to conclude that there are illegal unpermitted air emissions present in the study area. Therefore, there does not appear to be any potentially significant impact in terms of air toxics to project occupants.

- **Noise (See Chapter 19):** Though the Proposed Actions would result in two mixed-use developments composed of residential, commercial, and community facility uses that may be impacted by the ambient noise, a composite window-wall attenuation of 45 dB(A) would be required along Atlantic Avenue for residential and community facility uses and a composite window-wall attenuation of 50 dB(A) would be required along Atlantic Avenue for commercial and retail uses. No attenuation is required on the remainder of the façades. With this level of attenuation, there would be no potential for adverse impacts related to ambient noise.

Combination of Moderate Effects: Based on the above findings, there would be no combination of moderate effects to several elements that cumulatively may affect neighborhood character.

Conclusion

As discussed above, the Proposed Actions would not in whole or from a specific technical study standpoint result in a significant impact to the neighborhood character, nor would have cumulative effects of two or more of the above technical areas have any significant impacts to the 400-foot study area.

Chapter 22: Construction

According to the *2020 CEQR Technical Manual*, construction impacts may be analyzed for any project that involves construction or could induce construction. For construction activities not related to in-ground disturbance, short-term construction generally does not warrant a detailed construction analysis. For example, the use of a property for construction staging activities is likely to only warrant analysis if this activity continues for a period of several years. Consideration of several factors, including the location and setting of the project in relation to other uses and intensity of construction activities are used to determine if a project's construction activities warrant analysis in one or more of the following technical areas:

- Transportation
- Air Quality or Noise
- Historic and Cultural Resources
- Hazardous Materials
- Natural Resources
- Open Space
- Socioeconomic Conditions
- Community Facilities
- Land Use and Public Policy
- Neighborhood Character
- Infrastructure

A preliminary construction analysis may be required because the proposed development would result in the following:

- Construction activities are considered long-term (Last longer than two years); or
- Short term construction activities would directly affect a technical area, such as impeding the operation of a community facility.
- Result in the closing, narrowing, impeding of traffic, transit, or obstruction of pedestrian or vehicular routes in proximity to critical land uses.
- Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out.
- The operation of several pieces of diesel equipment in a single location at peak construction.
- Closure of a community facility or disruption in its services.
- Disturbance of a site containing or adjacent to a site containing natural resources.
- Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall.

Analysis

Future No-Action Scenario

In the Future No-Action Scenario existing conditions would be expected to remain. No redevelopment or construction-related activities would be expected to occur.

Future With-Action Scenario

Projected Development Site 1 (Block 1125, Lots 29 and 33)

The Applicant-Owned lots would assemble with 16,000 sf within the proposed C6-3A district and 8,000 sf within the proposed R7A/C2-4 district. The site would be developed with two separate mixed-use commercial, community facility, and residential building towers totaling 238,873 GSF (172,800 ZSF; 7.20 FAR). Tower 1 would be built within the C6-3A (Atlantic Avenue) portion of the rezoning area and would rise to a height of 17 stories at 175 feet tall. Tower 2 would be built within the R7A/C2-4 (Pacific Street) portion of the rezoning area and would rise to a height of 9 stories at 95 feet tall. The Proposed Development would include a 6,940 GSF parking garage at the cellar level with 20 residential accessory parking spaces. There would be a total of 12,850 GSF (11,900 ZSF, 0.50 FAR) UG 6 commercial space (local retail) and a total of 12,730 GSF (2,580 ZSF, 0.11 FAR) general community facility space between the shared ground floor and cellar floor on the bottom of the two towers. Beginning from the second floor of each tower, a total of 206,353 GSF (158,320 ZSF, 6.60 FAR) residential floor area would be developed.

Projected Development Site 2 (Block 1125, Lots 52 and 53)

The lots would assemble with a merged lot area of 4,000 sf and be developed with a 21,816 GSF (18,400 ZSF; 4.60 FAR) 9-story mixed-use residential and commercial building that rises to a height of 95 feet tall. The ground floor would contain 2,704 GSF (2,600 ZSF, 0.65 FAR) of local retail (UG 6) space. Floors two through nine would contain 17,064 GSF (15,800 ZSF, 3.95 FAR) of residential uses, with 17 total dwelling units (3 of which would be permanently affordable at or below 80% AMI). Seven residential accessory parking spaces would be required, and would be provided at cellar level within a 2,048 GSF parking garage.

Potential Development Site 1 (Block 1125, Lot 40)

The lot could be developed with a 17-story mixed-use residential and commercial building at 175 feet tall with 232,046 GSF of floor area (188,853 ZSF; 7.14 FAR). The building could include 26,408 GSF of ground floor commercial (local retail) uses and floors 2 through 17 would contain 176,538 GSF of residential floor area with 177 total dwelling units, 35 of which could be permanently set aside as affordable. Parking could be provided at cellar level in a 29,100 GSF garage with 71 residential accessory spaces and 26 commercial spaces.

Build Year

The build year for the analysis is anticipated to be 2024 in consideration of an 18-month Environmental Approval process and ULURP process and a 24-month construction schedule for both Projected Development Site 1 and 2 and Potential Development Site 1.

Analysis

The Applicant development of Projected Development Site 1 is anticipated to commence in May 2022 with exterior work being completed by November 2023 and TCO/punch list completion in January 2024 (see **Appendix D** for the 1034 Atlantic construction schedule). Non-Applicant development of Projected Development Site 2 would be expected to begin in May 2022 with the completion of exterior work in February 2024 and TCO/punch list completion by August 2024. The development of Potential Development Site 1

could be expected to commence in June 2022, and exterior work could be completed by August 2023, and TCO/punch list completion by February 2024. The proposed construction schedules for each site can be found in **Appendix D.**

All exterior construction activities would last from May 2022 until February 2024, for a duration of 21 months; all interior finishes, inspections, and punch list items would be completed by August 2024, but are not considered construction-related activities for the purposes of this analysis. Because the construction activities would last for fewer than 24 months, the Proposed Actions are not expected to result in significant impacts to the adjacent community.

Transportation

According to the *CEQR Technical Manual*, a number of factors should be considered before determining whether a preliminary assessment of the effect of construction on transportation is needed including:

- Whether the project's construction would be located in a Central Business District (CBD) or along an arterial or major thoroughfare;
- Whether the project's construction activities would require closing, narrowing, or otherwise impeding moving lanes, roadways, key pedestrian facilities, parking lanes and/or parking spaces, bicycle routes and facilities, bus lanes or routes, or access points to transit; and
- Whether the project would involve construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap, and last for more than two years overall.

Projected Site 1 and Potential Site 1 each have frontages along Atlantic Avenue (major thoroughfare) and Pacific Street (local road), while Projected Site 2 has a single frontage along Pacific Street. The construction of the development sites may require the temporary closing of the sidewalks adjacent to Projected Development Sites 1 and 2 and Potential Development Site 1. As part of the Proposed Actions the sidewalks will be reconstructed and widened, which may temporarily impact pedestrian flow and the availability of parking spaces along these streets. However, changes to moving traffic lanes are not expected.

There are no community facilities or structures of importance within the 400-foot radius of the Projected or Potential Development Sites, and therefore sidewalk closures would have minimal effects on the surrounding area. Nearby residential, commercial, and industrial uses would not be particularly sensitive to such sidewalk closures as they are not in an area with high pedestrian activity, and the sidewalks and roadways affected by the proposed construction would not be considered to be near capacity. Any potential closure of the sidewalks adjacent to construction activities would be considered a routine closure that would be addressed by a permit and pedestrian access plan issued by NYC DOT Office of Construction Mitigation and Coordination at the time of closure.

Although the project would involve construction on multiple development sites on the same block with some overlapping activities, the overall construction of the three development sites would be considered short term (less than two years) overall.

Considering the above, construction of the development sites would not be expected to result in significant adverse impacts on transportation.

Air Quality and Noise

According to the *CEQR Technical Manual*, an assessment of air quality and noise for construction activities is likely not warranted if the project's construction activities:

- Are considered short-term (less than two years);
- Are not located near sensitive receptors; and
- Do not involve construction of multiple buildings where there is a potential for on-site receptors on buildings to be completed before the final build-out.

The development sites are located near sensitive receptors as they all adjoin or are very close to existing residential development. The proposed development would not result in the construction of multiple buildings where there is a potential for on-site receptors on buildings to be completed before the final build-out, as each building would be completed and occupied on a similar schedule.

The *CEQR Technical Manual* states that if a project meets one or more of the criteria above, a preliminary air quality or noise assessment is not automatically required. Instead, various factors should be considered, such as the types of construction equipment (e.g., gas, diesel, electric), the nature and extent of any commitment to use the Best Available Technology (BAT) for construction equipment, the physical relationship of the project site to nearby sensitive receptors, the type of construction activity, and the duration of any heavy construction activity. These measures are discussed below.

Demolition, excavation, and foundation activities, which often generate the highest levels of air emissions, would be temporary and limited in duration and would take approximately 11 months. These activities would be spread out over three separate locations on the block and would not overlap. In addition, any heavy equipment associated with the construction of the buildings (such as a crane) would operate from at least three different locations during construction.

Air Quality

The project would make use of the Best Available Technology to minimize impacts to the residential buildings, public high school, and the museum in the vicinity of the Projected Development Sites as further discussed below.

As with most construction projects in the City, the proposed project would require the operation of several pieces of diesel equipment at one time during the heavier periods of construction, such as demolition and excavation. The Applicant would implement the following measures that would minimize air quality and noise impacts on the surrounding community.

- *Diesel Equipment Reduction*. Construction of the proposed project would minimize the use of diesel engines and use electric engines, to the extent practicable. This would reduce the need for on-site generators, and require the use of electric engines in lieu of diesel where practicable.

- *Clean Fuel*. To the extent practicable, ultra-low sulfur diesel (ULSD) would be used for diesel engines on the development sites.

- *Best Available Tailpipe Reduction Technologies*. To the extent practicable, non-road diesel engines with a power rating of 50 horsepower (hp) or greater would utilize the best available tailpipe (BAT) technology for reducing diesel particulate matter (DPM) emissions. Diesel particle filters (DPF) have been identified as being the tailpipe technology currently proven to have the highest PM reduction capability.

- To the extent practicable, construction contracts would specify that all diesel non-road engines rated at 50 hp or greater would utilize DPFs, either installed on the engine by the original equipment manufacturer (OEM) or retrofit with a DPF verified by EPA or the California Air Resources Board, and may include active DPFs if necessary; or other technology proven to reduce DPM by at least 90 percent.

- *Utilization of Newer Equipment*. To the extent practicable, all non-road construction equipment in the project would meet at least the Tier 2 emissions standard, and construction equipment meeting Tier 3 and/or Tier 4 emissions standards would be used where conforming equipment is widely available, and the use of such equipment is practicable.

- *Dust Control*. Fugitive dust control plans will be implemented as part of the construction process. For example, stabilized truck exit areas would be established for washing off the wheels of all trucks that exit the construction sites. Truck routes within the sites would be watered as needed to avoid the re-suspension of dust. All trucks hauling loose material will be equipped with tight fitting tailgates and their loads securely covered prior to leaving the sites. In addition to regular cleaning by the City, streets adjacent to the site would be cleaned as frequently as needed by the construction contractor. Water sprays will be used for all transfer of spoils to ensure that materials are dampened as necessary to avoid the suspension of dust into the air.

- *Restrictions on Vehicle Idling*. In addition to adhering to local laws restricting unnecessary idling on roadways, on-site vehicle idle time will also be restricted to three minutes, to the extent practicable, for all equipment and vehicles that are not using their engines to operate a loading, unloading, or a processing device (e.g., concrete mixing trucks) or otherwise required for the proper operation of the engine.

Overall, these air emission controls would significantly reduce DPM emissions to a level otherwise achieved by applying the currently defined best available control technologies under NYC Local Law 77. In addition, as stated in the *CEQR Technical Manual*, all the necessary measures would be implemented to ensure compliance with the NYC Air Pollution Control Code regulating construction-related dust emissions. Based on the project size and the construction work involved, construction activities for the Proposed Actions would not be considered out of the ordinary or exceptional in terms of intensity and would be of a relatively short duration (less than 2 years). Therefore, based on the above and with the implementation of emissions control measures that are required by local law, the construction of the development sites would not result in any significant adverse impacts on air quality.

Noise

While increases in ambient noise levels due to construction exceeding the CEQR impact criteria for two years or less may be noisy and intrusive, they are not considered to be significant adverse noise impacts. As described above, construction of the development sites would occur over a relatively short time period of approximately 24 months. In addition, demolition, excavation, and foundation activities, and superstructure activities, which are the noisiest construction activities, would be temporary and limited in duration and would

take approximately 13 months to complete for all three sites combined. These activities would be spread out over three separate locations on the block.

Construction noise is regulated by the NYC Noise Control Code and by EPA's noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7AM and 6PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. If weekend or after hour work is necessary, permits would be required to be obtained, as specified in the NYC Noise Control Code. Therefore, no significant noise impacts are expected to occur as a result of the project construction.

Historic and Cultural Resources

As discussed in **Chapter 9** *Historic and Cultural Resources*, the Landmarks Preservation Commission has determined that the Affected Area is within the 400-foot radius of the S/NR Listed Clinton Hill South Historic District. However, the architectural resource is located approximately 250 feet to the northwest of the development sites, and is blocked by the major throughfare of Atlantic Avenue. Therefore, construction protection measures related to avoidance of damage to historic structures from adjacent construction are not applicable, and no significant adverse construction-related impacts to nearby historic and cultural resources are expected.

Conclusion

Construction activities at the development sites would be completed in 21 months from May 2022 until February 2024, with interior fit-outs and inspection activities lasting until August 2024. Construction would be performed subject to relevant EPA, DEP, DOT and DOB codes and regulations to ensure minimal construction impacts. With the construction control and protective measures identified above, no impacts to transportation, air quality, noise, or historic buildings would occur.

On the basis of the above analysis, the Proposed Actions would not have any significant adverse construction impacts, and further analysis is not required.

Appendix A: Agency Correspondence

Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

September 16, 2021

Annabelle Meunier
Team Leader
Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 1034-1042 Atlantic Avenue Rezoning
Block 1125, Lots 29, 33, 40, 52, 53, 57, 59, and 61
CEQR # 21DCP170K

Dear Ms. Meunier:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the September 2021 Environmental Assessment Statement Hazardous Materials Chapter (EAS) prepared by Equity Environmental Engineering and the January 2020 Phase I Environmental Site Assessment (Phase I) prepared by EBI Consulting on behalf of EMP Capital Group (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment and a zoning text amendment (Proposed Actions) from the New York City Department of City Planning (DCP) to facilitate the development of Block 1125, Lots 29 and 33 (Projected Development Site 1) with a 238,873 gross square feet (gsf) mixed-use commercial, community facility, and residential building with two separate towers in the Crown Heights neighborhood of Brooklyn Community District (CD) 8. The zoning map amendment would rezone Block 1125, Lots 29, p/o 33, p/o 52, p/o 53, and p/o 40 from an M1-1 zoning district to a C6-3A zoning district and Block 1125, Lots 61, 59, 57, p/o 33, p/o 52, p/o 53, and p/o 40 from an M1-1 zoning district to a R7A/C2-4 zoning district. The zoning text amendment would affect Zoning Resolution Appendix F by modifying Brooklyn CD 8 Map with a Mandatory Inclusionary Housing area. In the With-Action Scenario, Block 1125, Lots 52 and 53 (Projected Development Site 2) would be developed with a 21,816 gsf 9-story mixed-use residential and commercial building and Block 1125, Lot 40 (Potential Development Site 1) could be developed with a 17-story mixed-use residential and commercial building with 232,046 gsf of floor area. Lots 57, 59, and 61 are not projected to redevelop.

Block 1125, Lots 29 and 33

The January 2020 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including a refrigerator manufacturer and warehouse, a filling station, a

parking lot, a mixed-use building, apartment buildings, a storage facility, a commercial space/warehouse, an automobile showroom and service station, a car washing operation, auto body repair shops, a varnishing company, electrical contractors, a power substation, etc. Regulatory databases identified 23 spills, 17 historical auto sites, and 6 historical cleaner sites within 1/8 mile; 15 underground storage tank sites, 29 aboveground storage tank sites, and 2 dry cleaners within 1/4 mile; 42 leaking storage tank sites, 22 voluntary cleanup program sites, and 2 brownfield sites within 1 mile of the project site.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

Projected Development Site 1: Block 1125, Lots 29 and 33 (Site under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination and testing is not physically possible during the CEQR process, DEP concurs with the EAS recommendation that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property (Block 1125, Lots 29 and 33). The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Projected Development Site 2: Block 1125, Lots 52 and 53 and Potential Development Site 1: Block 1125, Lot 40 (Sites not under the control or ownership of the applicant)

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP concurs with the EAS recommendation that an (E) Designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject properties (Block 1125, Lots 40, 52, and 53). The (E) Designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR # **21DCP170K**. If you have any questions, you may contact me at (718) 595-4358.

Sincerely,

Wei Yu

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard; T. Estesen; R. Lucas; M. Wimbish; S. Shellooe - DCP; M. Bertini - OER

Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-K
Project: ATLANTIC_AVE
Date Received: 7/22/2020

Properties with no Architectural or Archaeological significance:

1) 1034 ATLANTIC AVENUE, BBL: 3011250029
2) 1042 ATLANTIC AVENUE, BBL: 3011250033
3) 1050 ATLANTIC AVENUE, BBL: 3011250040
4) 1041 PACIFIC STREET, BBL: 3011250052
5) 1039 PACIFIC STREET, BBL: 3011250053
6) 1033 PACIFIC STREET, BBL: 3011250057
7) 1031 PACIFIC STREET, BBL: 3011250059
8) 1025 PACIFIC STREET, BBL: 3011250061

Comments:

S/NR LISTED CLINTON HILL SOUTH HISTORIC DISTRICT WITHIN RADIUS.

Gina Santucci 7/24/2020

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 35067_FSO_DNP_07242020.docx

Appendix B: Architectural Plans

1034-1042 ATLANTIC AVENUE

M-CROWN CORNERSTONE PROJECT | MARCH 4, 2021



ARCHIMÆRA

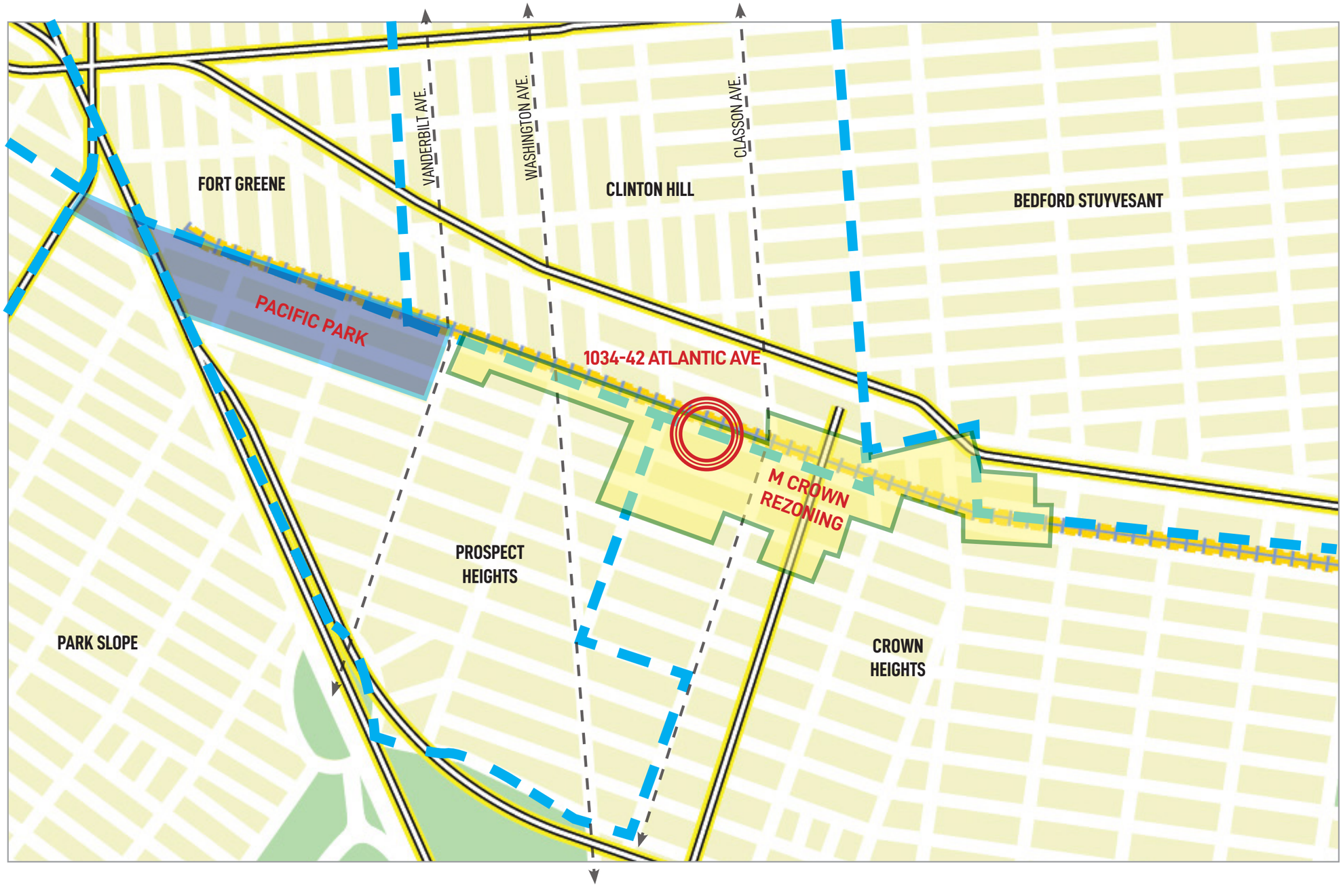
01_Context

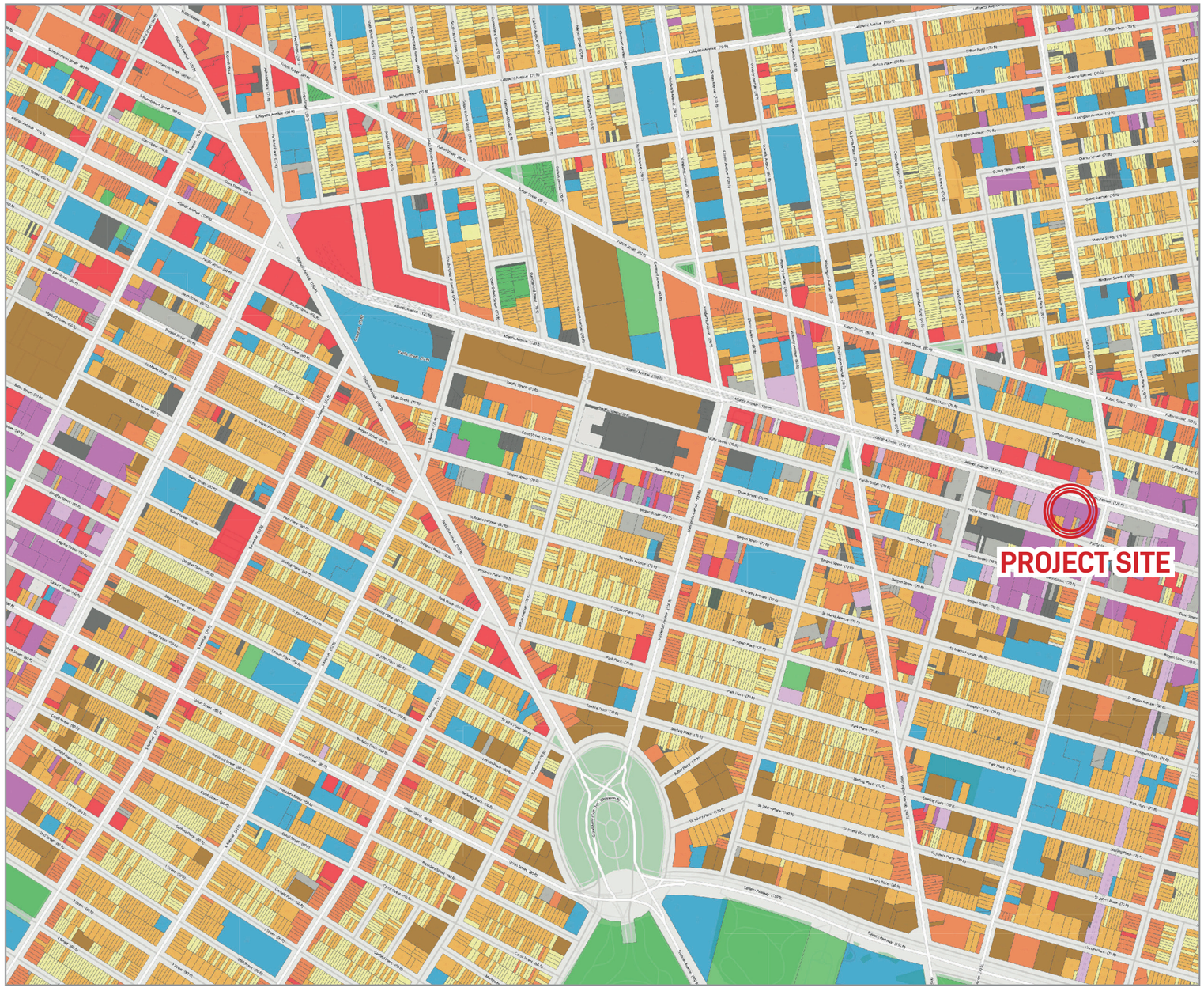
02_Proposed Design | Renderings

03_Proposed Design | Site Plan & Diagrams

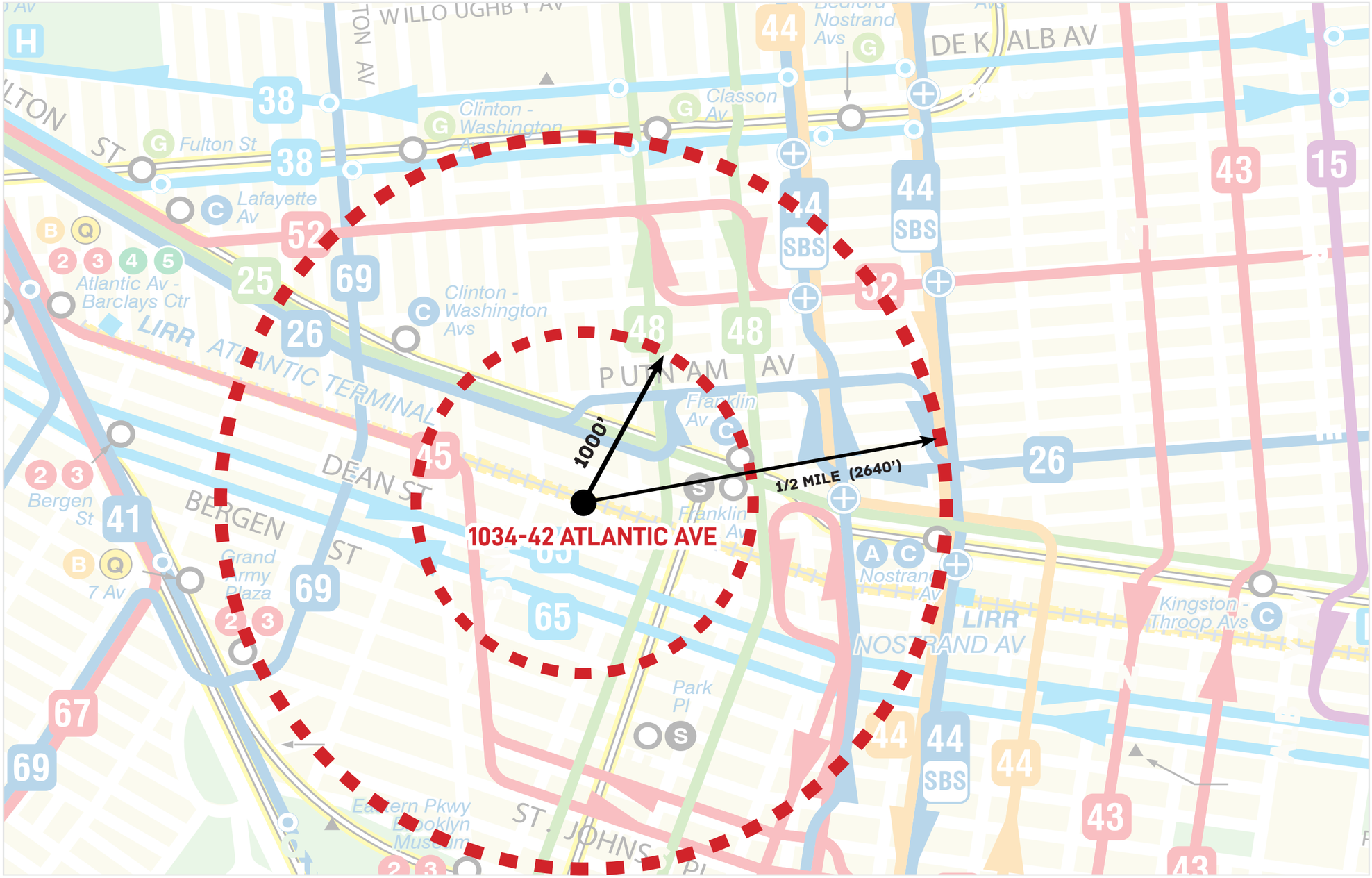
04_Proposed Design | Plans & Elevations

05_Proposed Design | Zoning Analysis


VANDERBILT AVE.
WASHINGTON AVE.
CLASSON AVE.
FORT GREENE
CLINTON HILL
BEDFORD STUYVESANT
PACIFIC PARK
1034-42 ATLANTIC AVE
M CROWN REZONING
PROSPECT HEIGHTS
PARK SLOPE
CROWN HEIGHTS



- MULTI-FAMILY WALKUP
- MULTI-FAMILY ELEVATOR
- MIXED-USE COMMERCIAL
- COMMERCIAL
- INDUSTRIAL/MANUFACTURING
- TRANSPORTATION/UTILITY
- PUBLIC INSTITUTIONS
- OPEN SPACE & RECREATION
- PARKING
- VACANT LAND


1034-42 ATLANTIC AVE
1000'
1/2 MILE (2640')
DE KALB AV
PUTNAM AV
NOSTRAND AV
LIRR ATLANTIC TERMINAL
LIRR
DEAN ST
BERGEN ST
ST JOHNS PL
Fulton St
Lafayette Av
Clinton - Washington Avs
Atlantic Av - Barclays Ctr
Bergen St
Grand Army Plaza
7 Av
Classon Av
Franklin Av
Park Pl
Nostrand Avs
Kingston - Throop Avs
Eastern Pkwy Brooklyn Museum
WILLOUGHBY AV
FULTON ST
SBS

01_Context
02_Proposed Design | Renderings
03_Proposed Design | Site Plan & Diagrams
04_Proposed Design | Plans & Elevations
05_Proposed Design | Zoning Analysis

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a healthier lunch.
You got it.
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CUBESMART
CUBESMART
self storage
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ONE WAY


17
LOADING


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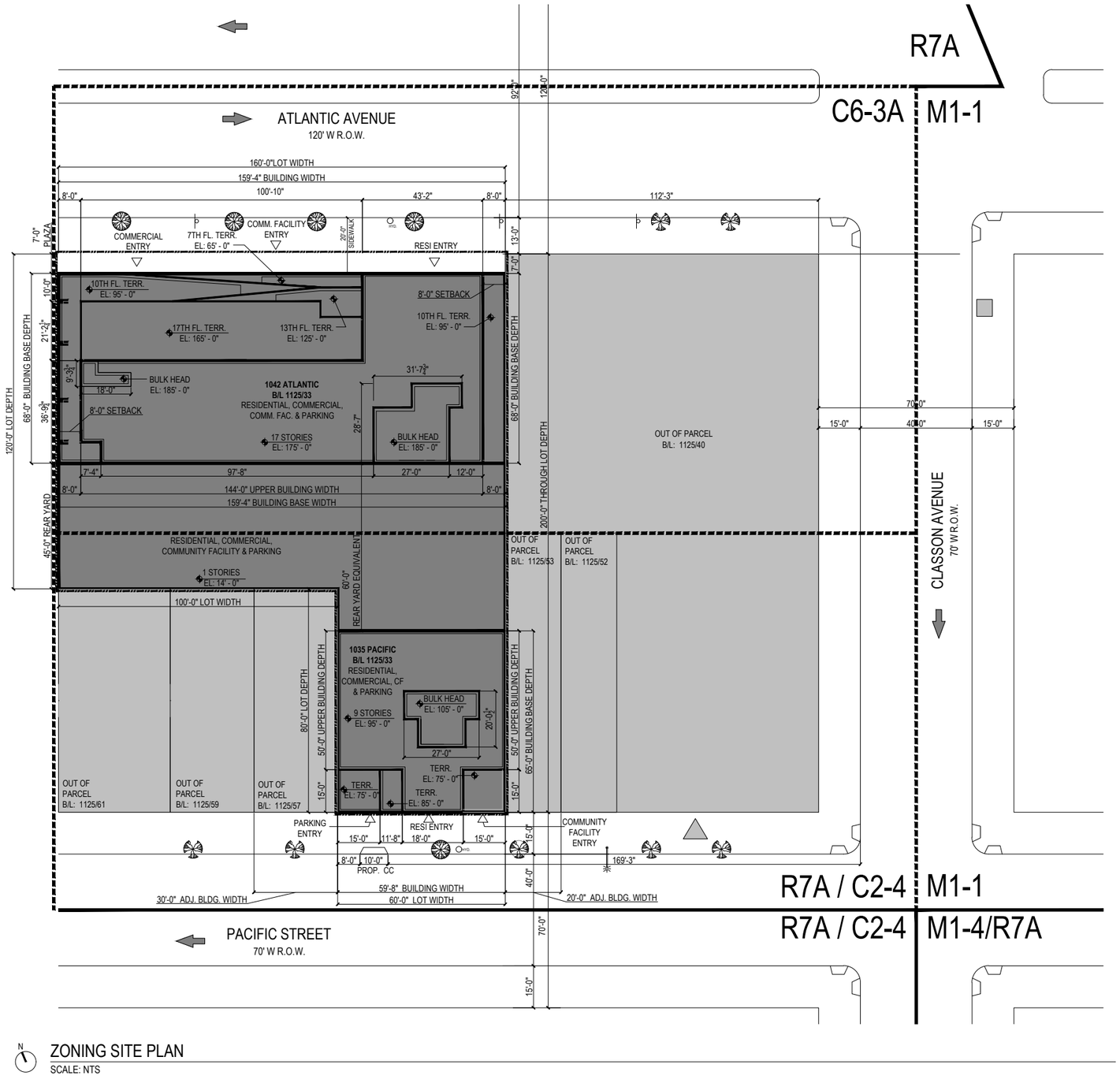
NEW YORK EQUIPMENT
SAM MARTIN
PALAVA HUT
B-HIBE
LOUNGE
ATLNTIC CELLARS
BEST BURGER PAL


Parking
YOUTH



01_Context
02_Proposed Design | Renderings
03_Proposed Design | Site Plan & Diagrams
04_Proposed Design | Plans & Elevations
05_Proposed Design | Zoning Analysis


Atlantic Avenue (120 ft)
Atlantic Avenue
M1-1
160'
120'
ATLANTIC SITE
18,00SF
C6-3A II R7A/C2-4
100'
100'
C6-3A
DISTRICT BOUNDARY
R7-A/ C2-4
PACIFIC SITE
6,000SF
R7A/C2-4
100'
M1-1
60'
Pacific Street (70 ft)
Pacific Street (70 ft)
Classon Avenue (70 ft)
C2-4
R7A
Pacific Street



ZONING SITE PLAN
SCALE: NTS

LEGEND

GRAPHIC APPLICABLE TO ALL NON-DIMENSIONED ELEMENTS
EXISTING BUILDINGS
PROPOSED CONCEPT
EXISTING STREET TREE
PROPOSED STREET TREE
ROAD DIRECTION
M1-1 ZONING DISTRICT
ZONING LOT LINE
ZONING DISTRICT BOUNDARY
PROPOSED ZONING DISTRICT BOUNDARY
ILLUSTRATIVE BUILDING LINE
(100) ILLUSTRATIVE BUILDING HEIGHT
CITY BIKE
TRAFFIC LIGHT
TRAFFIC SIGN
FIRE HYDRANT
EXISTING MANHOLE
BUS STOP
STREET LAMP

GENERAL NOTES

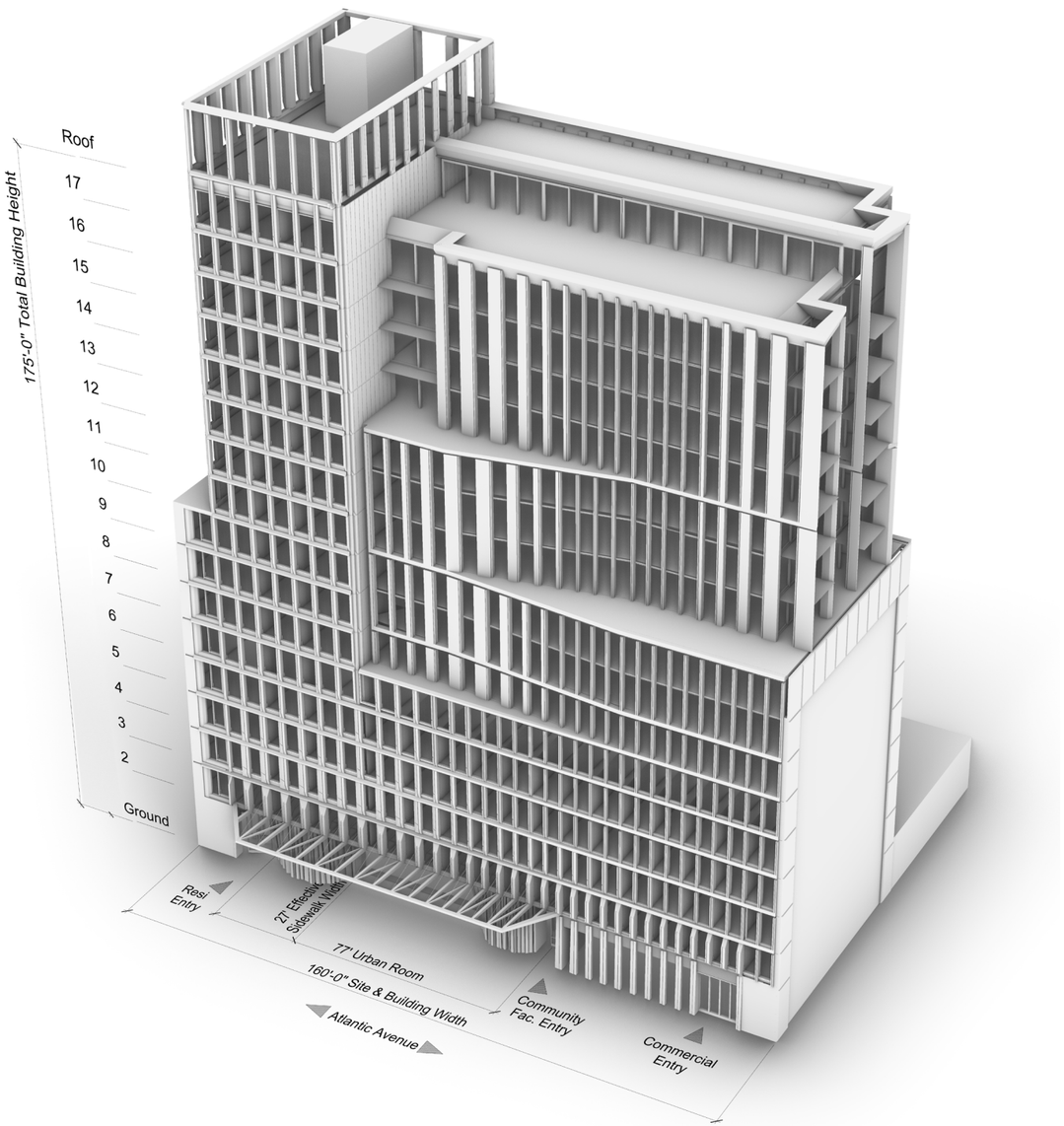
1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) WHICH IS 1.09S FEET ABOVE NATIONAL GEODETIC SURVEY DATUM AT SANDY HOOK, NJ.
2. BUILDING SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND SUBJECT TO CHANGE.
3. ADDITIONAL ENTRANCES FOR GROUND FLOOR RESIDENTIAL, RETAIL, COMMUNITY FACILITIES AND SECONDARY ENTRY AND EGRESS PERMITTED.

Dormer Calculation

R7A / C2-4
60% of Street Wall Width @ Floor below set back (60'W@75'H)
@ 10' Above Max Base = 30'W Permitted | 29'-8" Proposed
@ 20' Above Max Base = 24'W Permitted | 18'-0" Proposed
@ 30' Above Max Base = 18'W Permitted | 18'-0" Proposed

C6-3A
60% of Street Wall Width @ Floor below set back (144'W@125'H)
@ 50' Above Max Base = 43'-2"W Permitted | 43'-2" Proposed

All Plans Building Massings for Illustrative Purposes Only*

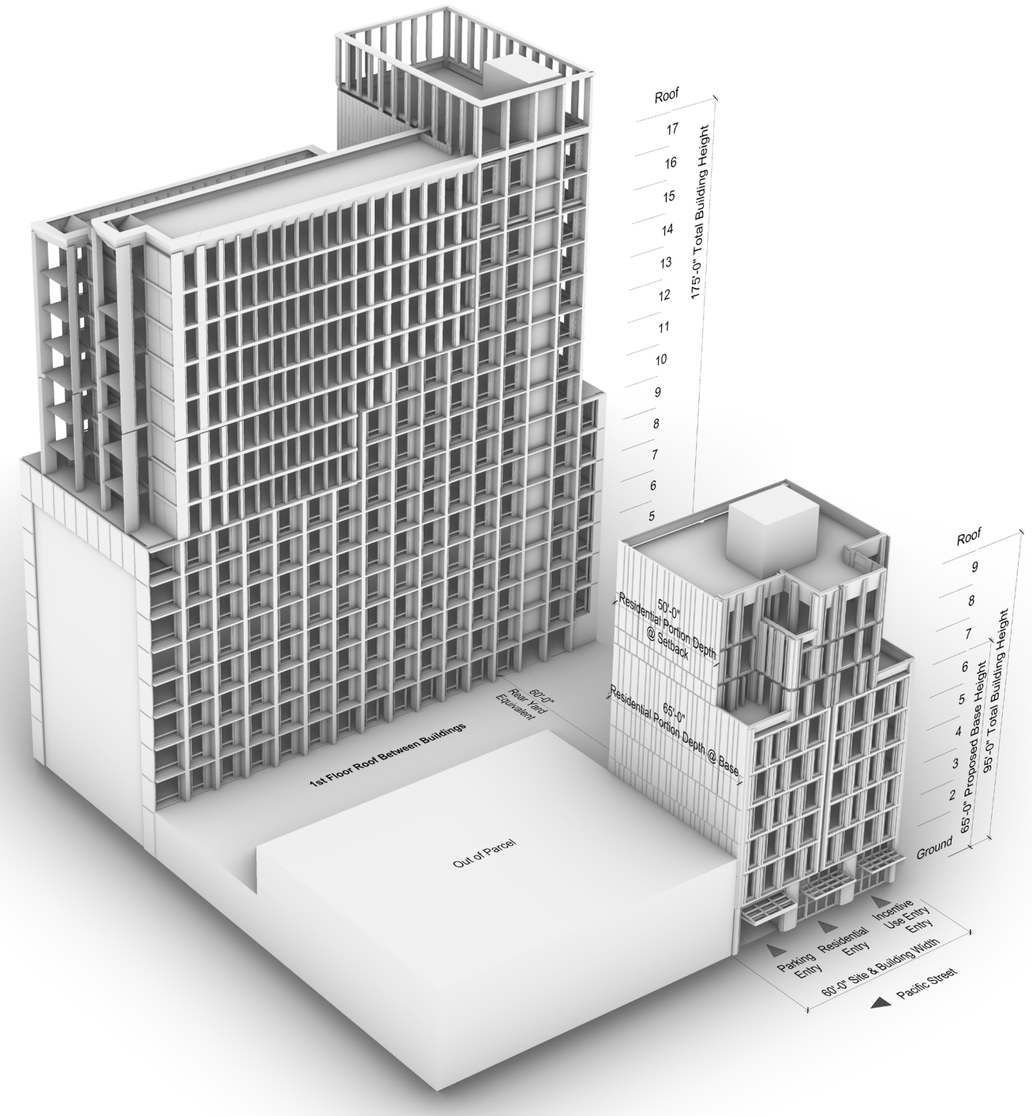


| 18,000sf of 24,000sf total Site |

Max Building Height:	175'
Proposed Building Height:	175'
Min/Max Base Height:	60'/125'
Proposed Base Height:	95'
Max Lot Coverage:	70%
Proposed Lot Coverage:	68%
Max Dwelling Units:	193
Proposed Dwelling Units:	174
Projected Number of MIH Units: *(Option 1 OR 2 ZR23-154(d)(3))*	TBD
Max / Proposed Residential FAR:	8.5|4.6 / **7.29**
Max / Proposed Commercial FAR:	6|2 / **0.60**
Max / Proposed Comm. Fac. FAR:	7.5|4.6 / **0.03**
Max / Proposed Total FAR:	8.5|4.6 / **7.93***
Proposed Residential FA:	131,170 zsf
Proposed Commercial FA:	10,850 zsf
Proposed Comm. Fac. FA	153 zsf
Proposed Total FA:	142,173 zsf
Proposed Residential GSF:	173,373 sf
Proposed Commercial GSF:	11,000 sf
Proposed Comm. Fac. GSF:	8,000 sf
Proposed Parking GSF:	4,000 sf
Proposed Total GSF:	196,373 sf
Required Parking Spaces:	See Zoning Analysis
Proposed Parking Spaces:	20

* Per ZR 77-22 the floor area resulting from the application of an adjusted maximum floor area ratio may be located anywhere on the zoning lot - please see Zoning Analysis on p.29 for tabulation demonstrating compliance with Zoning Resolution for entire lot.

