68th Street/Hunter College Subway Station Improvement Project Manhattan, New York

Environmental Assessment And Proposed Section 4(f) De Minimis Impact Finding

LEAD FEDERAL AGENCY:
Federal Transit Administration

SPONSORING AGENCY:
Metropolitan Transportation Authority New York City Transit

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Abstract

The Metropolitan Transportation Authority New York City Transit (MTA NYCT), is proposing to implement improvements to the 68th Street/Hunter College Station located at Lexington Avenue and East 68th Street in Manhattan. The improvements would provide accessibility for individuals with disabilities, consistent with the Americans with Disabilities Act (ADA) of 1990 (as amended), and would add necessary circulation improvements throughout the station. New York State designated the 68th Street/Hunter College Station as an ADA Key Station. The proposed project would make the subway station accessible for persons with disabilities and improve pedestrian circulation, reduce pedestrian congestion within the station and at street level, and foster efficient passenger access to trains and efficient occupancy of trains.

The proposed improvements can be summarized as follows:

- Installation of three ADA-compliant elevators and related improvements to bring this Key Station into compliance with ADA.
- Reconstruction and/or relocation of three of the four existing street stairs—at the southeast, northeast, and northwest corners of East 68th Street and Lexington Avenue.
- Installation of a new street stair on the south sidewalk of East 69th Street west of Lexington Avenue. This street stair would connect to a new subway mezzanine and platform stair serving the southbound platform.
- Installation of a new street stair in a retail space at 931 Lexington Avenue on the east side of Lexington Avenue, approximately mid-block between East 68th Street and East 69th Street. This street stair would connect to a new subway mezzanine and platform stair serving the northbound platform. Pending confirmation of availability of the space at 931 Lexington Avenue, MTA NYCT would retain the option for a street stair at the south sidewalk of East 69th Street east of Lexington Avenue as an alternate entrance location to the northbound platform.

This Environmental Assessment (EA) for the proposed project has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (as amended). The EA has been prepared in accordance with regulations for implementing NEPA, as issued by the Federal Transit Administration (FTA) (23 C.F.R. § 771) in conformance with the regulations of the Council on Environmental Quality (CEQ) (40 C.F.R. § 1500). The purpose of this EA is to provide information regarding the Proposed Project's potential impacts on the human and natural environments. The Federal Transit Administration (FTA) is a funding agency for the Proposed Project and is the lead federal agency for the NEPA environmental review process.

Based on the analyses presented in the EA and after considering public comments, the FTA will determine whether or not the Proposed Project would result in any significant adverse environmental impacts. If applicable, the FTA will issue a Finding of No Significant Impact (FONSI) if there are no significant environmental impacts.

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1 INTRODUCTION

The Metropolitan Transportation Authority New York City Transit (MTA NYCT), is proposing to implement improvements to the 68th Street/Hunter College Station in Manhattan to bring the station into compliance with the American with Disabilities Act (ADA) of 1990, (as amended) and add necessary circulation improvements throughout the station. These improvements, hereafter referred to as the 68th Street/Hunter College Subway Station Improvement Project or the "Proposed Project," would include the installation of ADA-compliant elevators, widening existing stairs, constructing additional stairs and additional entrances, among other improvements.

This Environmental Assessment (EA) for the Proposed Project has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (as amended). The EA has been prepared in accordance with regulations for implementing NEPA, as issued by the Federal Transit Administration (FTA) (23 C.F.R. § 771) in conformance with the regulations of the Council on Environmental Quality (CEQ) (40 C.F.R. § 1500).The purpose of this EA is to provide information regarding the Proposed Project's potential impacts on the human and natural environments. FTA is a funding agency for the Proposed Project and is the lead federal agency for the NEPA environmental review process.

Appendices to this EA include Appendix A: Preliminary Alternatives Screening, which describes in detail the extensive planning process that was undertaken by MTA NYCT in selecting various options of the project; Appendix B: Correspondence, which provides copies of agency communication and communication with other parties interested in the project; Appendix C: Transportation Analysis Report, which describes and evaluates transportation aspects of the project; Appendix D: Station Congestion Photographs, which provides photographs and photograph keys illustrating congestion within the station; and Appendix E: Environmental Justice Data, which provides study area demographic information from the U.S. Environmental Protection Agency.

2 PURPOSE AND NEED

The purpose of the Proposed Project is to:

1) Provide ADA accessibility to public areas of the 68th Street/Hunter College Subway Station, including ADA accessibility between the station platform, the mezzanine, and the street; and
2) Improve pedestrian circulation, reduce pedestrian congestion within the station and at street level, and foster efficient passenger access and occupancy to trains.

Key goals and objectives were established by MTA NYCT for this project in order to measure the ability of alternatives to meet the purpose and need and were based on MTA NYCT best practice principles for the planning and design of station improvements. The goals and objectives include transportation-related criteria, as well as project schedule, budget, safety, quality, customer satisfaction, and best practices pertaining to the natural and the man-made environment.

The goals and objectives of the 68th Street/Hunter College Subway Station Improvement Project consist of the following:

- Improve pedestrian circulation at all locations with deficiencies, specifically:
    - Reduce congestion at platform stairs

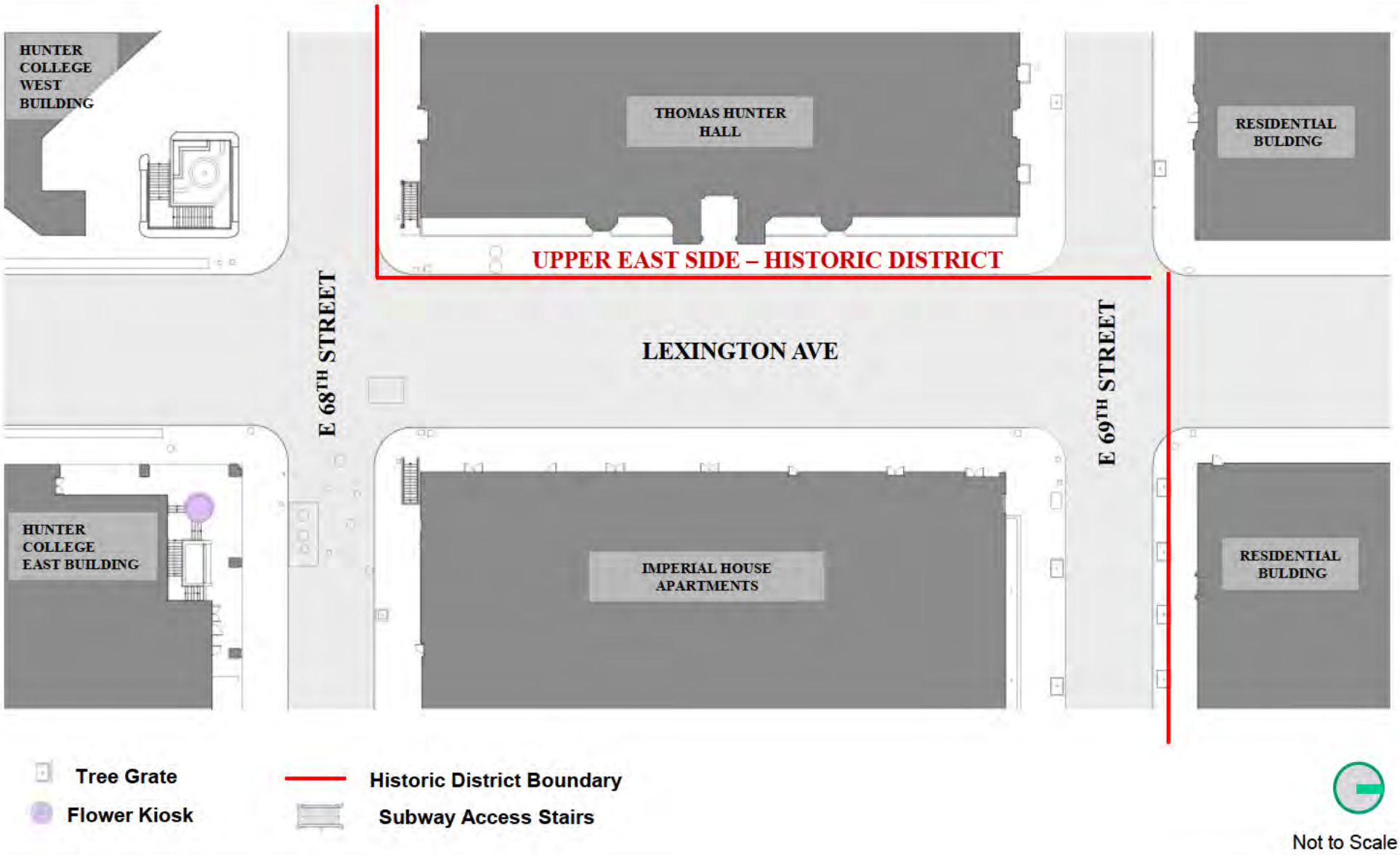
  - Reduce congestion at street stairs
  - Improve distribution of passenger volumes on the train and along the length of the platform
  - Improve passenger convenience and circulation efficiency: locate capacity that best serves passengers
  - Improve or maintain fare control and mezzanine performance
- Minimize cost
- Minimize construction risk
- Minimize real estate conflicts
- Minimize impacts during construction, specifically:
  - Minimize disruption to passengers using the station
  - Minimize disruption to IRT subway operations
  - Minimize disruption to the neighborhood surrounding the station
- Minimize environmental impacts, specifically:
  - Minimize impacts to historic resources and Section 4(f) resources
  - Maintain or improve pedestrian and vehicular circulation at the street and sidewalk network surrounding the station

68th Street/Hunter College Subway Station

The 68th Street/Hunter College Station is located along the eastern edge of the Upper East Side Historic District, on Lexington Avenue and East 68th Street in Manhattan (Figures S-1 and S-2). The station opened in 1918 and serves the IRT Lexington Avenue Line. The station serves the 6 Train at all times and the 4 Train during the late night hours. The station has the 30th highest ridership out of the 420 stations in MTA NYCT's 2013 Subway Ridership ranking.[1] The station has an average weekday usage of 36,562 daily passenger trips, and in terms of average weekday ridership, the station's one control area is the fifth busiest control area in the entire subway system. Although the station is not an express station or transfer station, it is a major origin/destination station because of the presence of City University of New York's Hunter College (located at East 68th Street and Lexington Avenue), Marymount Manhattan College, the proximity of medical facilities located east of the station, cultural attractions (Museum Mile, Central Park) located west of the station, and the dense residential character of the area. The proximity of these land uses to the station results in high peak period usage by passengers in the morning and evening. During a typical weekday morning peak hour, over 7,200 passengers exit the station and over 1,800 enter the station.