****All Plans Building Massings for Illustrative Purposes Only*****



|6,000sf of 24,000sf total Site |

Max Building Height:	95'
Proposed Building Height:	95'
Min/Max Base Height:	40/75'
Proposed Base Height:	65'
Max Lot Coverage:	70%
Proposed Lot Coverage:	68%
Max Dwelling Units:	40
Proposed Dwelling Units:	36
Projected Number of MIH Units: *(Option 1 OR 2 ZR23-154(d)(3))*	TBD
Max / Proposed Residential FAR:	4.60 / **4.52**
Max / Proposed Commercial FAR:	2.00 / **0.19**
Max / Proposed Comm. Fac. FAR:	4.00 / **0.33**
Max / Proposed Total FAR:	4.60 / **5.04***
Proposed Residential FA:	27,150 zsf
Proposed Commercial FA:	1,158 zsf
Proposed Comm. Fac. FA	1,985 zsf
Proposed Total FA:	32,410 zsf
Proposed Residential GSF:	32,980 sf
Proposed Commercial GSF:	3,900 sf
Proposed Comm. Fac. GSF:	4,830 sf
Proposed Parking GSF:	2,940 sf
Proposed Total GSF:	44,650 sf
Required Parking Spaces:	See Zoning Analysis
Proposed Parking Spaces:	0

* Per ZR 77-22 the floor area resulting from the application of an adjusted maximum floor area ratio may be located anywhere on the zoning lot - please see Zoning Analysis on p.29 for tabulation demonstrating compliance with Zoning Resolution for entire lot.

****All Plans Building Massings for Illustrative Purposes Only*****

01_Context
02_Proposed Design | Renderings
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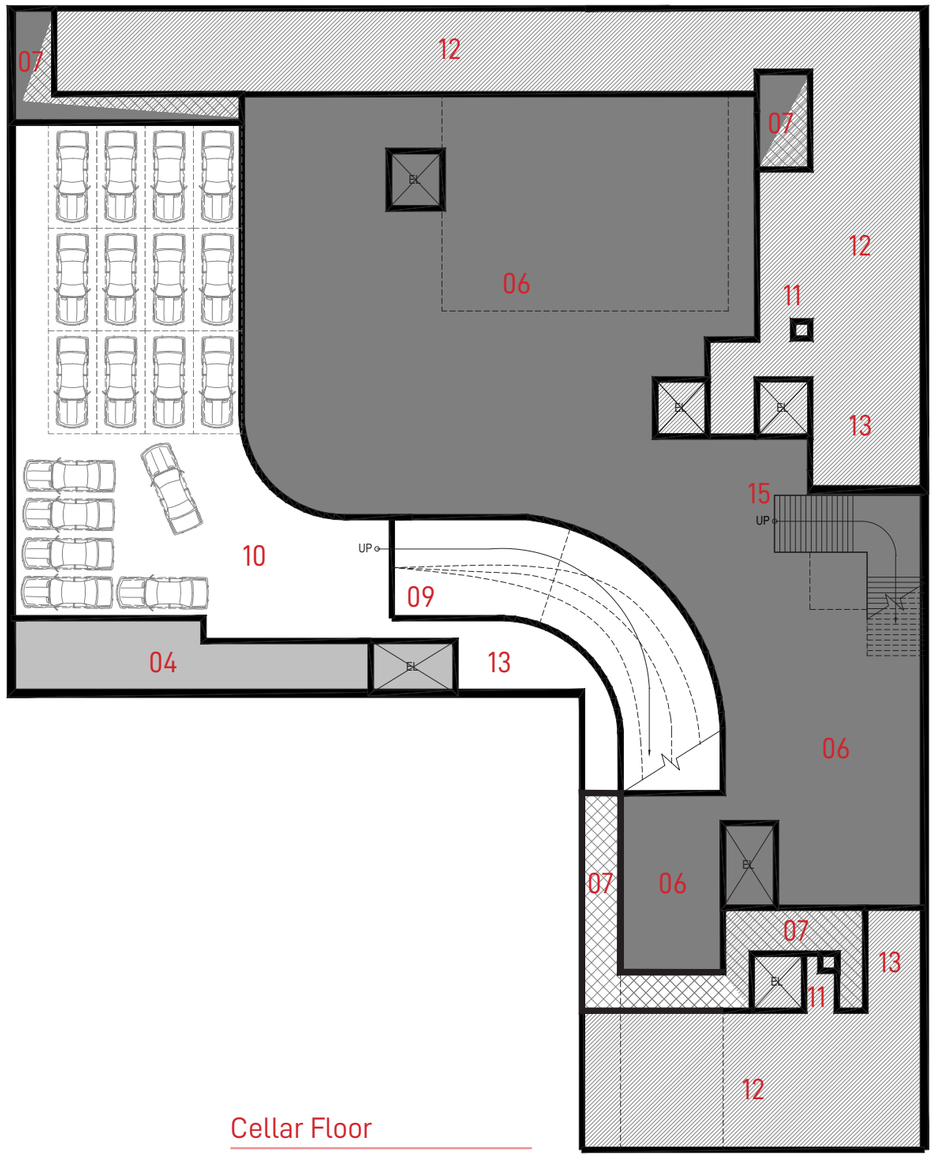
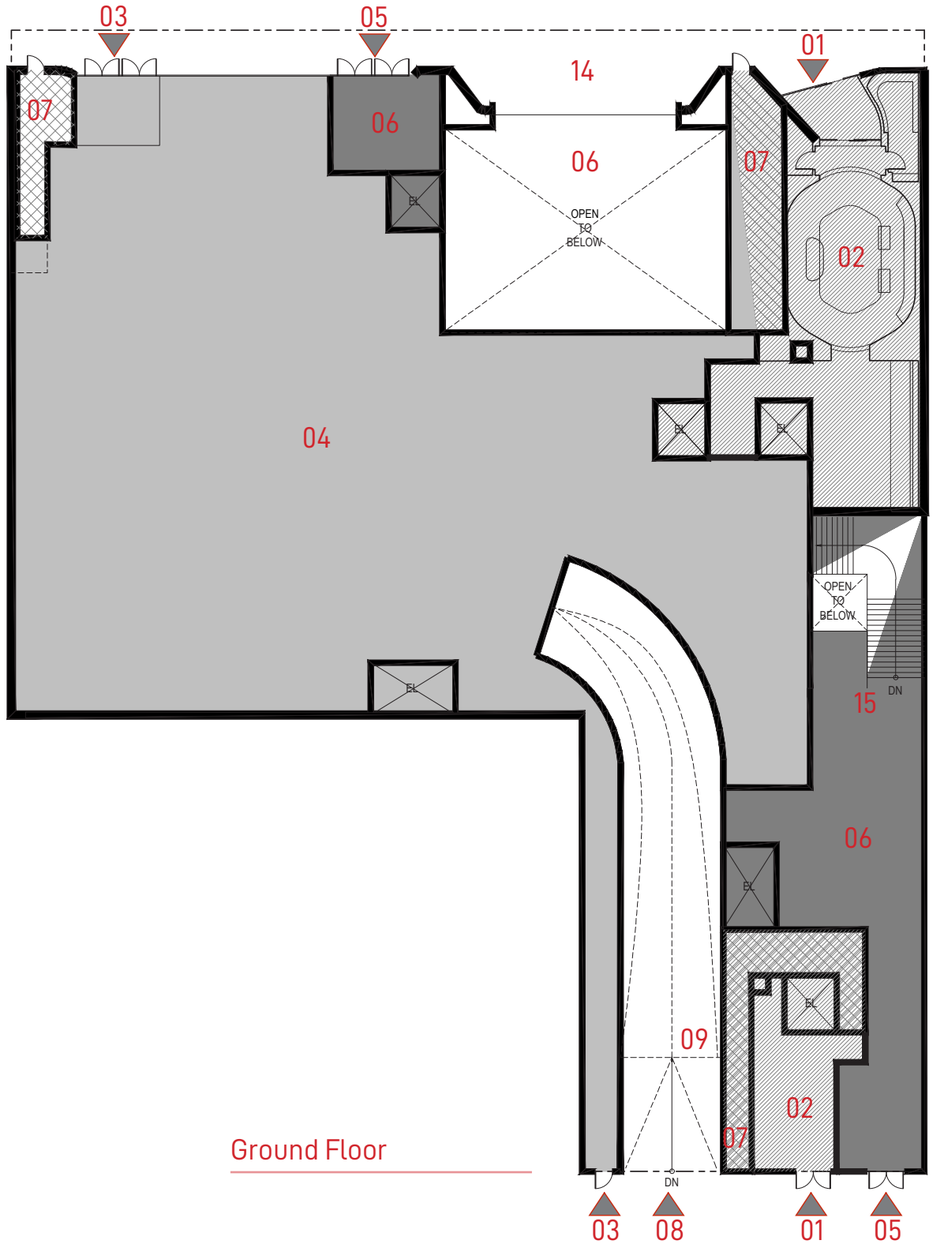
05_Proposed Design | Zoning Analysis



Cellar Floor

Atlantic Ave



Ground Floor

Pacific Street

01_Residential Entry - SF below

02_Residential Lobby

03_Commercial Entries

04_Commercial Space
- Ground - 11,900 ZSF
- Cellar - 850 GSF
- Total - 12,850 GSF

05_Incentive Use Entry

06_Youth Center CF Space
- Ground - 2,580 ZSF /2,600 GSF
- Cellar - 10,130 GSF
- Total - 12,730 GSF

07_Egress Passage / Stair Termination

08_Ramp Entry

09_Ramp to Garage

10_Attended Parking Garage

11_Compactor Room and Trash Storage

12_Mechanical Rooms / Resi Amenity

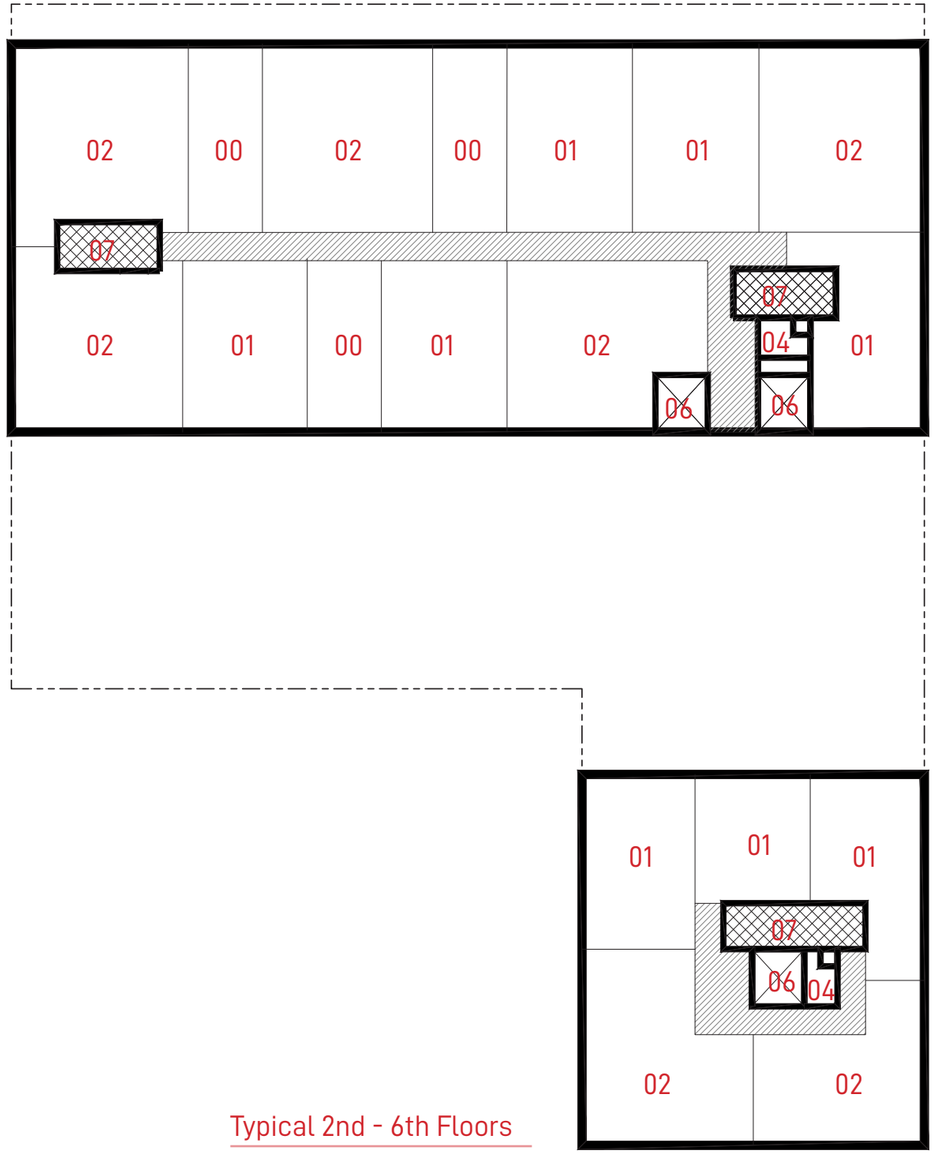
13_Bike Storage

14_Urban Room Looking Into Cellar

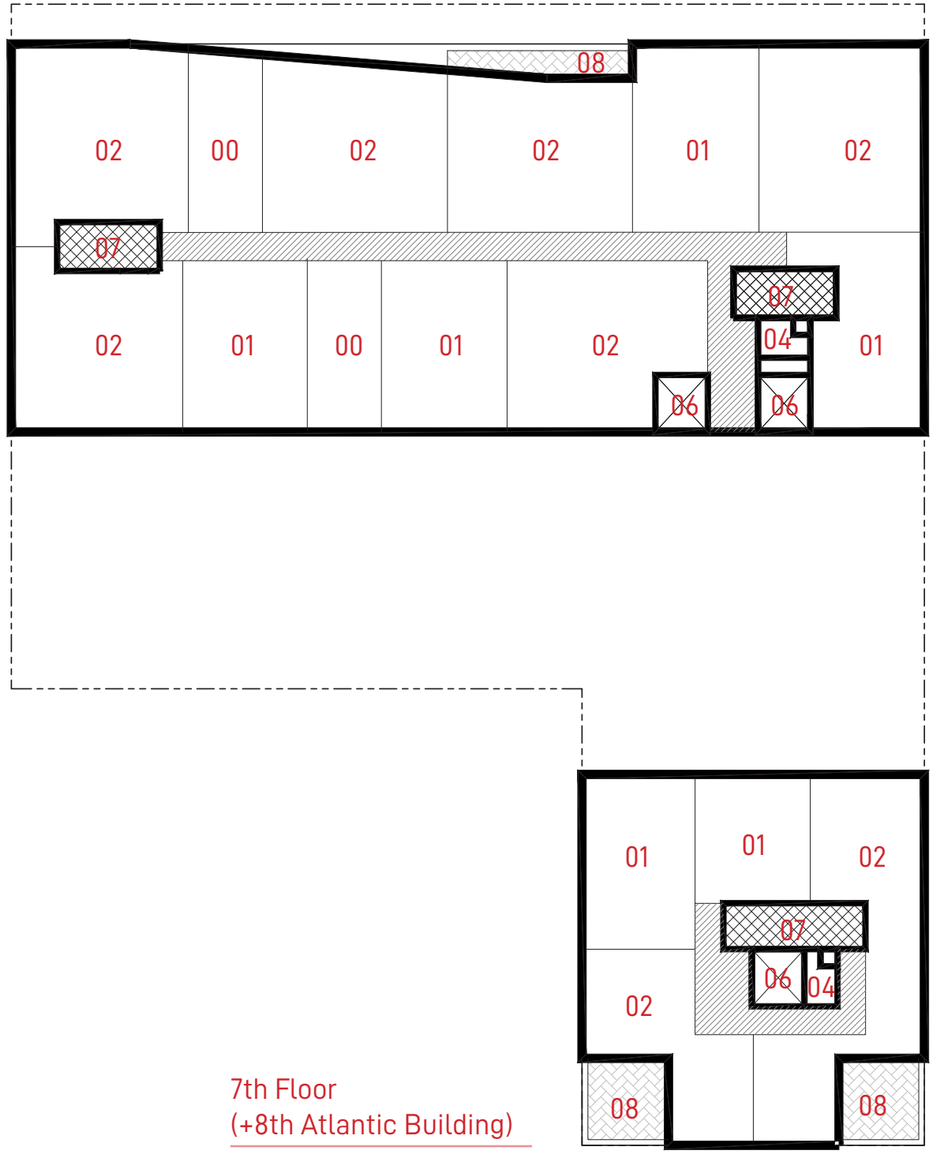
15_Stair Connecting Ground and Cellar

Residential Floor Area 1st and Cellar:
C6-3A
12,918 GSF
R7A
500 ZSF
*****2,580 ZSF of Community Facility across both Zoning Districts*****

****All Plans Building Massings for Illustrative Purposes Only*****



Typical 2nd - 6th Floors



7th Floor
(+8th Atlantic Building)

00_Studio

01_1 Bed

02_2 Bed

03_3 Bed

04_Trash Room

05_Mechanical / Service

06_Elevator

07_Stair Core

08_Private Balcony at 7th Floor

09_Amenity Balcony

10_Building Amenity

Residential Floor Area:

C6-3A

2nd - 6th Floors: 9,400 ZSF ea. floor

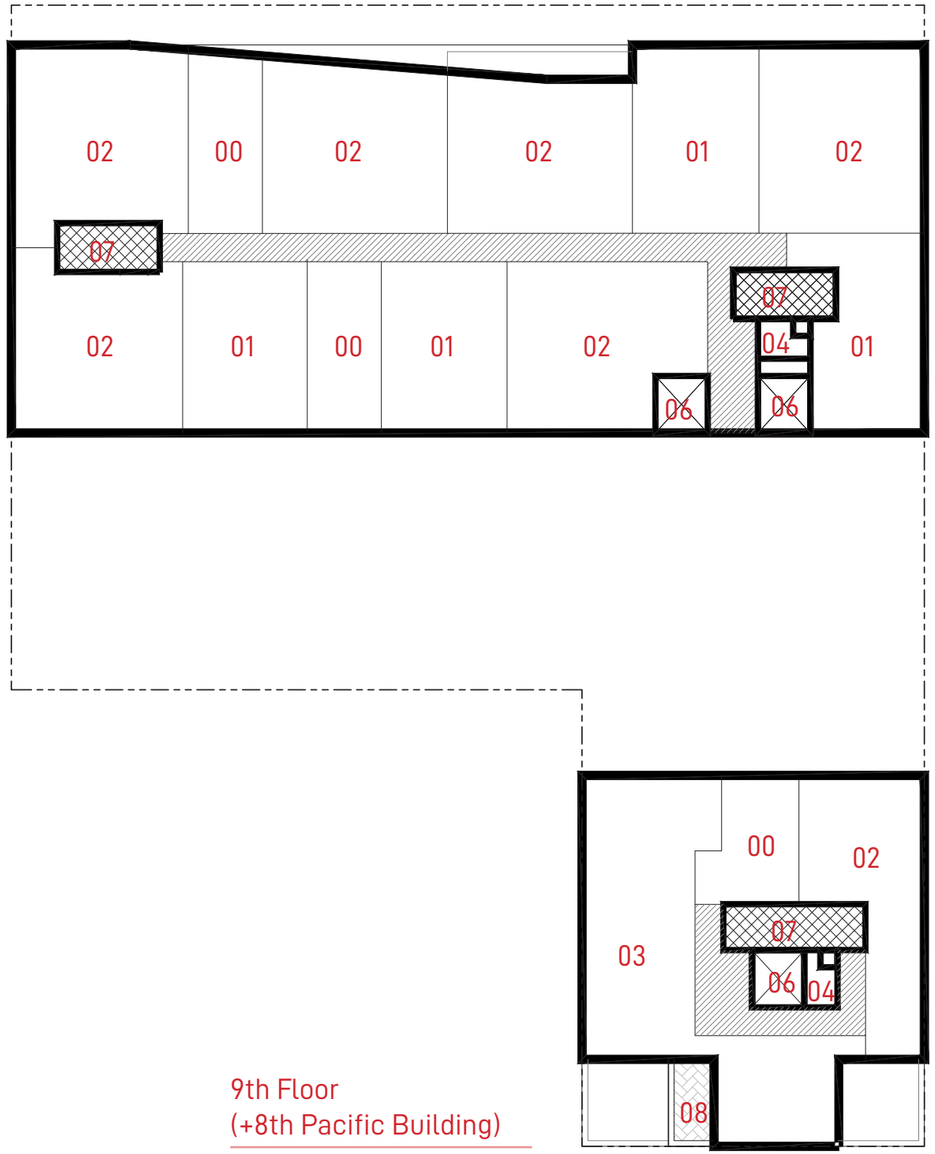
7th - 8th Floors: 9,250 ZSF ea. floor

R7A

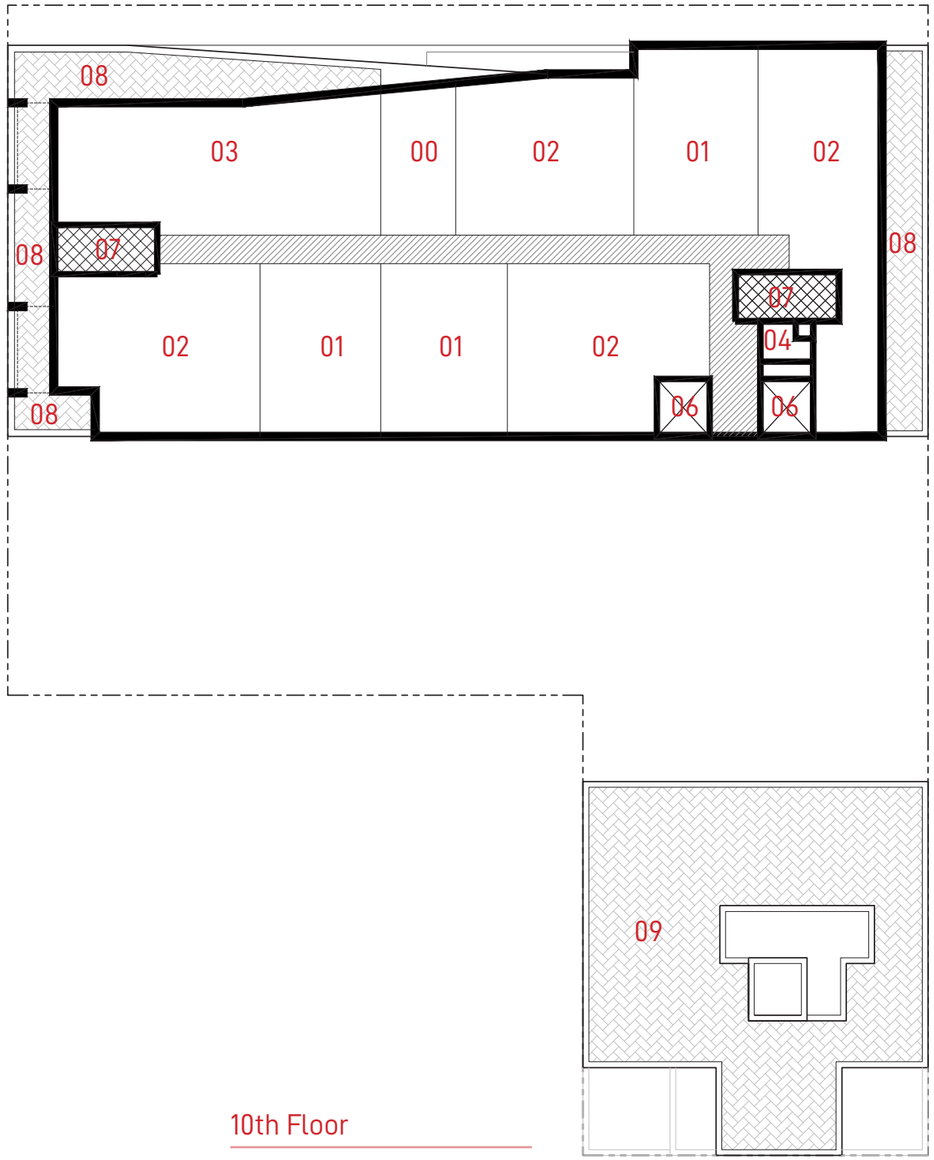
2nd - 6th Floors: 3,500 ZSF ea. floor

7th - 8th Floors: 3,100 ZSF ea. floor

All Plans Building Massings for Illustrative Purposes Only*



9th Floor
(+8th Pacific Building)



10th Floor

00_Studio

01_1 Bed

02_2 Bed

03_3 Bed

04_Trash Room

05_Mechanical / Service

06_Elevator

07_Stair Core

08_Private Terrace

09_Amenity Roof

10_Building Amenity

Residential Floor Area:

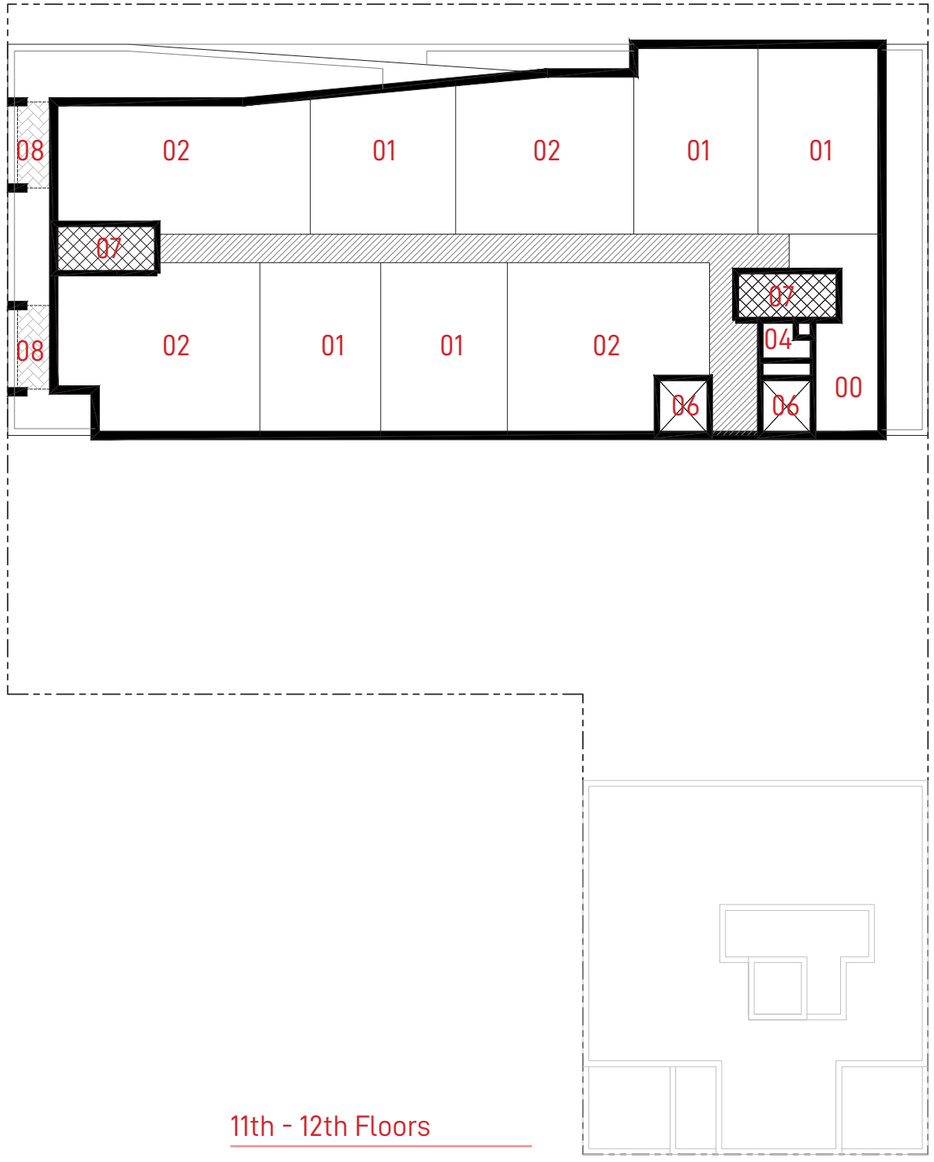
C6-3A

9th Floor:	9,250 ZSF
10th Floor:	7,400 ZSF

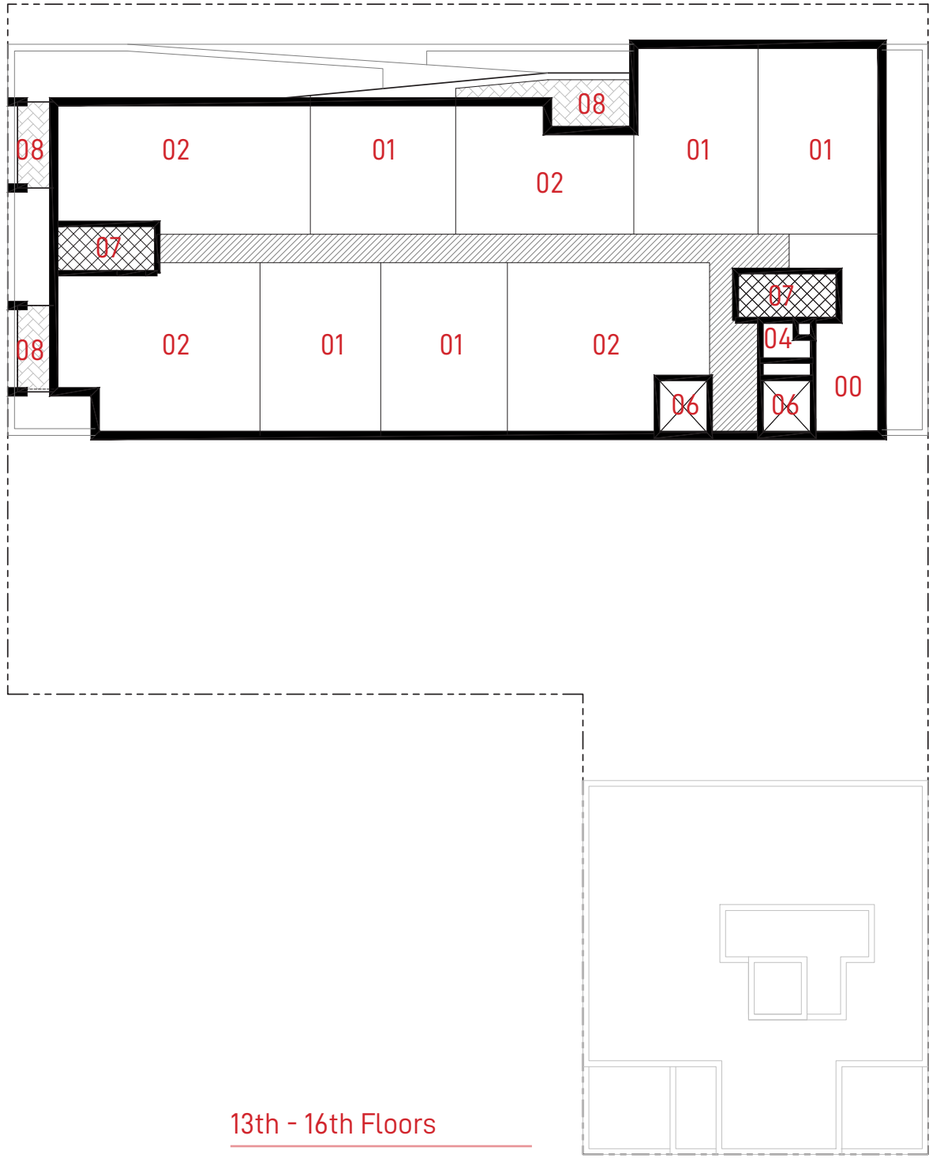
R7A

9th Floor:	2,950 ZSF

All Plans Building Massings for Illustrative Purposes Only*



11th - 12th Floors



13th - 16th Floors

00_Studio

01_1 Bed

02_2 Bed

03_3 Bed

04_Trash Room

05_Mechanical / Service

06_Elevator

07_Stair Core

08_Private Balcony

09_Private Terrace

10_Amenity Balcony

11_Building Amenity

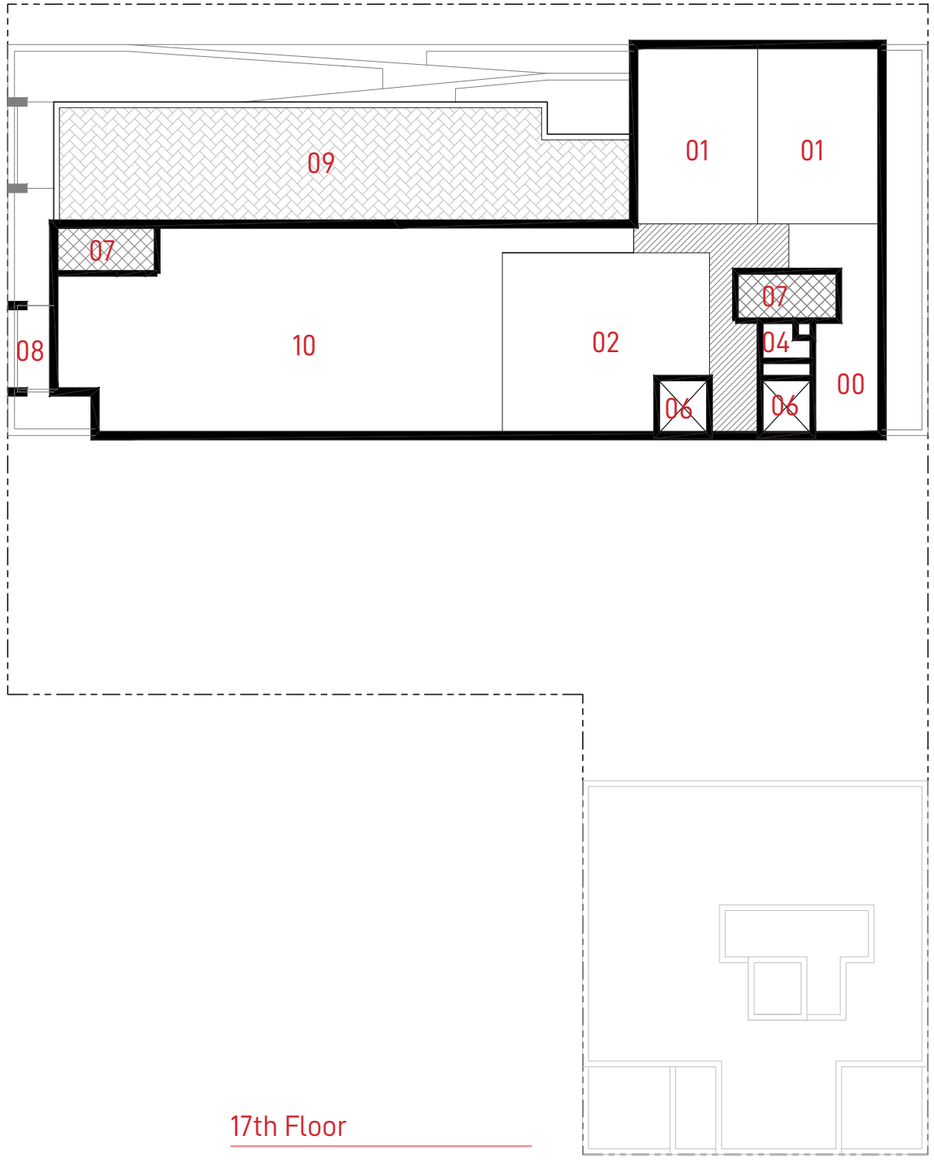
Residential Floor Area:

C6-3A

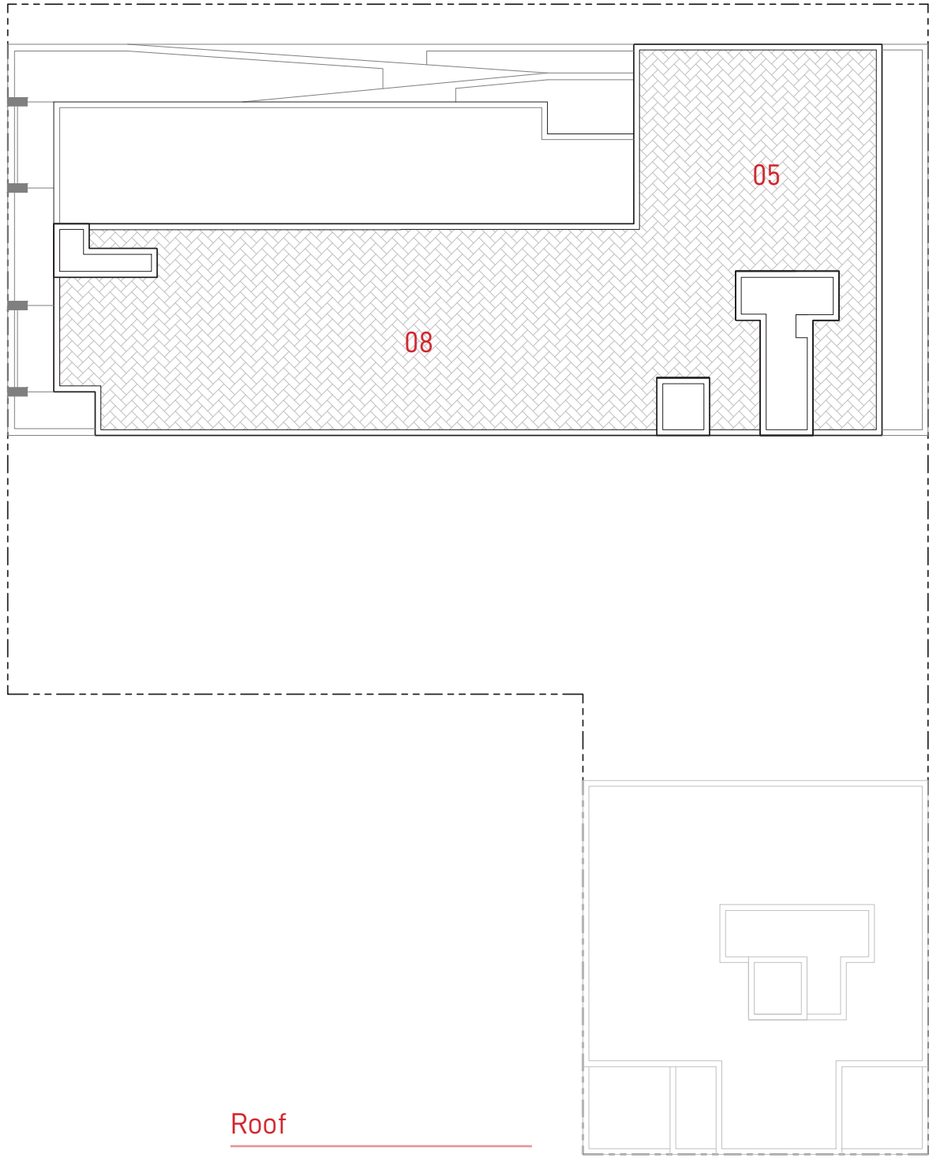
11th - 12th Floors: 7,700 ZSF ea. floor

13th - 16th Floors: 7,070 ZSF ea. floor

All Plans Building Massings for Illustrative Purposes Only*



17th Floor



Roof

00_Studio

01_1 Bed

02_2 Bed

03_3 Bed

04_Trash Room

05_Mechanical Roof

06_Elevator

07_Stair Core

08_Amenity Roof

09_Amenity Terrace / Rec Space

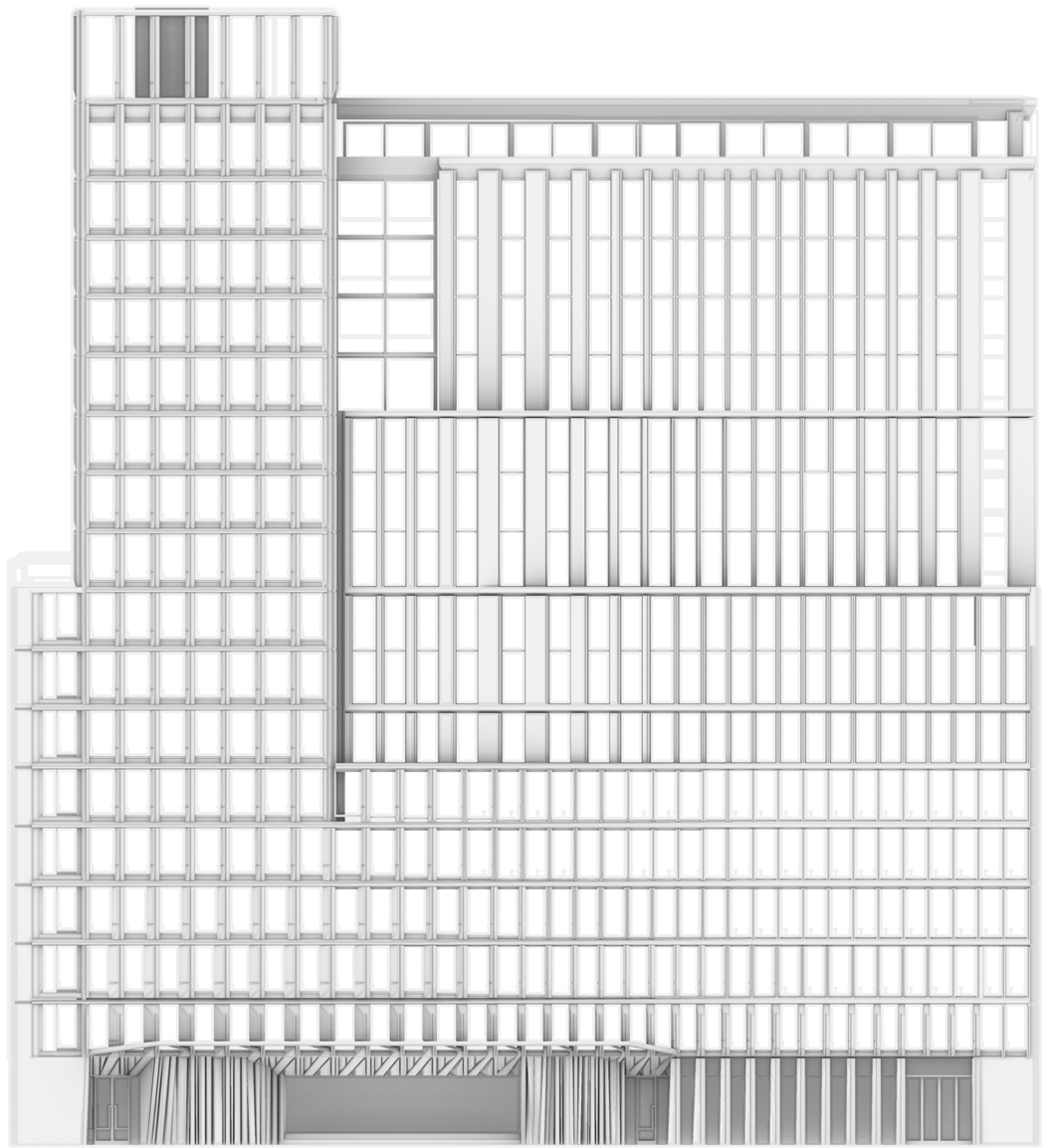
10_Building Amenity / Rec Space

Residential Floor Area:

C6-3A

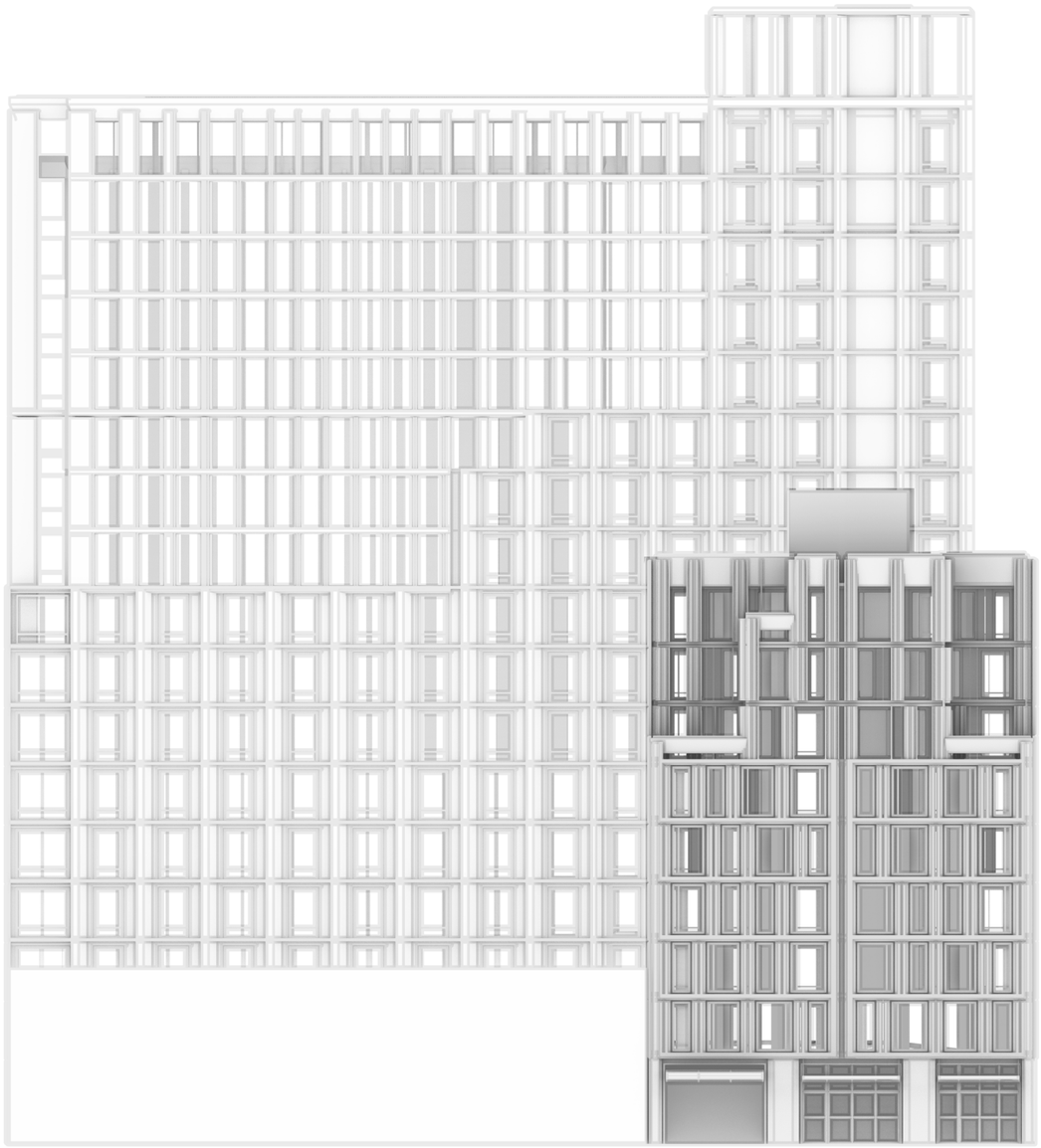
17th Floor: 2,740 ZSF

All Plans Building Massings for Illustrative Purposes Only*



Floor	ZSF	Dwellings
17th Floor:	2,740	4 units
16th Floor:	7,070	10 units
15th Floor:	7,070	10 units
14th Floor:	7,070	10 units
13th Floor:	7,070	10 units
12th Floor:	7,700	10 units
11th Floor:	7,700	10 units
10th Floor:	7,700	10 units
9th Floor:	9,250	12 units
8th Floor:	9,250	12 units
7th Floor:	9,250	12 units
6th Floor:	9,400	13 units
5th Floor:	9,400	13 units
4th Floor:	9,400	13 units
3rd Floor:	9,400	13 units
2nd Floor:	9,400	13 units
Ground:	2,300	0 units
Total:	**131,170**	**174 units**

All Plans Building Massings for Illustrative Purposes Only*



Building Totals	ZSF	Dwellings
Atlantic Resi	131,170	174 units
Pacific Resi	27,150	36 units
Total Resi	158,320	210 units
Total CF*	2,580	
Total Commercial*	11,900	
Total Parking*	0	
Total Building	172,800	210 units

** For Both Buildings Total*

Floor	ZSF	Dwellings
9th Floor:	2,950	3 units
8th Floor:	3,100	4 units
7th Floor:	3,100	4 units
6th Floor:	3,500	5 units
5th Floor:	3,500	5 units
4th Floor:	3,500	5 units
3rd Floor:	3,500	5 units
2nd Floor:	3,500	5 units
Ground:	500	0 units
Total:	**27,150**	**36 units**

****All Plans Building Massings for Illustrative Purposes Only*****

01_Context
02_Proposed Design | Renderings
03_Proposed Design | Site Plan & Diagrams
04_Proposed Design | Plans & Elevations
05_Proposed Design | Zoning Analysis

ZR Section	Item / Description	Permitted / Required	Proposed Concept Plan			Compliance / Notes
			Existing	Proposed New	Total Proposed	
USES						
22-00/32-00	Uses	UG 1-9 & 14	UG2 Residences UG6 Commercial	UG2 Residences UG6 Commercial	N/A	Complies
FAR & FLOOR AREA						
23-154 / 77-22	Residential Max FAR Max Floor Area	Residential 8.5 in C6-3A portion | 4.6 in R7A/C2-4 | 7.2 Total 136k in C6-3A portion | 36.8k in R7A/C2-4 | 172.8k Total	Residential 0.0 0 zsf	Residential 6.60 158,320 zsf	Residential 6.60 158,320 zsf	Complies
35-10 / 33-122 / 77-22	Commercial Max FAR Max Floor Area	Commercial 6.0 in C6-3A portion | 2.0 in R7A/C2-4 | 4.67 Total 96k in C6-3A portion | 16k in R7A/C2-4 | 1112k Total	Commercial 0.16 3,915 zsf	Commercial 0.64 12,700 zsf	Commercial 0.64 12,700 zsf	
35-31 / 33-123 / 77-22	Community Facility Max FAR Max Floor Area	Community Facility 7.5 in C6-3A portion | 4.0 in R7A/C2-4 | 7.2 Total 120k in C6-3A portion | 32k in R7A/C2-4 | 152k Total	Community Fac. 0.0 0 zsf	Community Fac. 0.10 2,580 zsf	Community Facility 0.10 2,580 zsf	
35-23 / 35-31 / 23-154 / 77-22	Total Max Permitted FAR Total Max Permitted FA for Zoning Lot	7.2 172,800 zsf	7.2 172,800 zsf			
DENSITY						
23-22 / 77-25	Dwelling Unit Factor	Dwelling Unit Factor = 680	0	158,320 / 680 = 233 DU	210 DU	Complies
LOT COVERAGE						
35-32 / 23-153/ 77-24	Maximum Lot Coverage for Residential Portion					Complies
	Interior /Through Lot	70% in C6-3A | 65% in R7A/C2-4 – 68.3% avg. for site	Varies	68%	68%	
MINIMUM LOT SIZE						
23-32	Minimum Lot Size and Dimensions	Area = 1,700 sf / Width = 18'	2,000 sf/ 20'	24,000sf / 160'	24,000sf / 160'	Complies
YARD REGULATIONS						
35-51 / 77-27	Front Yard	None Required	None	None	None	Complies
35-52 / 77-27	Side Yard	None Required	None	None	None	
35-53 / 23-541 / 77-27	Rear Yard	Required - 30' in Residential Interior Lot Portion - 60' RYE in Residential Through Lot Portion -20' @ 23' above BP for Comm. Fac. and Commercial	Varies	30/60' RYE in Thru Lot Portion	30/60' RYE in Thru Lot Portion	
STREETWALL LOCATION						
35-651 (b) / 35-652 23-662	Atlantic Avenue / Pacific Ave	The street wall shall be located on the street line and extend along the entire street frontage of the zoning lot up to at least the minimum base height specified in Section 35-652 and 23-662, or the height of the building, whichever is less.....street wall may be located anywhere within an area bounded by the two street lines and a line connecting such street lines at points 15 feet from their intersection, or, for corner lots with an angle of 75 degrees or less, at points 30 feet from their intersection.	See Site Plan			Complies
		Above a height of 15 feet above the base plane, or the height of the first story, whichever is lower, up to 30 percent of the aggregate width of street walls may be recessed beyond the street line, provided any such recesses deeper than 10 feet along a wide street, or 15 feet along a narrow street, are located within an outer court. Furthermore, no recesses shall be permitted within 30 feet of the intersection of two street lines except to articulate the street walls as set forth in paragraph (b)(1) of this Section.				
		Where a continuous sidewalk widening is provided along the entire block frontage of a street, the boundary of the sidewalk widening shall be considered to be the street line				
		Street wall articulation, including, but not limited to, window recesses and structural expression on the *building* facade, shall be permitted to project or recess beyond the *street wall* locations established in 35-651, provided such articulation does not exceed a depth or projection of 12 inches. In addition, to accommodate other forms of *street wall* articulation, such as bay windows, and facade recesses, up to 50 percent of the *aggregate width of street wall* , at any level, may recess or project beyond such *street wall* location provisions of this Section, provided that no such recess or projection exceeds a depth of three feet, as measured perpendicular from the *street wall* , or portion thereof. No projection shall extend beyond the *street line* , except where encroachments into the public right-of-way are permitted by the New York City Administrative Code.				
HEIGHTS AND SETBACKS						
35-654 / 23-664 23-951	Minimum Base Height Maximum Base Height Required Setback (Wide Street) Max Bldg Ht w/ Qualifying GF	Minimum Base Height - R7A -- 40' / C6-3A -- 60' Maximum Base Height - R7A -- 75' / C6-3A --125' Required Setback (Wide/Narrow Street) - 10'/15' Max Bldg Ht w/ Qualifying GF - R7A -- 95' / C6-3A 175'	Proposed Base Height - R7A -- 75' / C6-3A --125' Required Setback (Wide/NarrowStreet) - 10'/15' Prop. Bldg Ht w/ Qualifying GF - R7A -- 95' / C6-3A 175' See Site Plan and Axonometric Drawings			Complies
35-654 / 23-664	Max Number or Stories	Max Number or Stories - R7A -- 9 / C6-3A -- 17	Max Number or Stories - R7A -- 9 / C6-3A -- 17 See Site Plan and Axonometric Drawings			Complies
35-61 / 23-621	Dormers	Shall not exceed 60% of street wall width at level of setback, shall decrease 1% for each foot above max base height	See Site Plan for Calculations			Complies
PARKING AND LOADING						
36-33 25-23 / 36-21	Required Parking Spaces Residential Market Rate Residential Low Income Commercial	See Analysis to Right	Proposed Parking Spaces Residential Market Rate - None - Special Permit Sought Residential Low Income - None Commercial - None Community Facility - None **Total Proposed = 20 Spaces**			Does Not Comply Requires Special Permit
36-711	Bicycle Parking	1 per 2 DU / 210 DU = 105 spaces 1 per 7,500 Commercial FA	105 spaces 2 Spaces 107 Spaces total			Complies
36-62	Loading Berth	None Required	None Proposed			Complies

SITE DATA	
Block	1125
Lots	29,33
Address	1042 Atlantic Ave / 1035 Pacific St
Zoning	C6-3A / R7A w/ C2-4
Community District	8
Zoning Map	16C
Zoning Lot Area	24,000sf total 16,000 sf in C6-3A 8,000 sf in R7A

LIST OF REQUIRED ACTIONS

1. Zoning Map Change from M1-1 to C6-3A
2.Zoning Map Change from M1-1 to R7A/C2-4
3. Zoning Text Ammendment to Appendix F to designate Project Area as a MIH Development
4. Special Permit pursuant to ZR 74-533 to waive required accessory off-street parking spaces to facilitate affordable housing.

Illustrative Parking Calculations for MIH Option 2 Scenario**

ZR77-321-22, ZR36-35, ZR36-361, ZR25-00

If filed as a single building:

8,000sf in R7A/C2-4 = 33% of total lot | 16,000sf in C6-3A = 67% of total lot

.33 * 50% (required in R7A) + .67*40% (required in C6-3A) = 43.3% of Resi Market Rate Required

210 total Units = 147 Market Rate Units

63 Affordable Units @ 80% Avg AMI wll yield approximate 15% of the units at an AMI higher than 80%, which is 10 units

147+10 = 157 units that require parking | 43.3% of 157 = 68 spaces Required

0 Spaces Required for Commercial in PRCB&C

0 Spaces Required for Community Facility

68 spaces Required Total

In the Event DOB requires the sites to be analyzed separately, if 2 separate buildings are filed on tax lots re-apportioned in the future:

C6-3A

40% of Market Rate Require Parking

174 Total Units = 121 Market Rate Units

53 Affordable Units @ 80% Avg AMI wll yield approximate 15% of the units at an AMI higher than 80%, which is 8 units

121+8 = 129 units that require parking | 40% of 129 = 52 spaces Required

0 Spaces Required for Commercial in PRCB&C

0 Spaces Required for Community Facility

52 total Spaces Required

R7A

50% of Market Rate Require Parking

36 Total Units = 25 Market Rate Units

11 Affordable Units @ 80% Avg AMI wll yield approximate 15% of the units at an AMI higher than 80%, which is 2 units

25+1 = 26 units that require parking | 50% of 26 = 13 spaces Required - ZR36-361 Waiver for small number of spaces available = 0 Spaces required

1/1000sf Spaces Required for Commercial in PRCB&C = 2 Spaces

1/1000sf Spaces Required for Community Facility = 3 Spaces

5 total Spaces Required

****Parking will vary depending on MIH Option Chosen. Illustrative Calculation Based on MIH Option 2**

Appendix C: Noise Back-Up

Project Noise Analysis Based on Adjacent Rezoning Noise Data as noted in Technical Chapter

Appendix D: Construction

STRUCTURAL
ENGINEERING
TECHNOLOGIES, P.C.

40-12 28TH Street, Long Island City, NY 11101 • (P) 718-706-7196 • (F) 718-472-4464 • (E) info@set-ny.com

Annabelle Meunier (DCP)
Team Leader,
Environmental Assessment and Review Division.
AMEUNIER@planning.nyc.gov
NYC Dept. of City Planning
120 Broadway
New York, NY 10271

August 11, 2001

Re: 1034 Atlantic Ave (Projected Development Site 1; Block 1125, Lots 29 and 33) – Construction Duration

Dear Ms. Meunier,

We have reviewed the proposed building at the above-mentioned address to evaluate the construction timeframe. This is a 17-story building plus cellar located on Atlantic Avenue in Brooklyn. There are a number of considerations that were included in developing a schedule for this project:

- The size of the floor plate which is approximately 10,000 sqft for the typical floor makes for an efficient placement of each floor.
- The site is located on a wide arterial roadway. Atlantic Avenue is 120 feet wide. This facilitates construction deliveries and access to the site.
- The project site also affords flexibility in staging the work and on site storage of materials.
- The width of the site allows for multiple teams to work on each floor without interfering with each other which expedites the construction process.
- The proposed structural framing method is cast-in-place concrete which offers advantages over other system such as precast concrete or structural steel in that it requires minimal off site fabrication and dependence on availability of materials.
- The foundation footprint will be coordinated to the influence lines of the neighboring structures in an effort to eliminate underpinning for a more efficient design.
- Dewatering measures will not be required as groundwater is well below 40' of the site grade.
- The construction of the façade will be done in a panelized system so as to minimize construction

time.

- A significant portion of the building contains commercial areas and parking spaces that require minimal finishes.

The enclosed preliminary schedule demonstrates the sequence of work. It is anticipated that the project will take under 24 months to complete

Some important schedule highlights are listed below:

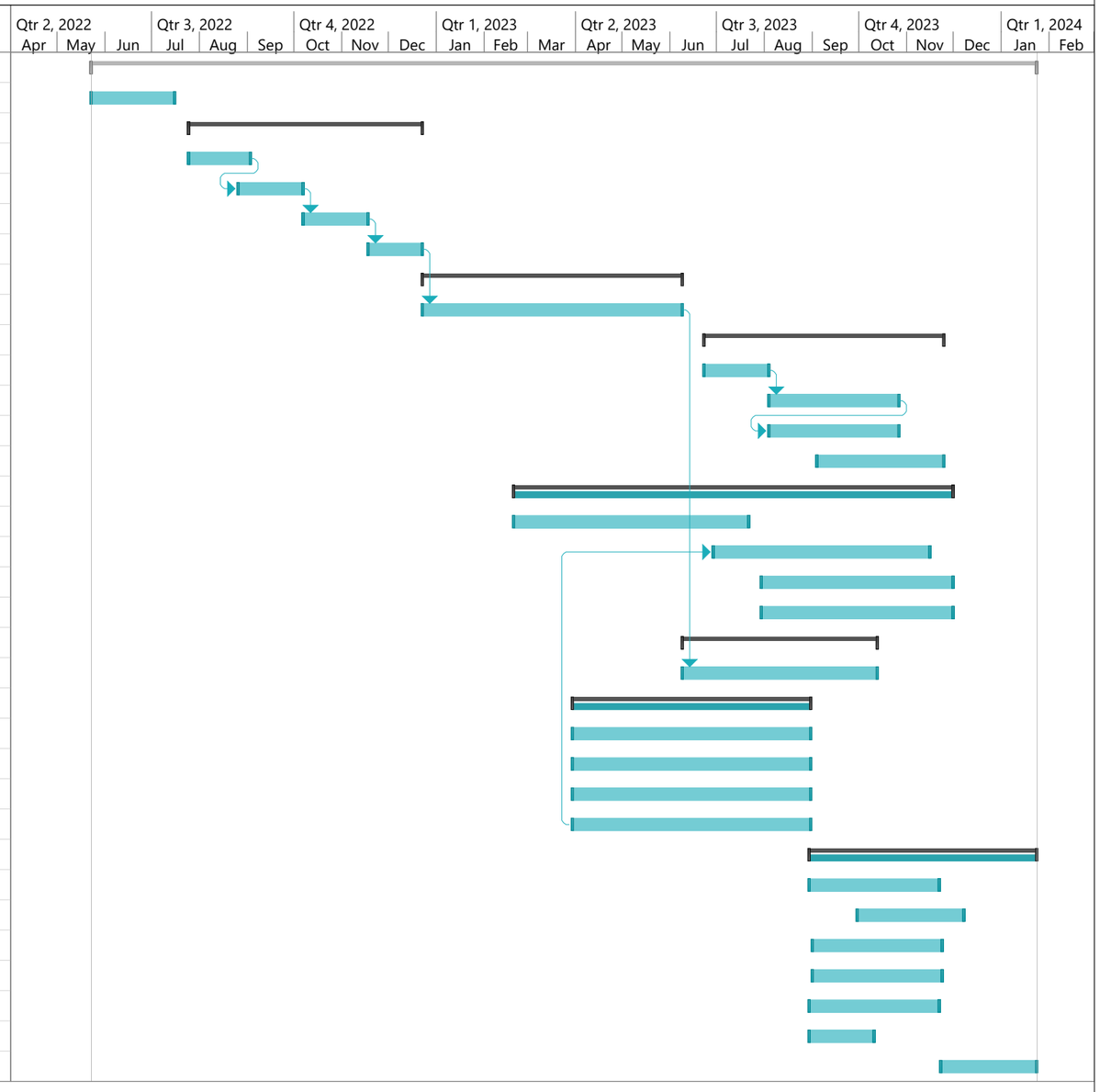
- Demolition is schedule to last 8 weeks
- Support of Excavation and foundation work is scheduled to take about 5 months
- Superstructure will occur Months 7 through 13.
- Exterior wall work will take place in months 13 to 18.
- Carpentry will begin in month 10 overlapping superstructure work. This will be followed by roughing beginning in month 11 through month 16.
- Elevator will be installed upon completion of super structure.
- Finishes will take place in month 15 through month 20
- Inspection, Sign Offs, and TCO will take 2 months concurrent with the finishes.

Respectfully Yours,
STRUCTURAL ENGINEERING TECHNOLOGIES, P.C.

Fruma Narov, P.E.,

1034 Atlantic: Projected Development Site 1 (Block 1125, Lots 29 and 33)

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
0		**1034_Project Schedule**	**437 days**	**Mon 5/23/22**	**Tue 1/23/24**	
1		Demolition	40 days	Mon 5/23/22	Fri 7/15/22	
2		**Concrete / Earthwork**	**109 days**	**Mon 7/25/22**	**Thu 12/22/22**	
3		Excavation	30 days	Mon 7/25/22	Fri 9/2/22	
4		SOE	30 days	Fri 8/26/22	Thu 10/6/22	3
5		Footings	30 days	Fri 10/7/22	Thu 11/17/22	4
6		Foundation Wall	25 days	Fri 11/18/22	Thu 12/22/22	5
7		**Superstructure**	**120 days**	**Fri 12/23/22**	**Thu 6/8/23**	
8		Cast-in-place concrete structure	120 days	Fri 12/23/22	Thu 6/8/23	6
9		**Exterior Wall**	**111 days**	**Fri 6/23/23**	**Fri 11/24/23**	
10		façade waterproofing	30 days	Fri 6/23/23	Thu 8/3/23	
11		Window install	60 days	Fri 8/4/23	Thu 10/26/23	10
12		masonry	60 days	Fri 8/4/23	Thu 10/26/23	11
13		façade panels	60 days	Mon 9/4/23	Fri 11/24/23	
14		**Carpentry**	**204 days**	**Mon 2/20/23**	**Thu 11/30/23**	
15		framing	110 days	Mon 2/20/23	Fri 7/21/23	
16		Dry wall	100 days	Thu 6/29/23	Wed 11/15/23	25SS+65 days
17		Taping	90 days	Sun 7/30/23	Thu 11/30/23	
18		Painting	90 days	Sun 7/30/23	Thu 11/30/23	
19		**Elevator**	**90 days**	**Fri 6/9/23**	**Thu 10/12/23**	
20		Elevator install	90 days	Fri 6/9/23	Thu 10/12/23	8
21		**Roughing**	**110 days**	**Thu 3/30/23**	**Wed 8/30/23**	
22		Plumbing	110 days	Thu 3/30/23	Wed 8/30/23	
23		HVAC	110 days	Thu 3/30/23	Wed 8/30/23	
24		Electrical	110 days	Thu 3/30/23	Wed 8/30/23	
25		Sprinkler	110 days	Thu 3/30/23	Wed 8/30/23	
26		**Finishes**	**105 days**	**Wed 8/30/23**	**Tue 1/23/24**	
27		Flooring	60 days	Wed 8/30/23	Tue 11/21/23	
28		Tile Install	50 days	Sat 9/30/23	Thu 12/7/23	
29		Kitchen Installation	60 days	Fri 9/1/23	Thu 11/23/23	
30		Lobby Work	60 days	Fri 9/1/23	Thu 11/23/23	
31		Amenities	60 days	Wed 8/30/23	Tue 11/21/23	
32		Sidewalk Repair	30 days	Wed 8/30/23	Tue 10/10/23	
33		TCO / Punhclist	44 days	Thu 11/23/23	Tue 1/23/24	



Project: 1034_Project Schedule
Date: Tue 8/3/21

Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		

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40-12 28TH Street, Long Island City, NY 11101 • (P) 718-706-7196 • (F) 718-472-4464 • (E) info@set-ny.com

Annabelle Meunier (DCP)
Team Leader,
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NYC Dept. of City Planning
120 Broadway
New York, NY 10271

August 11, 2001

Re: 1039-1041 Pacific Street (Projected Development Site 2; Block 1125, Lots 52 and 53) – Construction Duration

Dear Ms. Meunier,

We have reviewed the proposed building at the above-mentioned address to evaluate the construction timeframe. This is a 9-story building plus cellar located Pacific Street in Brooklyn. The site is approximately 3,000 sqft in area. There are a number of considerations that were included in developing a schedule for this project:

- The size of the floor plate which is approximately 3,000 sqft for the typical floor.
- The proposed structural framing method is cast-in-place concrete which offers advantages over other system such as precast concrete or structural steel in that it requires minimal off site fabrication and dependence on availability of materials.
- The foundation footprint will be coordinated to the influence lines of the neighboring structures in an effort to eliminate underpinning for a more efficient design.
- Dewatering measures will not be required as groundwater is well below 40' of the site grade.
- The construction of the façade will be done in a panelized system so as to minimize construction time.
- A portion of the building contains commercial areas and parking spaces that require minimal finishes.

The enclosed preliminary schedule demonstrates the sequence of work. The site has a relatively small foot print. It is anticipated that the project will take about 26 months to complete

Some important schedule highlights are listed below:

- Support of Excavation and foundation work is scheduled to take about 6 months
- Superstructure will occur Months 6 through 10.
- Exterior wall work will take place in months 11 to 21.
- Carpentry will begin in month 8 overlapping superstructure work.
- Roughing will take place starting in month 11.
- Elevator will be installed in month 16.
- Finishes will take place in month 12 through month 18.
- Inspection, Sign Offs, and TCO will take 3½ months concurrent with the finishes.

Respectfully Yours,
STRUCTURAL ENGINEERING TECHNOLOGIES, P.C.



Fruma Narov, P.E.,

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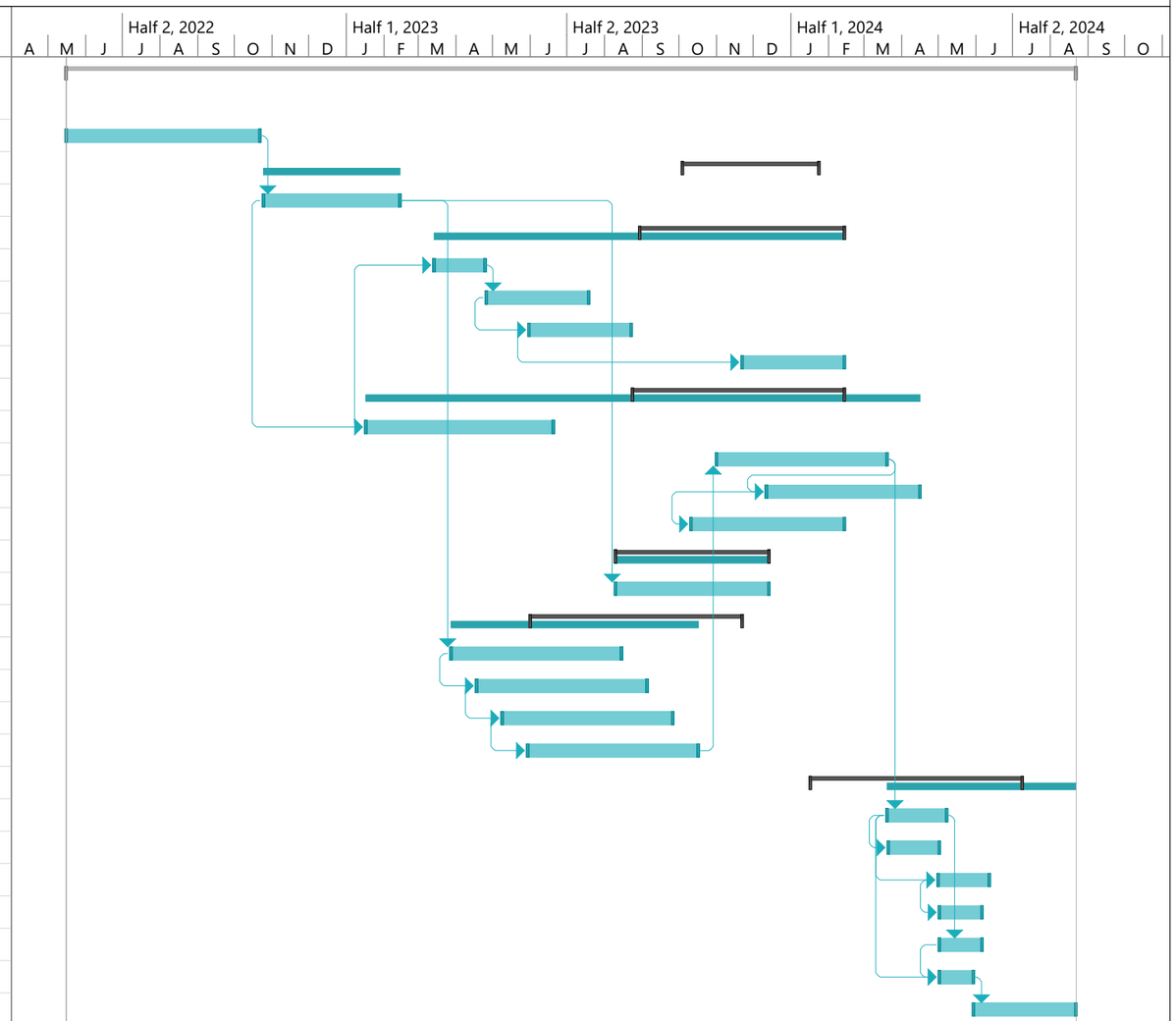
1041-1039 Pacific Street: Projected Development Site 2 (Block 1125, Lots 52 and 53)

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
0		**1041-1039 Pacific St_Project Schedule**	**593 days**	**Mon 5/16/22**	**Wed 8/21/24**	
1		Exavation / Foundation	115 days	Mon 5/16/22	Fri 10/21/22	
2		**Superstructure**	**80 days**	**Wed 10/4/23**	**Tue 1/23/24**	
3		Cast-in-place concrete structure	80 days	Tue 10/25/22	Mon 2/13/23	1FS+1 day
4		**Exterior Wall**	**120 days**	**Wed 8/30/23**	**Tue 2/13/24**	
5		façade waterproofing	30 days	Tue 3/14/23	Mon 4/24/23	10SS+40 days
6		Window install	60 days	Wed 4/26/23	Tue 7/18/23	5FS+1 day
7		masonry	60 days	Wed 5/31/23	Tue 8/22/23	6SS+25 days
8		façade panels	60 days	Wed 11/22/23	Tue 2/13/24	7SS+30 days
9		**Carpentry**	**124 days**	**Thu 8/24/23**	**Tue 2/13/24**	
10		framing	110 days	Tue 1/17/23	Mon 6/19/23	3SS+60 days
11		Dry wall	100 days	Wed 11/1/23	Tue 3/19/24	20FS+1 day
12		Taping	90 days	Tue 12/12/23	Mon 4/15/24	11FS+30 days
13		Painting	90 days	Wed 10/11/23	Tue 2/13/24	12SS
14		**Elevator**	**90 days**	**Thu 8/10/23**	**Wed 12/13/23**	
15		Elevator install	90 days	Thu 8/10/23	Wed 12/13/23	3
16		**Roughing**	**124 days**	**Thu 6/1/23**	**Tue 11/21/23**	
17		Plumbing	100 days	Tue 3/28/23	Mon 8/14/23	3FS+30 days
18		HVAC	100 days	Tue 4/18/23	Mon 9/4/23	17SS+15 days
19		Electrical	100 days	Tue 5/9/23	Mon 9/25/23	18SS+15 days
20		Sprinkler	100 days	Tue 5/30/23	Mon 10/16/23	19SS+15 days
21		**Finishes**	**124 days**	**Wed 1/17/24**	**Mon 7/8/24**	
22		Flooring	35 days	Wed 3/20/24	Tue 5/7/24	11
23		Tile Install	30 days	Thu 3/21/24	Wed 5/1/24	22SS+1 day
24		Kitchen Installation	30 days	Wed 5/1/24	Tue 6/11/24	22SS+30 days
25		Lobby Work	25 days	Thu 5/2/24	Wed 6/5/24	24SS
26		Amenities	25 days	Thu 5/2/24	Wed 6/5/24	22FS+1 day
27		Sidewalk Repair	20 days	Thu 5/2/24	Wed 5/29/24	26SS,22SS
28		TCO / Punhclist	60 days	Thu 5/30/24	Wed 8/21/24	27



Project: 1041-1039 Pacific St_Pr
Date: Mon 8/2/21

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

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Environmental Assessment and Review Division.
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NYC Dept. of City Planning
120 Broadway
New York, NY 10271

August 11, 2001

Re: 1050 Atlantic Ave – Construction Duration
Potential Development site 1 (Block 1125, Lot 40)

Dear Ms. Meunier,

We have reviewed the proposed building at the above-mentioned address to evaluate the construction timeframe. This is a 17-story building plus cellar located on the corner of Atlantic Avenue and Classon Street in Brooklyn. The site is approximately 11,000 sqft in area. There are a number of considerations that were included in developing a schedule for this project:

- The size of the floor plate which is approximately 10,000 sqft for the typical floor makes for an efficient placement of each floor.
- The site is located on a wide arterial roadway. Atlantic Avenue is 120 feet wide. This facilitates construction deliveries and access to the site.
- The project site also affords flexibility in staging the work and on site storage of materials.
- The size of the site allows for multiple teams to work on each floor without interfering with each other which expedites the construction process.
- The proposed structural framing method is cast-in-place concrete which offers advantages over other system such as precast concrete or structural steel in that it requires minimal off site fabrication and dependence on availability of materials.
- The foundation footprint will be coordinated to the influence lines of the neighboring structures in an effort to eliminate underpinning for a more efficient design.
- Dewatering measures will not be required as groundwater is well below 40' of the site grade.

- The construction of the façade will be done in a panelized system so as to minimize construction time.

- A significant portion of the building contains commercial areas and parking spaces that require minimal finishes.

The enclosed preliminary schedule demonstrates the sequence of work. It is anticipated that the project will take under 24 months to complete

Some important schedule highlights are listed below:

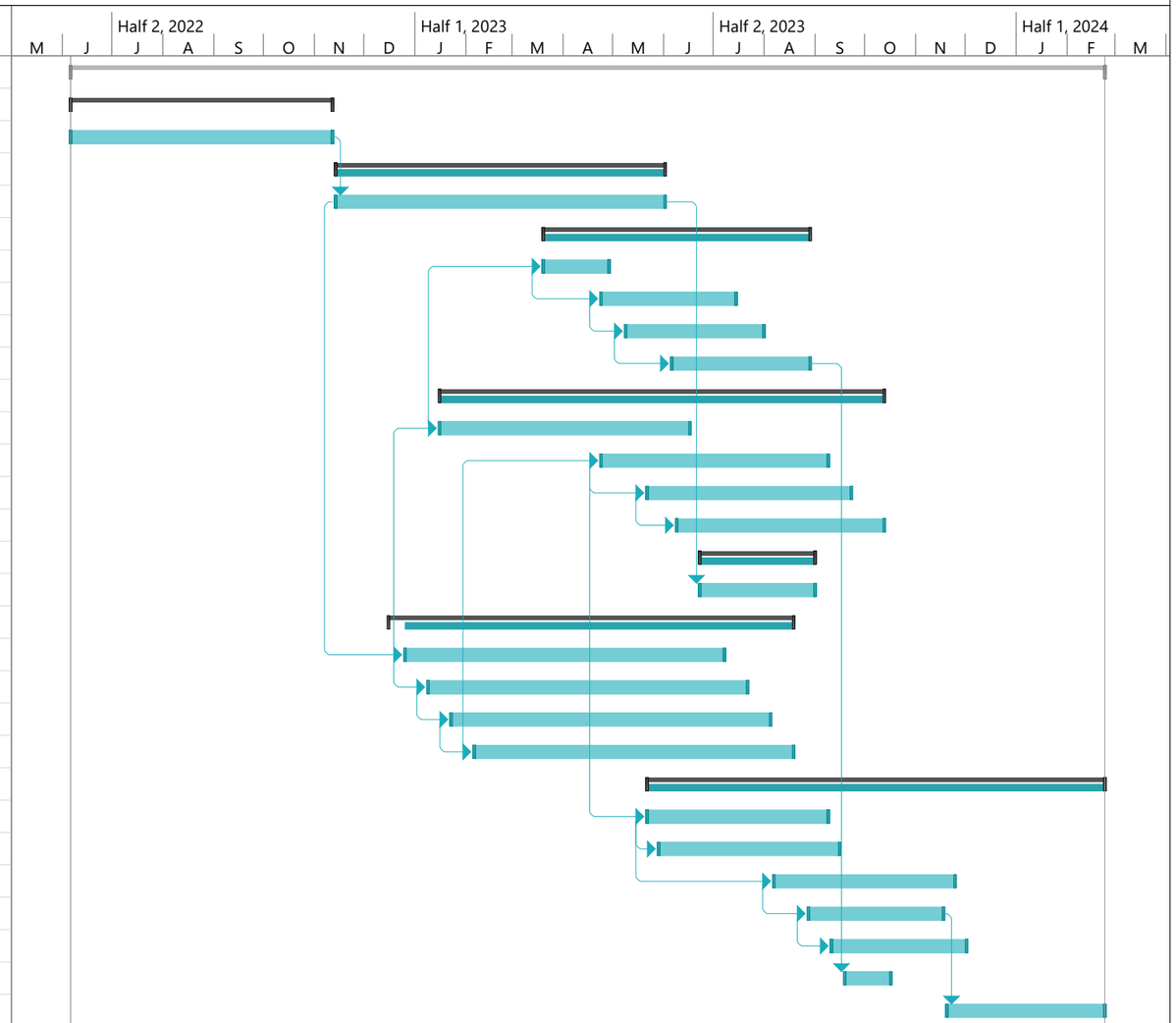
- Support of Excavation and foundation work is scheduled to take about 5 months
- Superstructure will occur Months 5 through 12.
- Exterior wall work will take place in months 13 to 18.
- Carpentry will begin in month 8 overlapping superstructure work.
- Roughing will take place starting in month 6.
- Elevator will be installed upon completion of super structure.
- Finishes will take place in month 12 through month 20
- Inspection, Sign Offs, and TCO will take 2 months concurrent with the finishes.

Respectfully Yours,
STRUCTURAL ENGINEERING TECHNOLOGIES, P.C.

Fruma Narov, P.E.

1050 Atlantic Ave: Potential Development Site 1 (Block 1125, Lot 40)

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
0		**1050_Project Schedule**	**450 days**	**Mon 6/6/22**	**Fri 2/23/24**	
1		**Excavation / Foundation**	**115 days**	**Mon 6/6/22**	**Fri 11/11/22**	
2		Excvation / Foundation	115 days	Mon 6/6/22	Fri 11/11/22	
3		**Superstructure**	**144 days**	**Mon 11/14/22**	**Thu 6/1/23**	
4		Cast-in-place concrete structure	144 days	Mon 11/14/22	Thu 6/1/23	2
5		**Exterior Wall**	**116 days**	**Mon 3/20/23**	**Mon 8/28/23**	
6		façade waterproofing	30 days	Mon 3/20/23	Fri 4/28/23	11SS+45 days
7		Window install	60 days	Mon 4/24/23	Fri 7/14/23	6SS+25 days
8		masonry	60 days	Tue 5/9/23	Mon 7/31/23	7SS+11 days
9		façade panels	60 days	Tue 6/6/23	Mon 8/28/23	8SS+20 days
10		**Carpentry**	**194 days**	**Mon 1/16/23**	**Thu 10/12/23**	
11		framing	110 days	Mon 1/16/23	Fri 6/16/23	18SS+15 days
12		Dry wall	100 days	Mon 4/24/23	Fri 9/8/23	21SS+55 days
13		Taping	90 days	Mon 5/22/23	Fri 9/22/23	12SS+20 days
14		Painting	90 days	Fri 6/9/23	Thu 10/12/23	13SS+14 days
15		**Elevator**	**50 days**	**Fri 6/23/23**	**Thu 8/31/23**	
16		Elevator install	50 days	Fri 6/23/23	Thu 8/31/23	4FS+15 days
17		**Roughing**	**176 days**	**Fri 12/16/22**	**Fri 8/18/23**	
18		Plumbing	140 days	Mon 12/26/22	Fri 7/7/23	4SS+30 days
19		HVAC	140 days	Mon 1/9/23	Fri 7/21/23	18SS+10 days
20		Electrical	140 days	Mon 1/23/23	Fri 8/4/23	19SS+10 days
21		Sprinkler	140 days	Mon 2/6/23	Fri 8/18/23	20SS+10 days
22		**Finishes**	**200 days**	**Mon 5/22/23**	**Fri 2/23/24**	
23		Flooring	80 days	Mon 5/22/23	Fri 9/8/23	12SS+20 days
24		Tile Install	80 days	Mon 5/29/23	Fri 9/15/23	23SS+5 days
25		Kitchen Installation	80 days	Mon 8/7/23	Fri 11/24/23	23SS+20 days
26		Lobby Work	60 days	Mon 8/28/23	Fri 11/17/23	25SS+15 days
27		Amenities	60 days	Mon 9/11/23	Fri 12/1/23	26SS+10 days
28		Sidewalk Repair	20 days	Tue 9/19/23	Mon 10/16/23	9FS+15 days
29		TCO / Punhclist	70 days	Mon 11/20/23	Fri 2/23/24	26

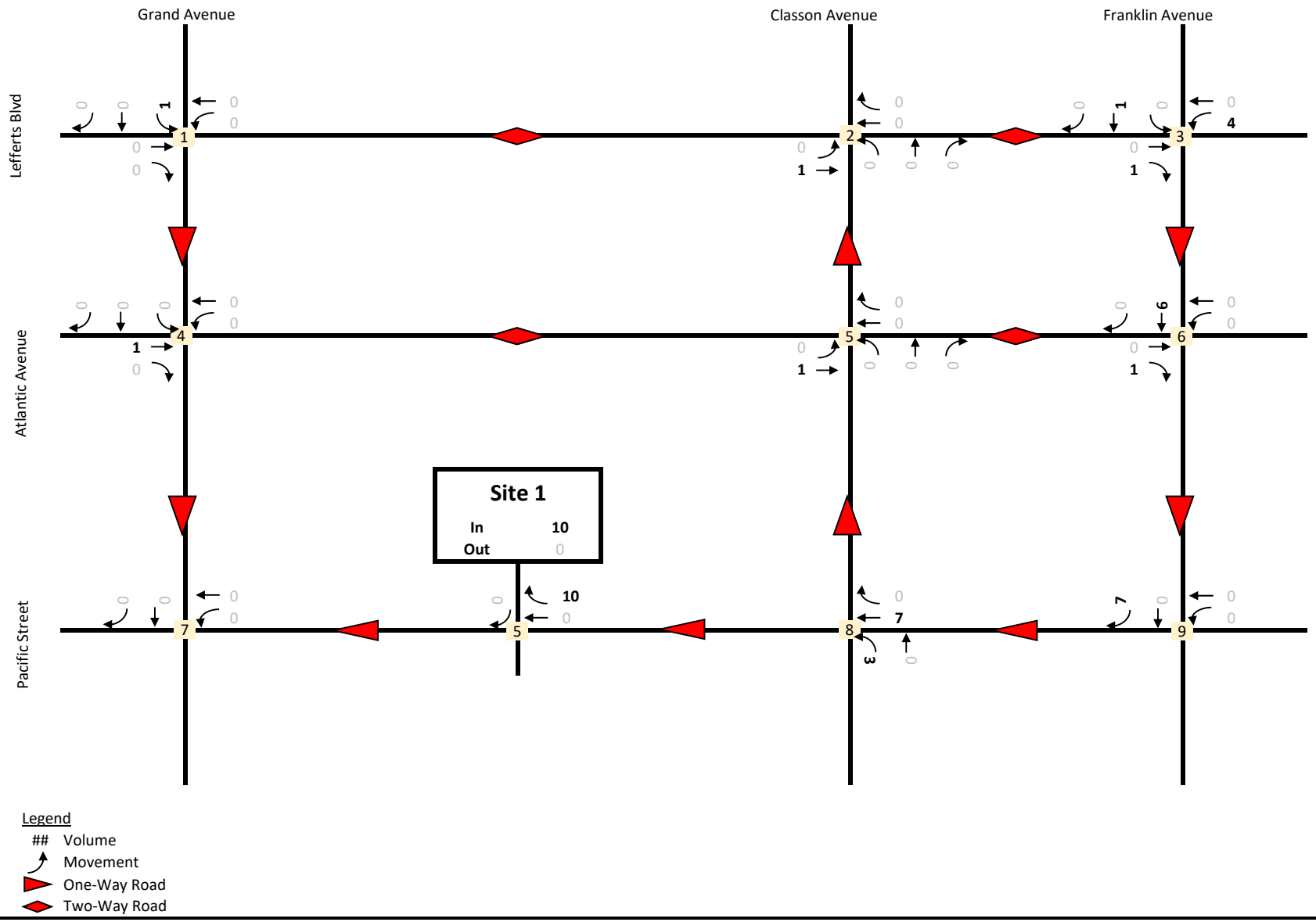


Project: 1050_Project Schedule
Date: Tue 8/3/21

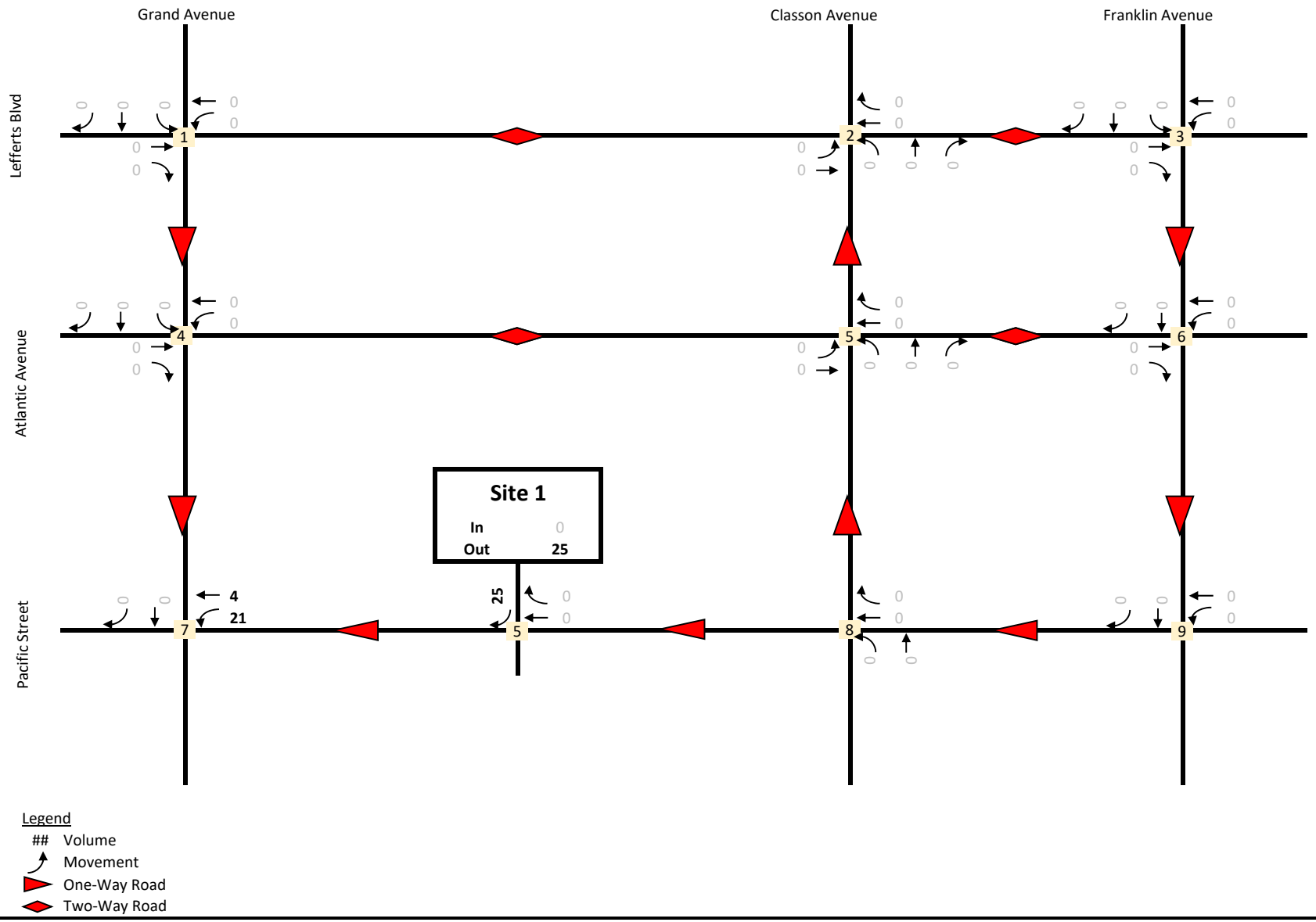
Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		