[1] Accessed at http://web.mta.info/nyct/facts/ridership/

Project Location
Figure S-1



Existing Street Level Plan

Figure S-2

The station consists of a two-level subway structure below street level. The two levels of the station consist of the mezzanine, and below the mezzanine, the tracks and passenger platforms. The street level entrances to the station are located at the four corners of the intersection of Lexington Avenue and East 68th Street in Manhattan (Figure S-2), and the mezzanine is located directly under this intersection. At the platform level, the station has a two-track configuration with one northbound and one southbound platform. The platform level extends under Lexington Avenue from a point midway between East 67th Street and East 68th Street to a point midway between East 69th Street and East 70th Street. There are two pairs of stairs providing access between the platforms and the mezzanine, one pair for the northbound platform and one pair for the southbound platform. Both pairs of stairs are located near the south end of the platform, under the intersection of East 68th Street and Lexington Avenue.

Problem Identification

Although it is one of the busiest stations in the subway system and serves major activity centers, including a dense residential area, institutions of higher education, hospitals and other major health care facilities, the 68th Street/Hunter College Station is not usable by individuals with physical disabilities due to the lack of elevator access between the street, mezzanine, and platform levels of the station.

According to the United States Code of Federal Regulations, (C.F.R.) Title 49 § 37.47, certain commuter authorities (such as the MTA) are required to make Key Stations on their system readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs. After consideration of the criteria in 49 C.F.R. § 37.47 for the determination of Key Stations, New York State designated the 68th Street/Hunter College Station as an ADA Key Station and included it in MTA NYCT system-wide list of 100 ADA Key Stations. As a Key Station, the 68th Street/Hunter College Station would become part of the network of ADA-accessible stations that interconnect with MTA NYCT's accessible bus system, the ADA-accessible stations of Metro-North Railroad and Long Island Rail Road, and other ADA-accessible subway stations.

MTA NYCT must meet ADA requirements for all of its designated Key Stations by the year 2020 to avoid potential financial penalties. The target date for the 68th Street/Hunter College Station to become ADA compliant is 2020.

In addition to the absence of ADA-compliant access, the 68th Street/Hunter College Station exhibits passenger circulation deficiencies. During peak usage, the existing station is characterized by poor performance in terms of stairway clearance times, passenger circulation within the station, and passenger circulation at the street level in the vicinity of the stairs leading into the station.

The circulation deficiencies consist of the following:

- Pedestrian congestion at the platform stairs and at the platform level approaching these stairs
- Pedestrian congestion at the street stairs and at the mezzanine level approaching these stairs
- Pedestrian interference on the sidewalk at the northeast corner of East 68th Street and Lexington Avenue
- Inefficient train access and occupancy
- Inefficient and inconvenient pedestrian circulation relative to passenger destinations

Analysis Framework, Environmental Process and Required Reviews/Approvals

Construction of the Proposed Project is expected to take approximately 36 to 39 months. Potential construction impacts were evaluated for the year 2017, the anticipated peak construction year. The Proposed Project is expected to be operational by 2020. To assess environmental impacts during operation, conditions expected after completion of the project (Build condition) were compared with conditions that would be expected without the project (e.g., the No-Build condition) for the year 2020. For year 2020 operational analyses, it is assumed that the Second Avenue Subway is operational. Therefore, the effect of the Second Avenue Subway in shifting a portion of ridership away from the 68th Street Station was included in the analysis.

MTA NYCT has determined that, in accordance with New York State Public Authorities Law §1266-c(11), the Proposed Action is exempt from the New York State Environmental Quality Review Act (SEQRA) as codified in Article 8 of the New York State Environmental Conservation Law (ECL Sections 8-0101 et seq.) and its implementing regulations in Title 6 of the New York Codes, Rules and Regulations (6 NYCRR Part 617). That is because, as specified in Public Authorities Law §1266-c(11), the Proposed Action is: "a NYCT project to be constructed upon real property theretofore used for a transit or transportation purpose, or on an insubstantial addition to such property contiguous thereto, which will not change in a material respect the general character of such prior transit or transportation use." Nevertheless, this EA is consistent with requirements of the SEQRA, and, where appropriate, with New York City's City Environmental Quality Review (CEQR), Executive Order 91 of 1977 as amended, and the technical guidance of the New York CEQR Technical Manual, 2014 Edition, and with relevant New York City codes and regulations.

Additionally, this project will be analyzed according to certain criteria to ensure that it is consistent with the New York State Smart Growth Public Infrastructure Policy Act.

The Proposed Project will comply with all applicable federal regulations and standards, including the Clean Air Act, Clean Water Act, Section 106 of the National Historic Preservation Act, Executive Order 12898 on Environmental Justice, Executive Order 13274 on environmental streamlining and stewardship, and Executive Order 13514 on federal sustainability.

Section 4(f) of the United States Department of Transportation Act of 1966 (49 U.S.C., § 303 (c)), as implemented by regulations codified at 23 C.F.R. § 774, prohibits federal approval or funding of a transportation project if the project requires use of a significant publicly owned park, recreation area, wildlife or waterfowl refuge area, or any significant historic site, unless there is no prudent and feasible alternative to such use and all possible planning to minimize harm to the resource has occurred, or if a determination of a *de minimis* impact has been made. Several historic resources are located in the vicinity, and MTA NYCT has prepared an evaluation of Section 4(f) resources potentially affected by the Proposed Project.

3 BACKGROUND

MTA NYCT undertook a conceptual design effort to provide ADA accessibility to the station (ADA accessibility necessarily involves vertical circulation between the platform level, the mezzanine, and the street level for those who cannot use stairs) and to address the circulation deficiencies at the 68th Street/Hunter College Station. This initial effort resulted in the development of the Mezzanine Expansion Alternative (Alternative 1). Further study of this preliminary alternative revealed unforeseen construction and engineering challenges and risks associated with the plan, which called for expanding the mezzanine north over the tracks and constructing additional platform stairs to the expanded mezzanine at East 68th Street. In addition to numerous disruptions in subway service (due to work at the track level), the plan would have required costly

relocation of communication infrastructure enclosed in Empire City Subway (ECS) duct banks, as well as the underpinning of adjacent historic structures (Thomas Hunter Hall and the Imperial House Apartments).

A second alternative (Alternative 2 – Northern Access) was therefore developed by MTA NYCT to address these concerns. Alternative 2 would provide new platform stairs and street stairs at East 69th Street, near the north end of the station, thereby avoiding the need to construct new platform stairs and an expanded mezzanine at East 68th Street. By eliminating the need to construct additional platform stairs feeding into the mezzanine and the need to substantially enlarge the mezzanine at East 68th Street, Alternative 2 would avoid or minimize the risks associated with relocating the ECS duct banks that contain communication/data infrastructure and would not require the underpinning of Thomas Hunter Hall. It would reduce construction impacts and require far fewer subway service outages when compared with Alternative 1. MTA NYCT subsequently studied the transportation performance of the two alternatives in greater detail and determined that Alternative 2 – Northern Access would perform better than Alternative 1 – Mezzanine Expansion. As a result, MTA NYCT decided to advance Alternative 2.

MTA NYCT then conducted a series of public meetings to inform residents and businesses surrounding the 68th Street/Hunter College Station of the planned improvements to the station (see Chapter 14). During these meetings, members of the community proposed other alternatives that did not include street entrances on East 69th Street. These alternatives, suggested by public comments, included new street entrances at East 67th Street (Alternative 3), new entrances at East 70th street (Alternative 4), a temporary stair at the southwest corner of East 68th Street to be used during widening of the other street stairs at the intersection and would add an emergency egress hatch in the west sidewalk of Lexington Avenue between East 68th Street and East 69th Street (Alternative 5) and improvements to certain stairs leading to the street at 68th Street and adjustments to the construction phasing for the mezzanine and platform levels, but no additional platform stair capacity (Alternative 6).

MTA NYCT identified a set of criteria to evaluate the ability of each alternative and each street stair option to satisfy the project purpose and need and the project goals and objectives. Criteria focused on ADA compliance for the station; improving circulation on the platform stairs and street stairs; improving the distribution of passenger load on the train and along the platform length; passenger convenience and circulation efficiency; and fare control area and mezzanine performance. The criteria include construction phase issues such as minimizing cost and construction risk, construction duration, disruption to station and subway operations and passengers, and construction impacts to the surrounding neighborhood. Other criteria included impacts to historic resources and use of Section 4(f) resources.

Using the above criteria, Alternatives 3 and 4 were evaluated for their ability to satisfy the project goals and objectives and were eliminated from further consideration (Appendix A). A summary of the evaluation of alternatives is presented in Table S-1. Alternative 5 would not meet the project purpose and need because it would not provide adequate circulation improvement, and Alternative 6 would not meet the project purpose and need because it would not include additional platform stair capacity. Alternatives 5 and 6 were eliminated from further consideration.

As part of the development of Alternative 2 – Northern Access, MTA NYCT explored different options for the location of street entrances at the north end of the station. Options included stair locations on the north and south sidewalks of East 69th Street both east and west of Lexington Avenue, and on the east and west sidewalks of Lexington Avenue both north and south of East 69th Street.

Through the evaluation of these options (Appendix A), a configuration of new entrances – one for each platform – was initially identified that best met the goals and objectives of the Proposed

Project (illustrations of these entrance configurations are presented in Chapter 2 of this EA). For the southbound platform, this configuration would consist of a new, small mezzanine under East 69th Street (identified as Option W1 in Appendix A). This mezzanine would connect to the street via a new street stair on the south sidewalk of East 69th Street west of Lexington Avenue; a new platform stair would connect the mezzanine to the platform. For the northbound platform, this configuration would consist of a new platform stair connecting to a new, small mezzanine under East 69th Street and a connecting street stair on the south sidewalk of East 69th Street east of Lexington Avenue (identified as Option E1 in Appendix A).

This set of street stair options was presented by MTA NYCT to the community and other interested parties during several meetings conducted to solicit feedback. Some members of the community requested that MTA NYCT explore locating a street-level entrance within one of the retail spaces on the ground floor of the Imperial House Apartments, a building that occupies the entire block encompassed by Third Avenue, Lexington Avenue, East 68th Street, and East 69th Street, with ground-floor retail fronting Lexington Avenue between the two streets. In an effort to be responsive to community concerns, MTA NYCT entered into discussions with representatives of the Imperial House Apartments building. During these discussions, MTA NYCT was presented with the possible opportunity for locating a street stair in a retail space in the building. This space, located at 931 Lexington Avenue approximately midway between East 68th Street and East 69th Street, was incorporated as a viable stair option, and MTA NYCT subsequently included this possible location as Option E10 into the mix of Alternative 2 – Northern Access stair options.

In consideration of community concerns, the project purpose and need, as well as the project goals and objectives, MTA NYCT then re-evaluated the various Alternative 2 – Northern Access street stair options, including Option E10 (see Appendix A). As a result, MTA NYCT identified the retail space at 931 Lexington Avenue (Option E10) as the preferred location for street access to the *northbound* platform, and maintained Option W1 on at the southwest corner of East 69th Street at Lexington Avenue as the preferred location for street access to the *southbound* platform. These street stair locations are preferred because they would result in fewer environmental impacts and have fewer conflicts with surrounding land uses, are more responsive to community concerns, and/or would be less expensive to construct. Therefore, Alternative 2, now comprising these preferred stair locations (Option E10 and Option W1), is being advanced as the Proposed Project. A summary of the evaluation is presented in Table S-1, with additional detail provided in Appendix A.