Appendix E: Traffic Backup

Weekday AM Inbound



Weekday AM Outbound



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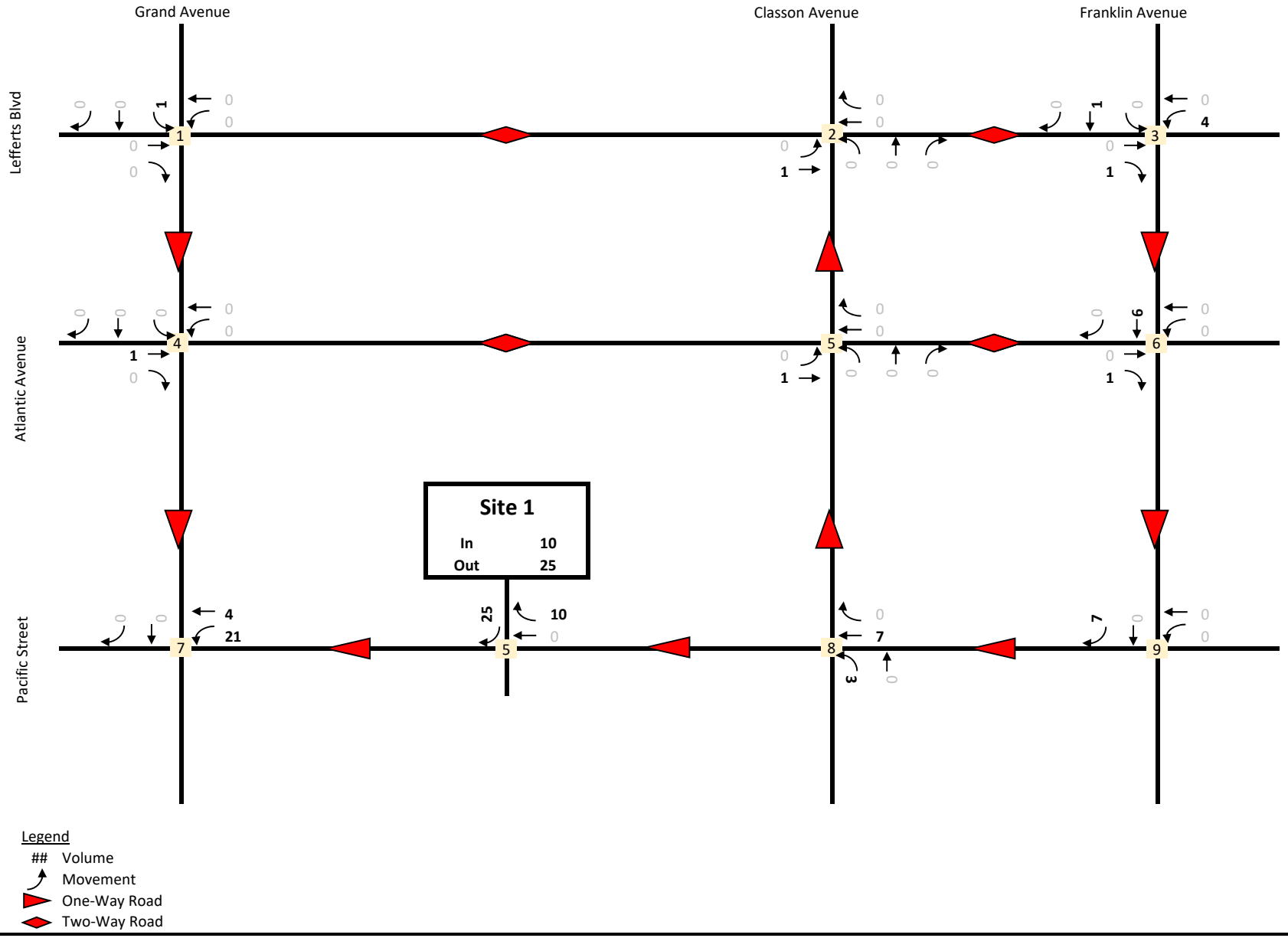

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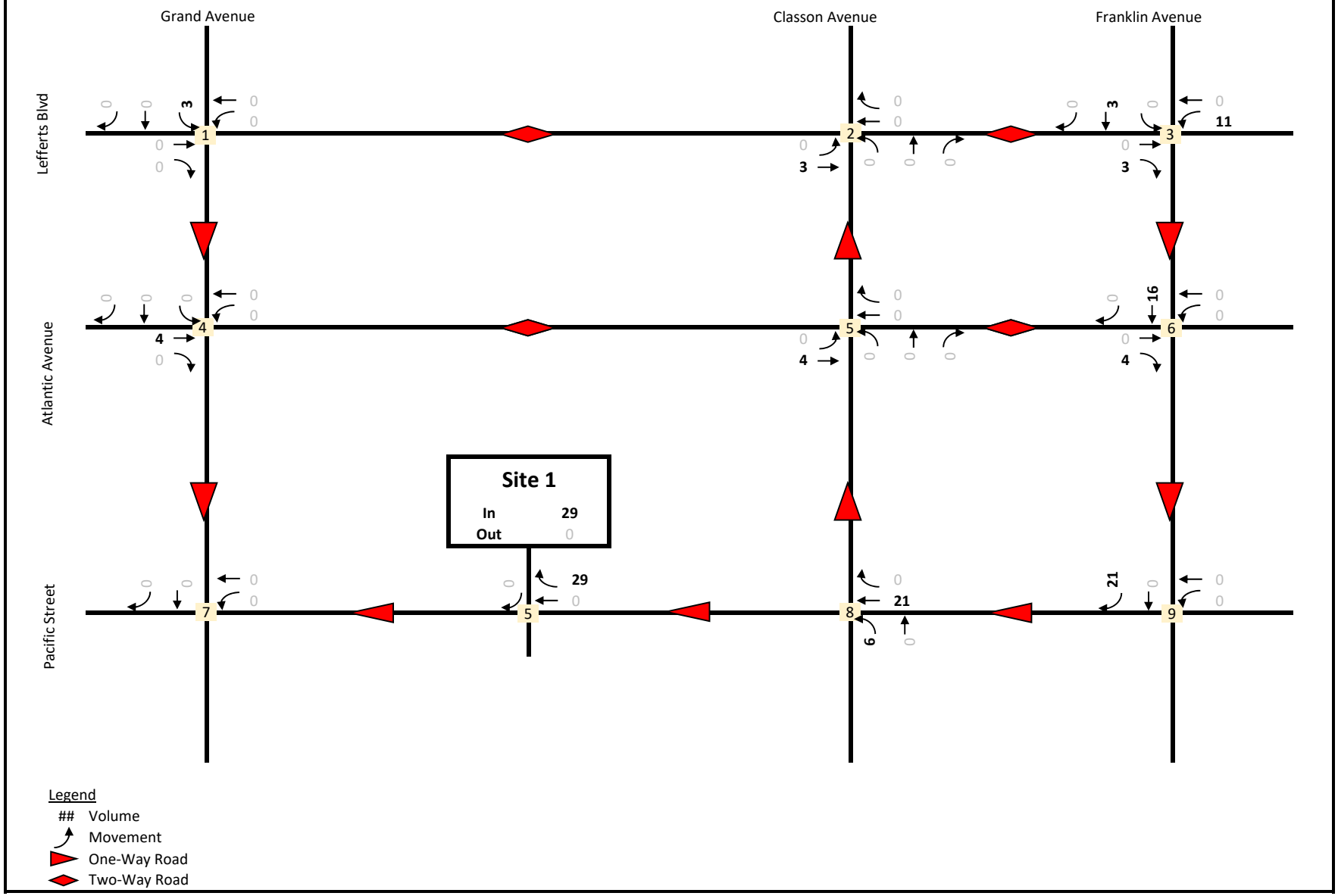

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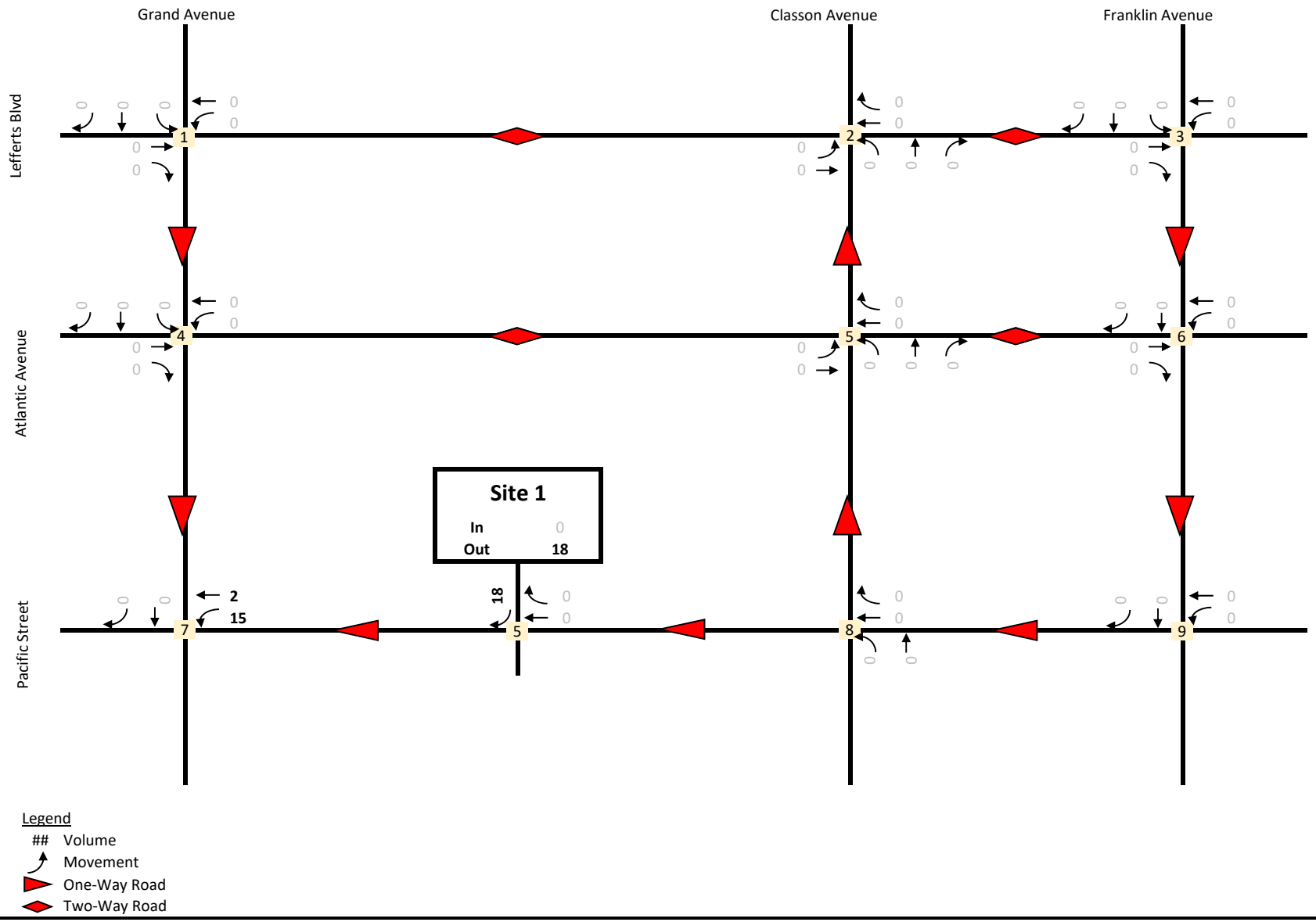

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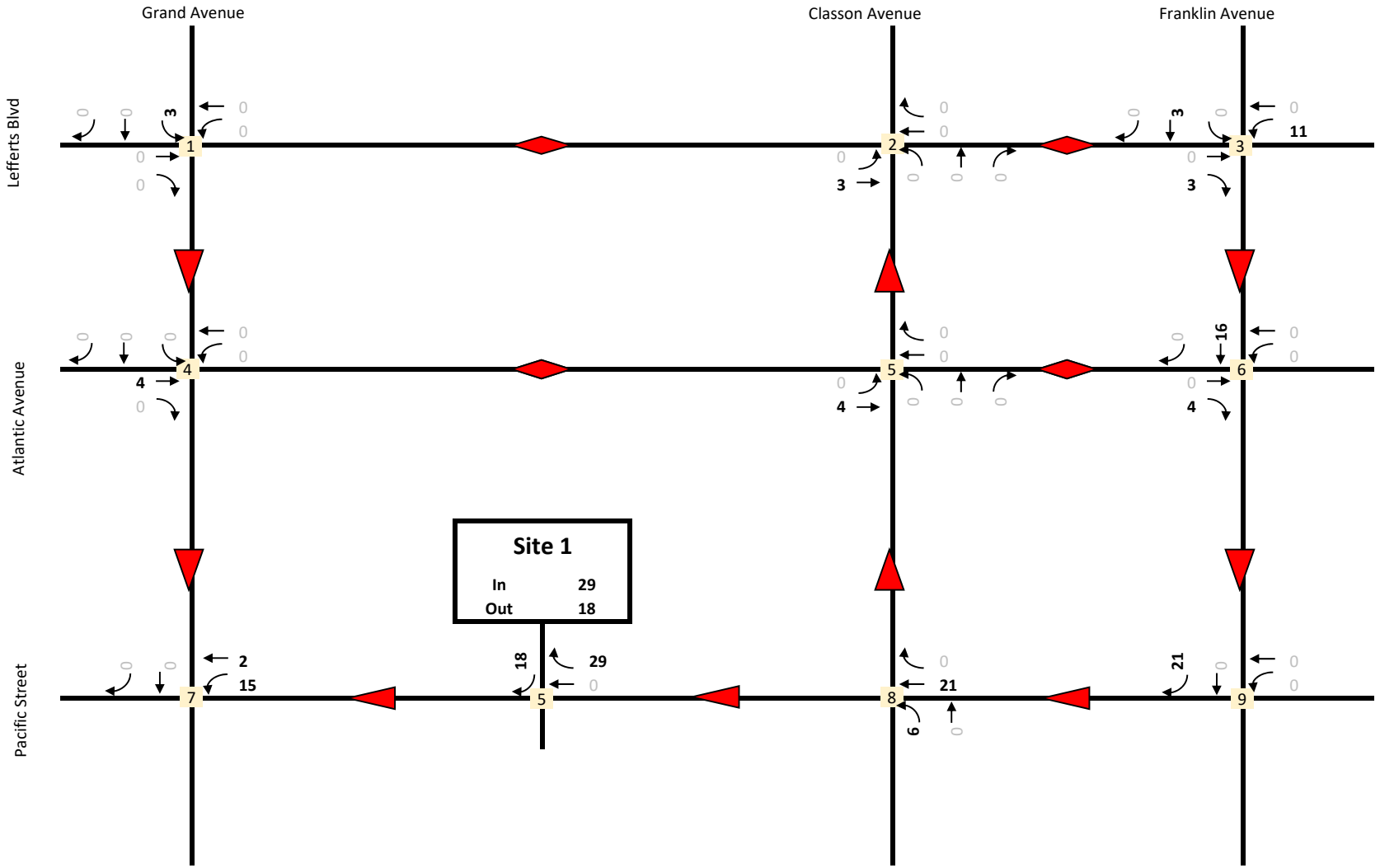

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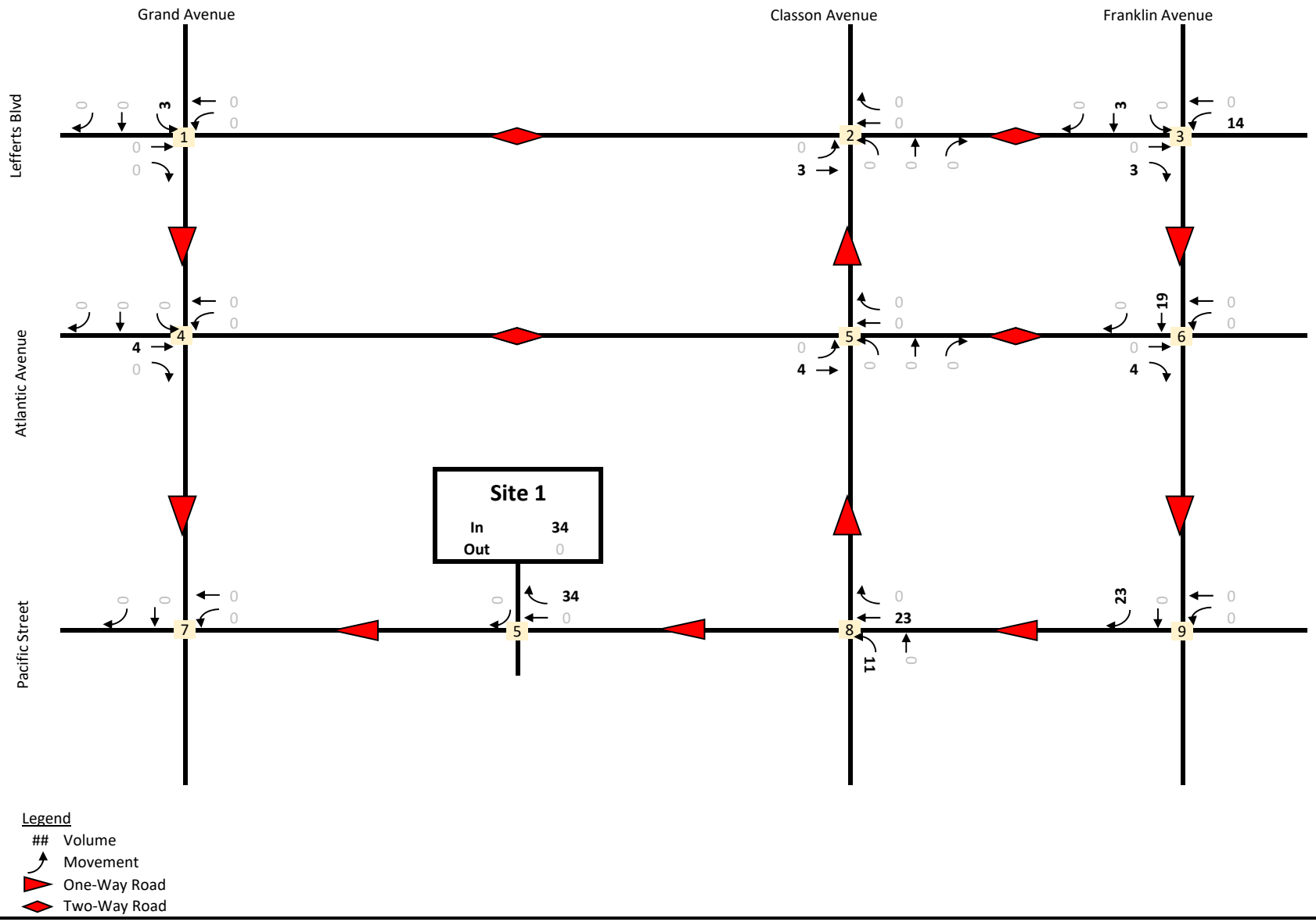

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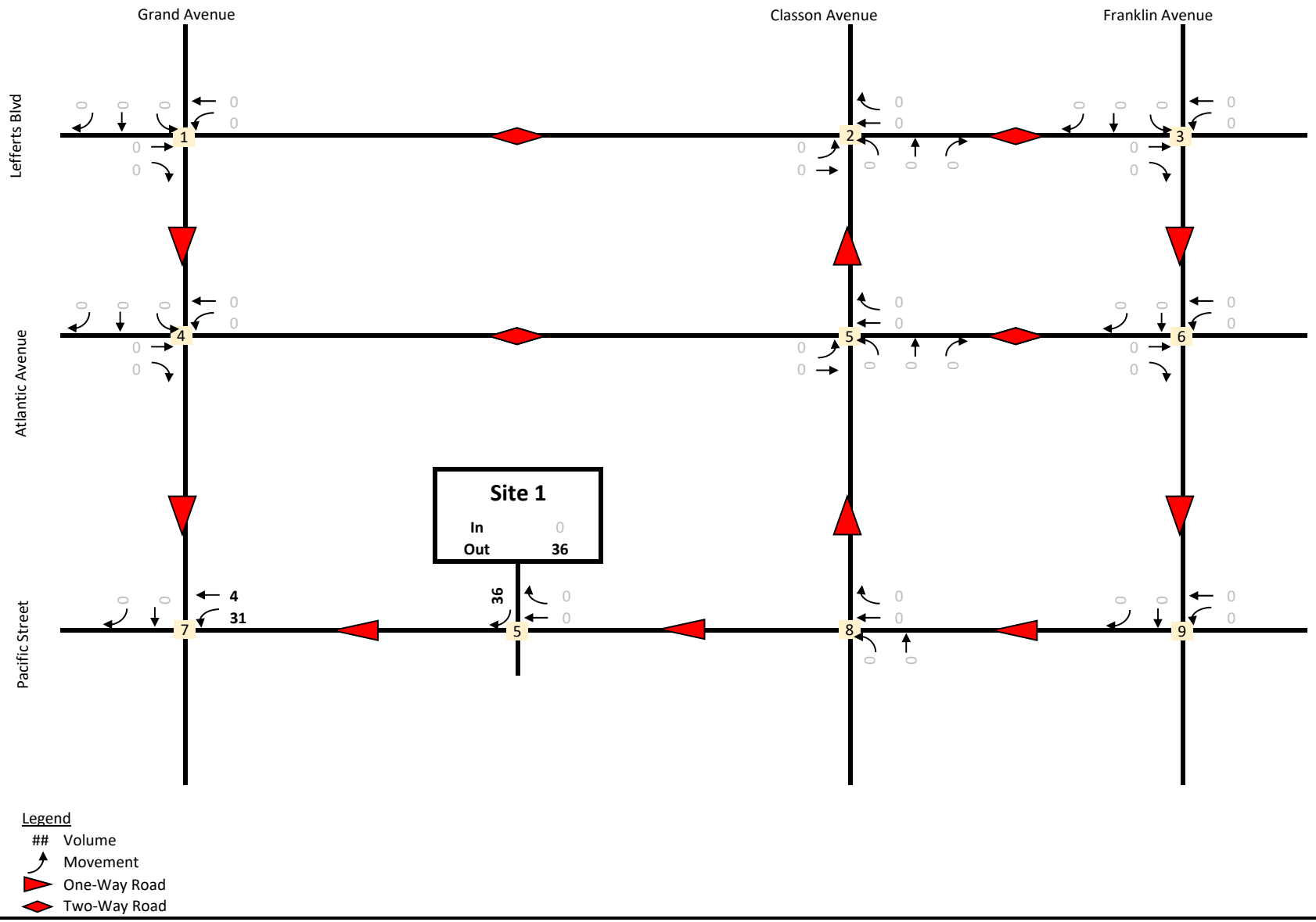
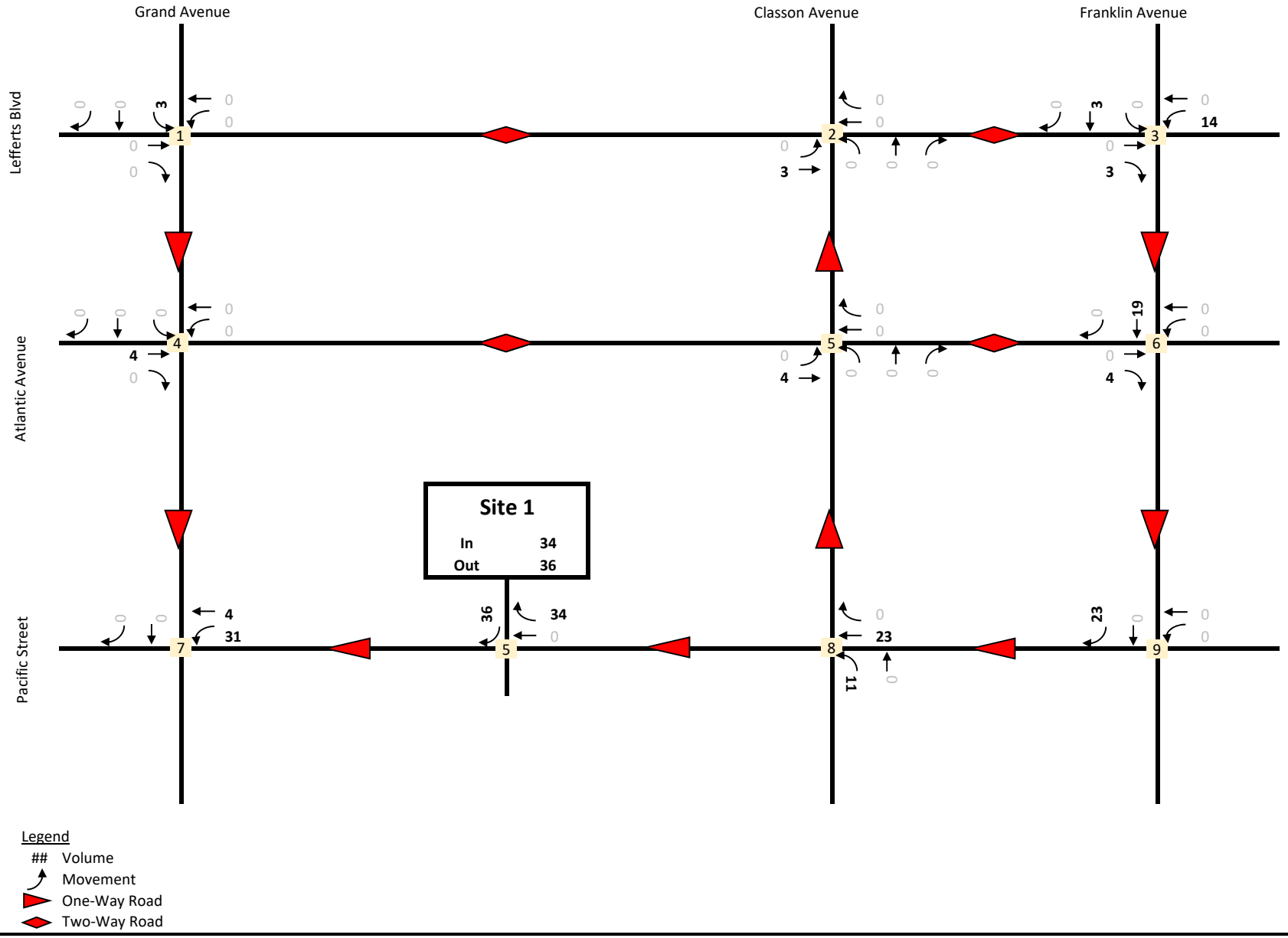
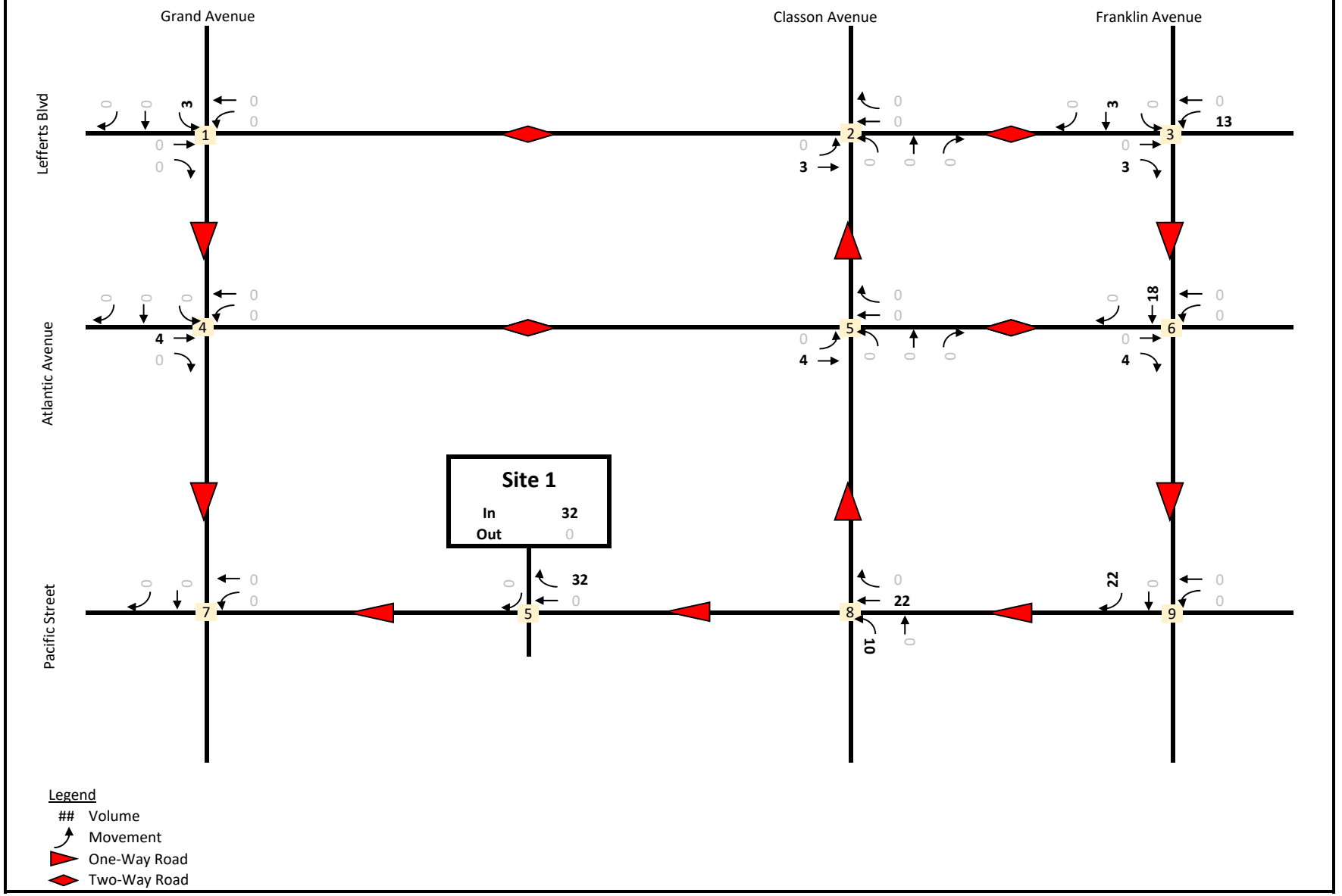


Weekday MD Total



Saturday MD Inbound



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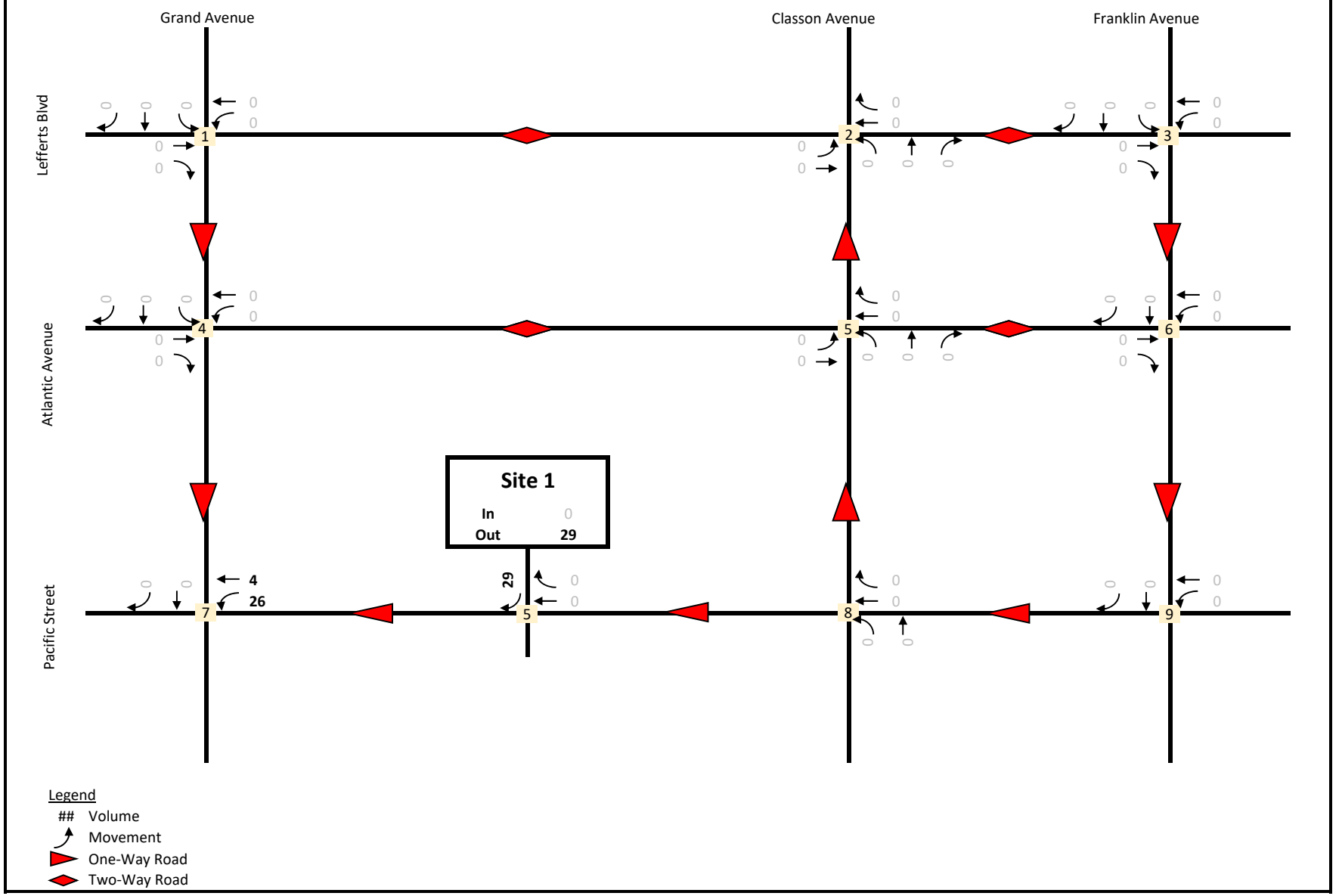
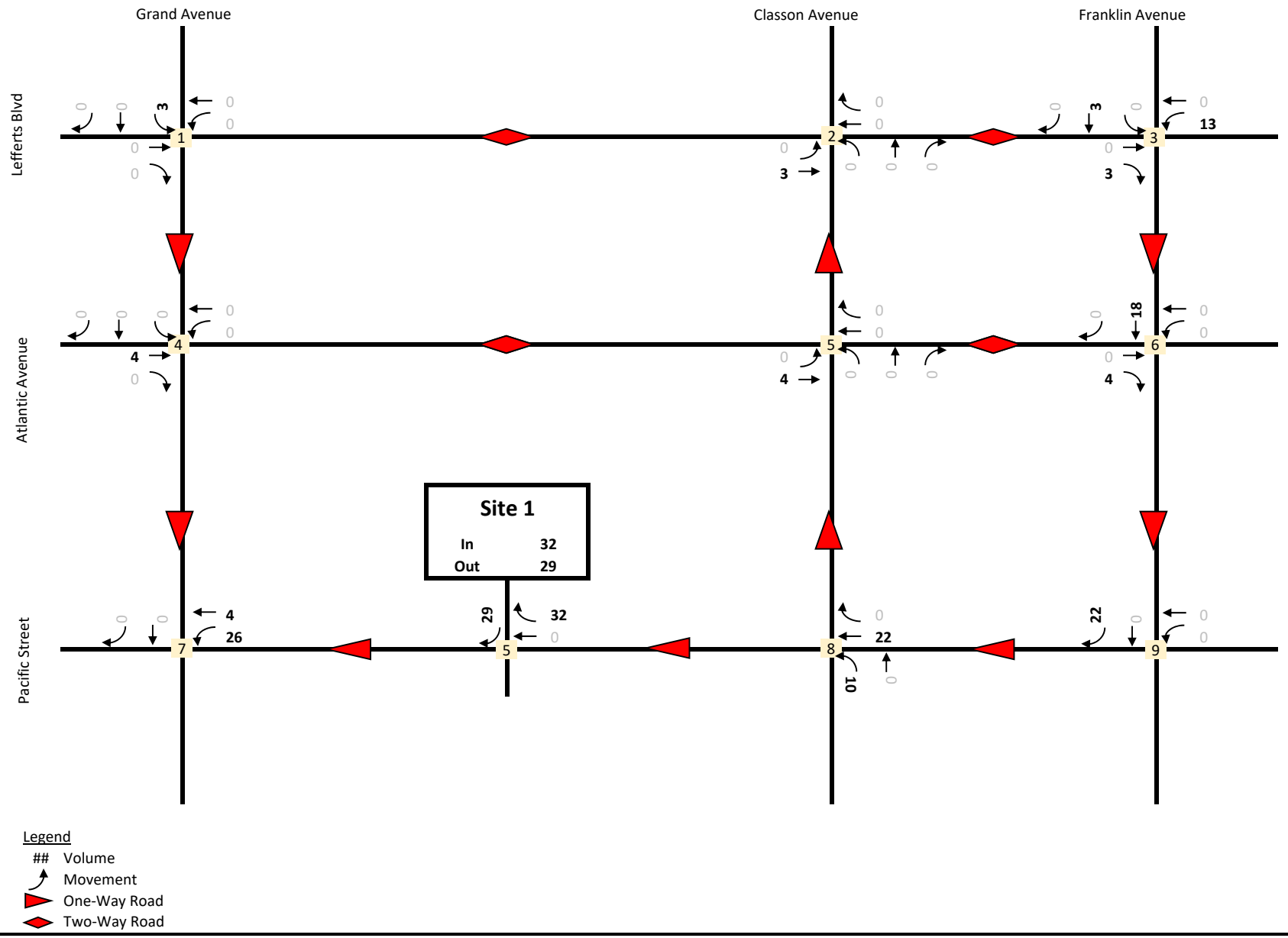
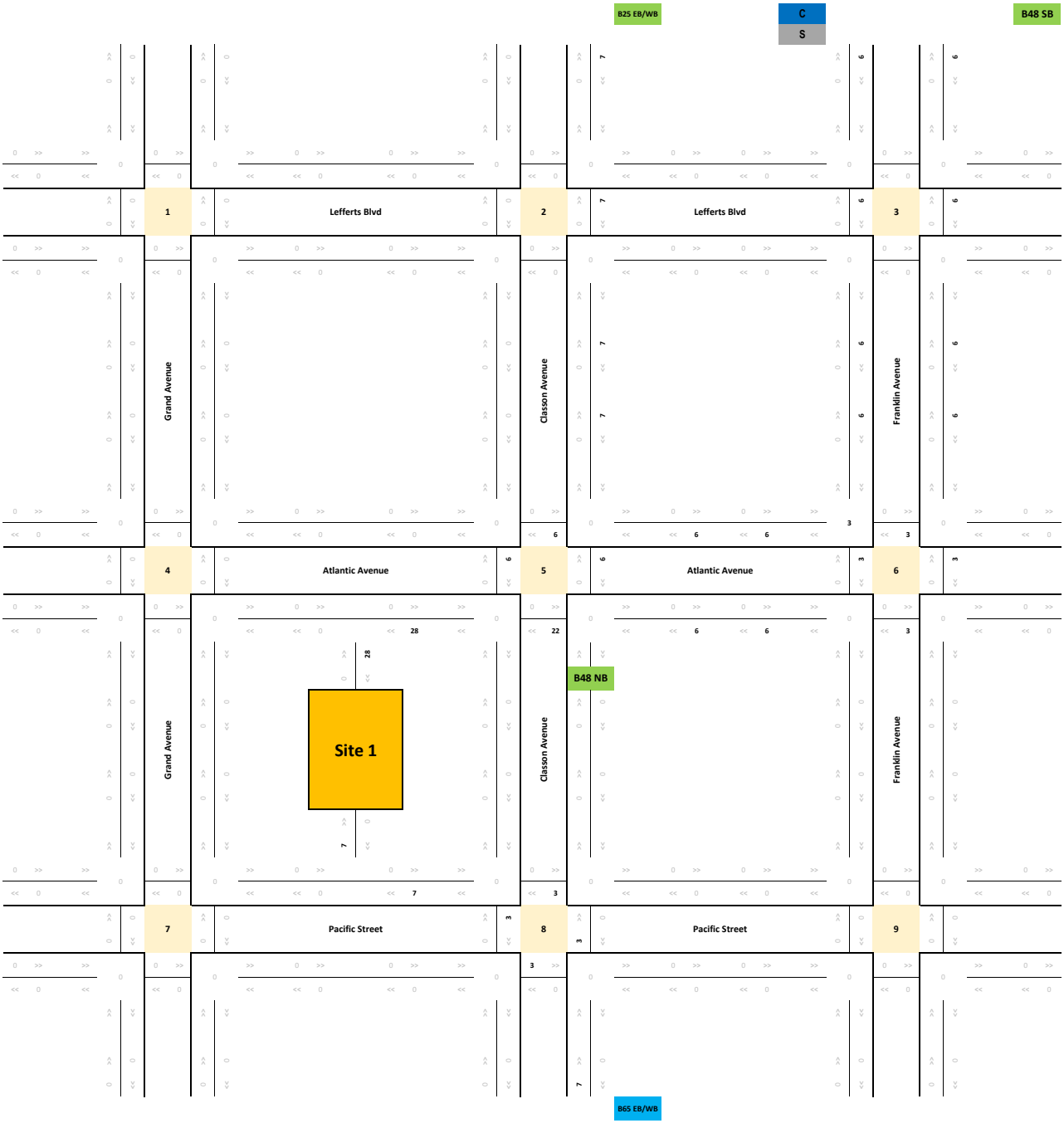


Saturday MD Total



Weekday AM MTA Bus Trips (Inbound)



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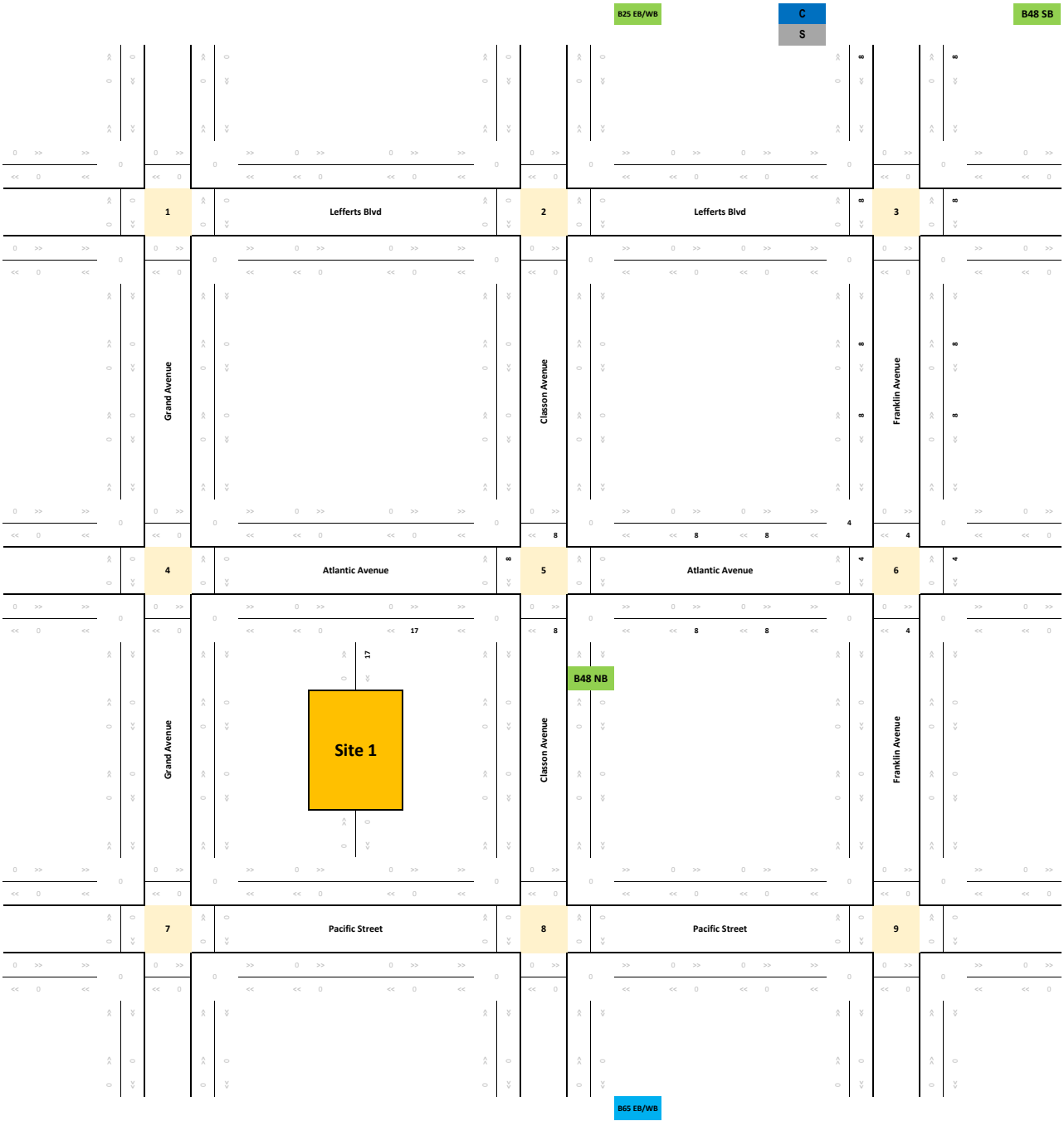
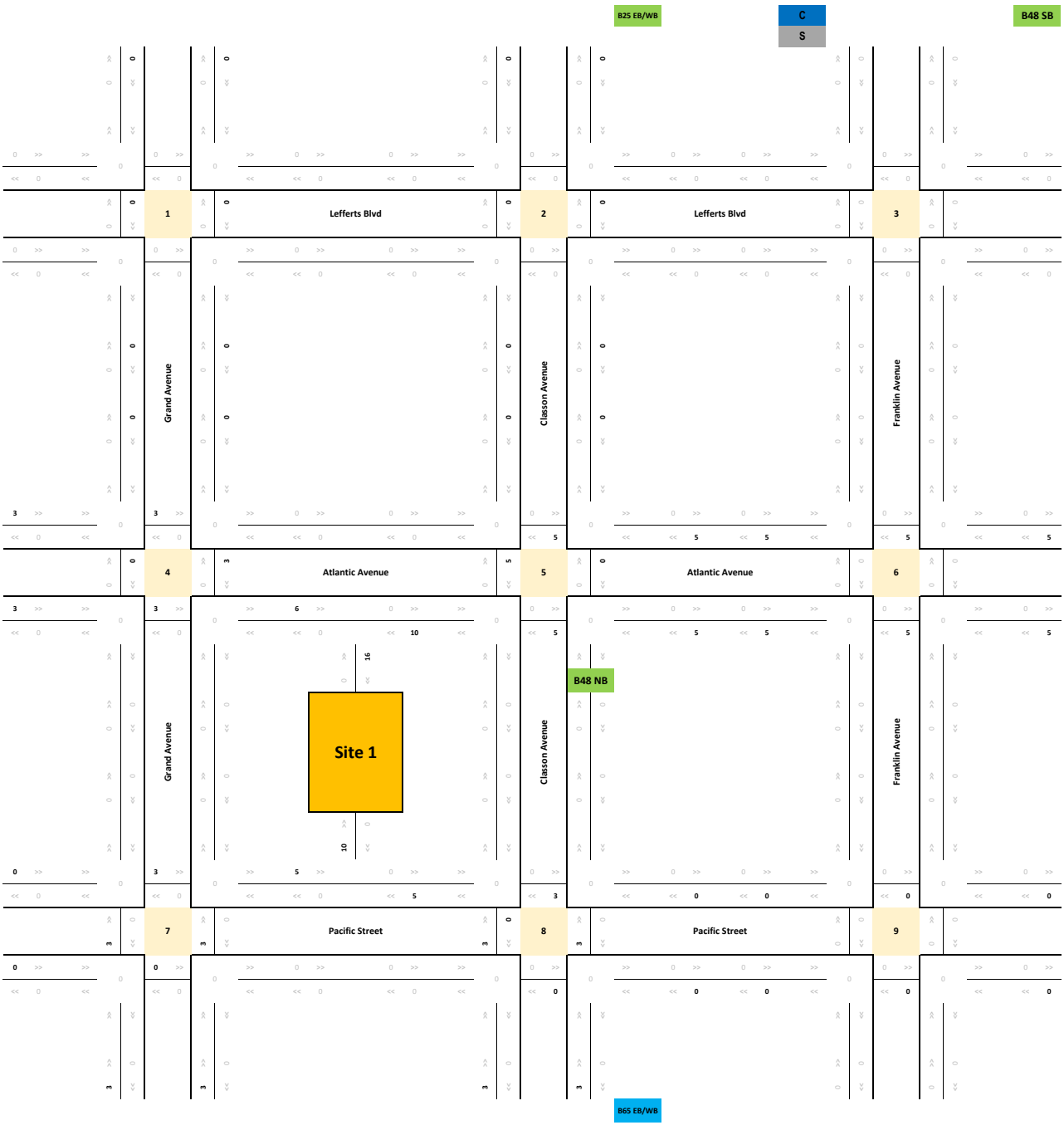


Weekday AM Walk / Other Trips (Inbound)



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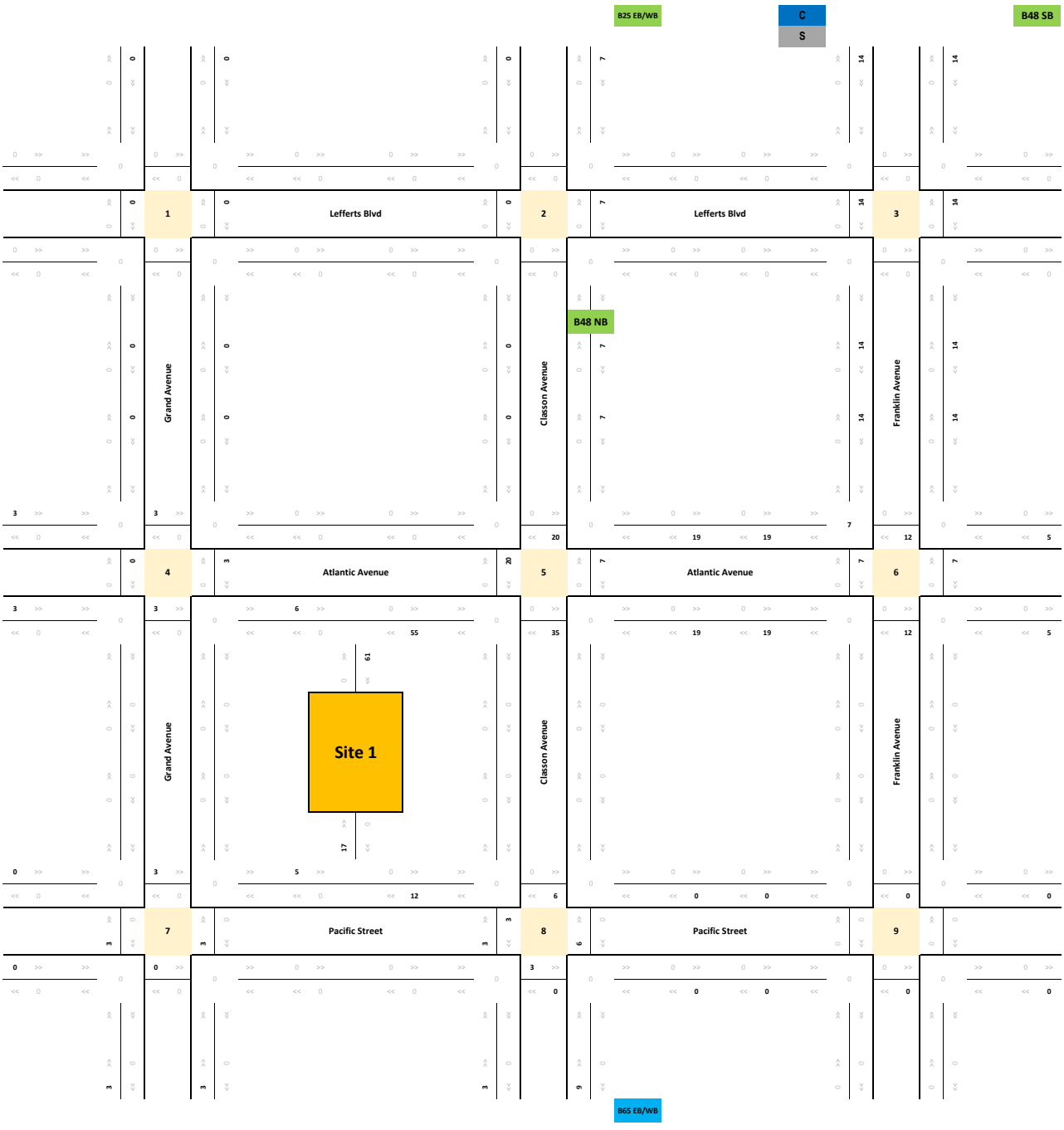

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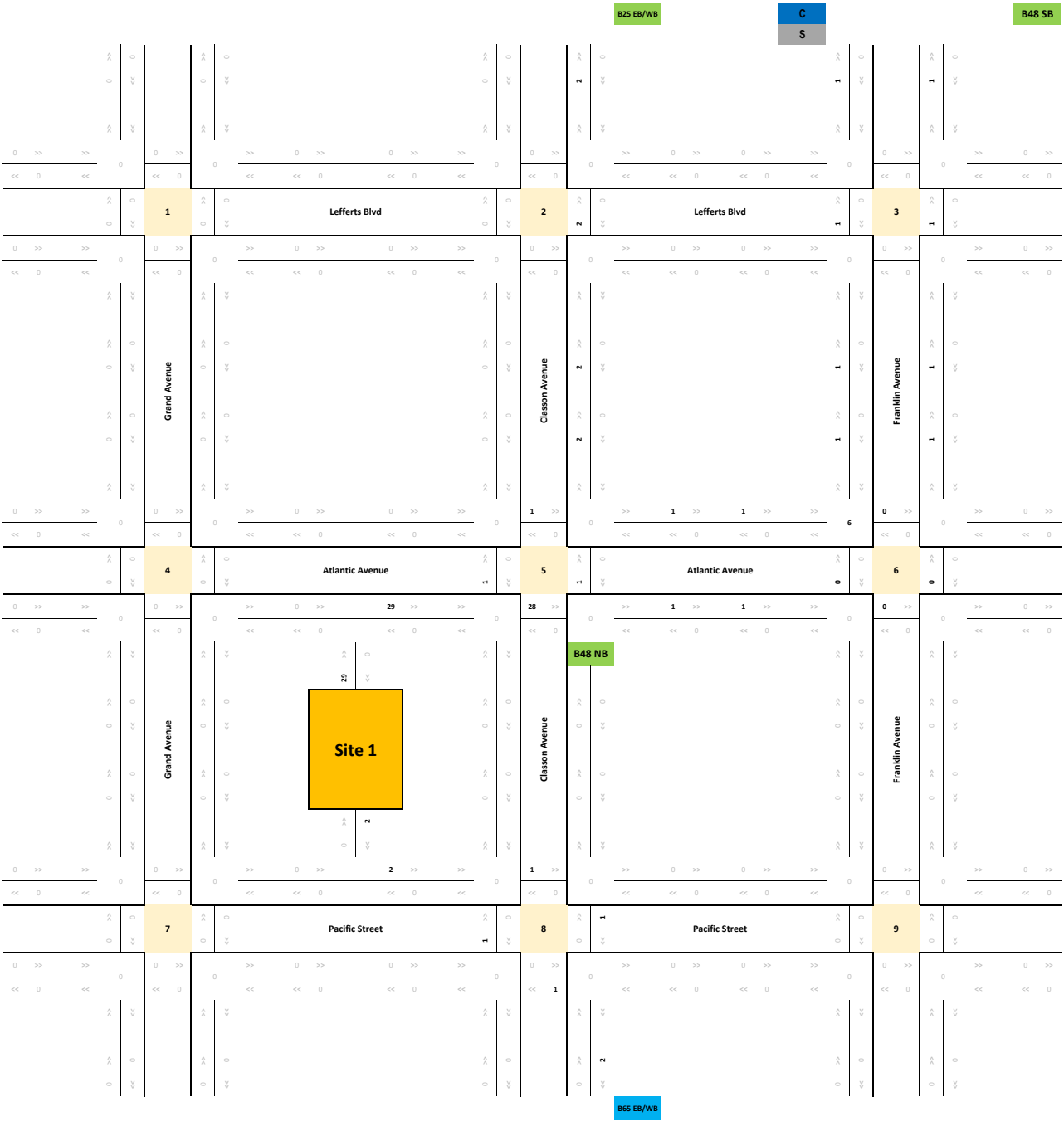

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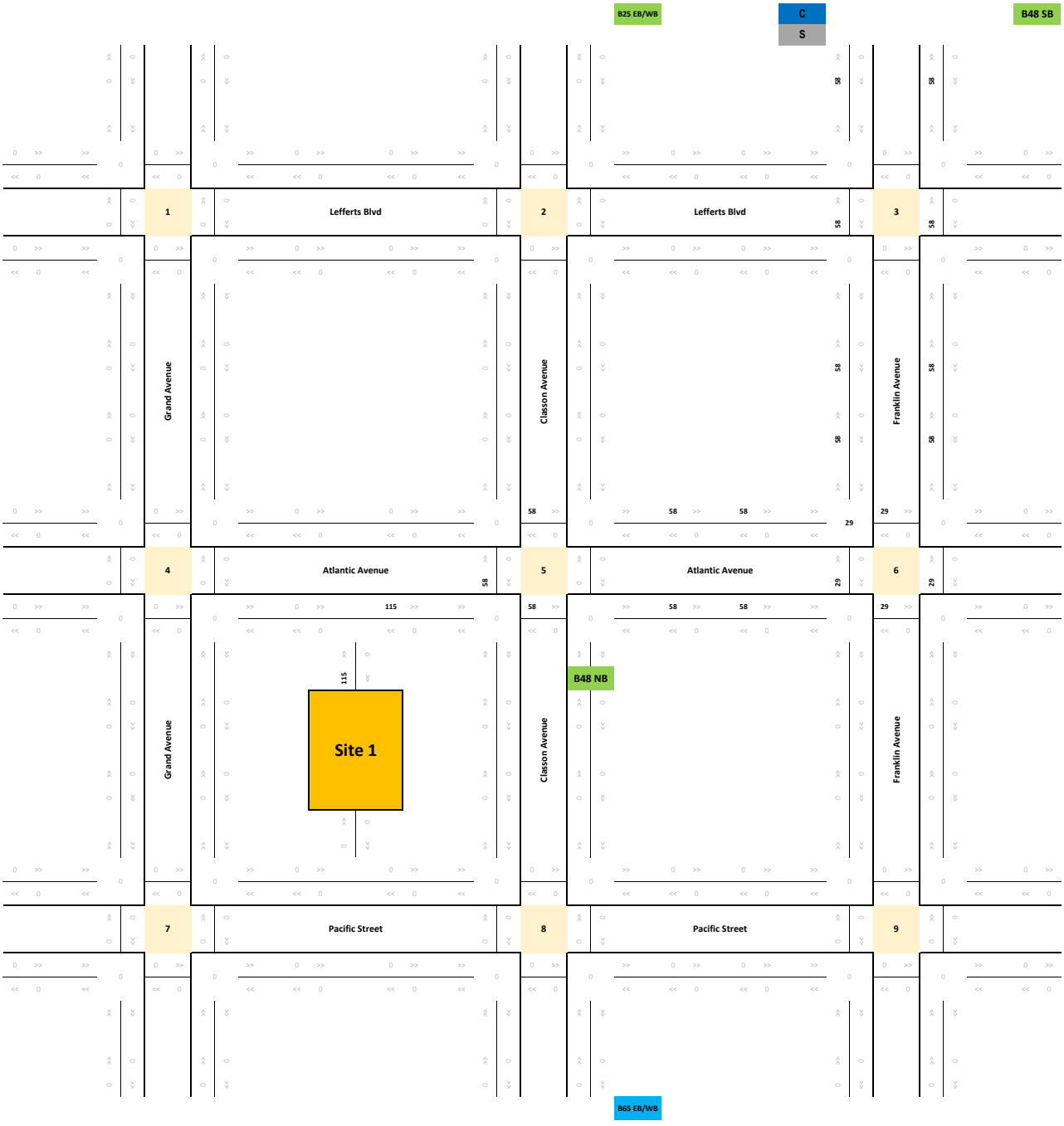
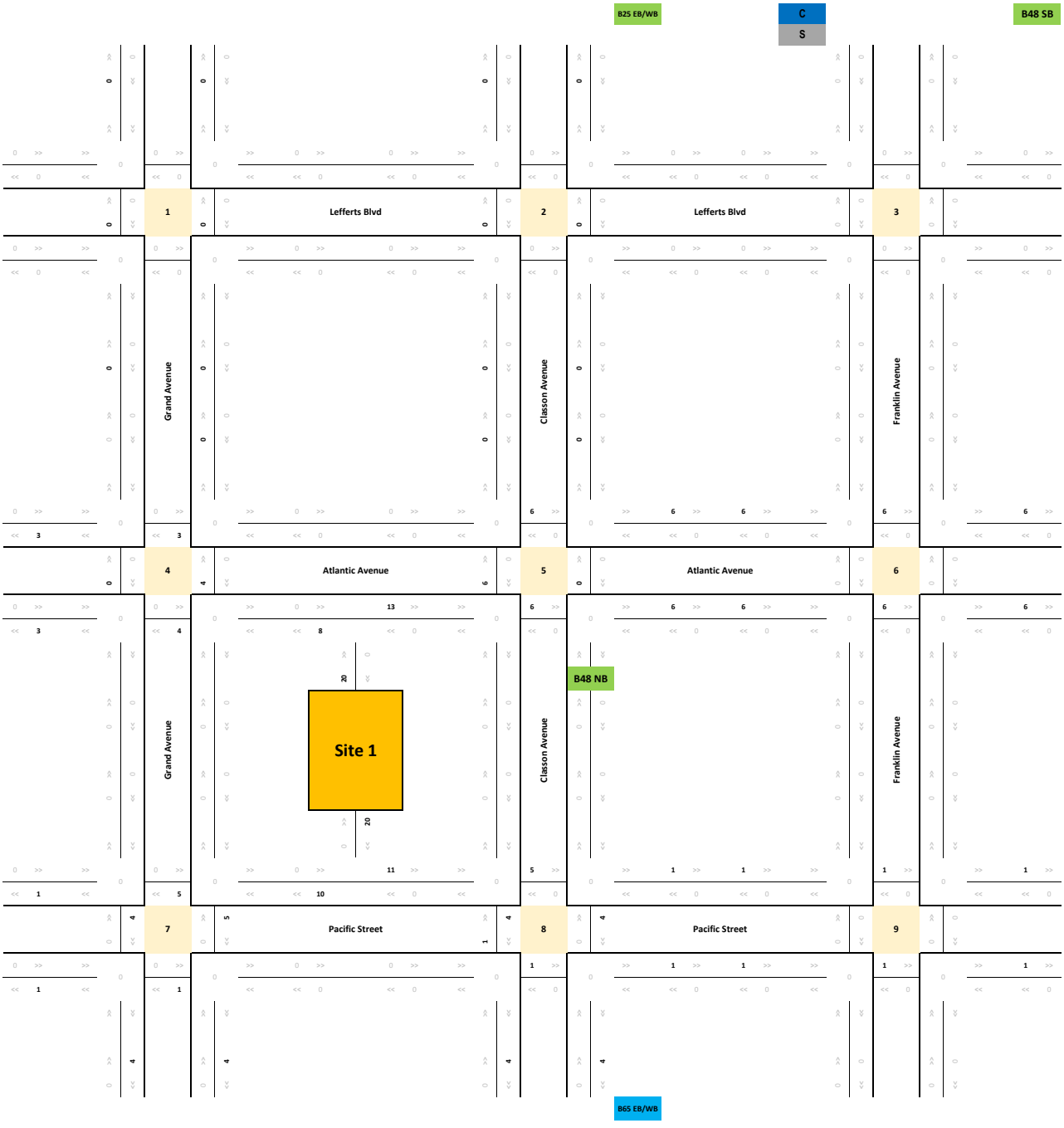


Weekday AM Walk / Other Trips (Outbound)



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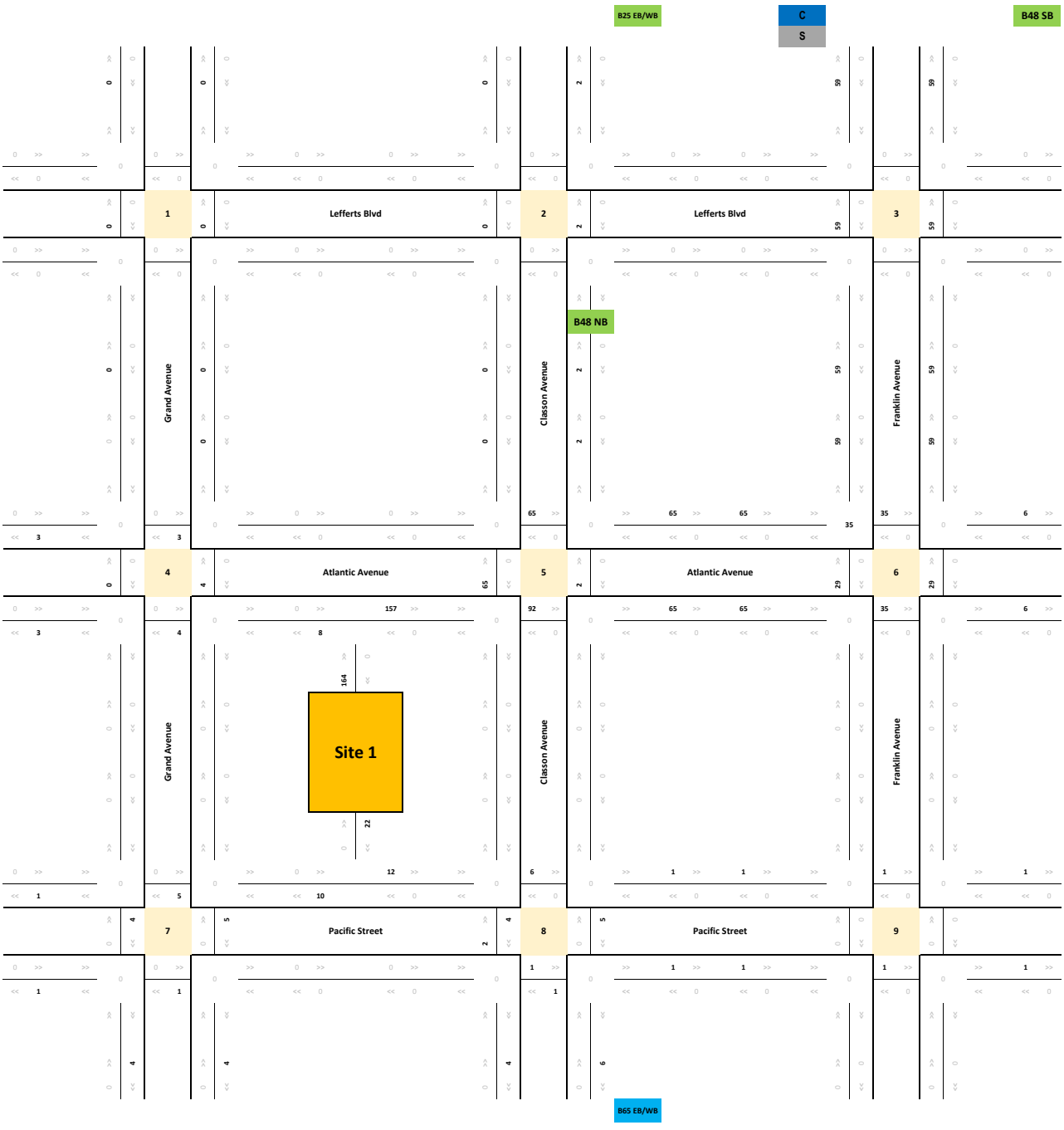
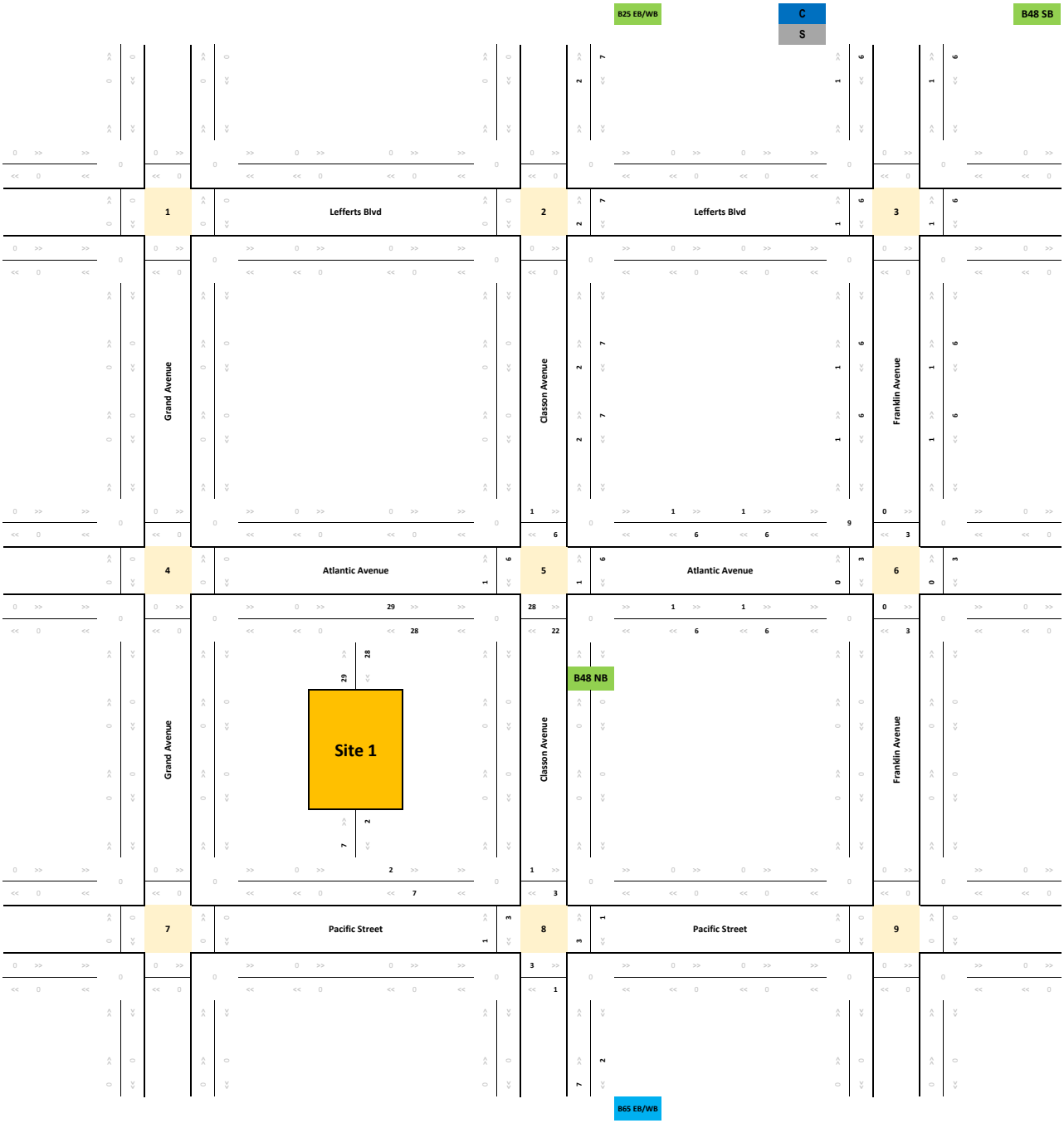
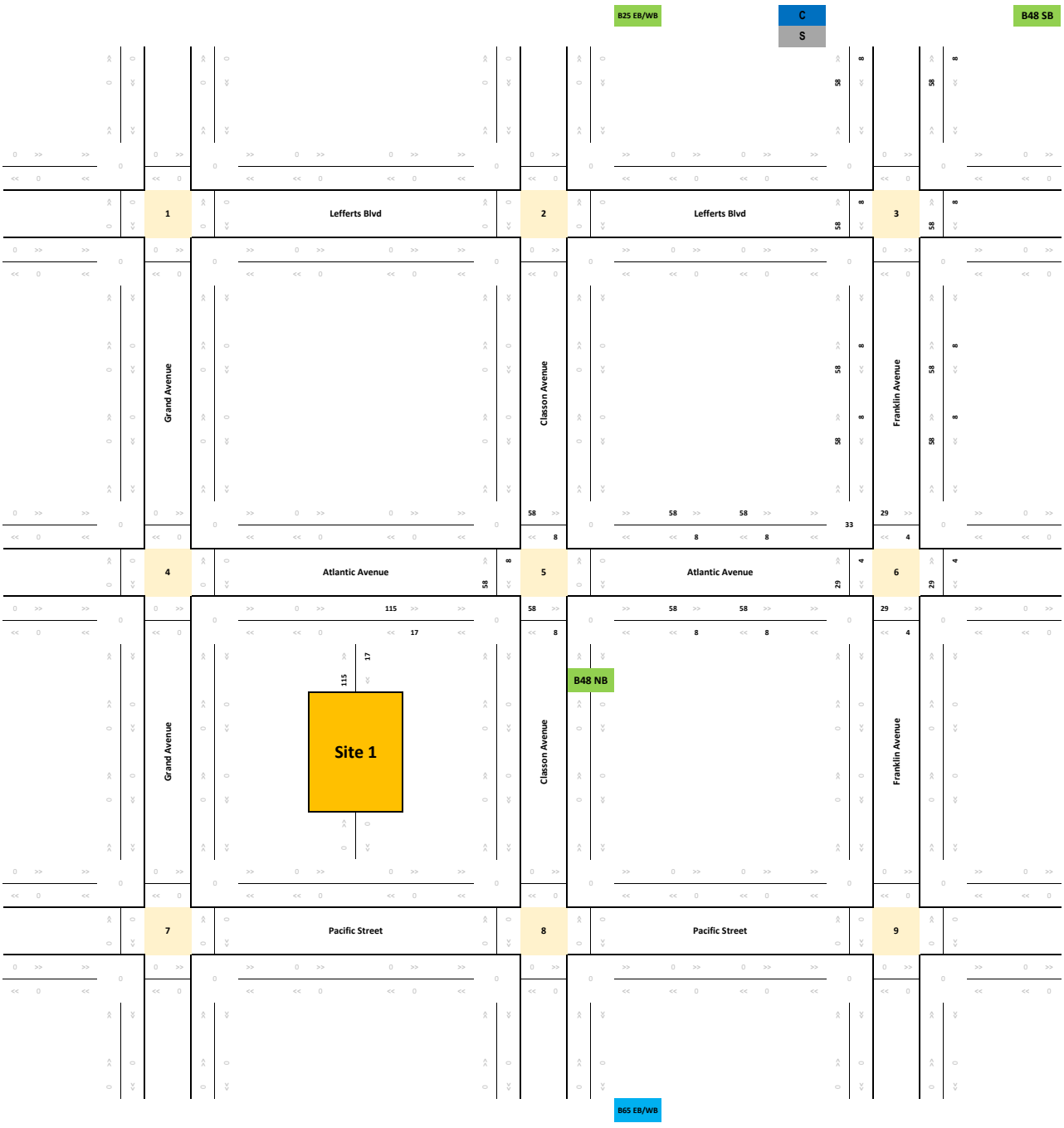


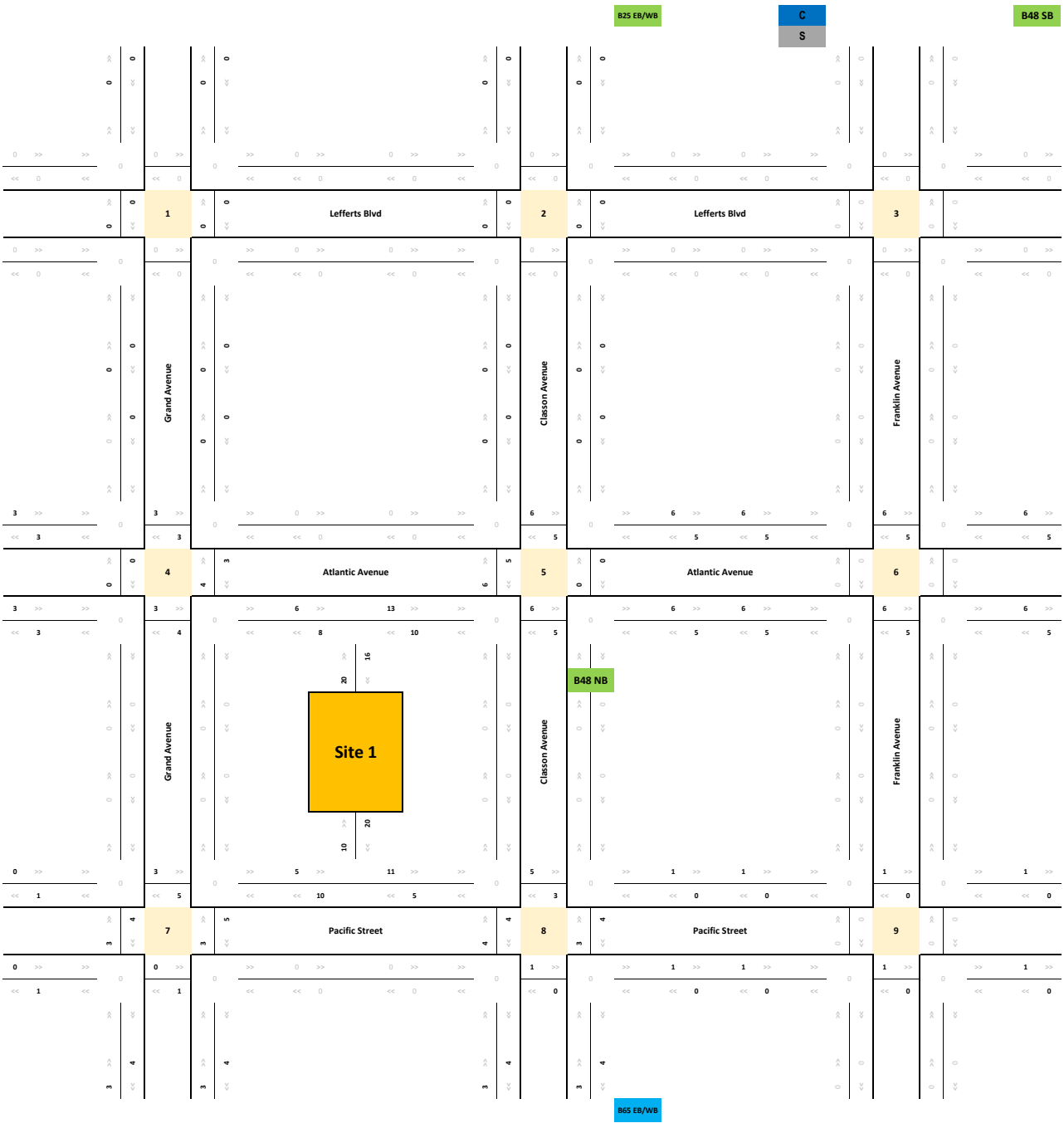
Weekday AM MTA Bus Trips (Total)



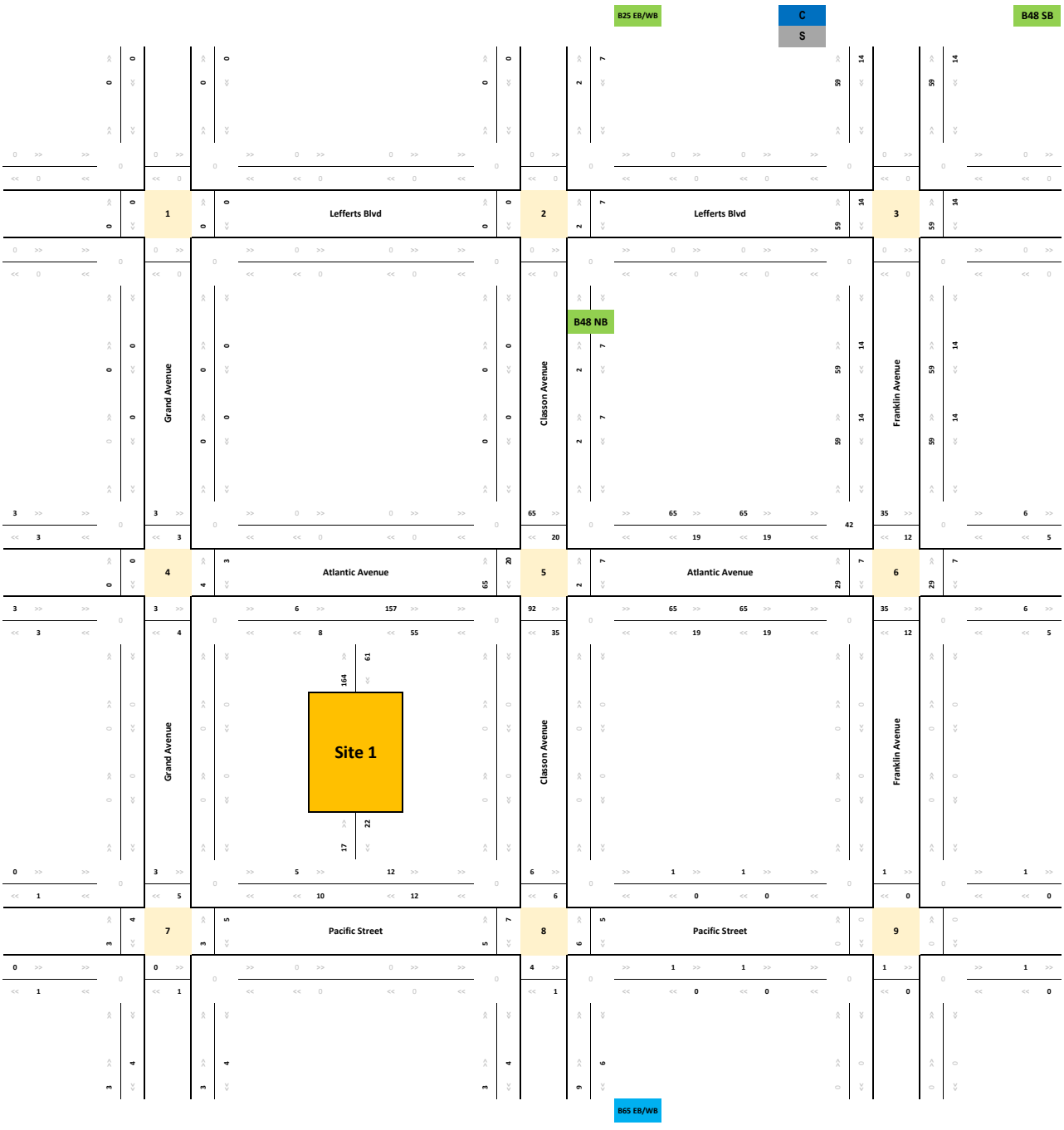
Weekday AM Subway Trips (Total)



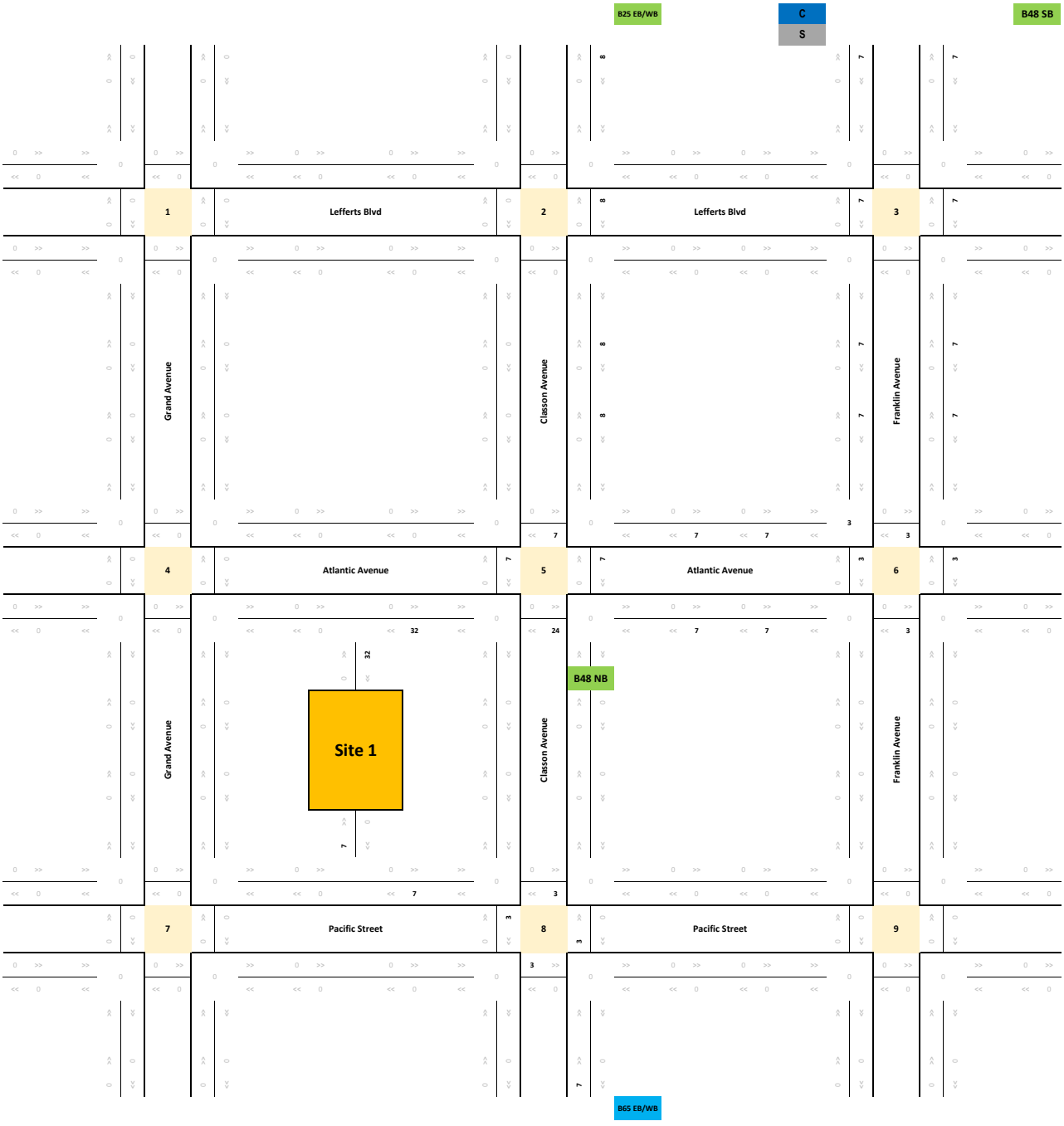
Weekday AM Walk / Other Trips (Total)