At the time this document was prepared, the owner of the building identified for locating Option E10 could not yet state with certainty that the commercial space at 931 Lexington Avenue would be available. Pending confirmation of availability of the space at 931 Lexington Avenue, MTA NYCT therefore retained the option for a street stair at the south sidewalk of East 69th Street east of Lexington Avenue (Option E1) as an optional entrance location to the northbound platform.

In addition to the Proposed Project (which includes Option E10 at 931 Lexington Avenue) this EA therefore also evaluates the Proposed Project with Option E1. The Proposed Project with Option E1 is identical to the Proposed Project but replaces the 931 Lexington Avenue entrance with a street entrance on the south sidewalk of East 69th Street east of Lexington Avenue (Option E1). A description of the No-Build Alternative, the Proposed Project and the Proposed Project *with Option E1* is provided below.

Table S-1:
Comparison of Planning Alternatives Considered

Relative Scoring Range 0-#	5	5	2	3	2	20	15	10	5	5	5	5	5	3		
Combined Scoring Range 0-#	**17**					**45**			**15**			**13**			90	100%
Average Scoring Range 0-#	**3.4**					**15**			**5**			**4.3**			27.73	
	IMPROVE CIRCULATION (0-17)					**MINIMIZE IMPLEMENTATION/FEASIBILITY PROBLEMS (0-45)**			**MINIMIZE IMPACTS DURING CONSTRUCTION (0-15)**			**MINIMIZE PERMANENT IMPACTS (0-13)**				
PLANNING ALTERNATIVE	**Reduce congestion at platform stairs**	**Reduce congestion at street stairs**	**Improve uneven distribution of passenger load on train and along platform length**	**Passenger convenience and circulation efficiency**	**Improve or maintain fare control and mezzanine performance**	**Minimize Cost**	**Minimize Construction Risk**	**Minimize Real Estate Issues**	**Construction Duration**	**Minimize disruption to station, subway operations and passengers**	**Minimize disruption to neighborhood**	**Minimize impact to historic resources and use of Section 4(f) resources**	**Maintain or improve pedestrian and vehicular circulation and parking**	**Minimize Impact to Neighborhood Character**	**Score**	
No Build Alternative* (68th St Access)	Marginal improvement; all existing congestion problems remain	Marginal improvement; all existing congestion problems remain	No improvement	No improvement	Marginal improvement; all existing congestion remains	No capital costs	No risks	No real estate purchase	No construction	No disruption	No disruption	No impacts or use	No improvement	None	NA	NA
	3	4	0	1	0	10	5	9	4	2	2	2	5	3	50	56%
Alternative 1 68th St Mezzanine Expansion	Overall congestion measurably reduced but some congestion is transferred to new platform stairs	Substantial improvement to street stairs	No improvement: same as No Build	- All passengers still concentrated at 68th St. - No direct access from platform to destinations north - Slightly improved sidewalk circulation at NE corner of Lex and 68th	More pressure on turnstiles due to increased feed from street and off platform	$97 Million. $27 Million above lowest cost	Substantial risk to communication infrastructure.	Easement purchase for louver in Hunter College common wall	48 to 62 months	- Substantial platform level disruptions due structural modifications and proximity of additional platform stair construction - Many service outages.	- Major Lexington Ave. excavation causes disruptions to pedestrian and traffic circulation, - Inconvenient business access.	Impact and use due to: -Underpinning of Thomas Hunter Hall -Underpinning of Imperial House Apartments -Louver in Hunter Hall common wall	-Vehicular circulation maintained. - Improved sidewalk circulation at northeast corner of 68th/Lex - No parking spaces lost	Loss of 1 tree		

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Table S-1: Continued

Relative Scoring Range 0-#	5	5	2	3	2	20	15	10	5	5	5	5	5	3		
	IMPROVE CIRCULATION (0-17)					MINIMIZE IMPLEMENTATION/FEASIBILITY PROBLEMS (0-45)			MINIMIZE IMPACTS DURING CONSTRUCTION (0-15)			MINIMIZE PERMANENT IMPACTS (0-13)				
PLANNING ALTERNATIVE	**Reduce congestion at platform stairs**	**Reduce congestion at street stairs**	**Improve uneven distribution of passenger load on train and along platform length**	**Passenger convenience and circulation efficiency**	**Improve or maintain fare control and mezzanine performance**	**Minimize Cost**	**Minimize Construction Risk**	**Minimize Real Estate Issues**	**Construction Duration**	**Minimize disruption to station, subway operations and passengers**	**Minimize disruption to neighborhood**	**Minimize impact to historic resources and use of Section 4(f) resources**	**Maintain or improve pedestrian and vehicular circulation and parking**	**Minimize Impact to Neighborhood Character**	**Score**	
	5	5	2	3	2	20	15	7	5	5	4	4	4	3	84	93%
Alternative 2 Proposed Project: 69th Street and Midblock Entrance (W1 and E10)	Substantial relief of platform stair congestion	Substantial improvement is further benefitted from diversion of passengers to new stairs	Substantial improvement	- Direct access from platform to destinations north. - Improved sidewalk circulation at NE corner of Lex and 68th	Substantial improvement due to diversion of passengers north of 68th	$70 Million lowest cost	Little or no risk to communication infrastructure	Easement purchase for louver in Hunter College common wall. Purchase of 931 Lexington Avenue.	36 to 39 months - shortest duration	- Some platform level disruptions - Few service outages.	-Limited Lexington Ave. excavation causes minor disruptions to traffic and pedestrian circulation.	De minimis impact due to: -Louver in Hunter Hall common wall and use of Imperial House	- Vehicular circulation maintained. - Improved sidewalk circulation at NE of 68th/Lex. - 4 parking spaces lost.	Loss of 2 trees; 1 new street element		
	5	5	2	3	2	20	15	9	5	5	4	4	3	1	83	92%
Alternative 2 Proposed Project with Option E1: two 69th Street Entrances (W1 and E1)	Substantial relief of platform stair congestion	Substantial improvement is further benefitted from diversion of passengers to new stairs	Substantial improvement	- Direct access from platform to destinations north. - Improved sidewalk circulation at NE corner of Lex and 68th	Substantial improvement due to diversion of passengers north of 68th	$70 Million lowest cost	Little or no risk to communication infrastructure	Easement purchase for louver in Hunter College common wall.	36 to 39 months - shortest duration	- Some platform level disruptions - Few service outages.	-Limited Lexington Ave. excavation causes minor disruptions to traffic and pedestrian circulation.	De minimis impact due to: -Louver in Hunter Hall common wall	- Vehicular circulation maintained. - Improved sidewalk circulation at NE of 68th/Lex. - 7 parking spaces lost.	Loss of 4 trees; 2 new street elements		

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Table S-1: Continued

Relative Scoring Range 0-#	5	5	2	3	2	20	15	10	5	5	5	5	5	3		
	IMPROVE CIRCULATION (0-17)					MINIMIZE IMPLEMENTATION/FEASIBILITY PROBLEMS (0-45)			MINIMIZE IMPACTS DURING CONSTRUCTION (0-15)			MINIMIZE PERMANENT IMPACTS (0-13)				
PLANNING ALTERNATIVE	**Reduce congestion at platform stairs**	**Reduce congestion at street stairs**	**Improve uneven distribution of passenger load on train and along platform length**	**Passenger convenience and circulation efficiency**	**Improve or maintain fare control and mezzanine performance**	**Minimize Cost**	**Minimize Construction Risk**	**Minimize Real Estate Issues**	**Constructio n Duration**	**Minimize disruption to station, subway operations and passengers**	**Minimize disruption to neighborhood**	**Minimize impact to historic resources and use of Section 4(f) resources**	**Maintain or improve pedestrian and vehicular circulation and parking**	**Minimize Impact to Neighborhood Character**		
	3	5	1	1	1	7	5	9	0	0	1	4	1	1	39	**43%**
Alternative 3 67th Street Access	Measurable reduction of congestion	Measurable improvement is further benefitted from diversion of passengers to 67th St Stairs	Would still result in concentration of passengers at south ends of platforms	- Less demand for south than for north; 67th St is beyond stopping point of trains and thus requires platform extension or long passageway - Improved sidewalk circulation at northeast corner of 68th/Lex	Measurable improvement with diversion of passengers from 68th to 67th Street	$108 Million. $38 Million above lowest cost	Moderate construction risk due to station cavern expansion	Easement purchase for louver in Hunter College common wall	60 to 72 months	- Substantial platform level disruptions due to cavern disruption. - Many service outages.	- Major Lexington Ave. excavation causes disruptions to pedestrian and traffic circulation. - Inconvenient business access.	De minimis impact to: -Louver in Hunter Hall common wall	- Vehicular circulation maintained. - Improved sidewalk circulation at NE of 68th/Lex. - 9 parking spaces lost. - School bus parking conflict - Relocate NYCT bus stop	Loss of 4 trees; 2 new street elements		
	5	5	2	1	2	0	5	9	0	0	1	4	2	0	36	**40%**
Alternative 4 70th Street Access	Substantial relief of platform stair congestion	Substantial improvement is further benefitted from diversion of passengers to 70th St Stairs	Substantial improvement.	- Better subway access to northerly destination, but 70th St. is beyond stopping point of trains and thus requires platform extension or long passageway; - Improved sidewalk circulation at northeast corner of 68th/Lex	Substantial improvement due to diversion of passengers from 68th to 70th Street	$136 Million. $66 Million above lowest cost	Moderate construction risk due to station cavern expansion	Easement purchase for louver in Hunter College common wall	60 to 72 months	- Substantial platform level disruption due to cavern extension. - Many service outages.	- Major Lexington Ave. excavation causes disruptions to pedestrian and traffic circulation. - Inconvenient business access.	De minimis impact due to: -Louver in Hunter Hall common wall	- Vehicular circulation maintained. - Improved sidewalk circulation at NE of 68th/Lex. - 9 parking spaces lost.	Loss of 5 trees; 2 new street elements		

Scoring Key:

Higher values reflect better performance and/or fewer impacts

*The No Build Alternative is included as a frame of reference and is not assigned a score. It does not meet the Purpose and Need and is therefore not considered a feasible alternative

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No-Build Alternative

Under the No-Build Alternative, the proposed improvements to the platform stairs and street stairs, installation of ADA elevators and other improvements throughout the station would not be implemented. Without the ADA elevators, the station would remain inaccessible to some persons with disabilities, including those who require the use of a wheelchair. By 2020**,** some of the passengers using the 68th Street/Hunter College Station would be diverted from the 6 Lexington Avenue Line to the Second Avenue Subway, which is expected to be operational by that time, and is factored into the No-Build analysis. The results of this analysis are provided in Chapter 5 and in Appendix C of this EA. The analysis shows that although the station's performance would improve after 2020 (due to the diversion of some passengers to the Second Avenue Subway), existing performance deficiencies would remain, especially in the AM peak hour. Under the No-Build Alternative**,** the existing congestion would therefore not be alleviated. The existing curb parking lane and sidewalk configuration on East 69th Street would remain unchanged.

Proposed Project

Under the Proposed Project, the station would be reconfigured, resulting in changes at the street level, mezzanine level and platform level at the Lexington Avenue intersection of East 68th Street. The Proposed Project would also construct new street stairs, new mezzanines and new platform stairs near the north end of the station. The proposed improvements can be summarized as follows:

- Installation of three ADA-compliant elevators and related improvements to bring this Key Station into compliance with ADA.
- Reconstruction and/or relocation of three of the four existing street stairs—at the southeast, northeast, and northwest corners of East 68th Street and Lexington Avenue.
- Installation of a new street stair on the south sidewalk of East 69th Street west of Lexington Avenue. This street stair would connect to a new subway mezzanine and platform stair serving the southbound platform.
- Installation of a new street stair in a retail space at 931 Lexington Avenue, within the Imperial House Apartment building (Option E10). This street stair would connect to a new subway mezzanine and platform stair serving the northbound platform.

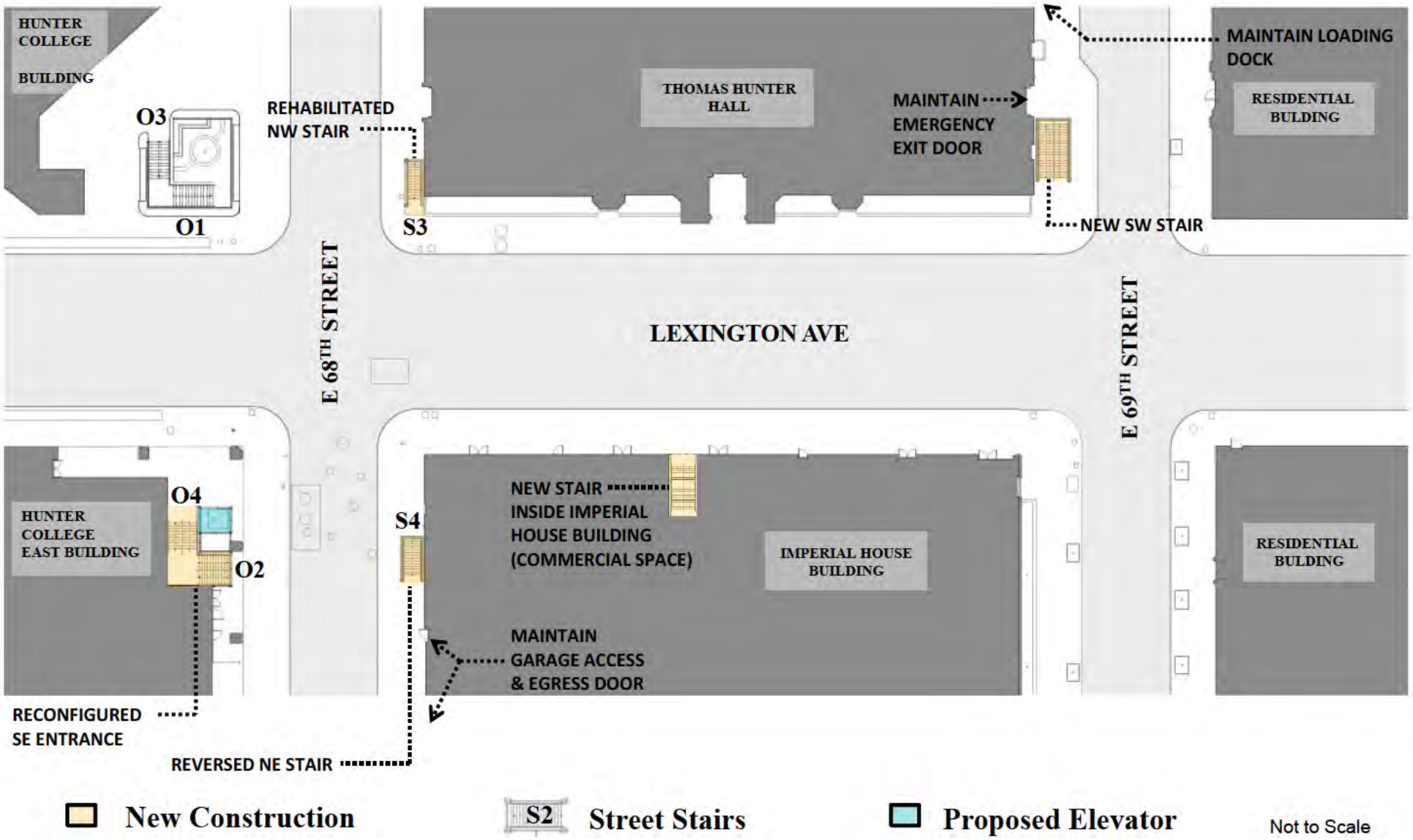
Proposed Project *with Option E1*

- The description of the Proposed Project with Option E1 is the same as above with the exception of the new subway entrance on the east side of Lexington Avenue. Instead of a new street stair at 931 Lexington Avenue, the project would include the installation of a new street stair on the south sidewalk of East 69th Street east of Lexington Avenue (Option E1). This street stair would connect to a new subway mezzanine and platform stair serving the northbound platform.

Street Level Improvements – Proposed Project

Figure S-3 illustrates the changes at street level that would result from the Proposed Project, which includes changes at:

- East 68th Street - New ADA-Compliant Elevator and Improvement of Existing Street Stairs:
    - Street Stair O2/O4: At street level on East 68th Street, the Proposed Project would increase the width of the stair O2/O4 at the southeast corner of Lexington Avenue and East 68th Street.
    - Street Level ADA-Compliant Elevator: An ADA-compliant elevator would be provided in the plaza under the northwest corner of the Hunter College East Building, adjacent to stair O2/O4 described above. The plaza is open on the north and west sides adjacent to East 68th Street, and Lexington Avenue, respectively. The plaza contains a street stair for the 68th Street/Hunter College station, a section of seating, and a kiosk that is licensed to a flower vendor. The elevator entrance at sidewalk level would necessitate the removal of the retail space currently located in this area. The existing seating would remain.
    - Street Stair S3: Stair S3 at the northwest corner of the intersection would be rehabilitated, but would retain the existing dimensions and location.
    - Street Stair S4: Stair S4 would be shifted approximately 30 feet east of its current position. The new stair would be widened and the stair would be turned 180 degrees to face east, instead of west. A street tree located in the area of the new stair would be removed.
- East 69th Street:
    - Street Stair at East 69th Street: New street stair access to the station would be provided on the south sidewalk of East 69th Street west of Lexington Avenue. This stair would face east toward Lexington Avenue. One tree would be removed from the south sidewalk of East 69th Street west of Lexington Avenue.
    - The southern sidewalk in the vicinity of the new stair would be extended into the curb lane to provide required space for pedestrian clearance between the street stair structure and the curb (5 feet minimum). This “bulb-out” would eliminate four parking spaces on the south side of East 69th Street west of Lexington Avenue. The East 69th Street crosswalk on the west side of Lexington Avenue would be widened to maintain pedestrian flow and safety. Access to the Thomas Hunter Hall loading dock on the south side of East 69th Street west of Lexington Avenue would be maintained.
- Lexington Avenue:
    - Street Stair in the retail space at 931 Lexington Avenue. Under the Proposed Project, the 931 Lexington Avenue stair would exit to the Lexington Avenue sidewalk. No trees or parking spaces would be affected and the roadway geometry at this location would remain unchanged. A portion of the retail space at 931 Lexington Avenue would be reconfigured to accommodate the proposed street stair.



Street Level Plan - Proposed Project

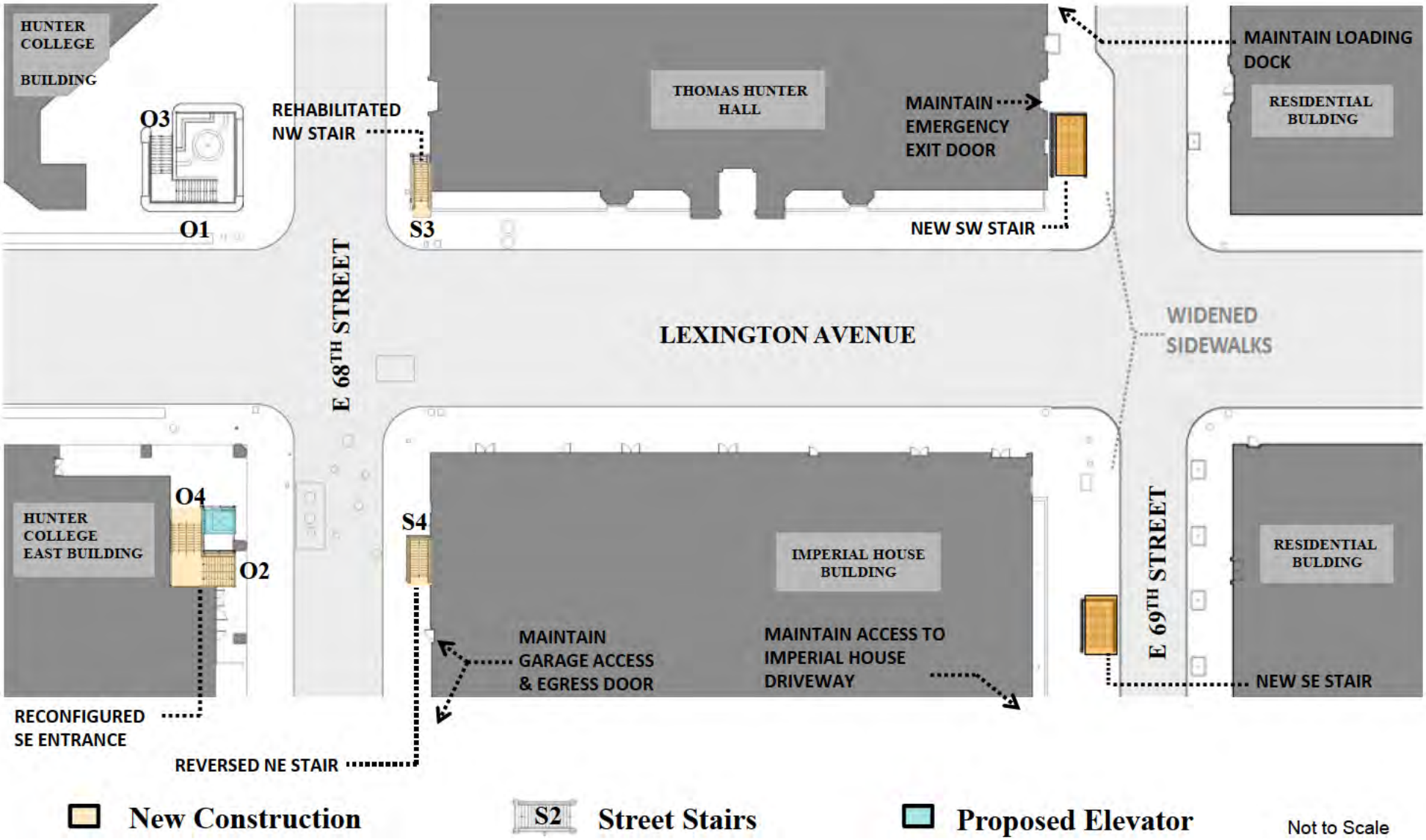
Figure S-3

Street Level Improvements – Proposed Project with Option E1

Under the Proposed Project *with Option E1*, a new street stair would be provided on the south sidewalk of East 69th Street east of Lexington Avenue instead of mid-block between East 68th and East 69th Streets. Improvements at East 68th Street would be as described above (Figure S-4). The new stair on East 69th Street east of Lexington Avenue would face east toward Third Avenue. Two trees would be removed from the south sidewalk of East 69th Street east of Lexington Avenue. The southern sidewalk in the vicinity of the new stair would be extended into the curb lane to provide required space for pedestrian clearance between the street stair structure and the building wall (5 feet minimum). This bulb-out would eliminate three parking spaces on the south side of East 69th Street east of Lexington Avenue. The East 69th Street crosswalk on the east side of Lexington Avenue would be widened to maintain pedestrian flow and safety. Access to the Imperial House Apartments drive on the south side of East 69th Street east of Lexington Avenue would be maintained.