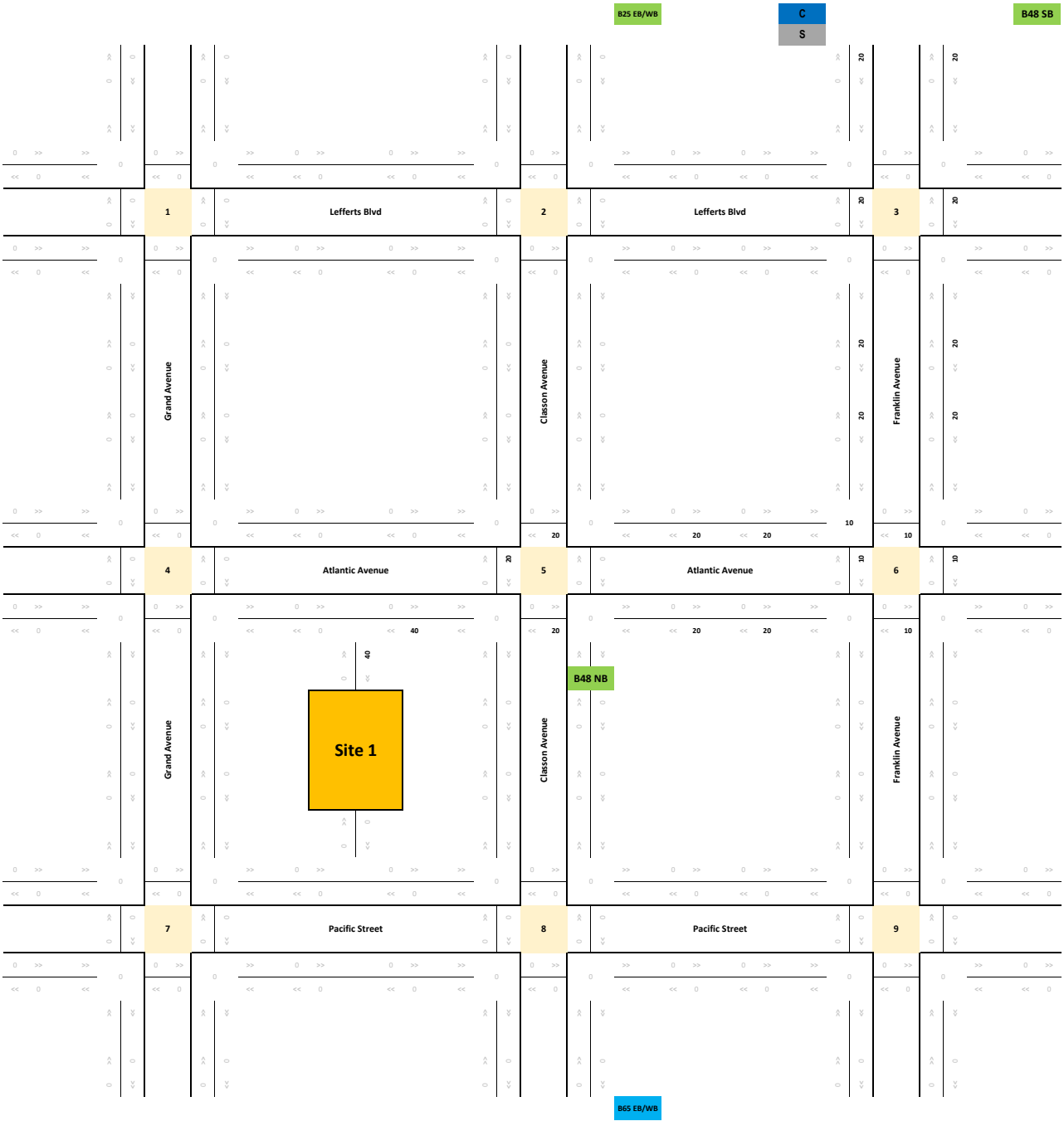
Weekday AM Total Trips



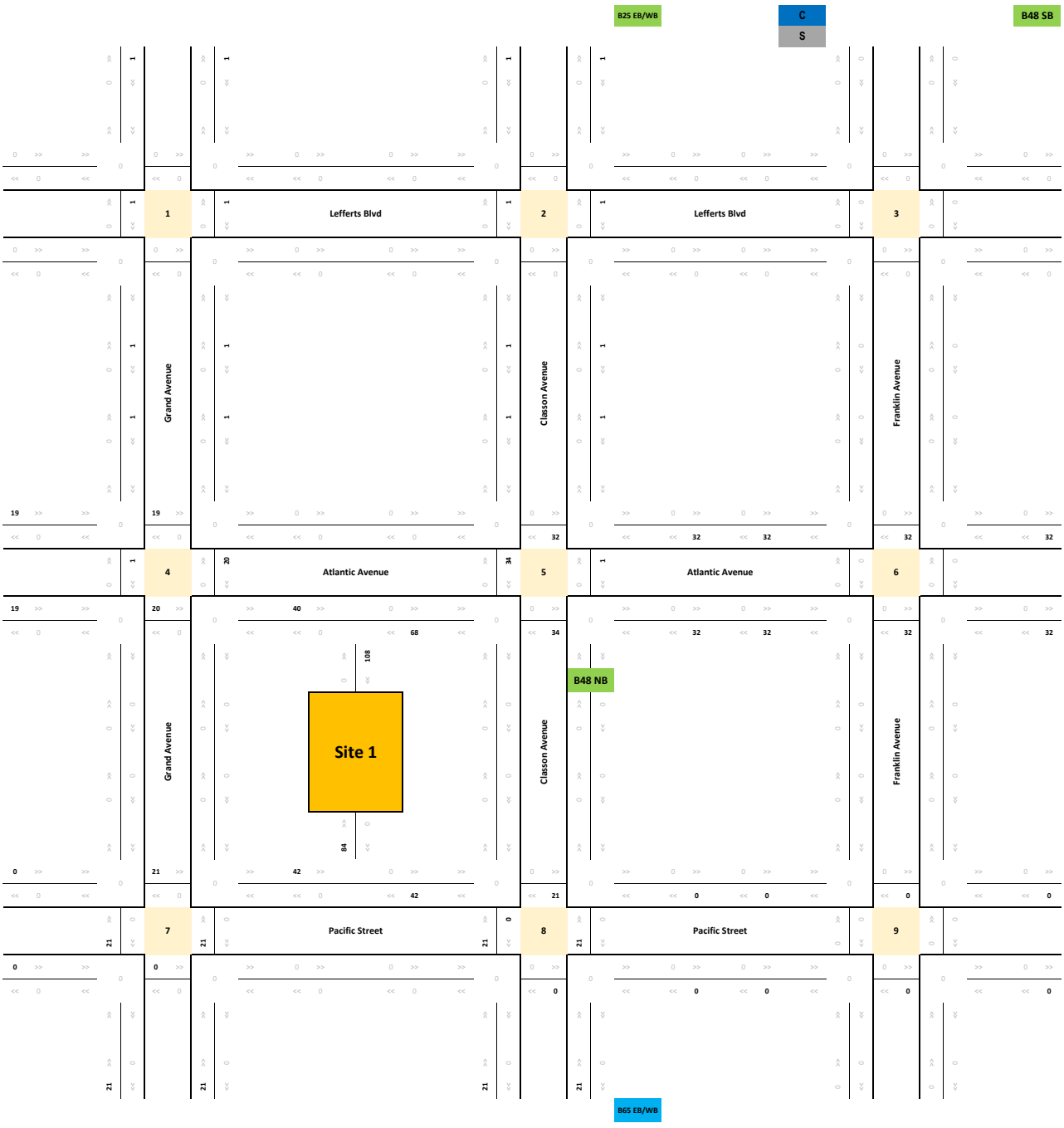
Weekday Midday MTA Bus Trips (Inbound)



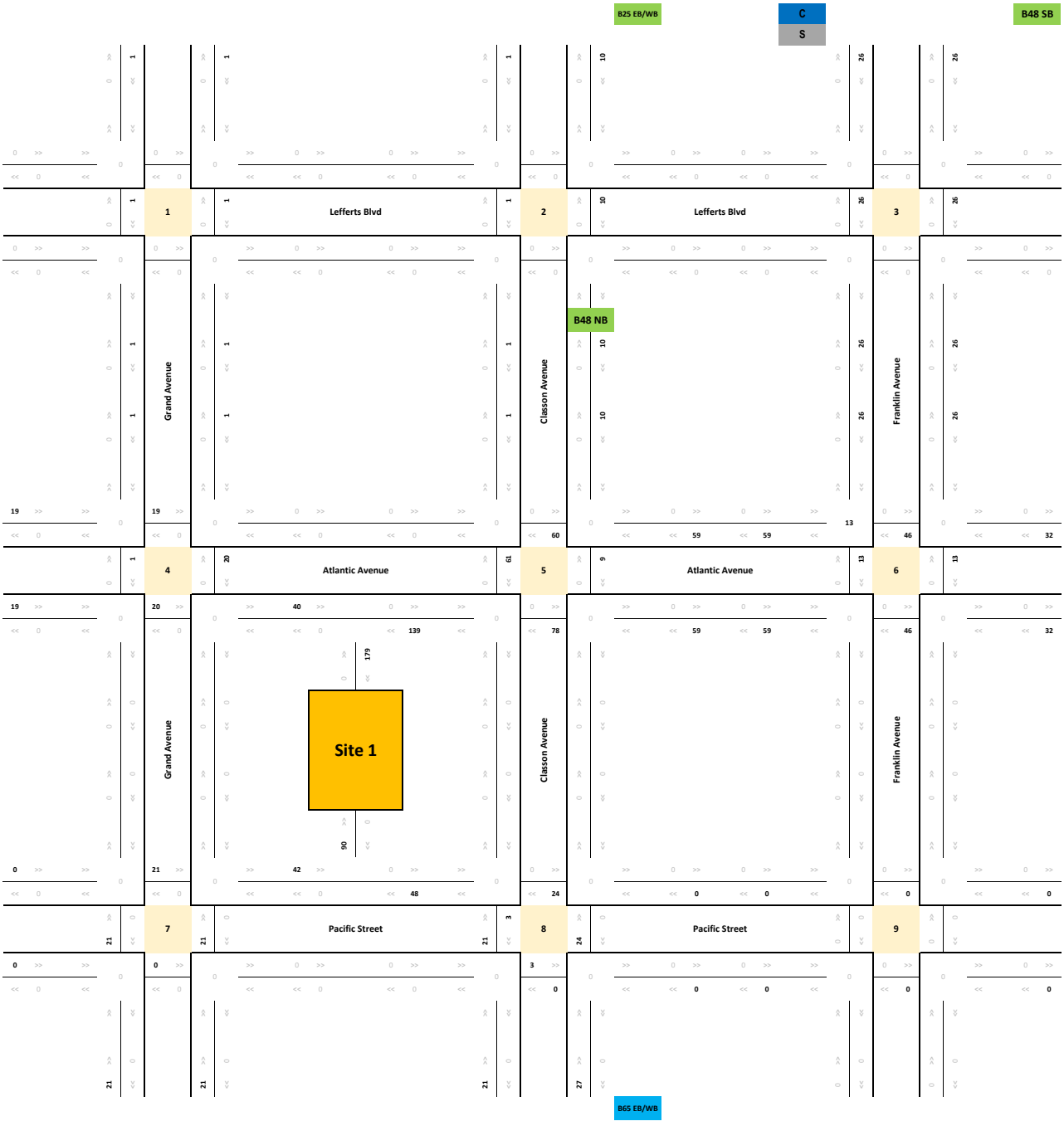
Weekday Midday Subway Trips (Inbound)



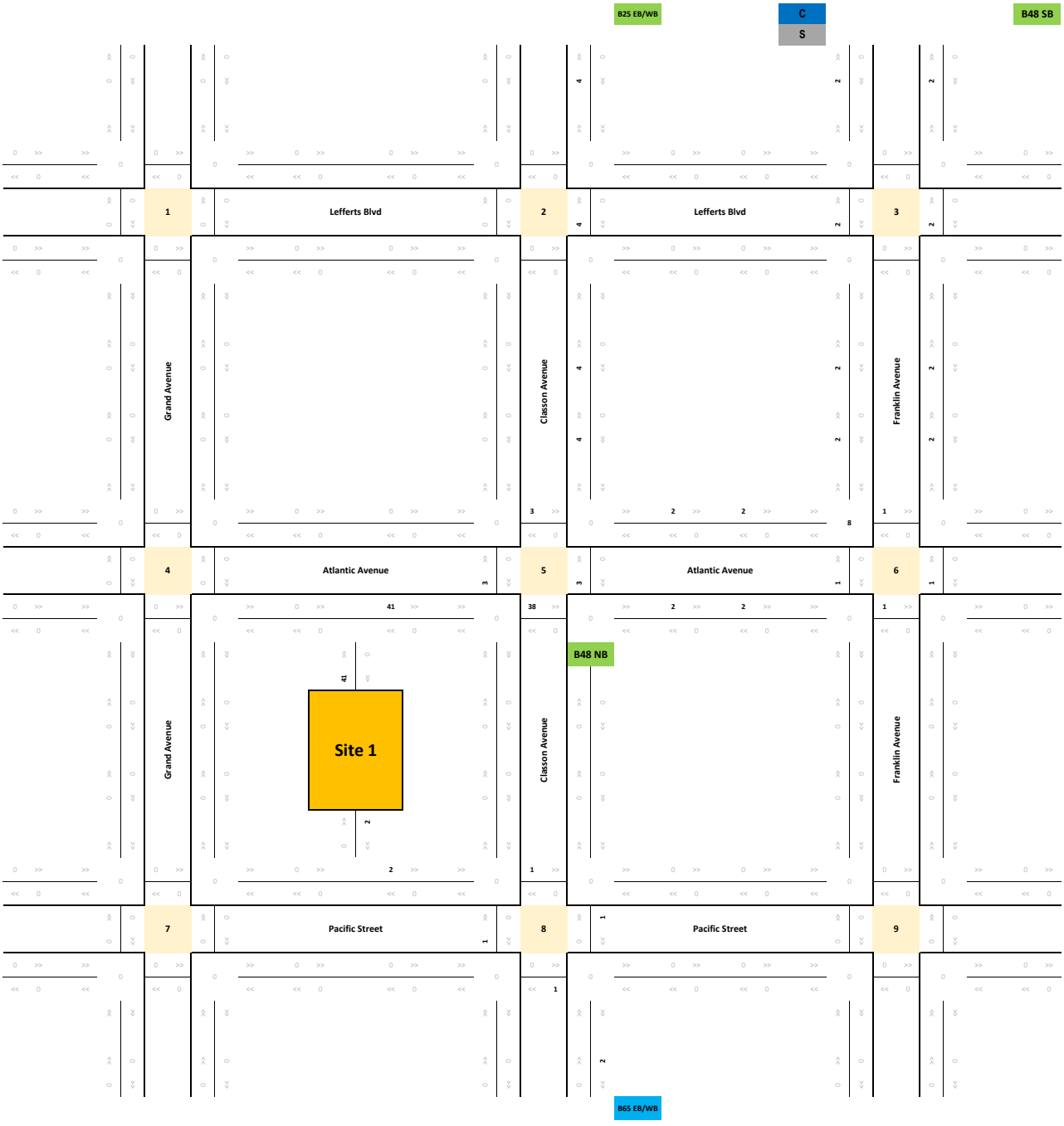
Weekday Midday Walk / Other Trips (Inbound)



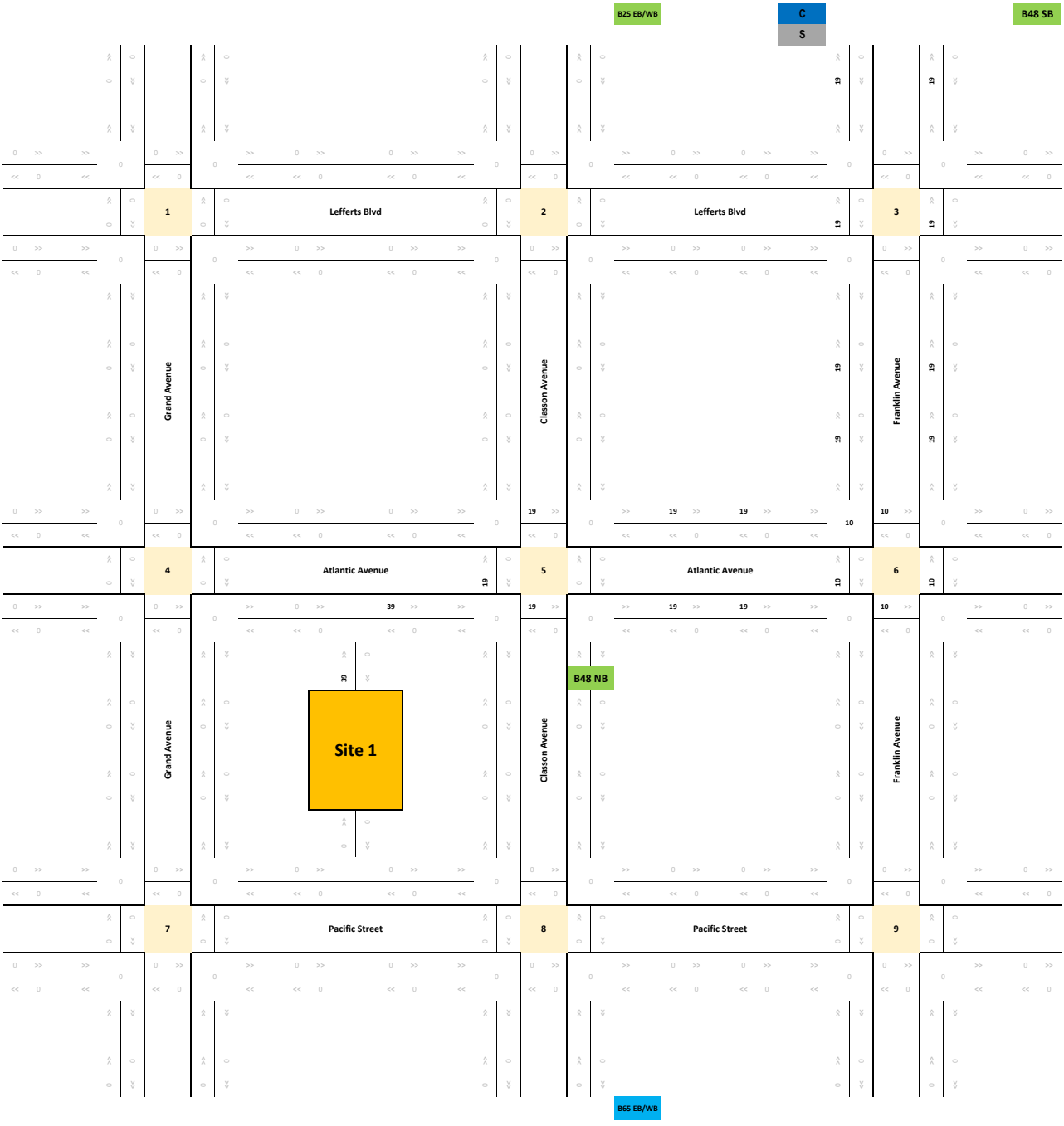
Weekday Midday Total Trips (Inbound)



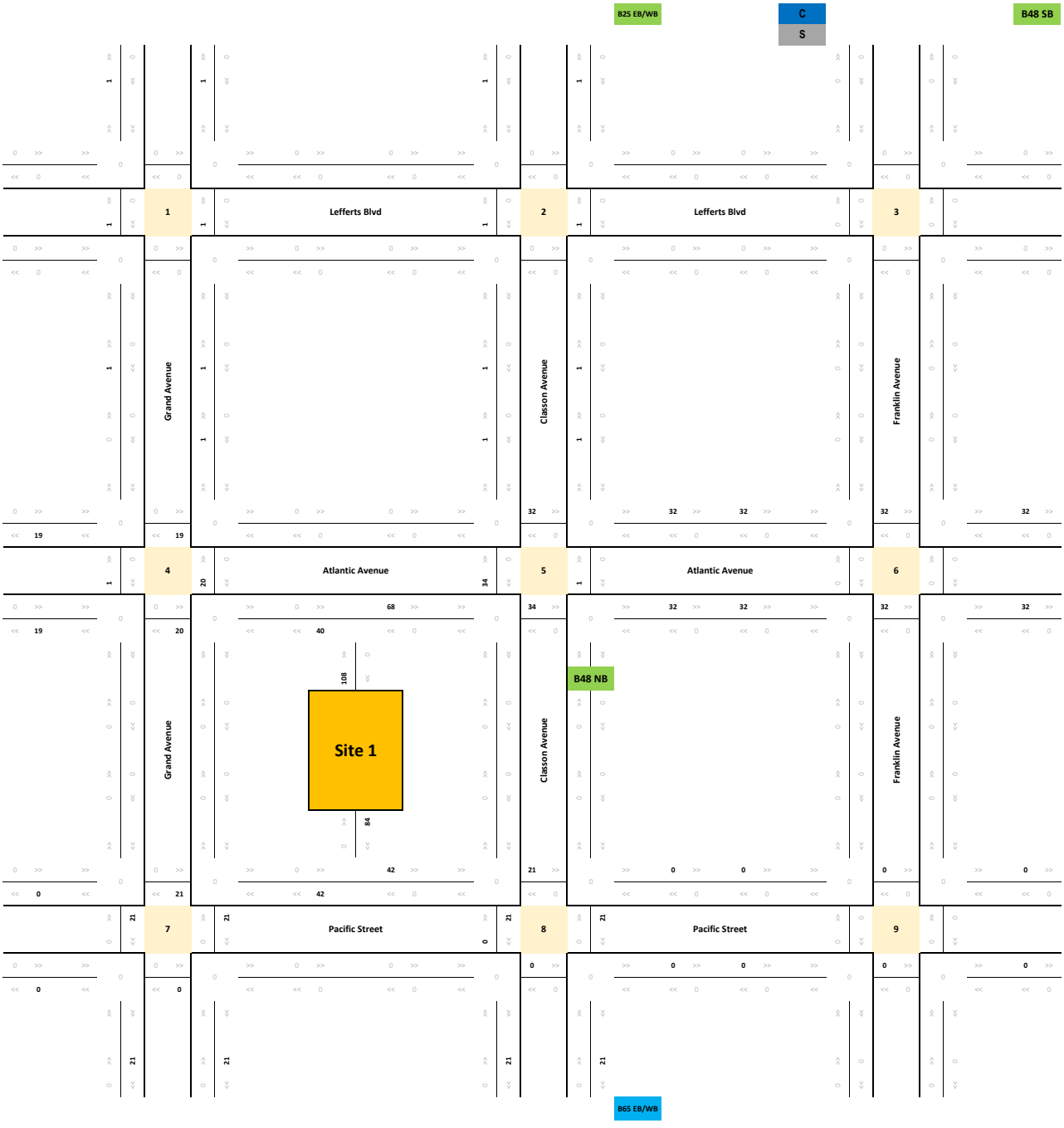
Weekday Midday MTA Bus Trips (Outbound)



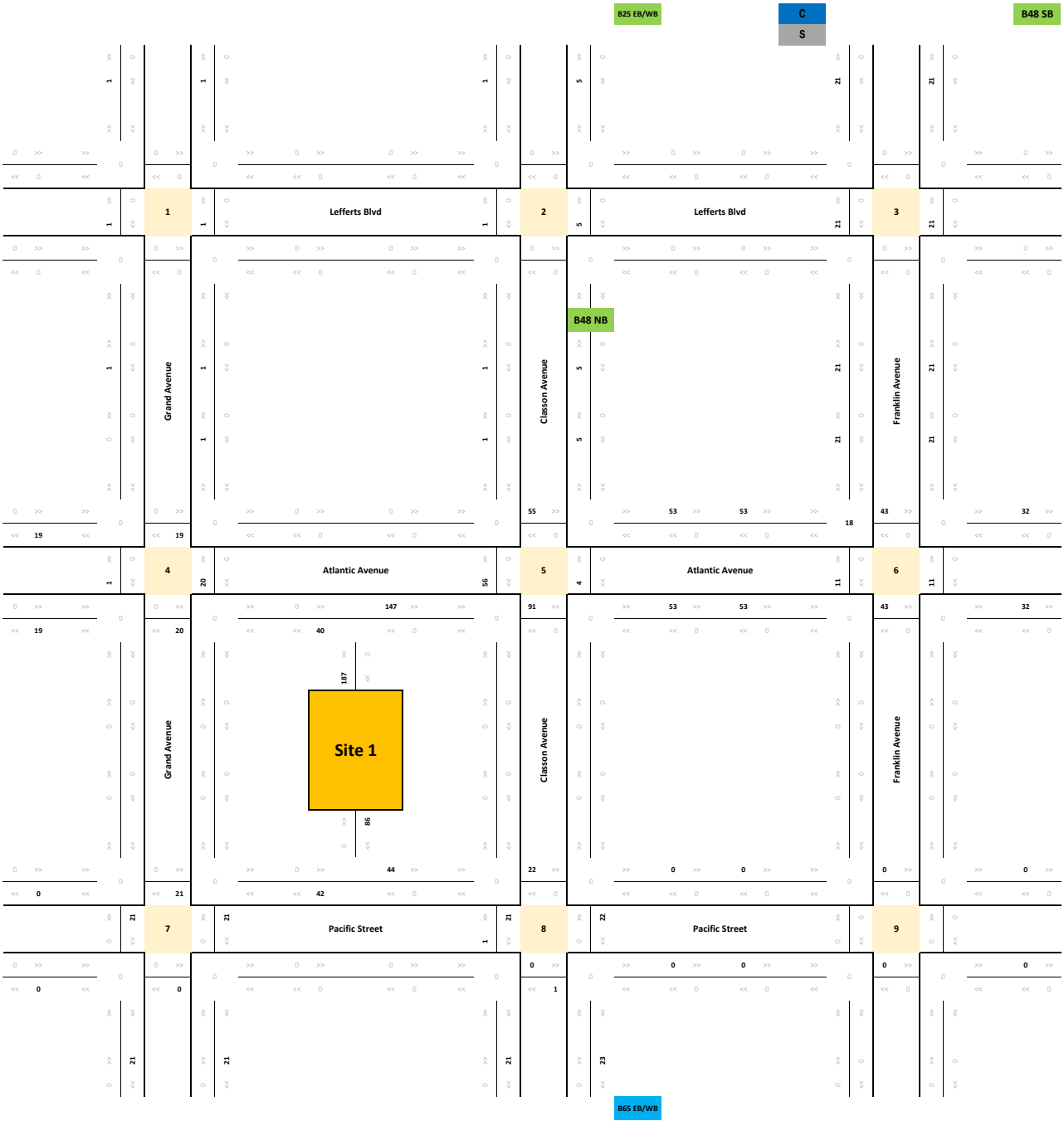
Weekday Midday Subway Trips (Outbound)



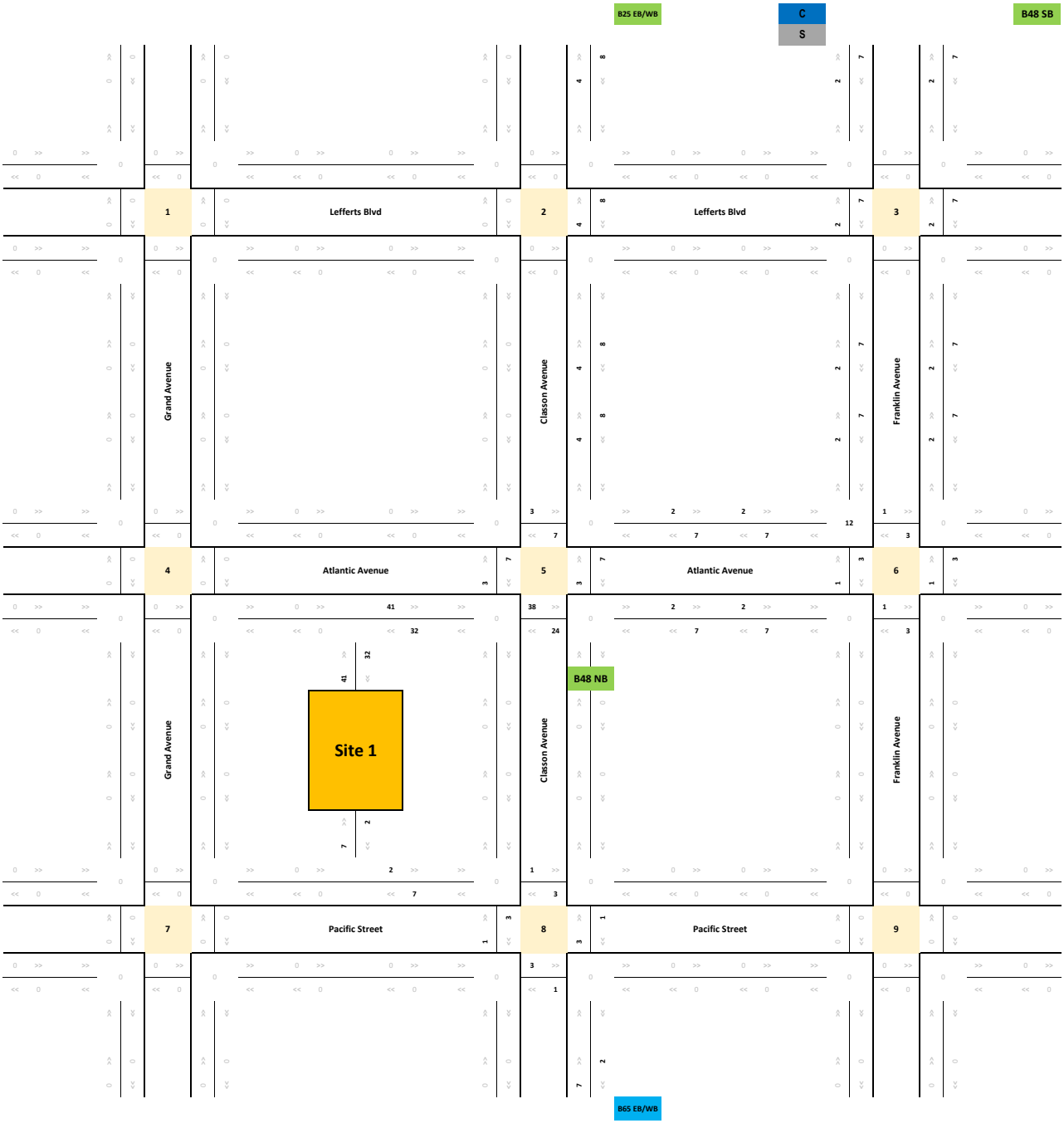
Weekday Midday Walk / Other Trips (Outbound)



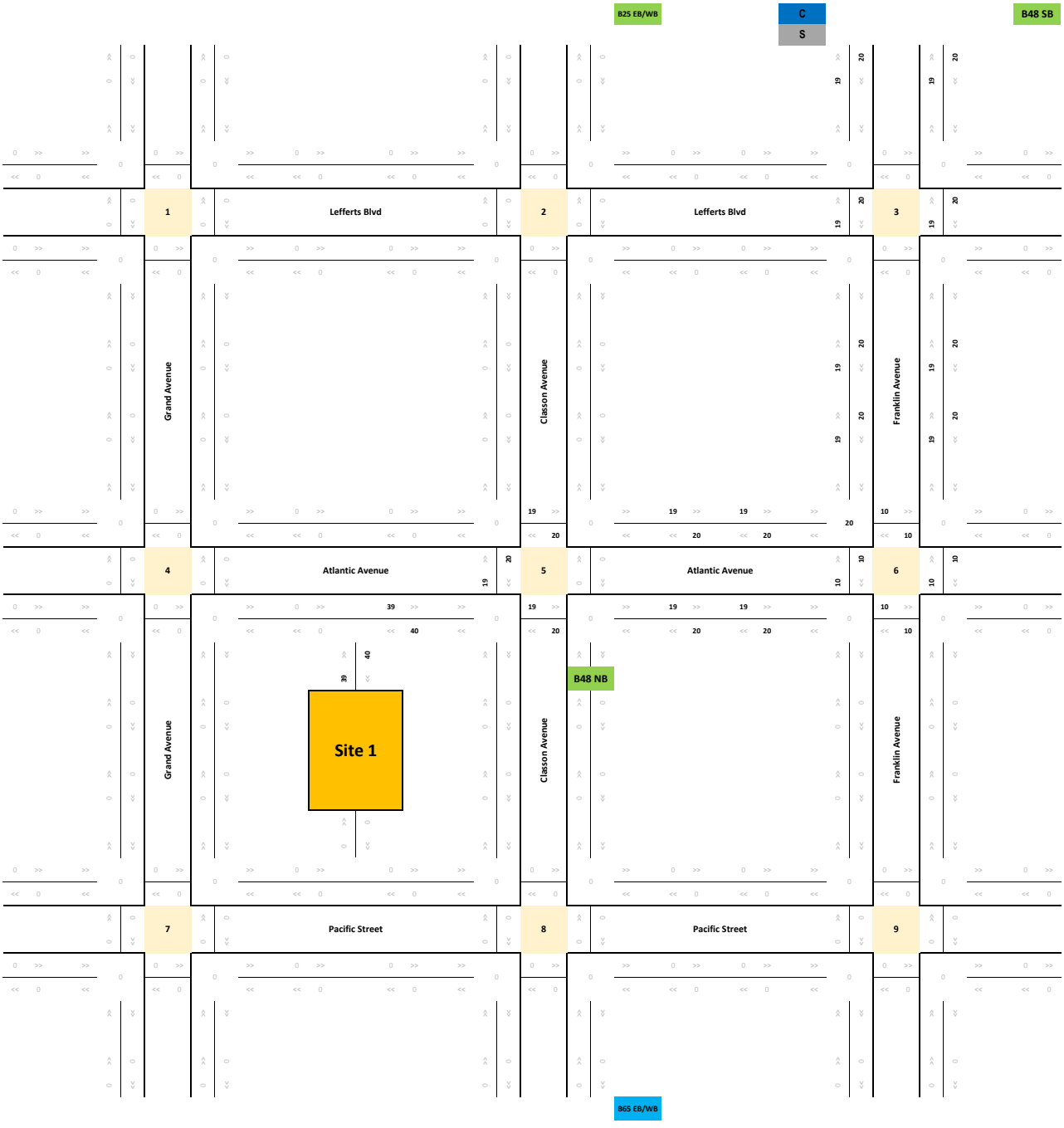
Weekday Midday Total Trips (Outbound)



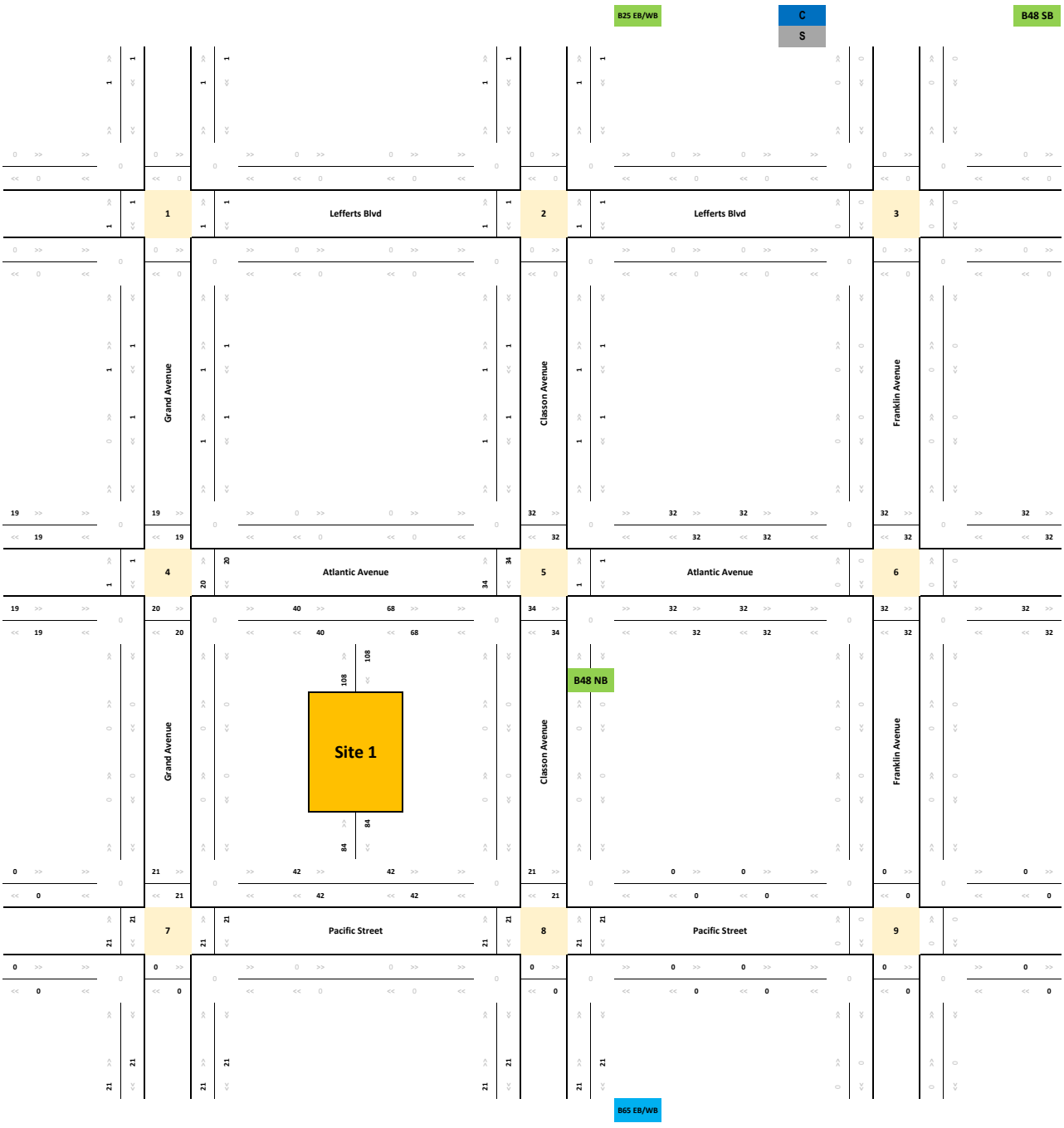
Weekday Midday MTA Bus Trips (Total)



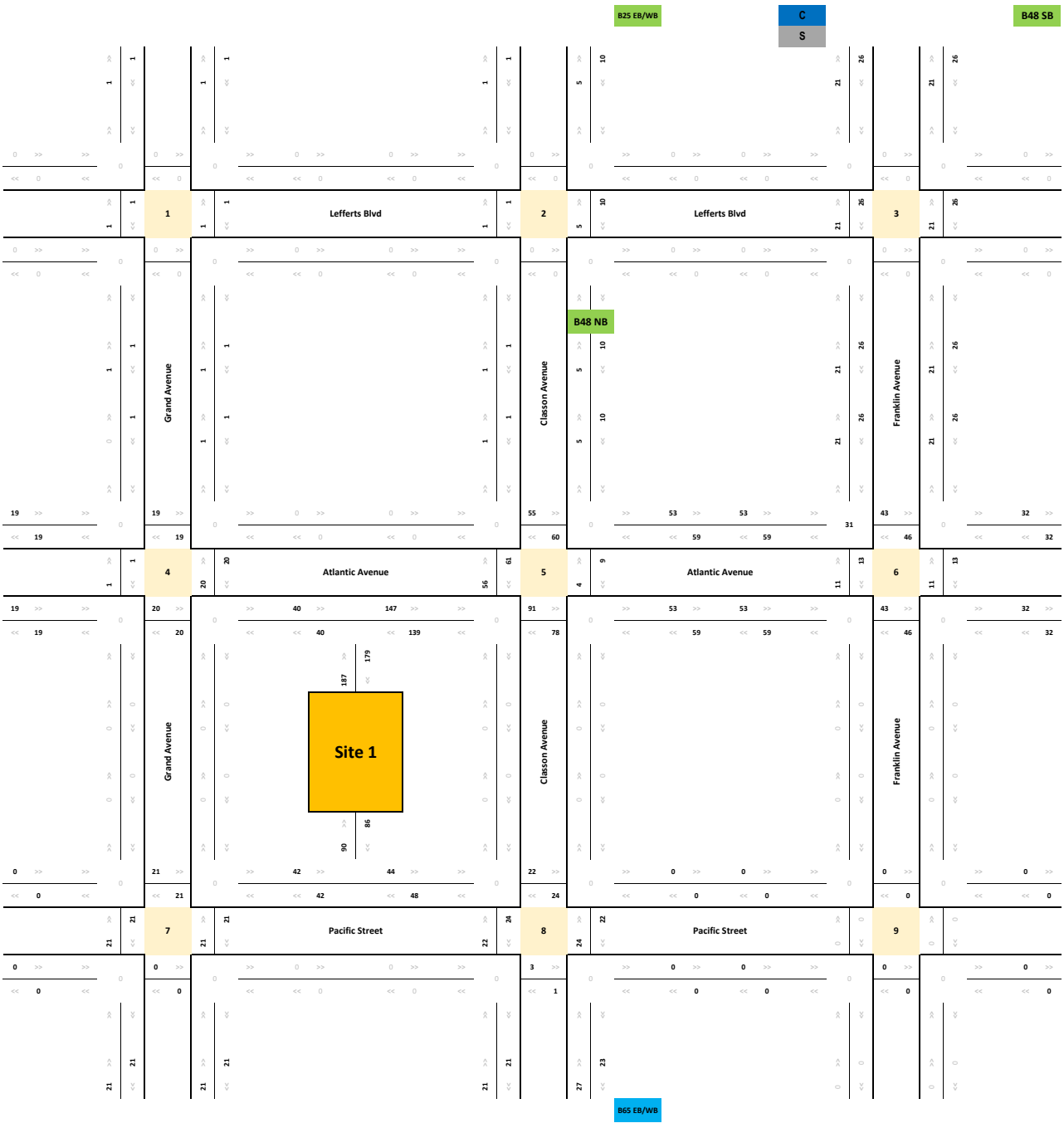
Weekday Midday Subway Trips (Total)



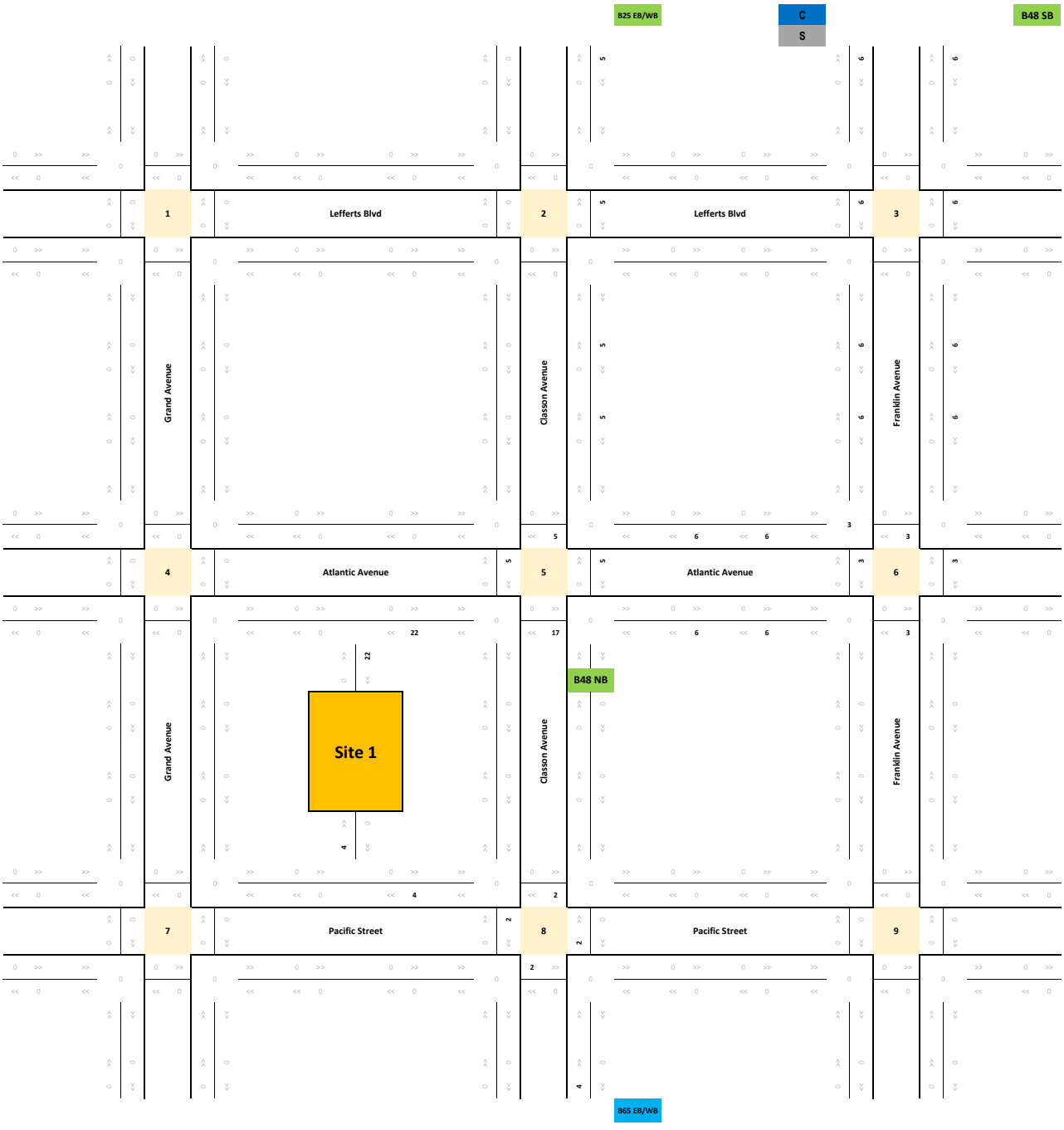
Weekday Midday Walk / Other Trips (Total)