Improvements to Existing Mezzanine – Proposed Project and Proposed Project with Option E1

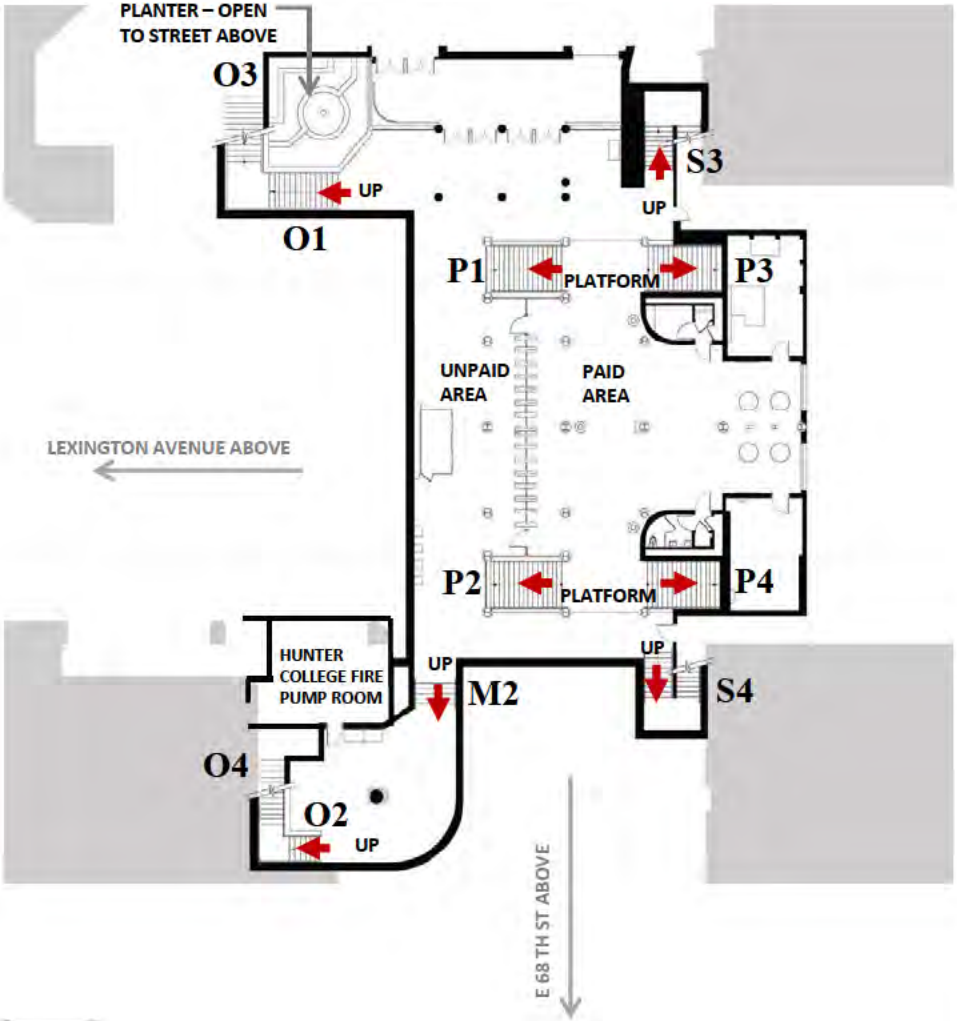
- Street-to-Mezzanine Elevator: A street elevator (same as discussed above) would be installed in the southeast corner of the mezzanine to provide ADA-compliant access between the mezzanine and the sidewalk. The existing mezzanine and proposed mezzanine level, including the new elevator, is shown on Figure S-5.
- Mezzanine-to-Platform Elevators: Two ADA-compliant elevators leading to the platforms would be constructed at the mezzanine level. One elevator, located at the east side of the mezzanine, would serve the northbound platform, and one elevator located at the west end of the mezzanine would serve the southbound platform. Both elevators would be constructed adjacent to the existing platform stairs at the northbound and southbound platforms. The platform elevators are shown on Figure S-5.
- Mezzanine Improvements: The Proposed Project would enlarge the eastern portion of the mezzanine area by approximately 10 feet to accommodate the platform elevator serving the northbound platform (Figure S-5). The existing mezzanine has two floor levels connected via stairs, with floor elevations differing by approximately 2 feet. The Proposed Project would rebuild the mezzanine so that the difference in floor levels would be eliminated and the entire station mezzanine would be at one level.



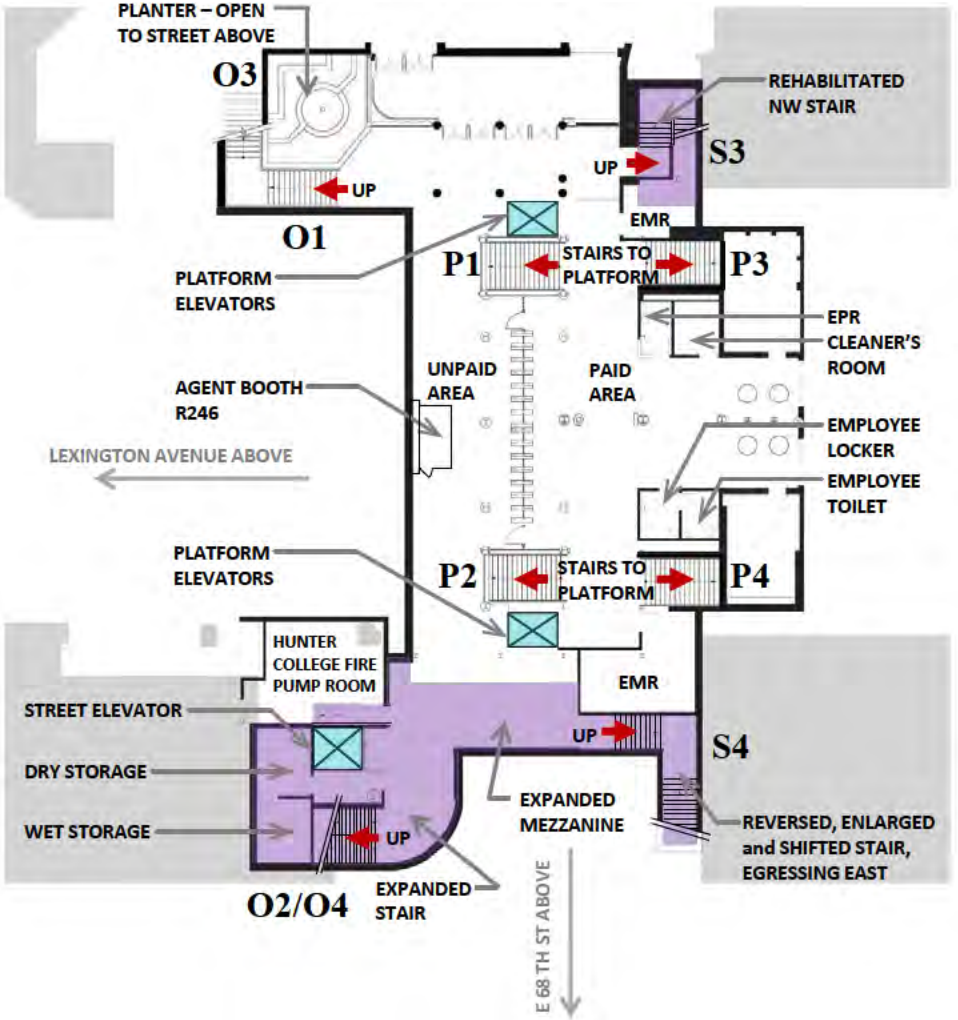
Street Level Plan - Proposed Project with Option E1

Figure S-4

Existing Mezzanine



Proposed Mezzanine



P2 PLATFORM STAIR

PROPOSED ELEVATOR

RECONFIGURED MEZZANINE/STAIR

Not to Scale

NORTH

Mezzanine Level Plan East 68th Street

Figure S-5

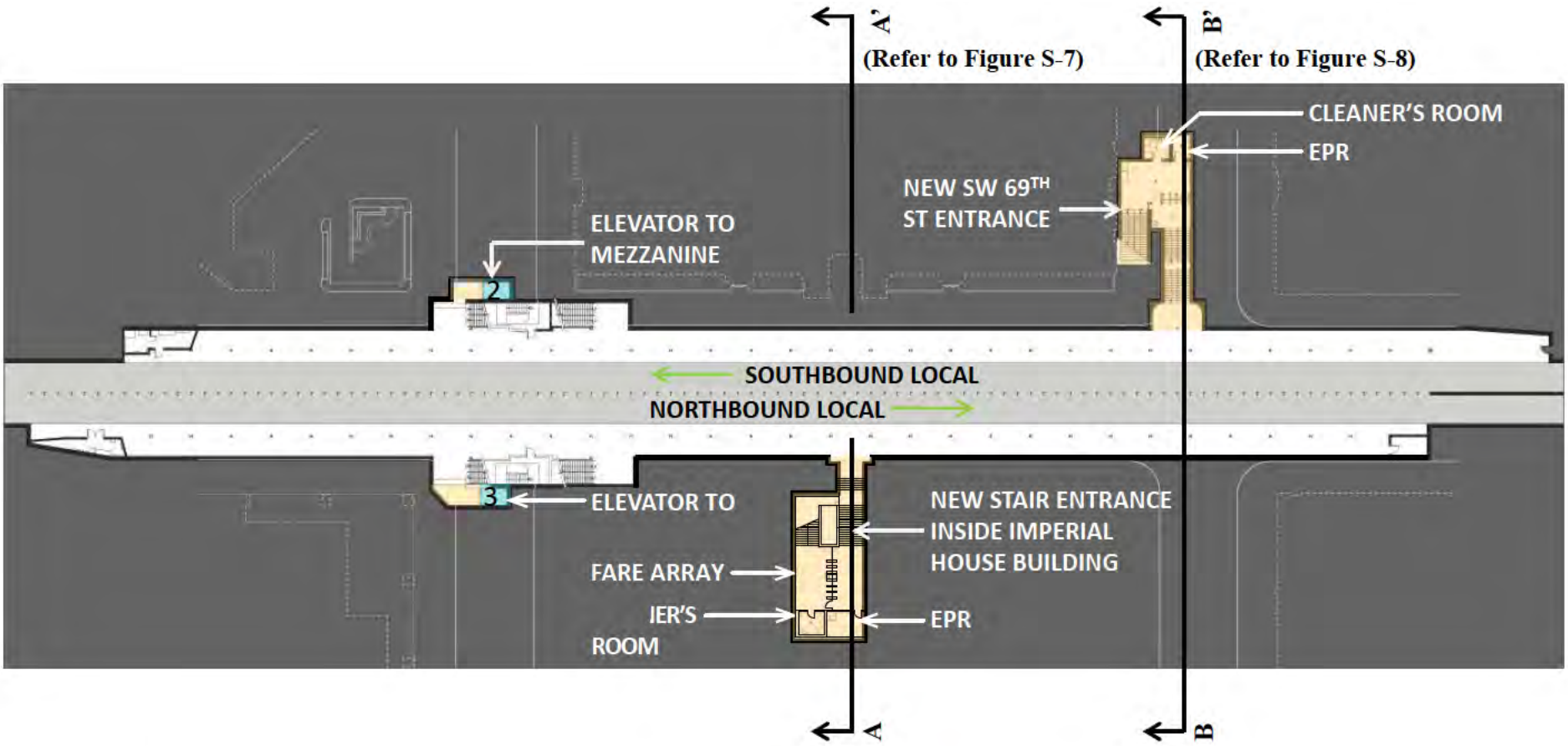
Platform Level Improvements – Proposed Project

- East 68th Street—ADA-Compliant Mezzanine-to-Platform Elevators: Two new ADA-compliant elevators would be constructed between the platforms and the mezzanine as described above. The elevators would be located adjacent to the existing platform stairs on both platforms (Figure S-5), providing ADA access between the platform level and the mezzanine level.
- Northern End of Station—Platform Stairs: New stairs would be constructed near the north end of the northbound and southbound platforms (Figure S-6). Each platform stair would connect through its own new small mezzanine to the proposed street stair at East 69th Street (on the west side of Lexington Avenue) and to the street stair at 931 Lexington Avenue (on the east side of the avenue), providing ingress/egress at the north end of the station (Figure S-7 shows a section view of the new mid-block stair and mezzanine at 931 Lexington Avenue, and Figure S-8 shows a section view of the new stair and mezzanine at East 69th Street). Each of these new small mezzanines would include unattended turnstiles, MetroCard Vending Machines, and communication systems.
- General Platform Improvements: Additional improvements to the existing platforms designed to accommodate the disabled would include a new platform edge on both northbound and southbound platforms, a communications system, and signage improvements.

Platform Level Improvements – Proposed Project with Option E1

- The ADA-compliant mezzanine-to-platform elevators and the southbound platform would be as described above. The northbound platform would be as described above except that the stair and new small mezzanine would be shifted approximately 100 feet to the north (Figure S-9). Figure S-10 shows a section view of the platform stairs, mezzanines, and street stairs under the Proposed Project *with Option E1*.

Platform Level



New Construction

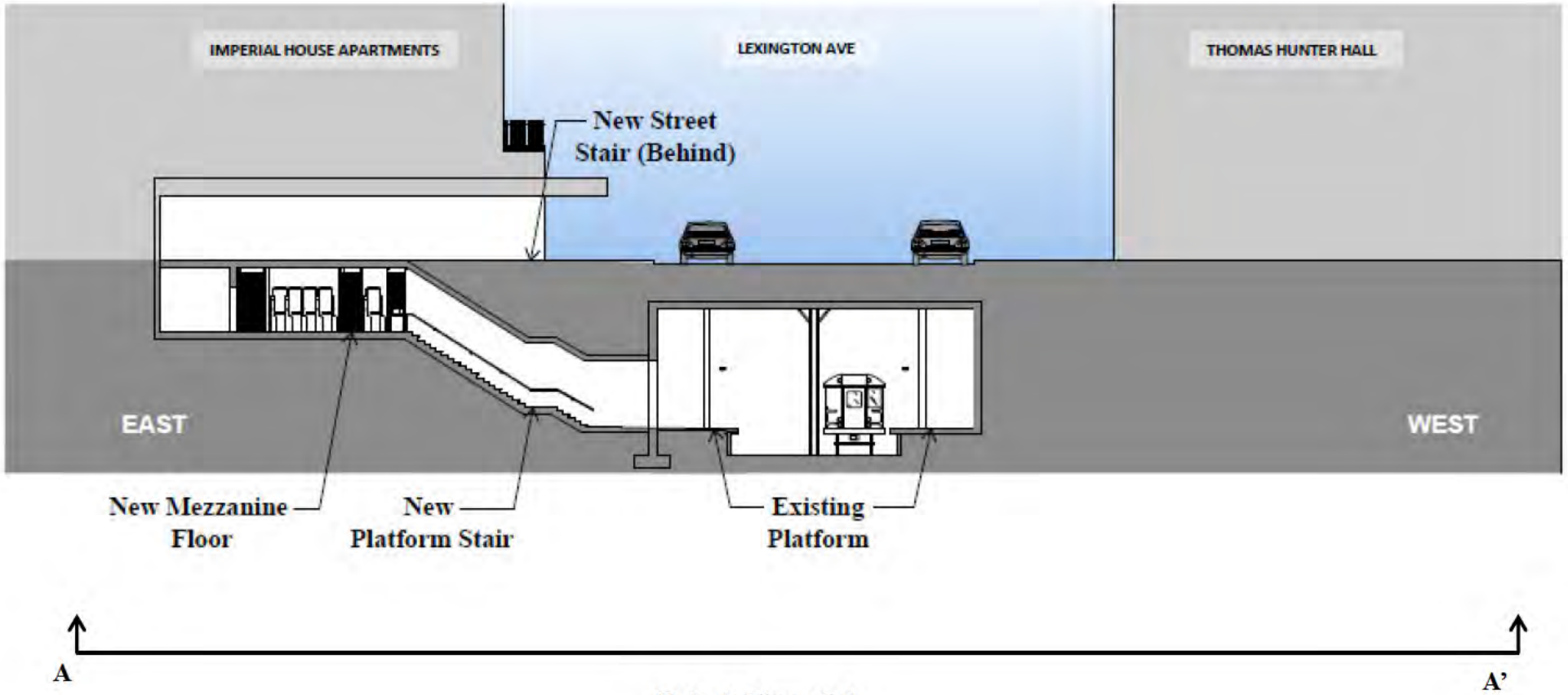
Proposed Elevator

Not to Scale

NORTH

Platform Level Plan - Proposed Project

Figure S-6



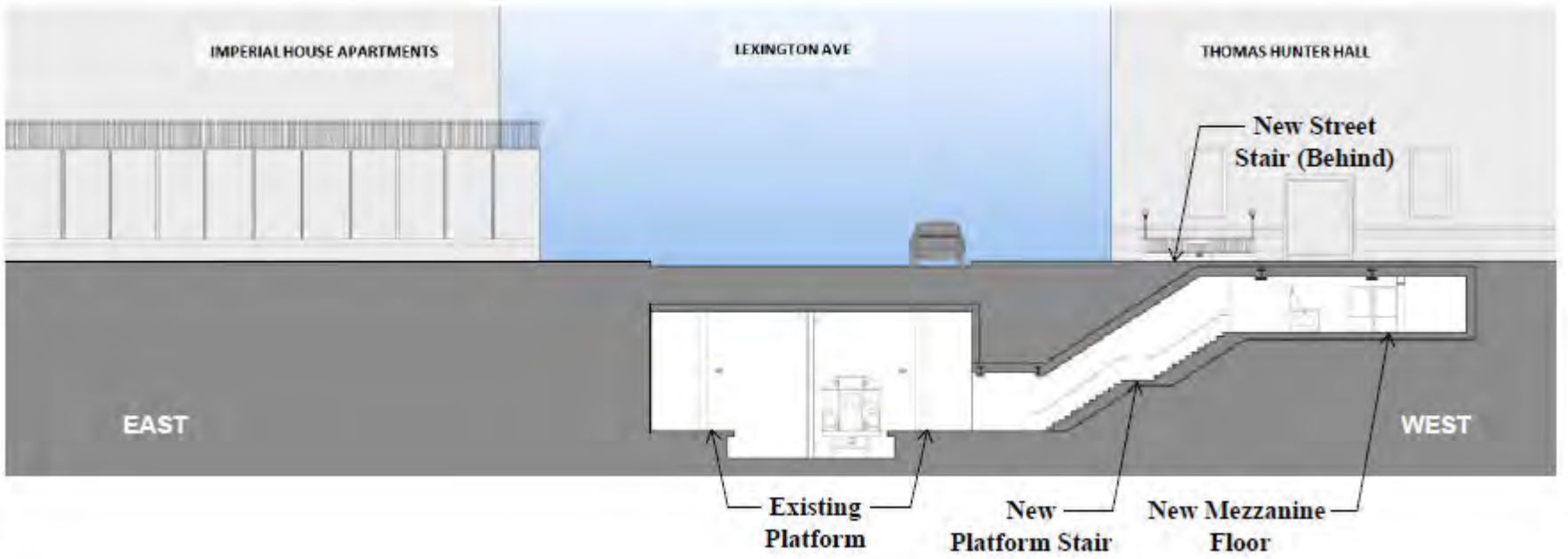
(Refer to Figure S-6)

Not to Scale

NORTH

Section View of Mid-Block Stair and Mezzanine - Proposed Project

Figure S-7



B

(Refer to Figure S-6)