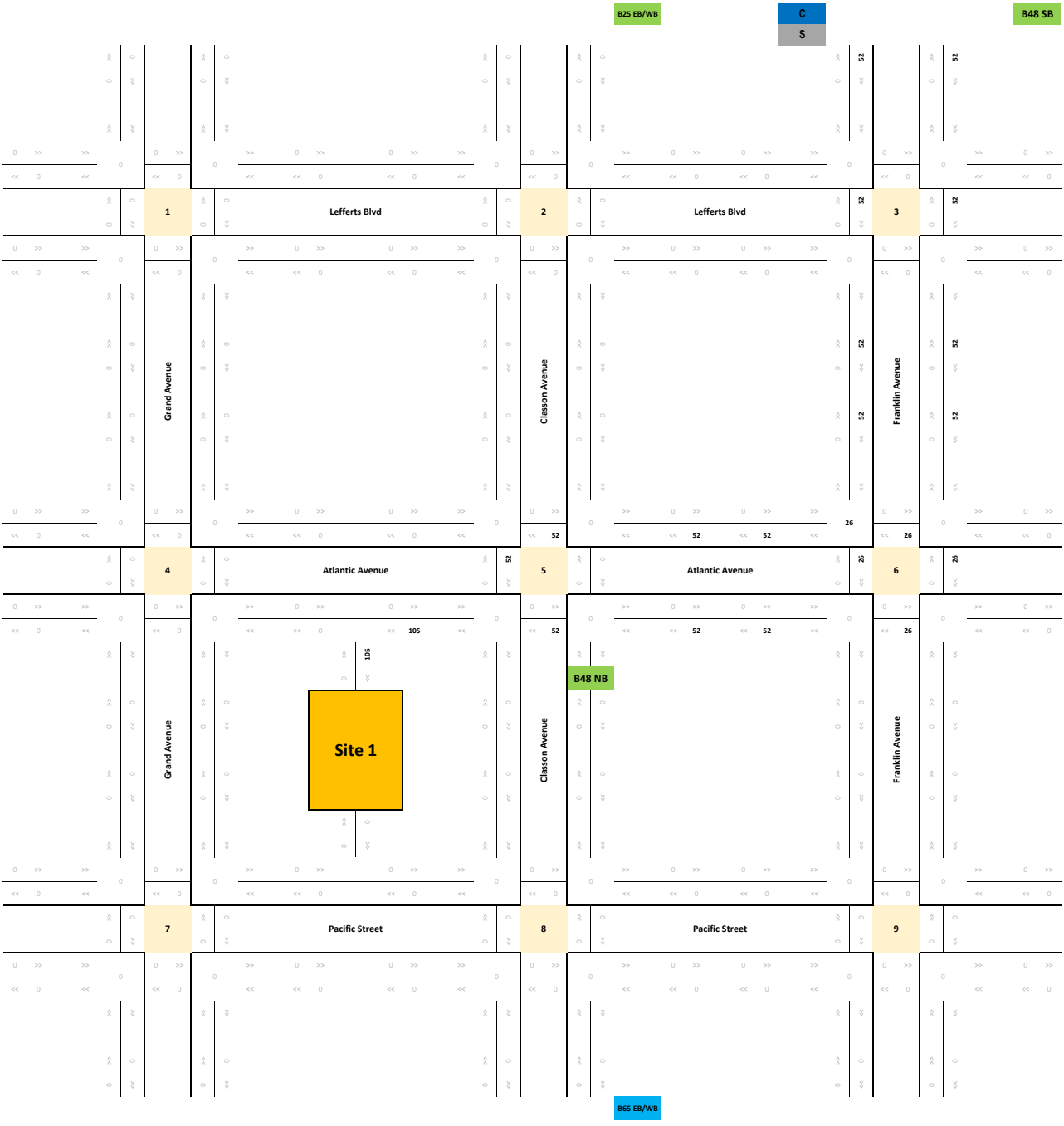
Weekday Midday Total Trips



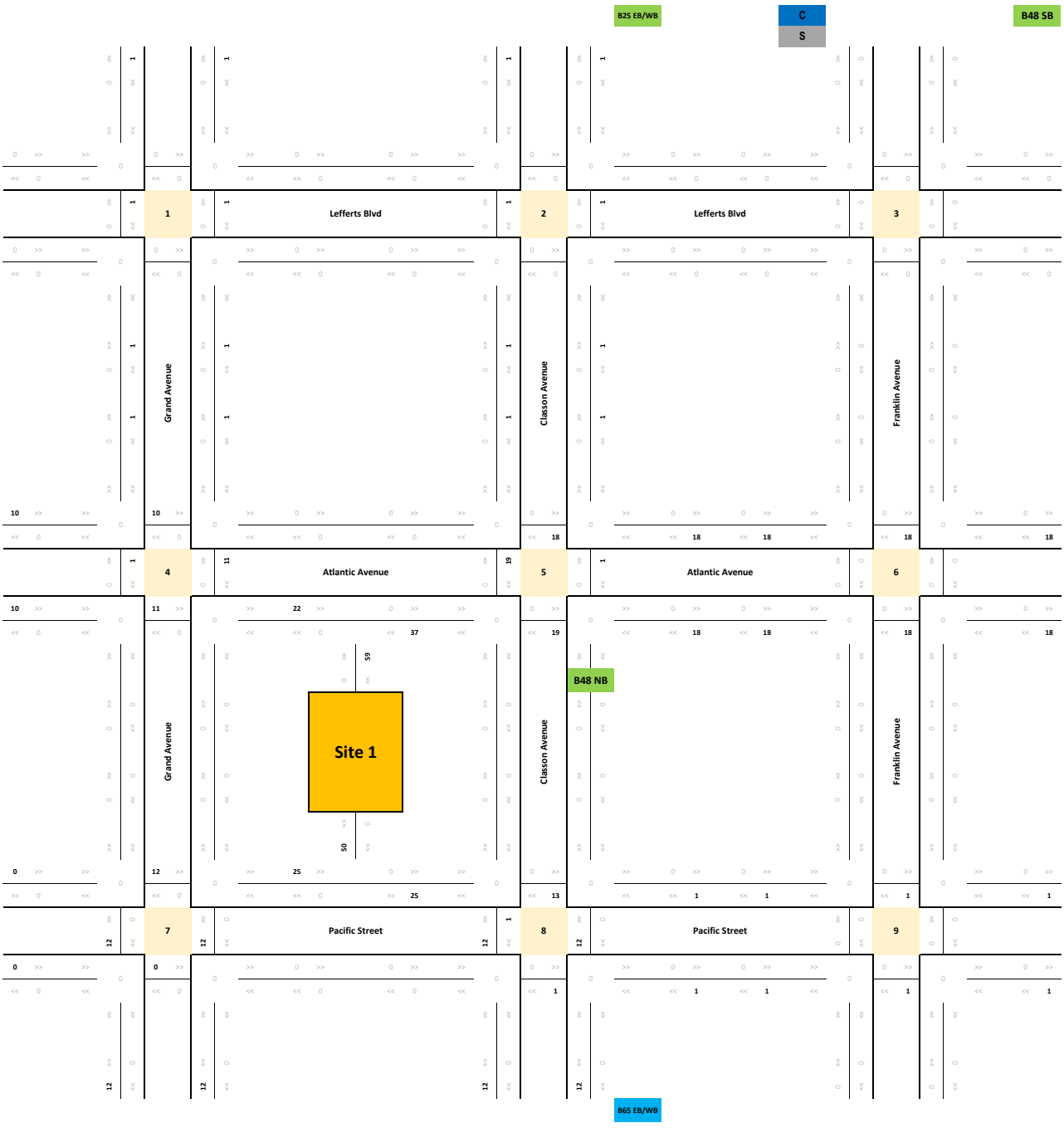
Weekday PM MTA Bus Trips (Inbound)



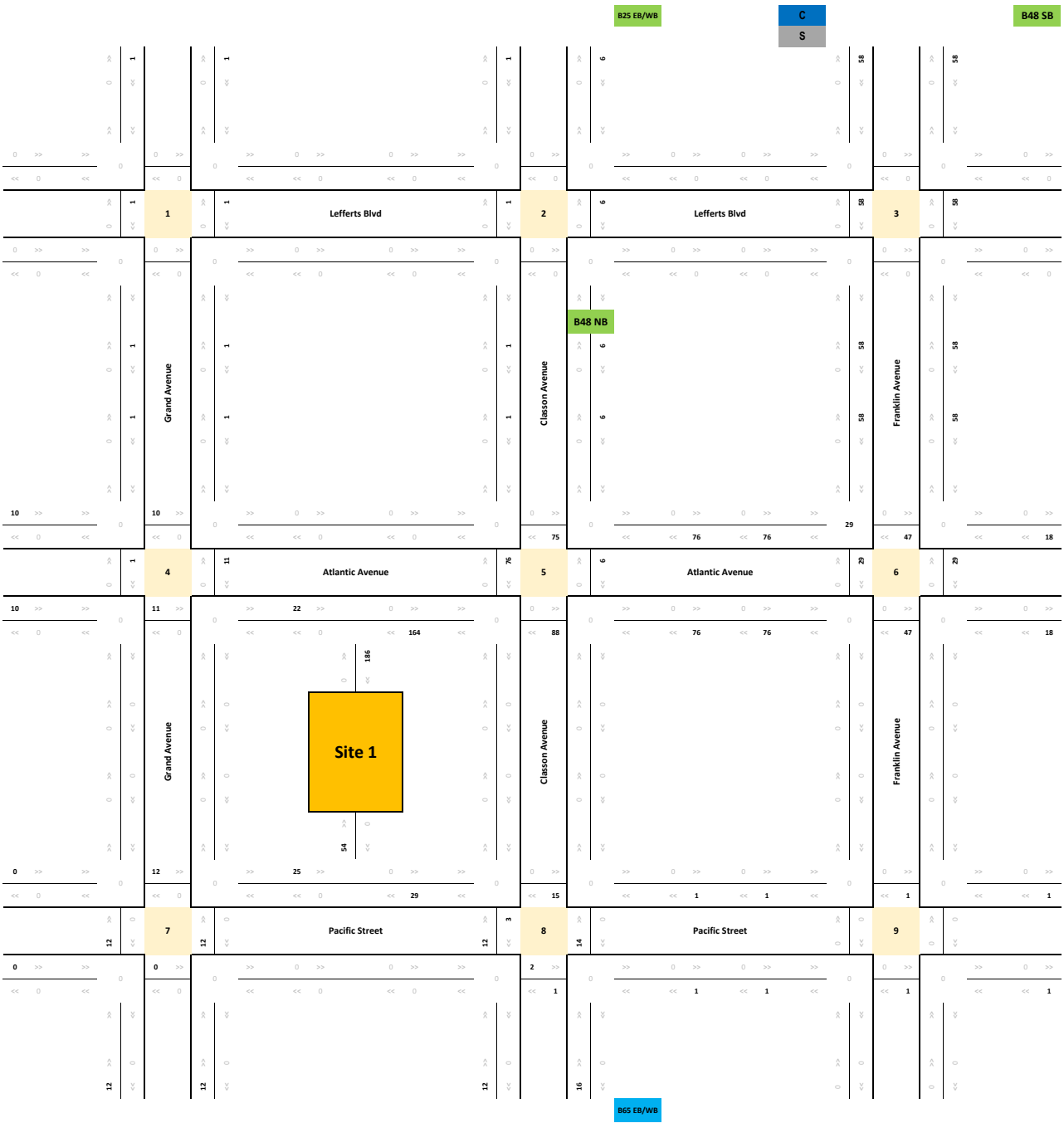
Weekday PM Subway Trips (Inbound)



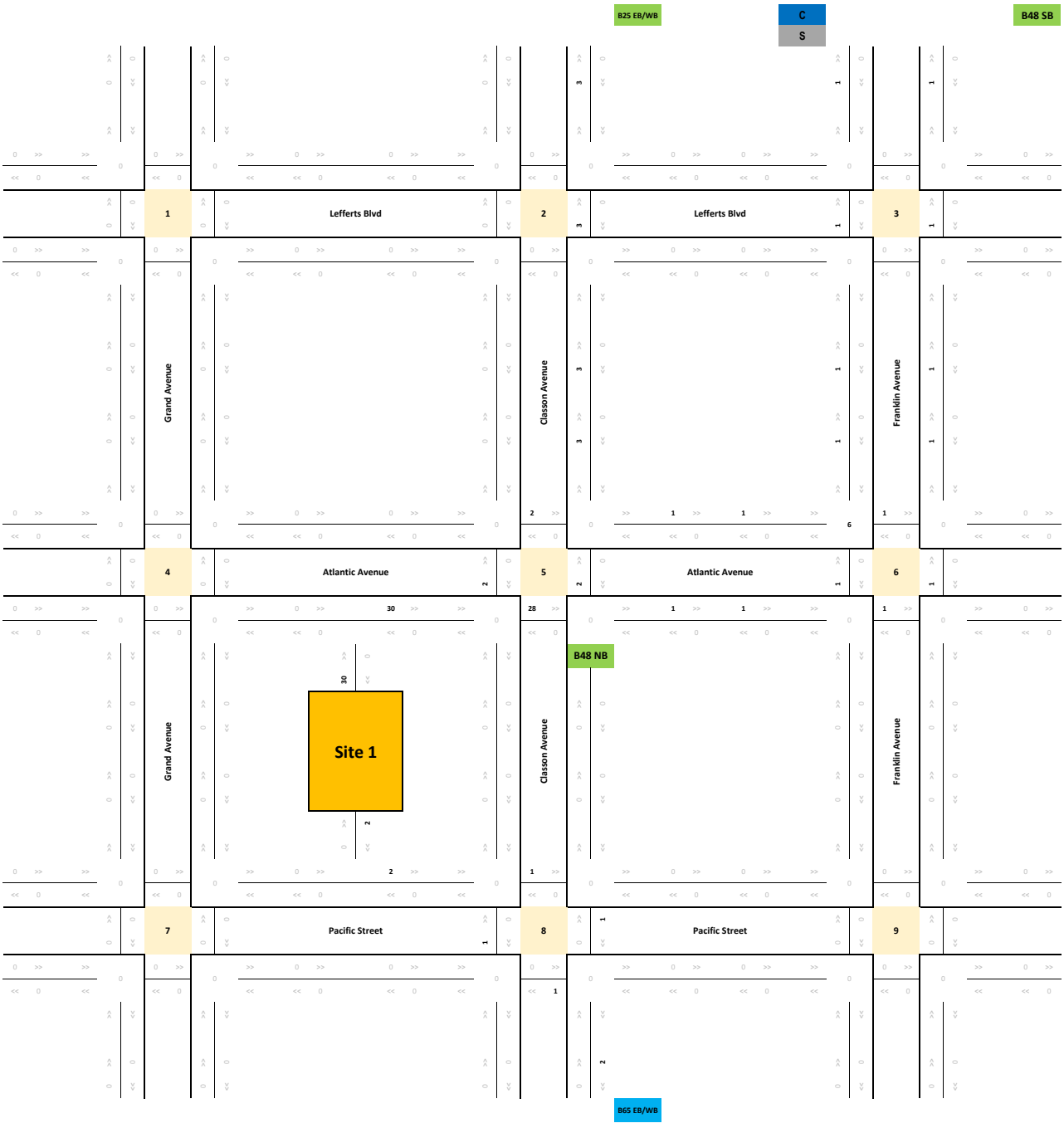
Weekday PM Walk / Other Trips (Inbound)



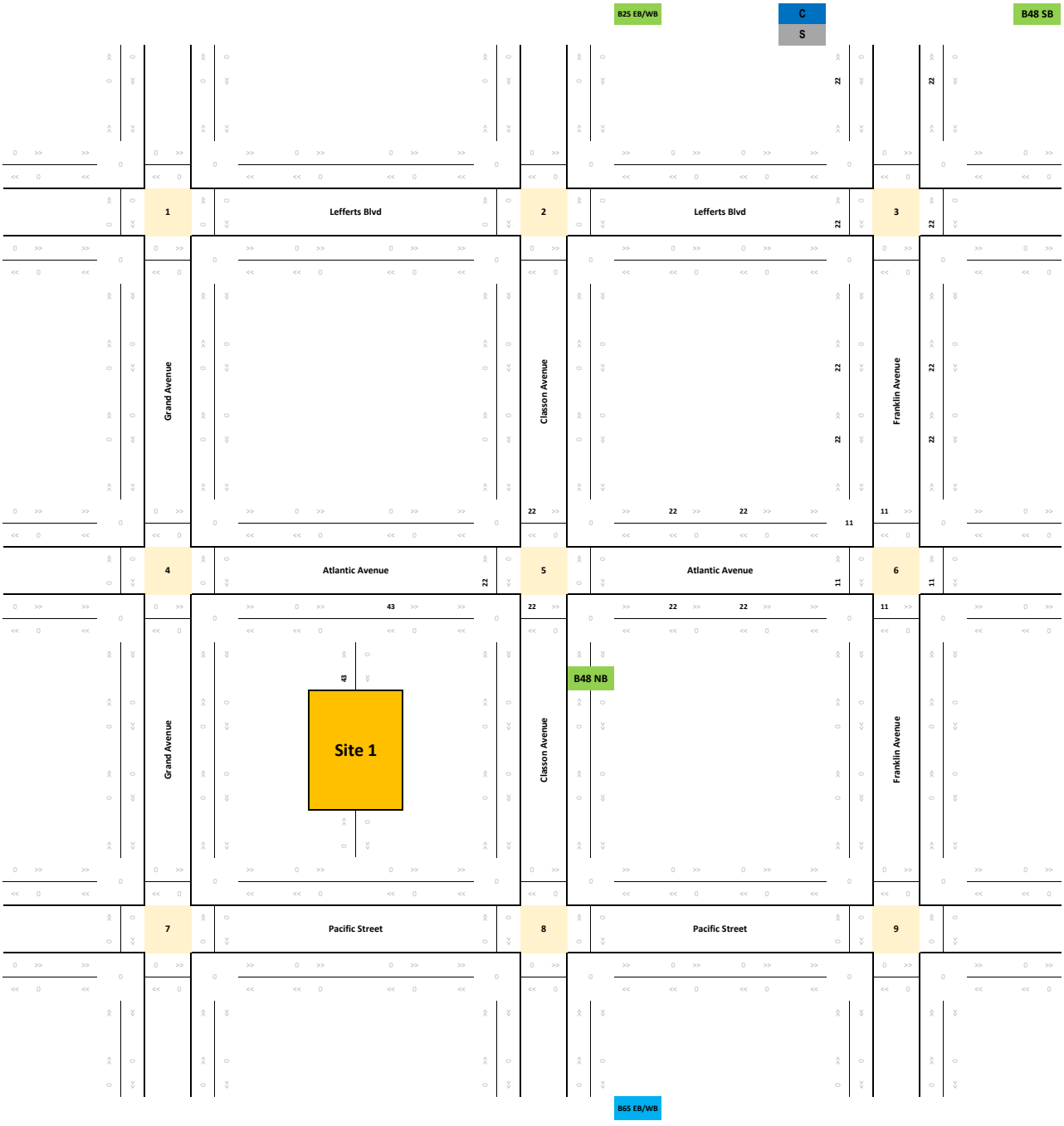
Weekday PM Total Trips (Inbound)



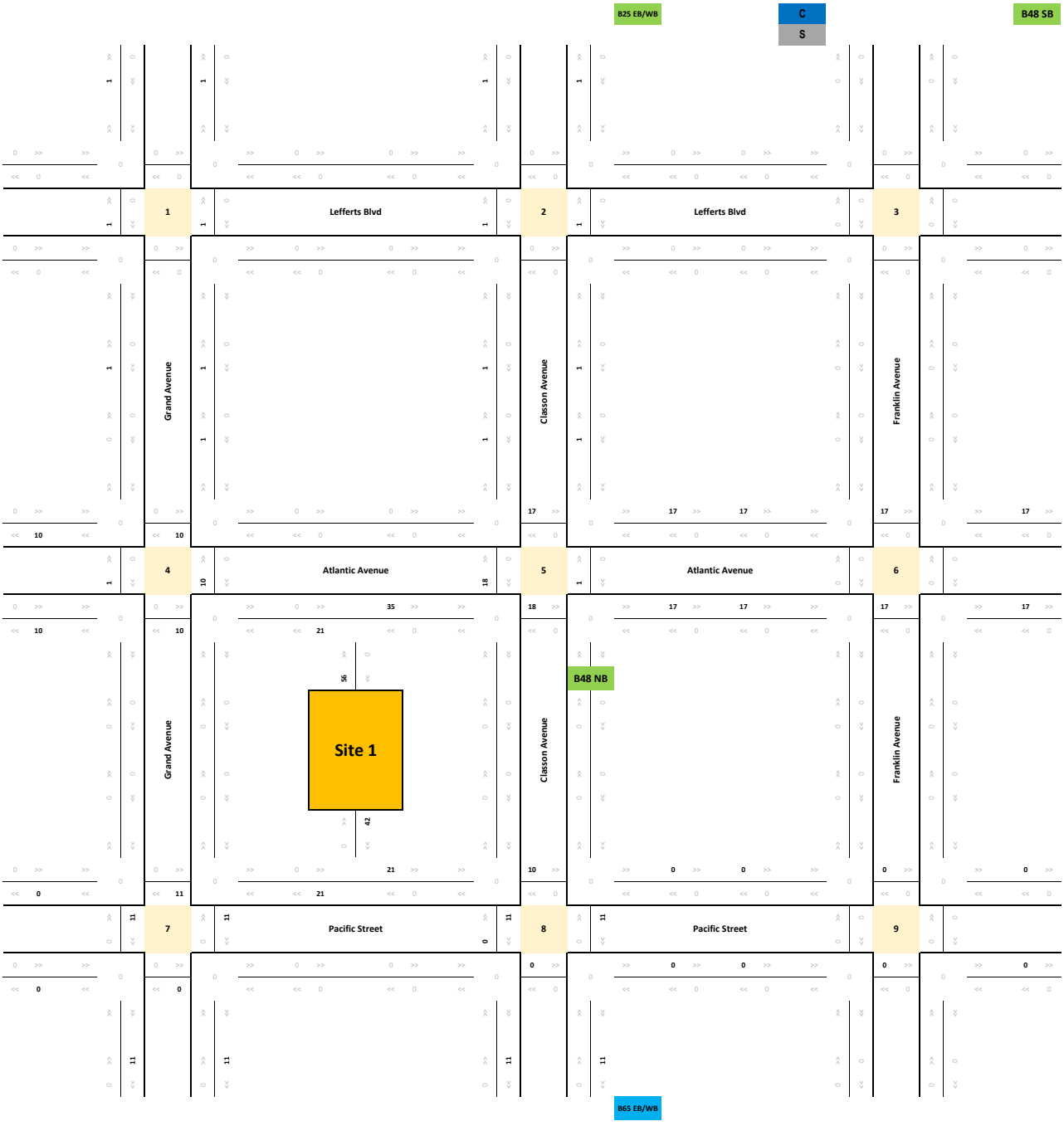
Weekday PM MTA Bus Trips (Outbound)



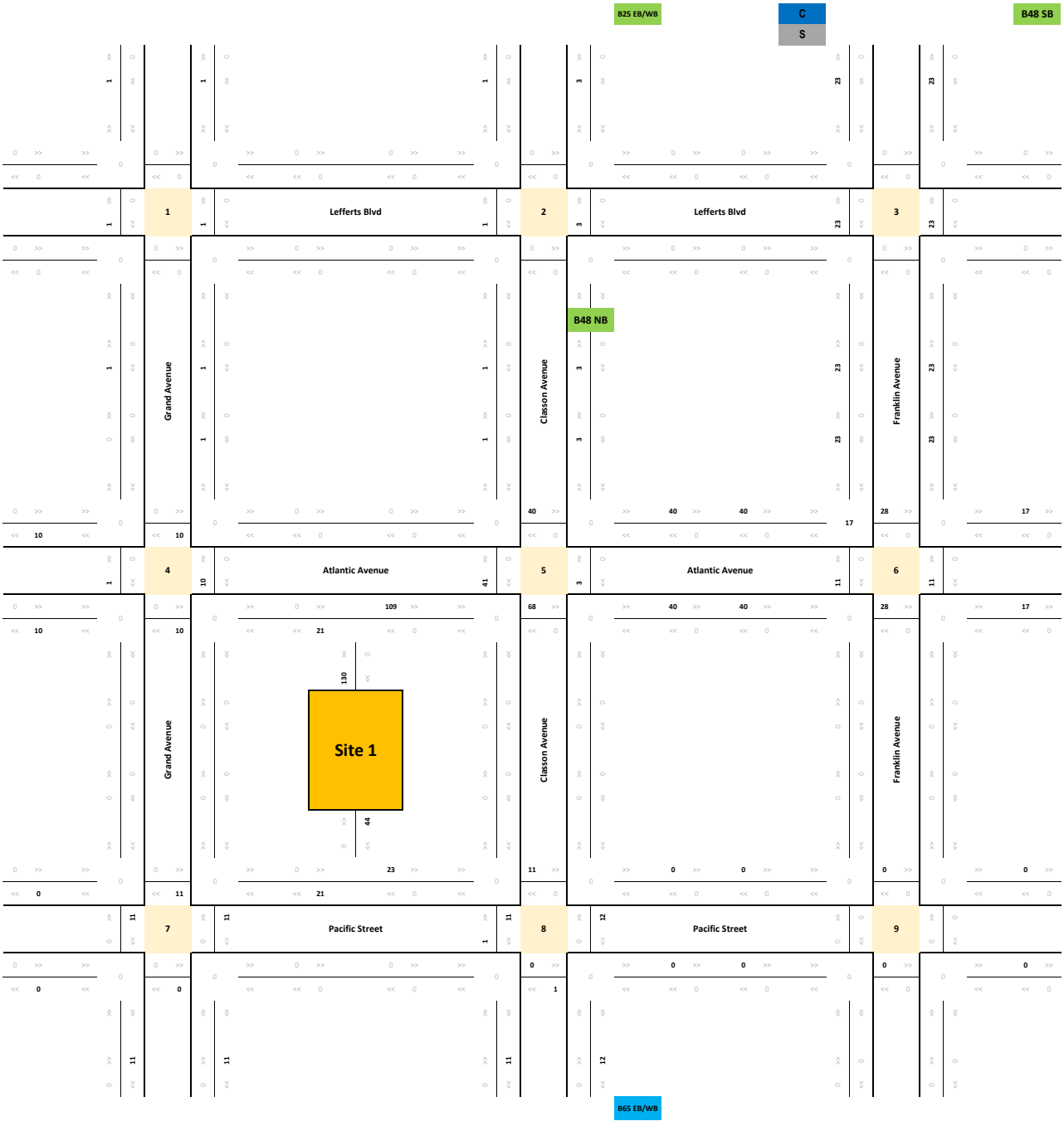
Weekday PM Subway Trips (Outbound)



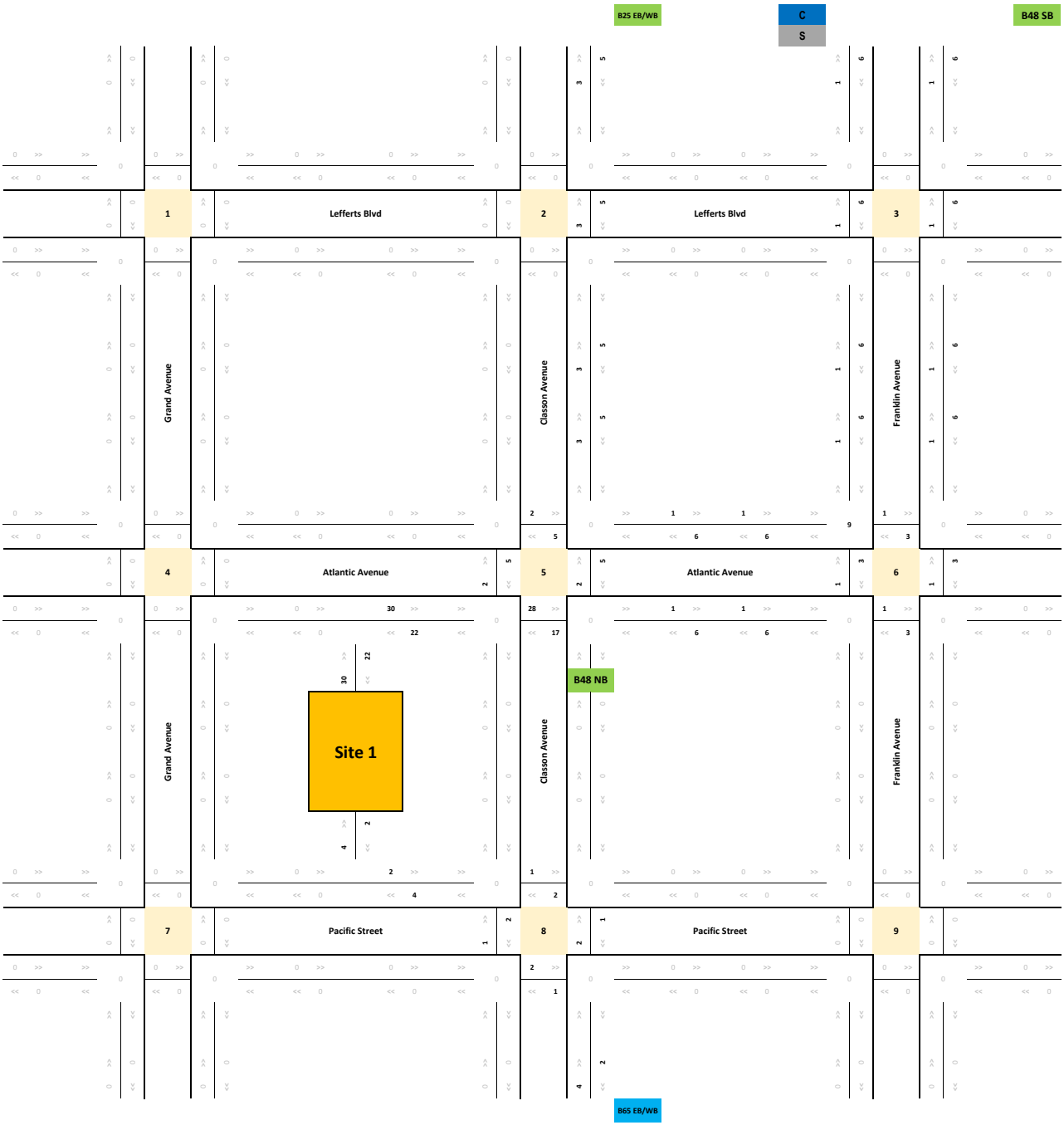
Weekday PM Walk / Other Trips (Outbound)



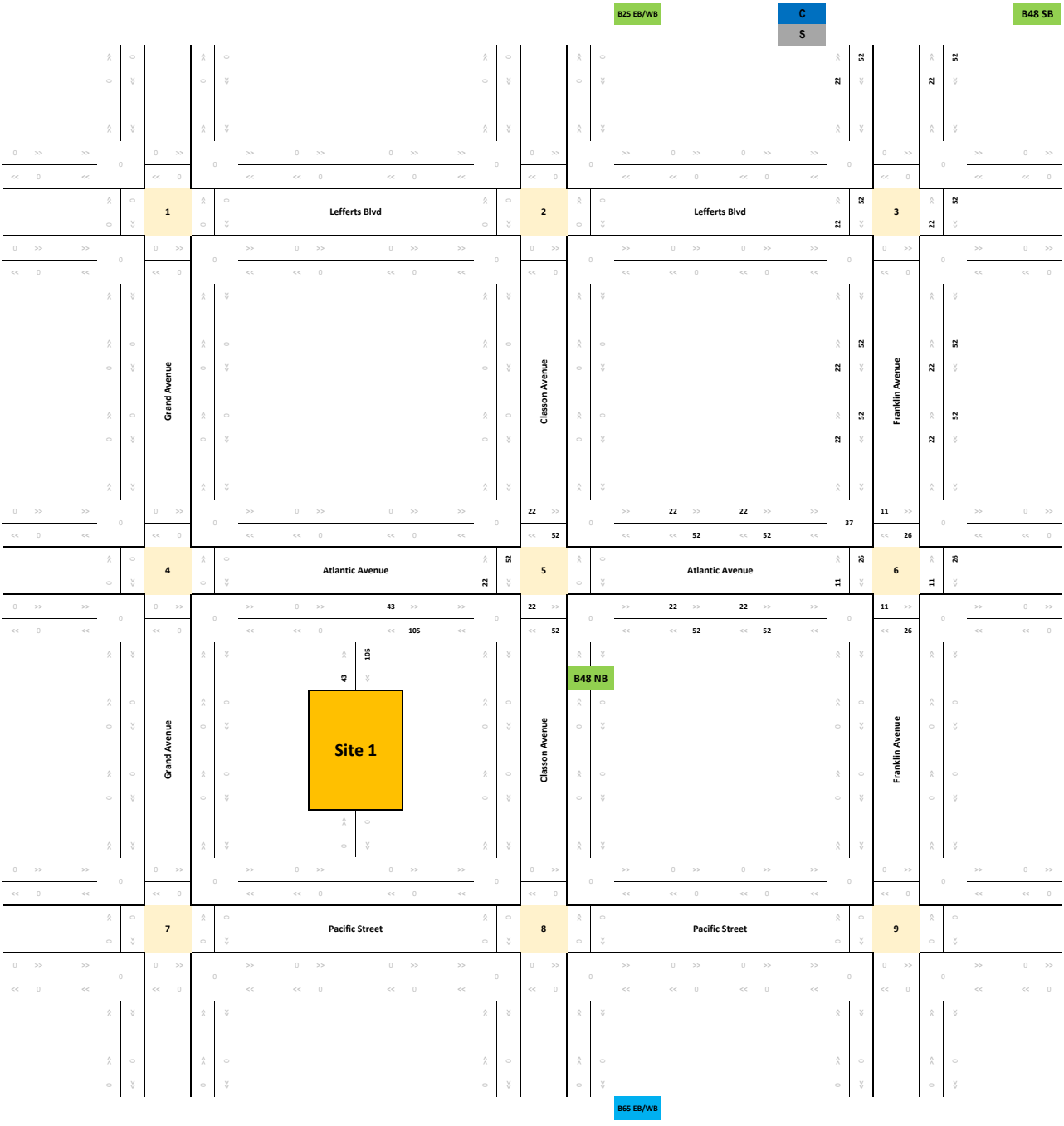
Weekday PM Total Trips (Outbound)



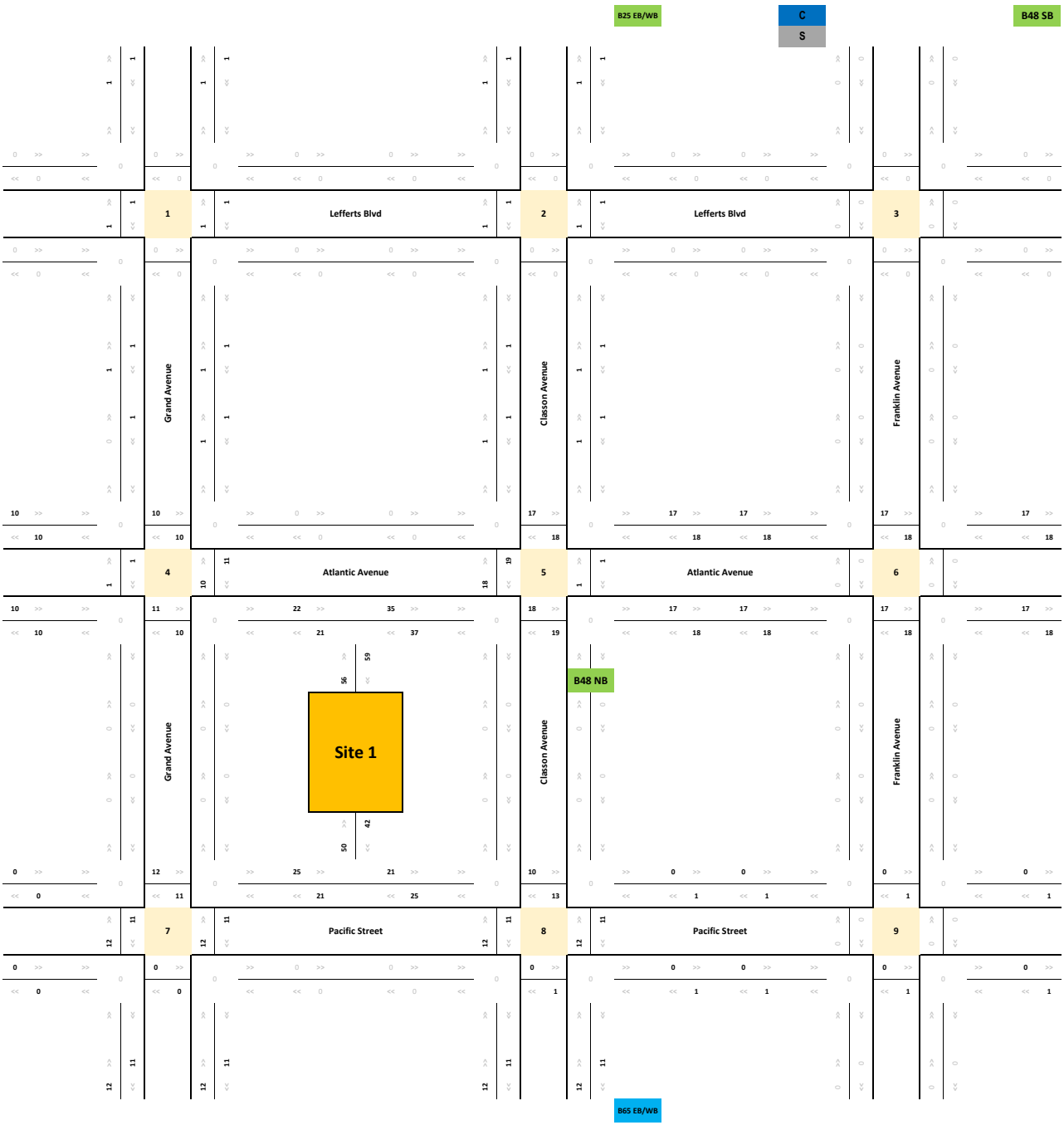
Weekday PM MTA Bus Trips (Total)



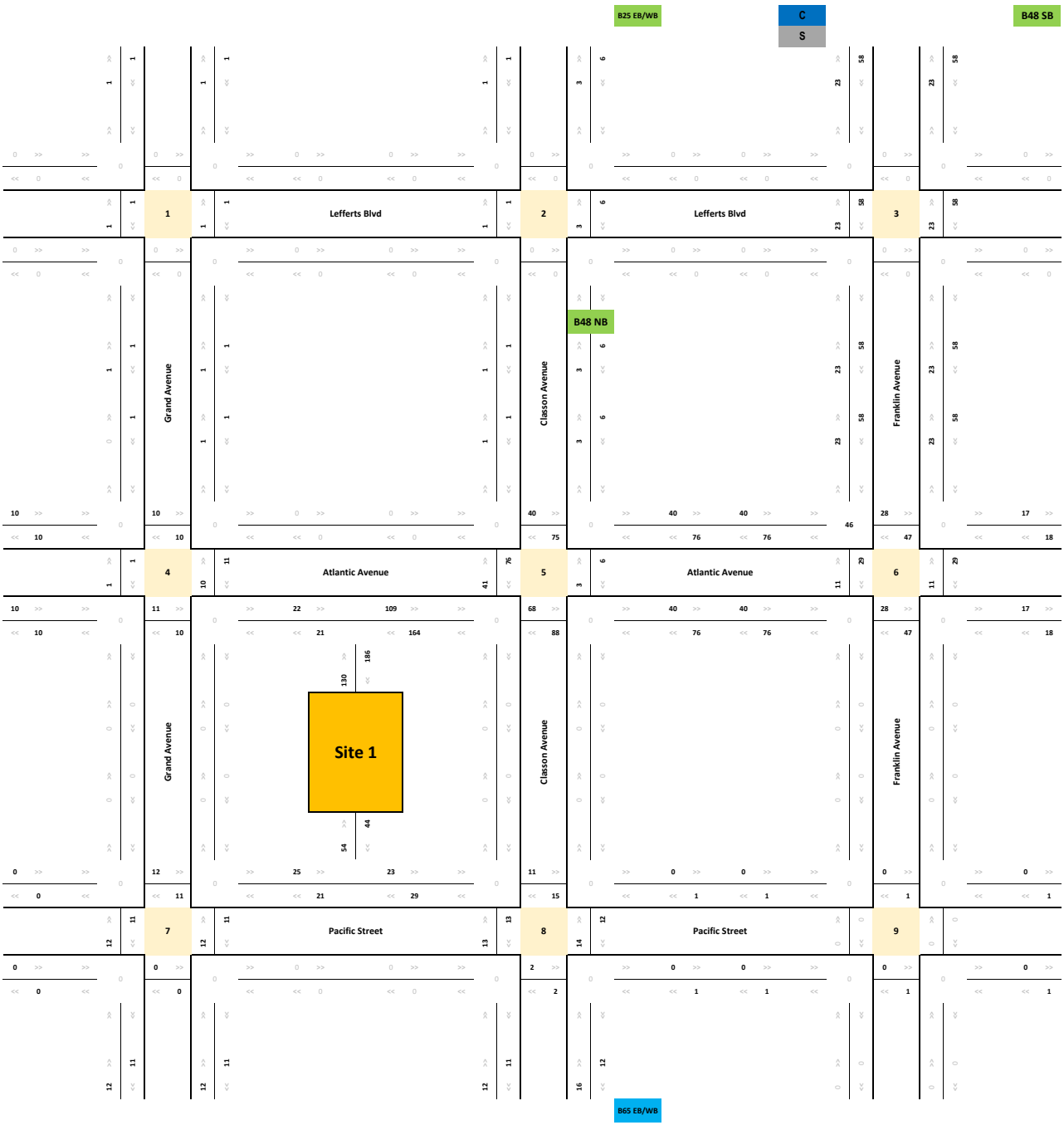
Weekday PM Subway Trips (Total)



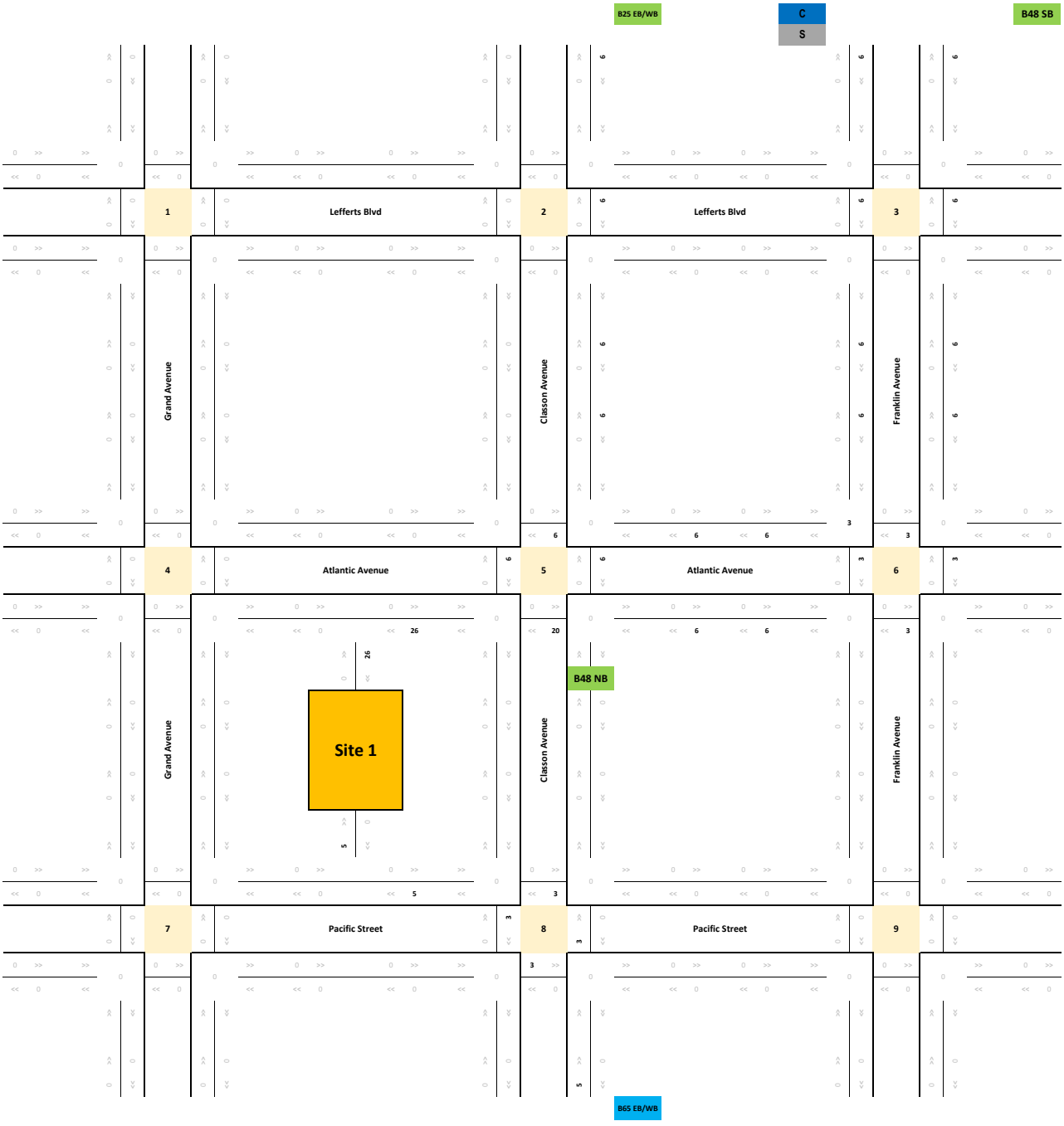
Weekday PM Walk / Other Trips (Total)