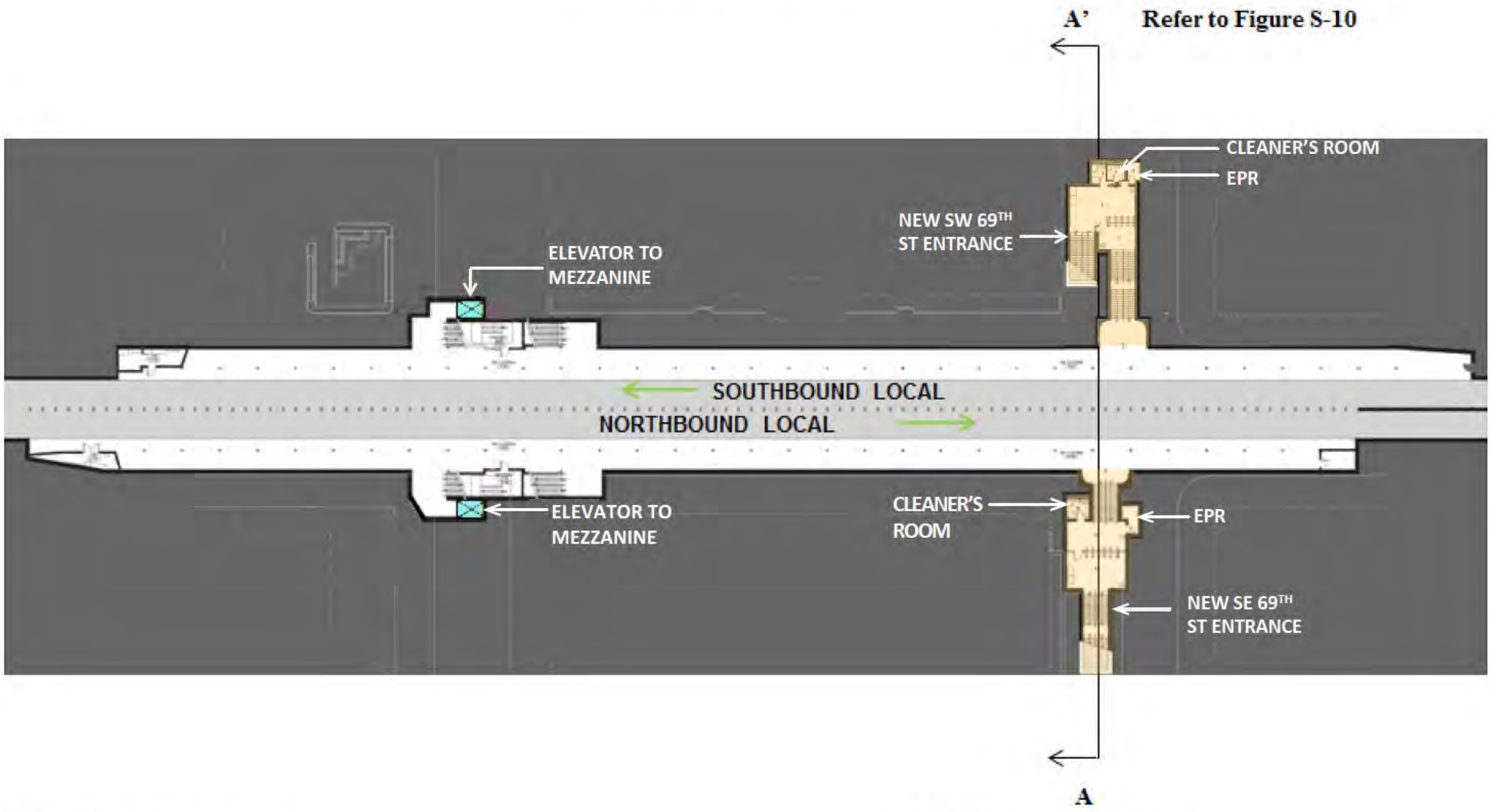
B'

Not to Scale

Section View of East 69th Street - Proposed Project

Figure S-8

Platform Level



New Construction

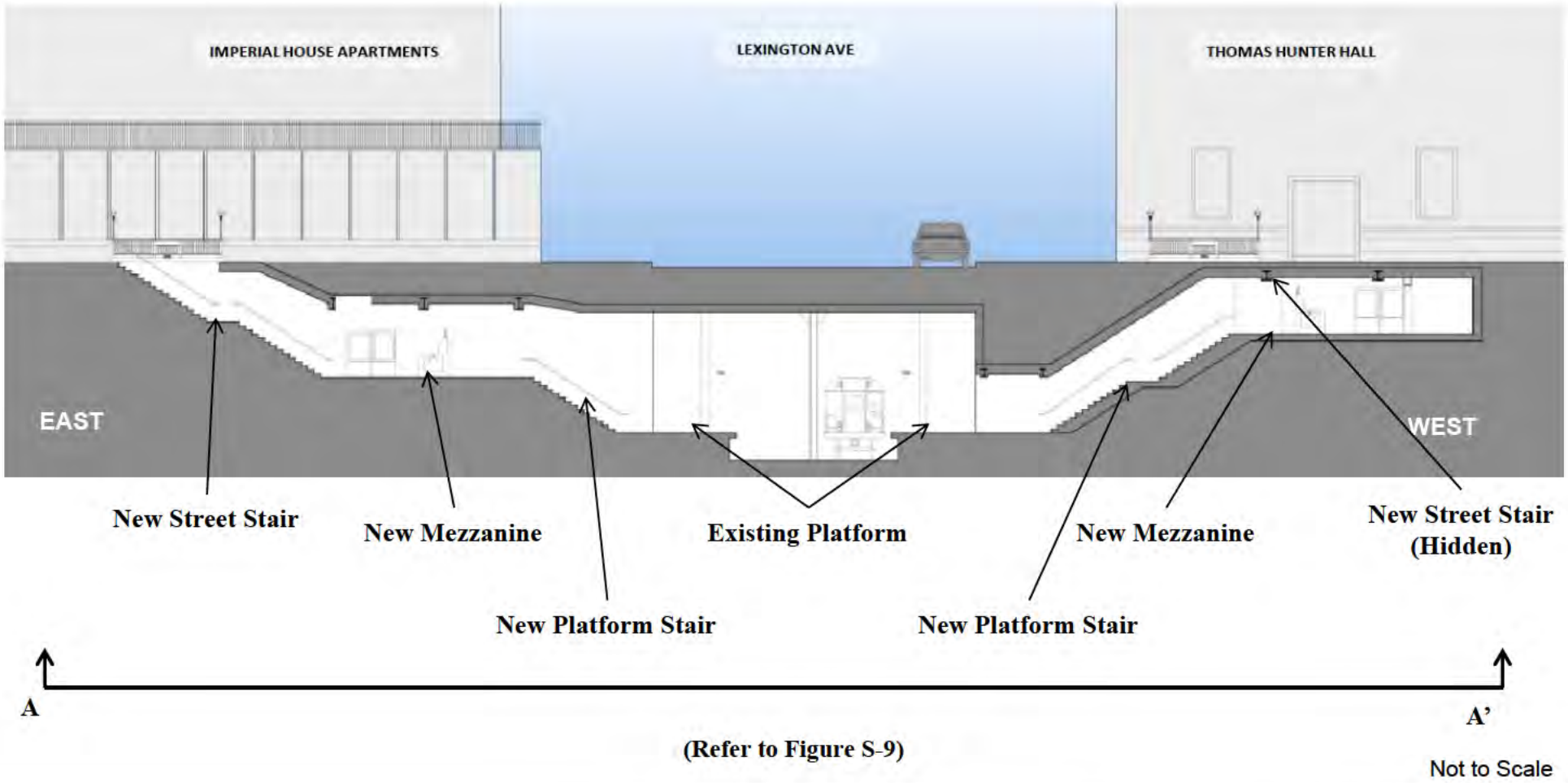
Proposed Elevator

Not to Scale

NORTH

Platform Level Plan - Proposed Project with Option E1

Figure S-9



Section Along East 69th Street – Proposed Project with Option E1

Figure S-10

Other Station Improvements

In addition to the ADA-compliant elevators and the circulation improvements described above, the Proposed Project would include the following:

- New Electrical Panel Rooms (EPR), and elevator machinery rooms (EMR)
- New ADA Fare-card Access System gate adjacent to the new reconfigured East 68th Street/Hunter College Station fare control area
- Modified existing agent booth to become ADA-compliant
- A "Call-Button" communication system between accessible fare control gate and agent booth
- ADA-compliant station maintenance facilities/rooms including accessible toilets
- Electrical upgrades for equipment, lighting, emergency lighting, facility rooms
- Braille signs and signage with identification of accessible paths of travel
- Modified platforms to provide ADA-compliant boarding areas, new tactile platform edge warning strip
- Relocation of the existing fire standpipe, and provision of a new fire standpipe where needed
- Installation of Closed Circuit TV (CCTV) cameras near elevators and elevator landings, with video monitoring from the agent's booth
- Installation of all communication requirements, including ADA-compatible telephones, text-type telephones, sound power telephones in elevators, fire alarm system and intercoms
- Installation of new Passenger Assistance Stations (PAS) in control areas at the north end of the station
- Installation of new ADA-compliant stainless steel stair side-rails, handrails and center railings
- Provision of drainage for new and reconstructed stairways
- Relocation and/or maintenance of utilities (water, steam, sewer, communication, electrical)
- Replacement of the existing public address (PA) system

Siting Assumptions for Elevator & Stair Placement / Path of Travel

A "Path of Travel" analysis was conducted in accordance with FTA Circular C 4710.1, issued on November 4, 2015. This Circular provides guidance to recipients and sub-recipients of FTA financial assistance necessary to carry out provisions of the ADA of 1990, Section 504 of the Rehabilitation Act of 1973, as amended, and the U.S. Department of Transportation's implementing regulations at 49 CFR Parts 27, 37, 38, and 39.

As used in this section, a "path of travel" includes a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, parking areas, and streets), an entrance to the facility, and other parts of the facility. The term also includes the restrooms, telephones, and drinking fountains serving the altered area. An accessible path of

travel may include walks and sidewalks, curb ramps and other interior or exterior pedestrian ramps, clear floor paths through corridors, waiting areas, concourses, and other improved areas, parking access aisles, elevators and lifts, bridges, tunnels, or other passageways between platforms, or a combination of these and other elements.

The path of travel analysis was conducted to evaluate whether, upon completion of the proposed alterations to this key station, people using wheelchairs can reach all primary function areas needed to use the station (including platforms, ticketing, toilets, waiting rooms, drinking fountains, etc.), although their path of travel may vary from the general public access route. In addition the analysis evaluates whether the key station meets all other DOT Standards throughout for elements in place when the station was made accessible, including signs, detectable warnings on platform edges, accessible fare vending, text telephones, visual display of public address announcements, etc.

To incorporate vertical access at this station, construction cost, constructability, underground utility relocation, ADA compliance, passenger flow/convenience, intermodal transfers, safety and security were evaluated. At street level, roadway and sidewalk width, traffic patterns, and bus routes/stops were reviewed. Within the existing constraints and the factors mentioned above, the proposed locations of the elevators provide the safest path of travel. Roadway traffic patterns and bus routes/stops, as well as property line limitations also were evaluated.

Within these constraints, elevators and station entrances were sited in locations that could functionally best process current and future passenger loads while considering the following:

- sited to be centrally located and provide the safest path of travel for disabled and other passengers on the street/sidewalk levels,
- sited to provide a safe distance from platform edges at the platform level for wheelchair users and pedestrians,
- sited in locations that would minimize the negative impact to vehicle flow, and to passenger flow within the stations.

Designs were completed in accordance with the ADA Accessibility Guidelines (ADAAG) as applicable to MTA NYCT. A Path of Travel analysis was conducted, which determined that the Proposed Project or the Proposed Project *with Option E1* would offer the most optimal combination of platform, mezzanine and street level improvements to achieve the maximum level of access for able and disabled passengers without impacting established and projected passenger loads. Potential street level transportation impacts were likewise minimized by taking into account vehicular and pedestrian flows.

Anticipated Conditions with the Proposed Project

(The following applies to the Proposed Project, and the Proposed Project *with Option E1*, unless otherwise indicated.) The Proposed Project is expected to be operational by 2020. The conditions discussed below assume that the segment of the Second Avenue Subway in the vicinity of the East 68th Street would be in operation.

Implementation of the improvements comprising the Proposed Project would meet the Purpose and Need and the goals and objectives, as described below.

- **ADA-compliant Key Station**. With implementation of the station improvements, the station would provide ADA-compliant access to passengers with mobility impairments or other disabilities, thereby increasing the system-wide number of destinations accessible for these passengers. The station would also be ADA-accessible for employees of MTA NYCT.