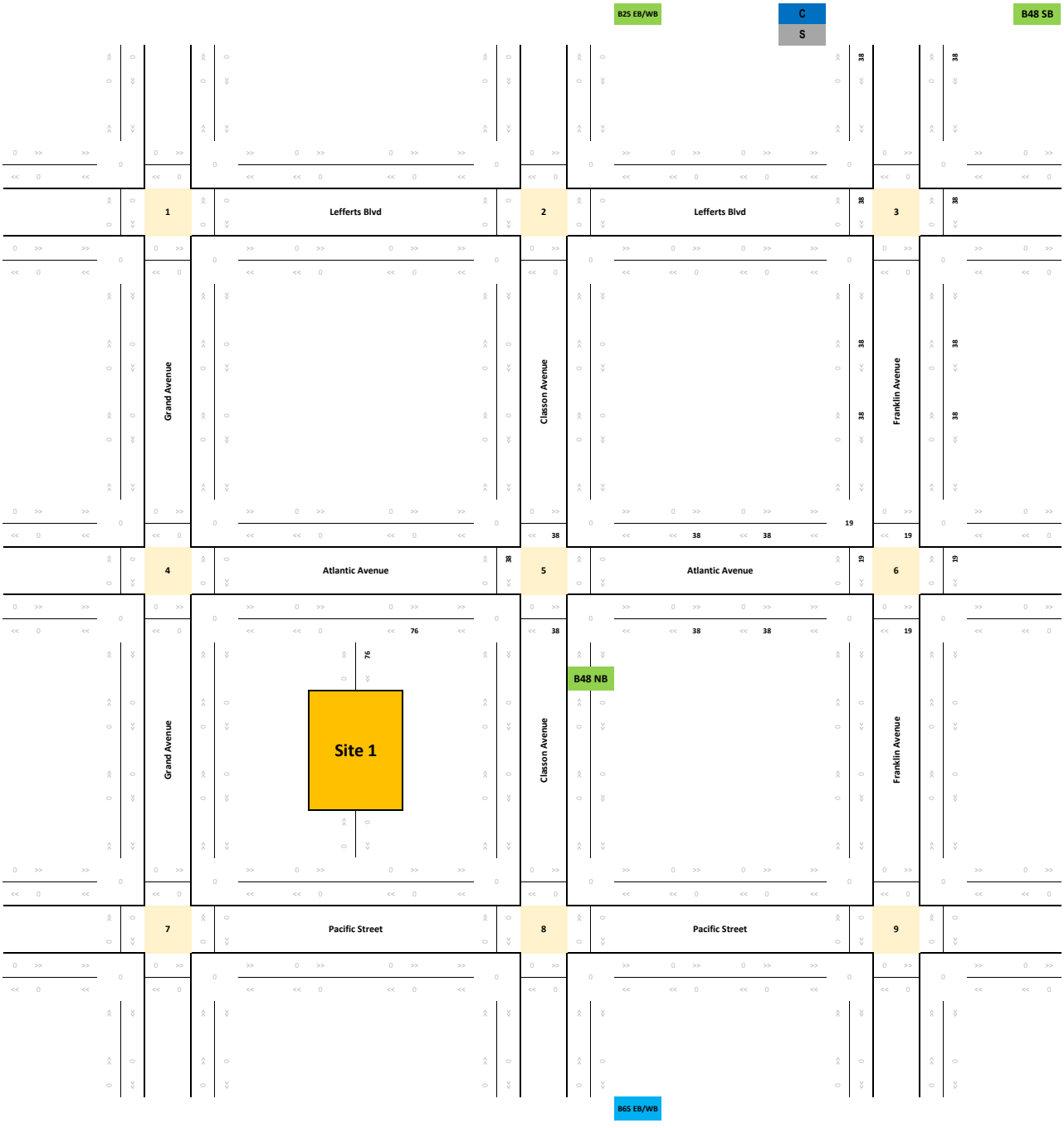
Weekday PM Total Trips



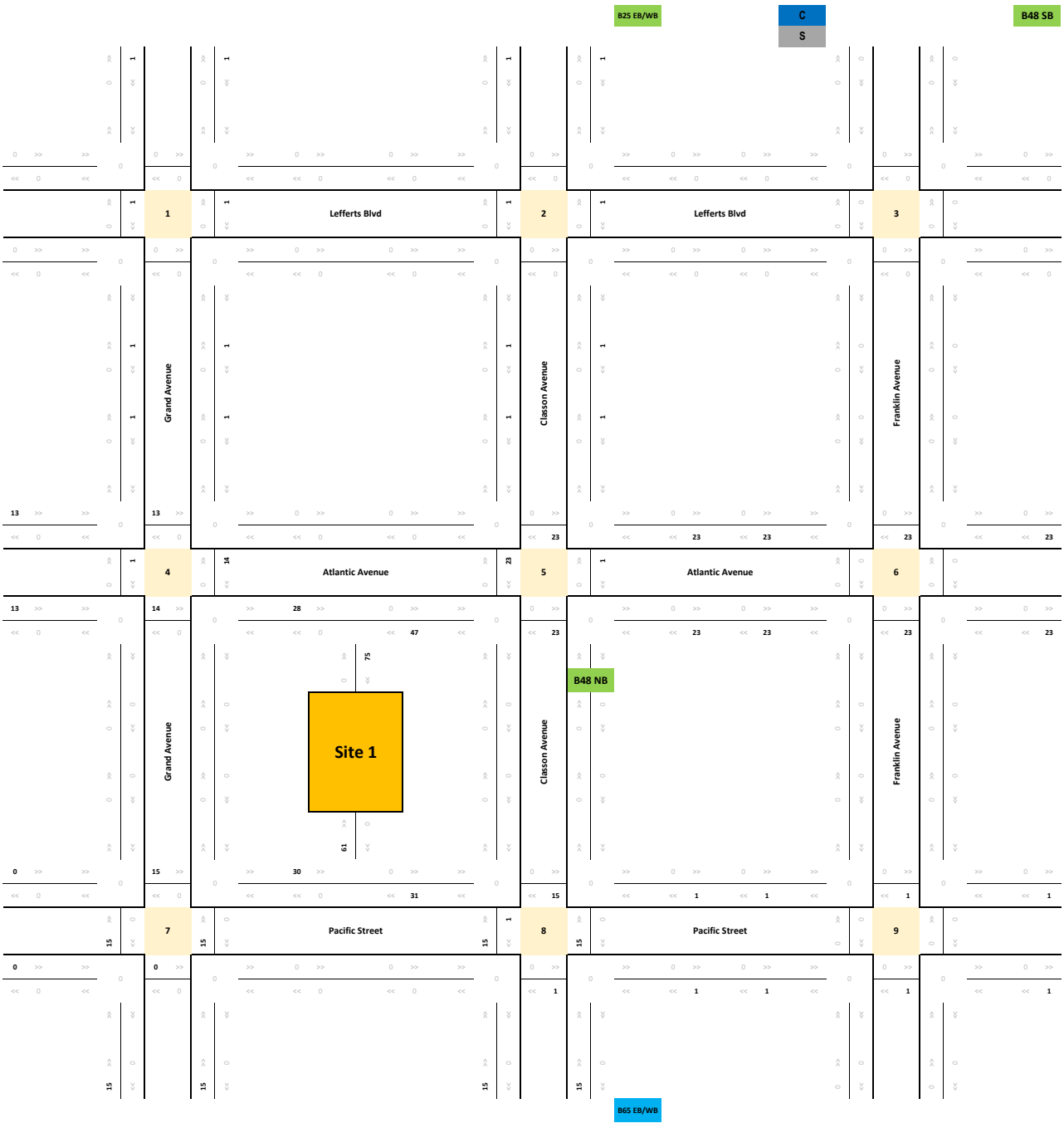
Weekday Midday MTA Bus Trips (Inbound)



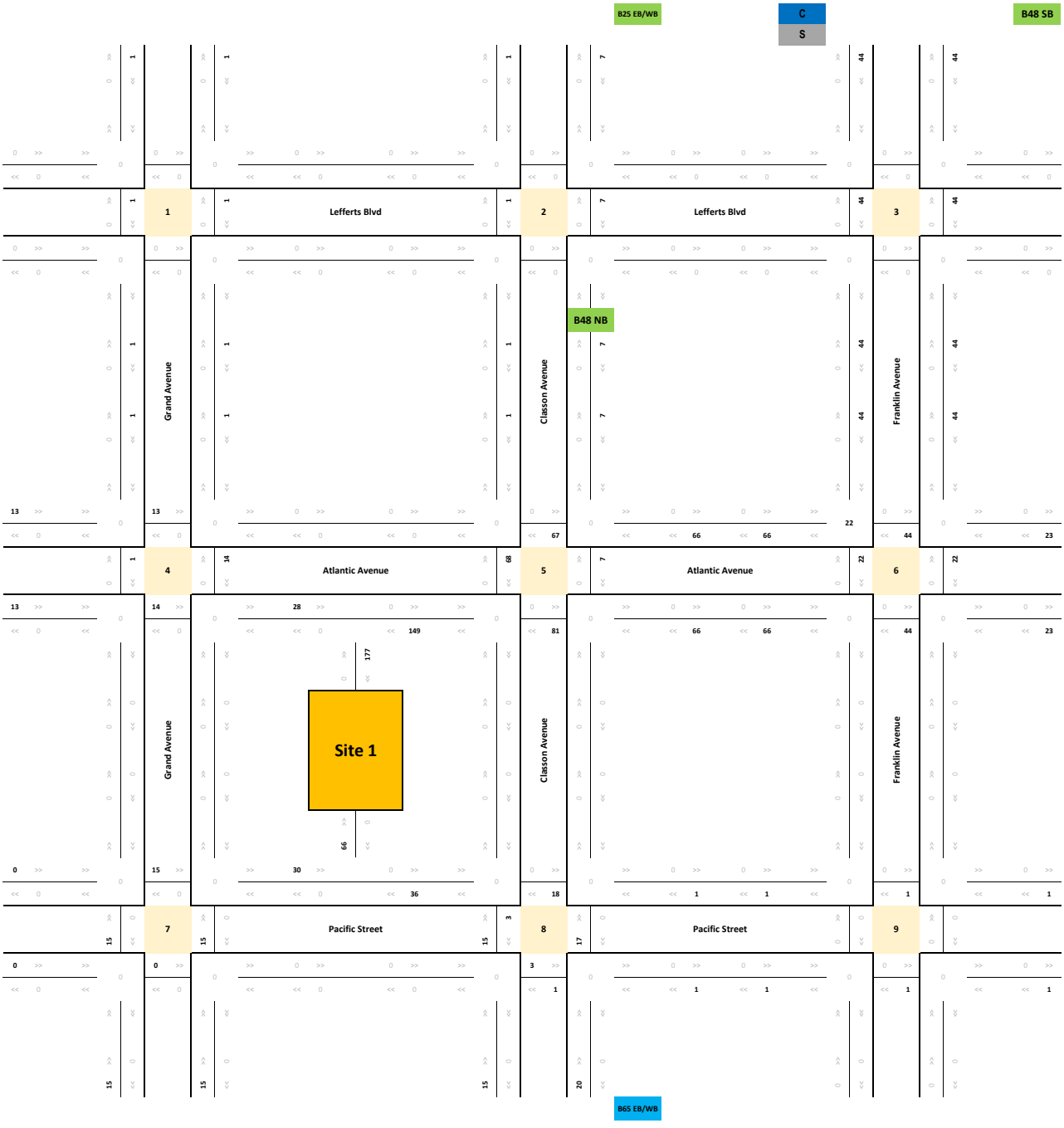
Weekday Midday Subway Trips (Inbound)



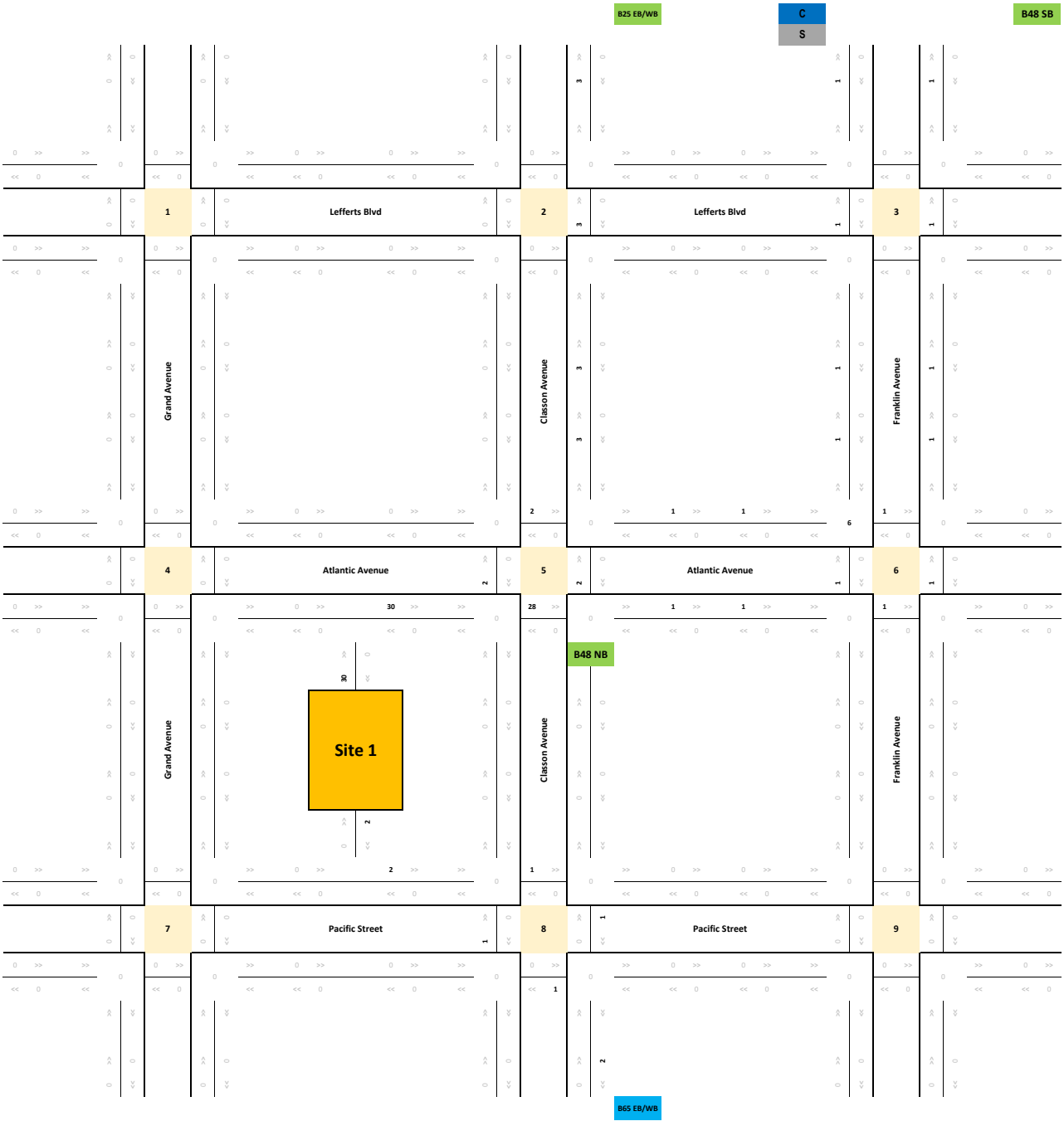
Weekday Midday Walk / Other Trips (Inbound)



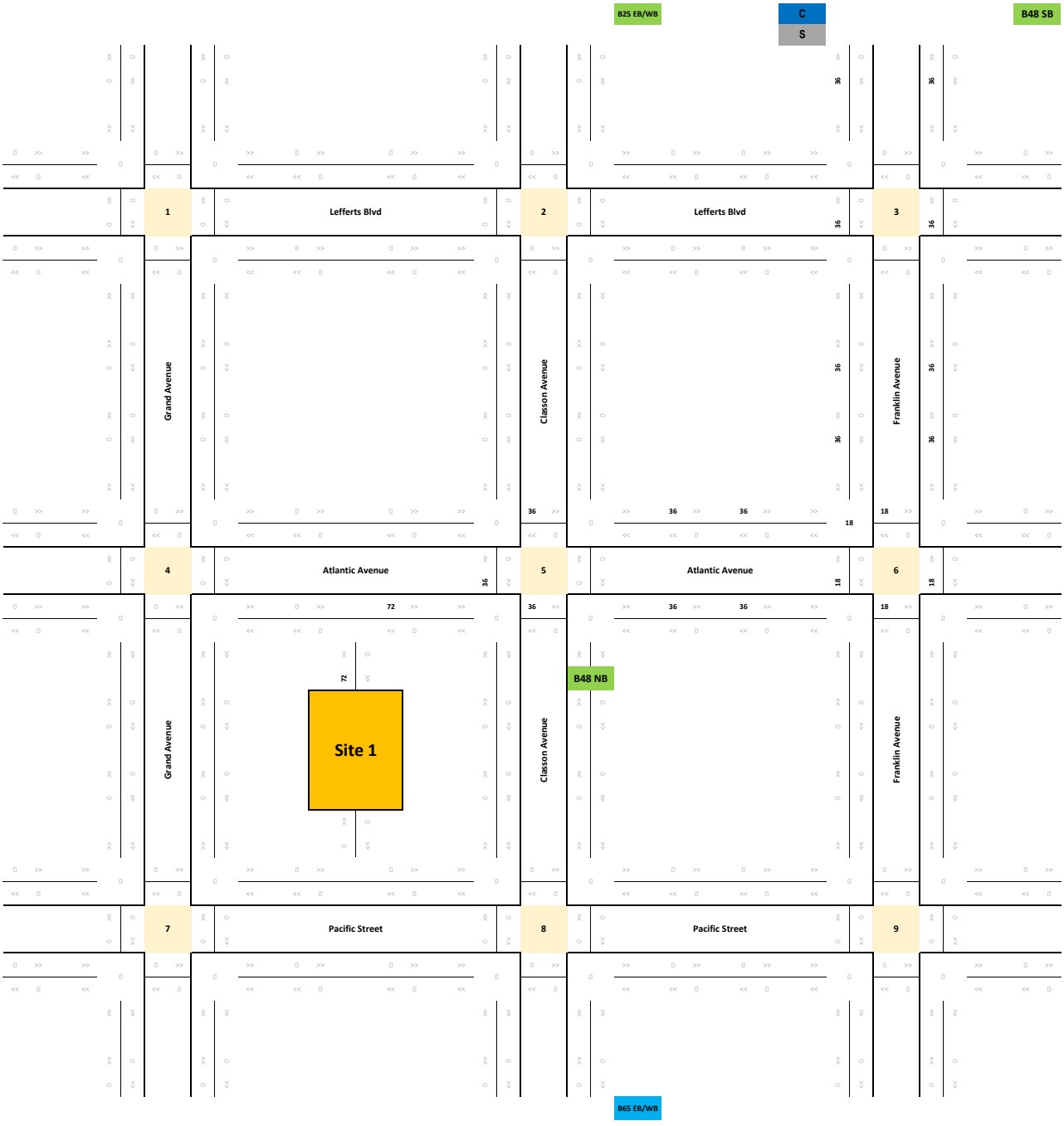
Weekday Midday Total Trips (Inbound)



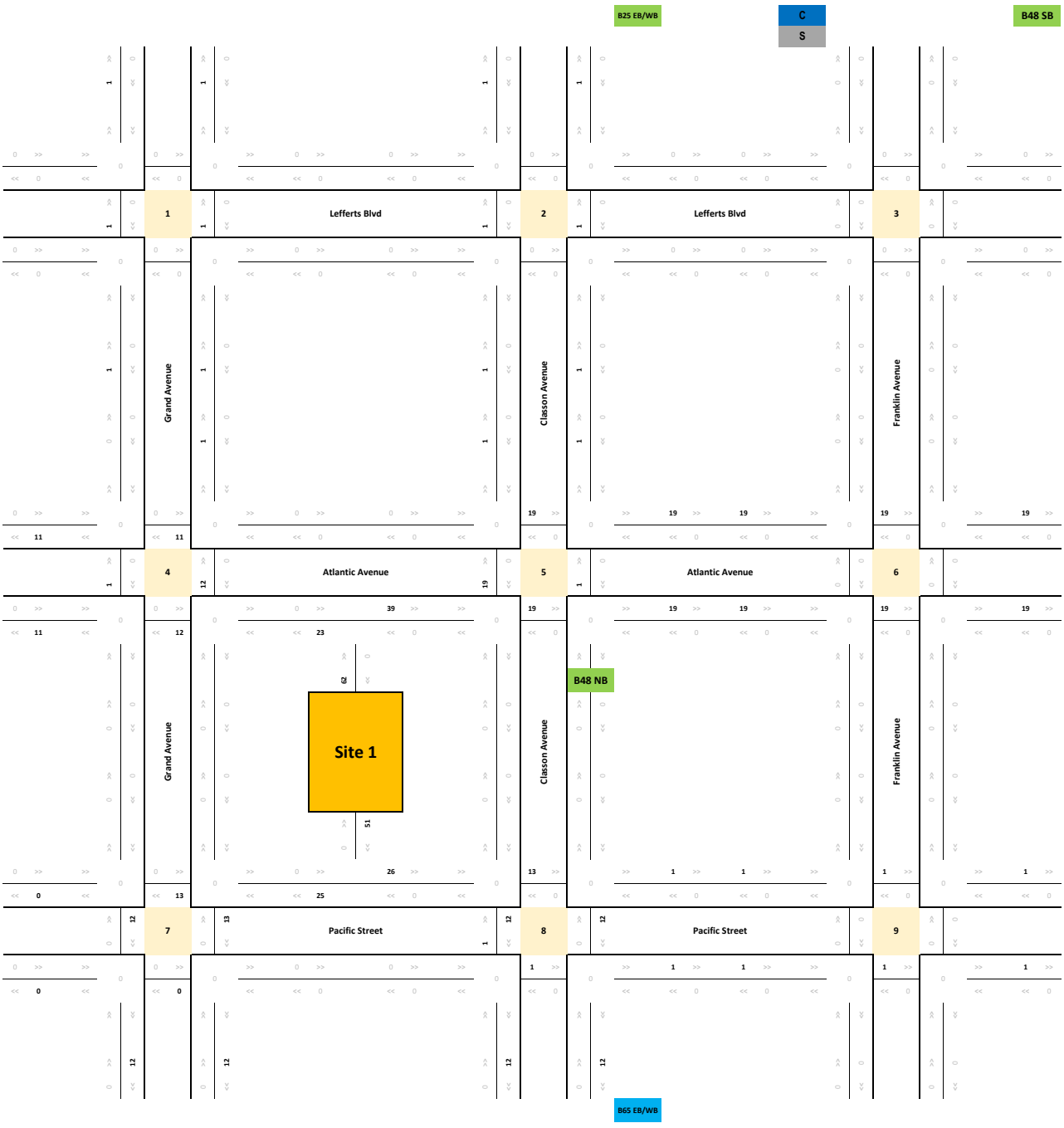
Weekday Midday MTA Bus Trips (Outbound)



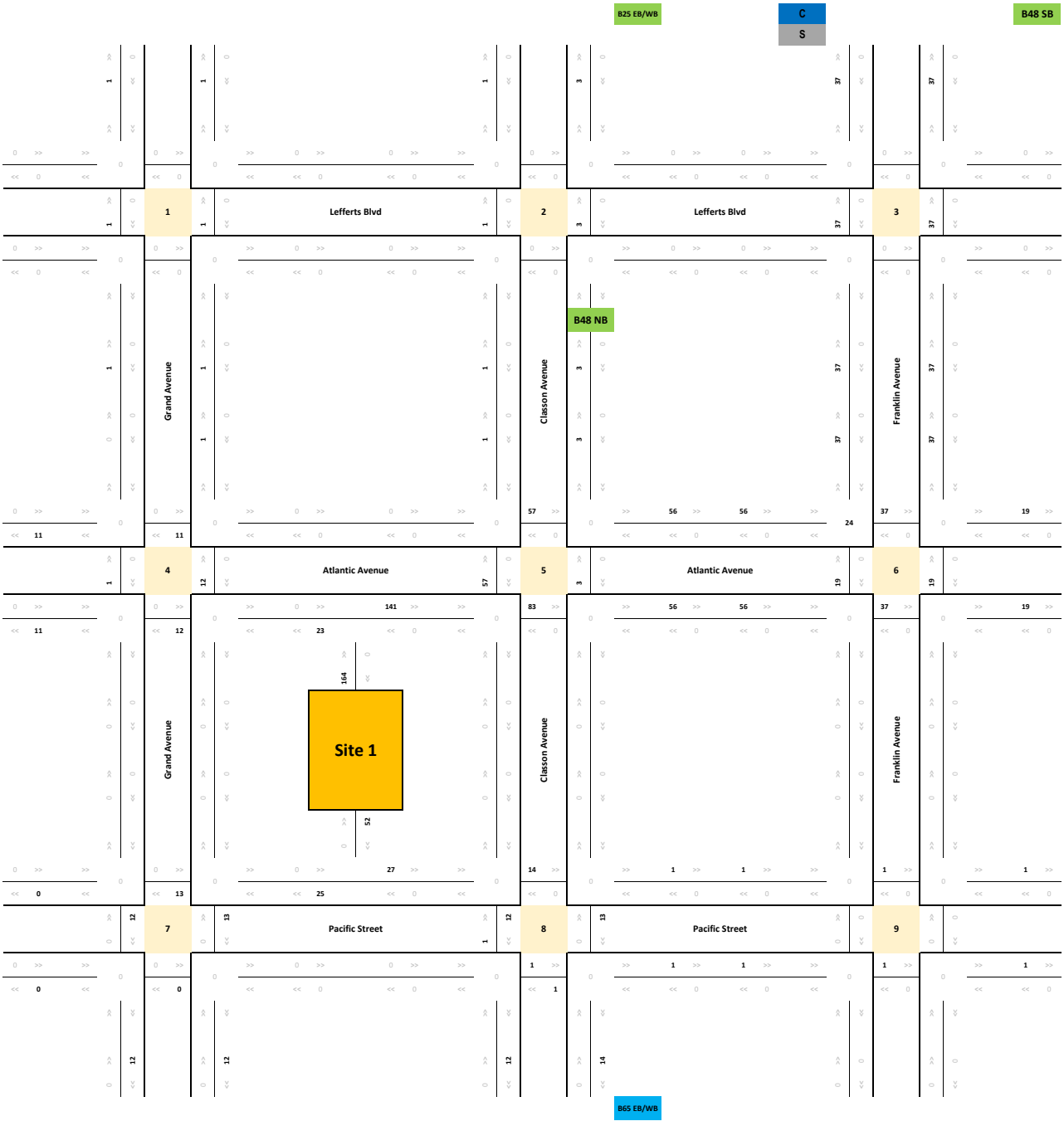
Weekday Midday Subway Trips (Outbound)



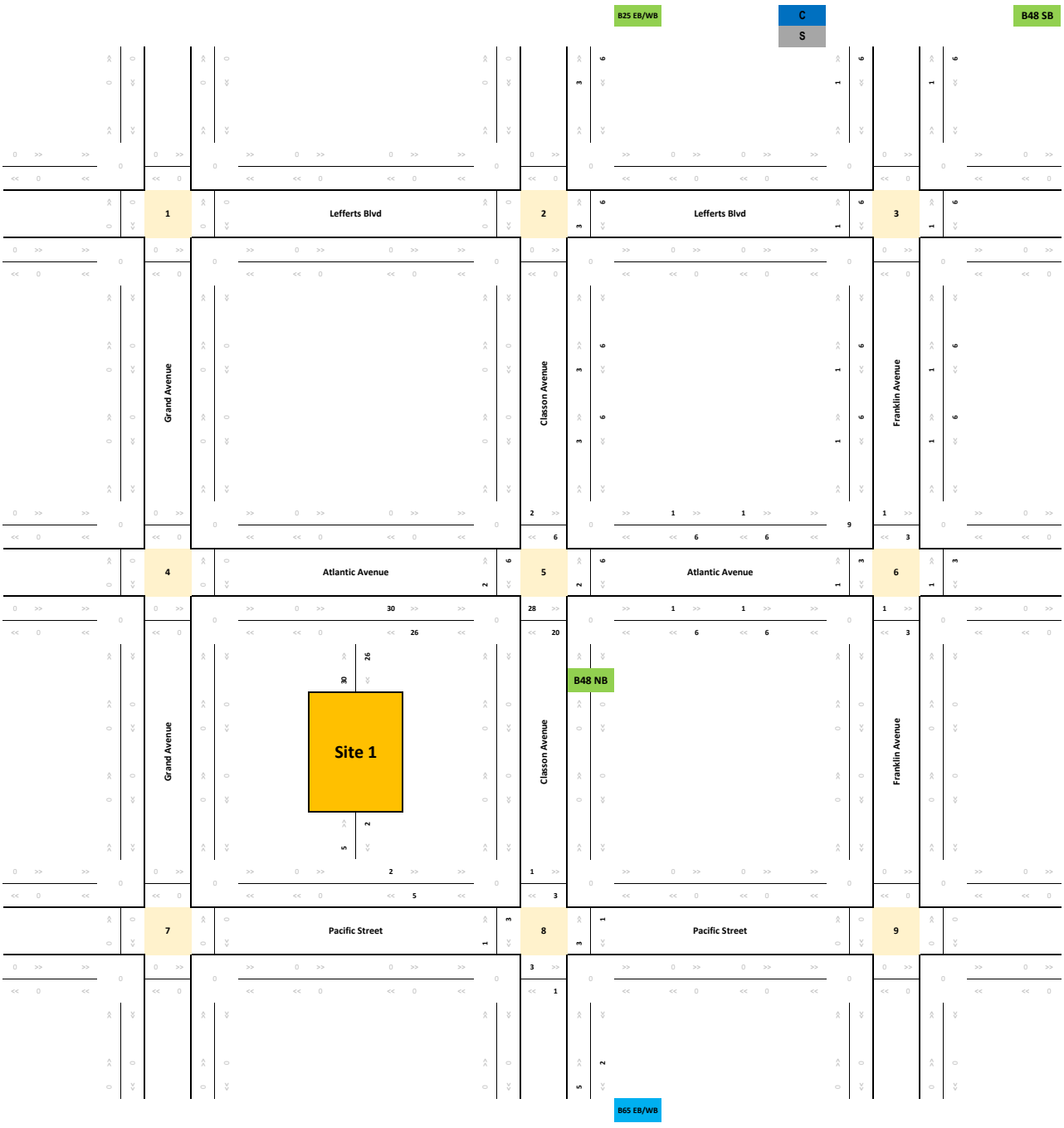
Weekday Midday Walk / Other Trips (Outbound)



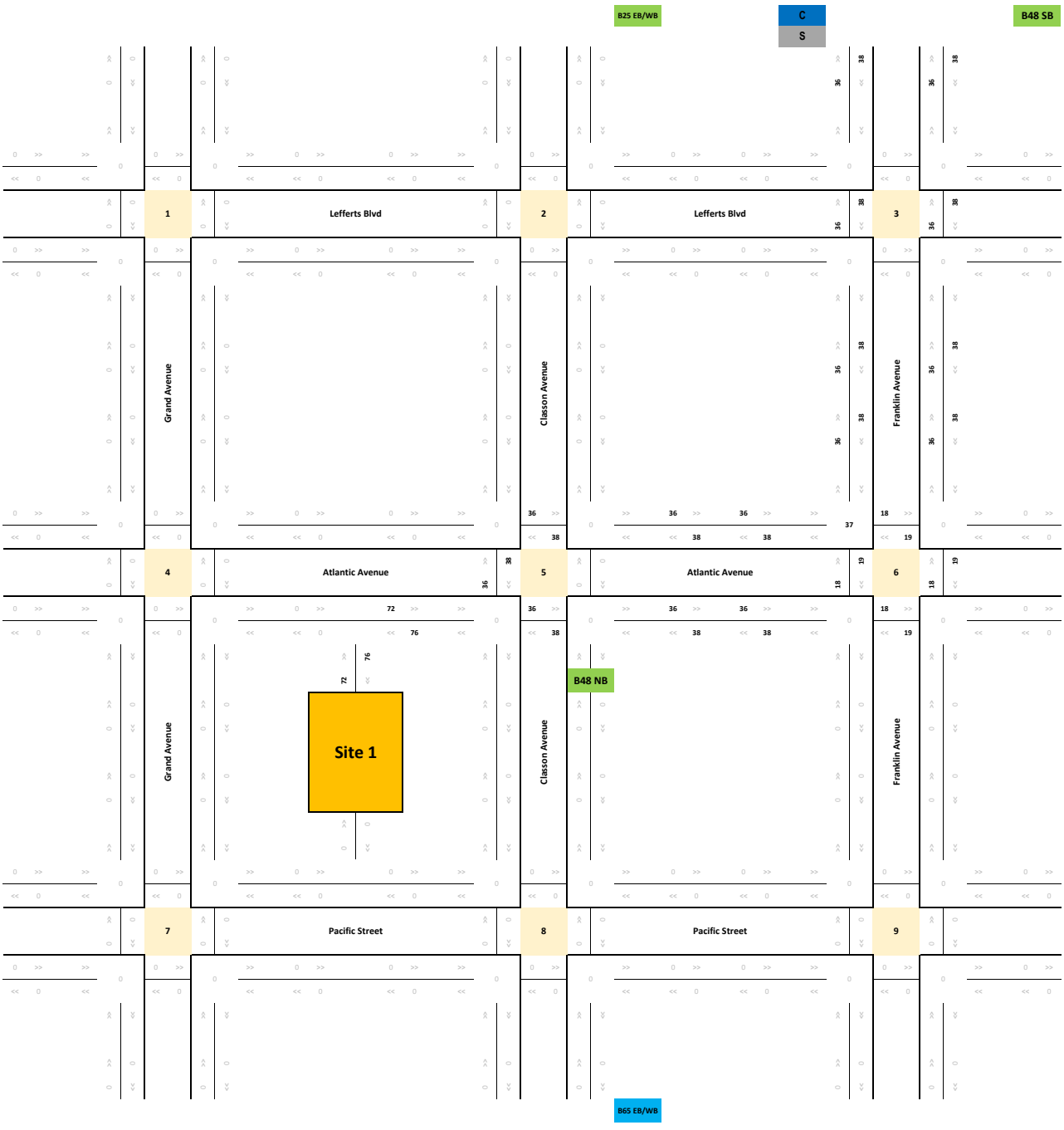
Weekday Midday Total Trips (Outbound)



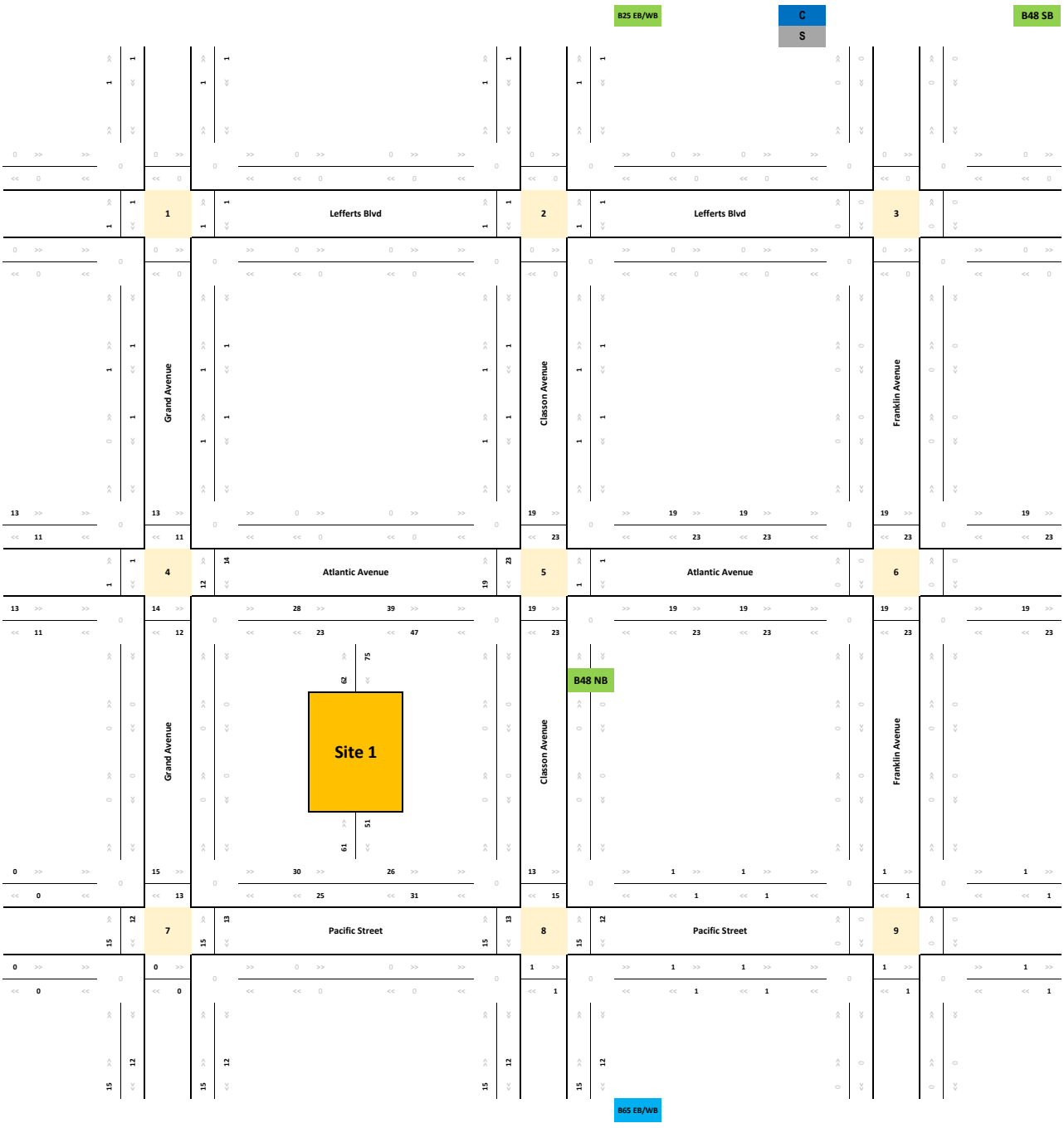
Weekday Midday MTA Bus Trips (Total)



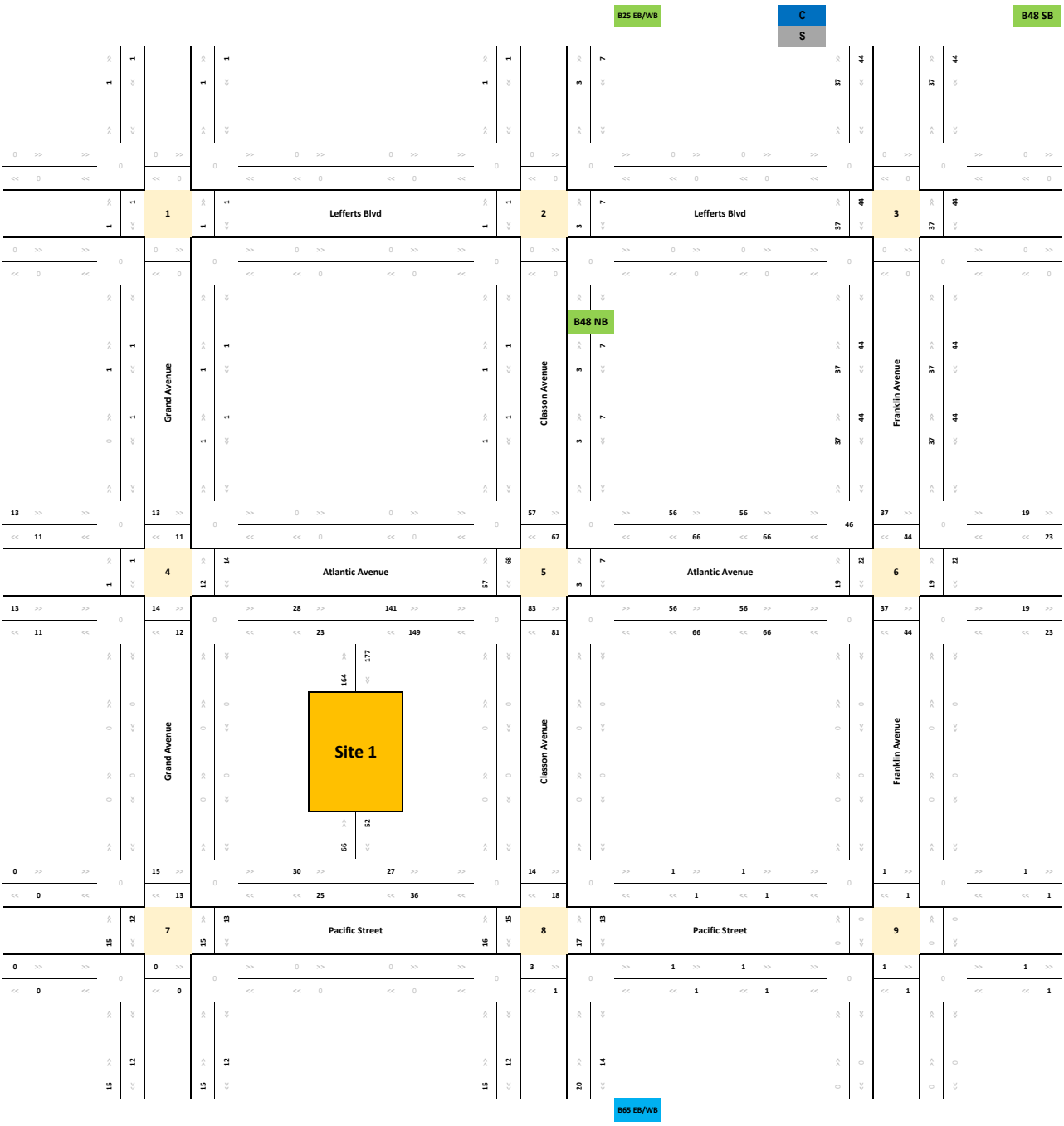
Weekday Midday Subway Trips (Total)



Weekday Midday Walk / Other Trips (Total)



Weekday Midday Total Trips



Sidewalk Volumes and Peak Hour Calculations

Atlantic Avenue and Classon (TMC 5)				
Sidewalks (Weekday AM)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
8:00 AM	8:15 AM	1.5	4	5.5
8:15 AM	8:30 AM	4	1.5	5.5
8:30 AM	8:45 AM	2	1	3
8:45 AM	9:00 AM	3.5	3	6.5
Atlantic Avenue and Classon (TMC 5)				
Sidewalks (Weekday MD)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
12:00 PM	12:15 PM	0.5	2	2.5
12:15 PM	12:30 PM	2.5	2	4.5
12:30 PM	12:45 PM	3	4	7
12:45 PM	1:00 PM	1.5	2	3.5
Atlantic Avenue and Classon (TMC 5)				
Sidewalks (Weekday PM)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
5:00 PM	5:15 PM	4.5	2	6.5
5:15 PM	5:30 PM	3.5	3	6.5
5:30 PM	5:45 PM	5	2	7
5:45 PM	6:00 PM	3	3	6
Atlantic Avenue and Classon (TMC 5)				
Sidewalks (Saturday MD)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
12:00 PM	12:15 PM	5	1.5	6.5
12:15 PM	12:30 PM	3	0.5	3.5
12:30 PM	12:45 PM	4	2	6
12:45 PM	1:00 PM	4.5	1.5	6

	SW E-W							
	AM		MD		PM		SAT	
	CW	CCW	CW	CCW	CW	CCW	CW	CCW
Vol.	11	10	8	10	16	10	17	6
PHF	0.79		0.63		0.93		0.85	

Crosswalk Volumes and Peak Hour Calculations

Atlantic Avenue and Classon (TMC 5)					
Crosswalks (Weekday AM)		South Crosswalk		West Crosswalk	
Start	End	CW	CCW	CW	CCW
8:00 AM	8:15 AM	4	6	3	4
8:15 AM	8:30 AM	3	4	3	3
8:30 AM	8:45 AM	4	3	3	2
8:45 AM	9:00 AM	2	2	2	2
Atlantic Avenue and Classon (TMC 5)					
Crosswalks (Weekday MD)		South Crosswalk		West Crosswalk	
Start	End	CW	CCW	CW	CCW
12:00 PM	12:15 PM	3	4	3	5
12:15 PM	12:30 PM	4	4	4	4
12:30 PM	12:45 PM	3	4	3	2
12:45 PM	1:00 PM	4	3	3	3
Atlantic Avenue and Classon (TMC 5)					
Crosswalks (Weekday PM)		South Crosswalk		West Crosswalk	
Start	End	CW	CCW	CW	CCW
5:00 PM	5:15 PM	9	7	1	2
5:15 PM	5:30 PM	7	3	7	3
5:30 PM	5:45 PM	8	4	3	3
5:45 PM	6:00 PM	6	4	2	4
Atlantic Avenue and Classon (TMC 5)					
Crosswalks (Saturday MD)		South Crosswalk		West Crosswalk	
Start	End	CW	CCW	CW	CCW
12:00 PM	12:15 PM	5	5	5	3
12:15 PM	12:30 PM	4	4	3	5
12:30 PM	12:45 PM	4	5	3	4
12:45 PM	1:00 PM	2	3	5	4

	AM				MD			
	South Crosswalk		West Crosswalk		South Crosswalk		West Crosswalk	
	CW	CCW	CW	CCW	CW	CCW	CW	CCW
Vol.	12	15	10	11	14	14	12	13
PHF	0.75	0.66	0.83	0.75	0.84	0.84	0.75	0.72
	PM				SAT			
	South Crosswalk		West Crosswalk		South Crosswalk		West Crosswalk	
	CW	CCW	CW	CCW	CW	CCW	CW	CCW
Vol.	29	18	11	12	15	16	15	16
PHF	0.84	0.63	0.42	0.75	0.73	0.78	0.75	0.78

Corner Volumes and Peak Hour Calculations

Atlantic Avenue and Classon (TMC 5)				
Corners (Weekday AM)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
8:00 AM	8:15 AM	1	0	1
8:15 AM	8:30 AM	1	1	2
8:30 AM	8:45 AM	1	1	1
8:45 AM	9:00 AM	1	1	2
Atlantic Avenue and Classon (TMC 5)				
Corners (Weekday MD)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
12:00 PM	12:15 PM	1	1	2
12:15 PM	12:30 PM	1	1	1
12:30 PM	12:45 PM	1	1	2
12:45 PM	1:00 PM	2	1	3
Atlantic Avenue and Classon (TMC 5)				
Corners (Weekday PM)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
5:00 PM	5:15 PM	1	0	1
5:15 PM	5:30 PM	2	1	3
5:30 PM	5:45 PM	1	1	2
5:45 PM	6:00 PM	1	1	2
Atlantic Avenue and Classon (TMC 5)				
Corners (Saturday MD)		SW Corner		
		E-W		
Start	End	CW	CCW	Total
12:00 PM	12:15 PM	2	2	4
12:15 PM	12:30 PM	4	1	5
12:30 PM	12:45 PM	2	2	4
12:45 PM	1:00 PM	3	2	5

	SW E-W			
	AM	MD	PM	SAT
Vol.	6	7	7	17
PHF	0.69	0.70	0.65	0.92