- **Reduced pedestrian congestion at platform stairs**. With the addition of new stairs at the north end of the platform, the existing congestion at the stairs leading to the East 68th Street mezzanine would be reduced. Although not all stairs would meet MTA NYCT's 30-second clearance time guideline, the Proposed Project would result in a substantial improvement in clearance times, especially for stairs performing poorly under existing conditions.
- **Improved circulation at the mezzanine level**. With the operation of new entrances at the north end of the station, fewer passengers would be using the East 68th Street mezzanine. Under the Proposed Project in 2020, for the peak 15-minute period in the morning, approximately 28 percent fewer passengers (625 persons) would be using the East 68th Street mezzanine than would under the No-Build condition. Similarly, in 2020, for the PM peak 15-minute period, approximately 26 percent fewer passengers (444 persons) would be using the East 68th Street mezzanine than would under the No-Build condition. When coupled with the street stair improvements listed in the following bullet, the reduced passenger flow through the 68th Street mezzanine would greatly ease congestion currently found at the bottom of the street stairs.
- **Reduced pedestrian congestion at the street stairs**. With the widening of the stair on the southeast corner of the East 68th Street/Lexington Avenue intersection and the stair at the northeast corner of the intersection, and the new station access at the north end of the station, congestion at the street stairs is expected to be reduced under the Proposed Project compared to existing conditions and the 2020 No-Build condition.
- **Elimination of pedestrian interference at the northeast corner of East 68th Street and Lexington Avenue**. The street stair at this location would be relocated east approximately 30 feet and reoriented so that passengers exiting the stair would be heading east. As such, exiting passengers would no longer emerge and interfere with pedestrian flow at the northeast corner of Lexington Avenue and East 68th Street. Entering passengers would no longer have to negotiate through, and interfere with, pedestrians at the corner.
- **Improved efficiency of train access and occupancy**. With the provision of additional access to the station at the north end of the station, it is anticipated that most passengers with origins/destinations north of East 68th Street would use the new stairs, and thus, utilize cars at the north end of the train, thereby providing greater balance in train loading/unloading and utilization.
- **Improved efficiency of pedestrian circulation and reduced walking time**. With the new access to the station, passengers leaving trains at the north end of the platform with a destination north of East 68th Street would no longer have to double back to the north at street level along Lexington Avenue, resulting in more convenient station access and passenger travel time savings. Similarly, passengers approaching the station from points north of East 68th Street could enter via the new stairs, avoiding the extra walk.
- **Minimization of construction risks, duration, costs and environmental impacts**. The Proposed Project avoids disturbance of sensitive utilities and avoids underpinning of Thomas Hunter Hall, thereby reducing construction risks, duration, costs and environmental impacts. Interruptions of the transit system during construction are reduced by design. Construction methods are used that minimize interference by maintaining alternate station access from the north end of the station during construction at East 68th Street.

In addition to the above, an important advantage inherent in the design is that the Proposed Project would provide two distinct and separate locations for station egress, one at the south end of the station and one at the north end. As such, if need be, the station could be evacuated more quickly, and if events render one egress area inaccessible, an alternative means of egress would exist. The Proposed Project is included in the current 2014-2018 Transportation Improvement Program (TIP) – PIN number ST04-6951 – developed by the New York Metropolitan Transportation Council (NYMTC).

4 ENVIRONMENTAL IMPACTS AND MITIGATION

The discussion below applies to both the Proposed Project and the Proposed Project *with Option E1*, unless otherwise indicated specifically for Option E1.

Social Conditions

Temporary Impacts during Construction

Construction of the Proposed Project would involve disruption of the streetbed, sidewalks, and some adjacent areas where construction would occur (including staging areas for the temporary storage of materials and equipment). During construction, MTA NYCT would maintain access to all buildings, businesses, loading docks, and parking facilities at all times, and would provide adequate space for local deliveries during normal hours of operation, so as to minimize inconvenience to pedestrians and delivery services accessing businesses. Sidewalk access would be maintained during construction with a minimum of five-foot-wide sidewalks.

As with any construction project in the City, temporary disruptions to the neighborhood can be expected. During construction, equipment and machinery would create noise and dust. Barriers and construction equipment would cause temporary visual impacts. Sidewalks would be closed for up to one year, and pedestrians would be diverted to temporary walking lanes ordinarily reserved for parking, and normal travel patterns would be disrupted. Access to all buildings, including the retail spaces of the Imperial House Apartments, and the service entrance to Thomas Hunter Hall on East 69th Street would be maintained. Excavation of East 68th Street, including portions of the intersection with Lexington Avenue would be required for the relocation of utility infrastructure. During utility relocation, one half of the street would be closed during the initial stages of excavation. After excavation is sufficient to allow work to progress underground, the street would be decked over and traffic lanes restored. The bus stop located on the south side of East 68th Street east of Lexington Avenue would be temporarily shifted east and out of the construction zone. It may be necessary to close East 68th Street to automobile traffic for a period during utility relocation. If street closure is necessary, traffic would be diverted to other eastbound streets (i.e., East 66th Street and/or East 70th Street) for several periods during the night or on the weekend.

Depending on time of day and season, two street vendors are located east of Lexington Avenue, one is located west of the avenue on the north sidewalk of East 68th Street, and three vendors are located on the south sidewalk west of Lexington Avenue. Depending on the phase of construction, it is expected that these locations would be unavailable for street vendors for temporary periods. Temporary locations for the street vendors would be finalized prior to construction in coordination with the New York City Department of Transportation (NYCDOT), New York City Department of Parks and Recreation (NYCDPR), and the New York City Department of Consumer Affairs (NYCDCA).

A traffic management plan would be implemented prior to construction in the form of a NYCDOT-approved Maintenance and Protection of Traffic (MPT) plan. This plan would include procedures

for advance notification to residents and businesses of partial street/sidewalk closures and other potential construction-related activities. Contract documents would stipulate measures to avoid or minimize noise, vibration and dust associated with construction activities (see Chapter 13: Construction Impacts).

Although temporary inconveniences would result from sidewalk changes, subway entrance stair closures, traffic changes, noise and dust, incorporation of required mitigation measures would make the temporary construction impacts of the Proposed Project on social conditions less than significant.

The project would generate economic benefits by providing construction employment and jobs in the production of necessary services and materials. In addition to employment directly attributable to construction of the Proposed Project, construction expenditures would generate indirect employment, including jobs in business establishments providing goods and services to the contractors, as well as in businesses that would provide goods and services to construction workers. The project would not have significant adverse environmental impacts, and there would be no disproportionate impacts to environmental justice communities as a result of the project.

Permanent Impacts during Operation

The Proposed Project is located within an existing urban area, characterized by a commercial, institutional and residential streetscape. The existing station is located predominantly below ground, with the only visible above ground components being the four existing stairway entrances, the sidewalk pedestals indicating a subway entrance, and sidewalk grating, all typical of NYC subway entrances. The above-ground elements of the Proposed Project, such as the elevator head house, new entrance stairs and the modifications to existing stairs would be consistent with the existing land uses in the area. The Proposed Project would be consistent with existing zoning and no significant adverse impacts related to land use and zoning are anticipated. The new subway entrances would be similar to those currently found throughout the City. No significant adverse impacts to aesthetics are anticipated.

Because the Proposed Project would promote the use of mass transit, it is consistent with PlaNYC and a number of policies comprising the New York State Smart Growth Public Infrastructure Policy Act. The Proposed Project is consistent with the Manhattan Community Board 8 Fiscal Year 2016 District Need Statement, and would advance the goals of the 2014-2018 Transportation Improvement Program (TIP). Finally, the Proposed Project would advance MTA NYCT's goal of completing ADA development of this Key Station.

No New York City Department of Parks and Recreation (NYCDPR) parks are located in the study area for the Proposed Project. However, street trees, the removal of which is regulated by NYCDPR, are located in tree pits near the curb on the sidewalks in the vicinity of the Proposed Project, including the area along East 68th Street and East 69th Street both east and west of Lexington Avenue. The Proposed Project would require the removal of two street trees. The Proposed Project *with Option E1* would require the removal of four street trees. Replacement trees would be planted in locations to be determined in coordination with the NYCDPR.

The Proposed Project would require property acquisition at 931 Lexington Avenue for the street stair, and at Hunter College to install the ADA-compliant street elevator and to widen the stair at the southeast corner of Lexington Avenue and East 68th Street. The Proposed Project *with Option E1* would not require acquisition of 931 Lexington Avenue. The placement of the elevator would require the displacement of the kiosk that is licensed to a flower vendor. The Proposed Project would also require use of a small area between the northeast corner of the station and the light well between Thomas Hunter Hall and the Lexington Avenue sidewalk for a small ventilation fan. Except for the florist kiosk at the southeast corner of East 68th Street and Lexington Avenue, no

businesses would be displaced (the current occupant of 931 Lexington Avenue is relocating), and no residences would be displaced. According to transportation analyses conducted for this EA (Appendix C), the new subway access at the north end of the station is not expected to significantly alter pedestrian travel patterns in the neighborhood. No significant impact in terms of displacements or neighborhood character is anticipated from the Proposed Project or the Proposed Project with Option E1.

The improvements to the subway station would bring substantial benefits to the neighborhood it serves by relieving overcrowding at the 68th Street/Hunter College Station. Persons with mobility constraints would have access to Hunter College and cultural attractions in the area, such as museums and events at the Park Avenue Armory. Neighborhood residents with mobility constraints would gain access to many destinations via the new connection to MTA NYCT's Key Stations, including transportation options to JFK Airport, Amtrak and New Jersey Transit via New York Penn Station, and others.

Historic and Cultural Resources

The Proposed Project involves ground disturbance within areas thoroughly disturbed by past construction activities. Therefore, the project area is not considered sensitive for archeological resources and no further archeological review is required. The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) concurred with this conclusion in two letters dated August 29, 2012, and April 2, 2015, as part of the Section 106 (National Historic Preservation Act) consultation process. While no impacts to archaeological resources are anticipated, should any potential artifacts be found MTA NYCT and FTA will initiate the Section 106 process with OPRHP.

Historic resources in the vicinity of the Proposed Project include the Upper East Side Historic District, Thomas Hunter Hall (a contributing element to the historic district) and the Imperial House Apartments, which is located outside the Upper East Side Historic District. The Proposed Project would require the installation of a louver (approximately 2 feet by 2 feet and flush-mounted with the wall) within the light well of Thomas Hunter Hall. The Proposed Project also involves a new stairway adjacent to Thomas Hunter Hall, within the boundaries of the Upper East Side Historic District. There would be no impact to the integrity or appearance of the building. Similarly, the Proposed Project includes a new stairway in a retail space fronting Lexington Avenue in the Imperial House Apartments, but the integrity and appearance of the building would not change. To avoid the potential for damage to historic buildings as a result of construction-related vibration, a construction protection plan would be implemented in accordance with New York City Department of Buildings and New York City Landmarks Preservation Commission guidelines. The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) concurred that the Proposed Project and the Proposed Project *with Option E1* would have "no adverse effect" on historic resources with implementation of a construction protection plan (see Appendix B for OPRHP correspondence). Therefore, no significant adverse impacts on historic resources would occur as a result of the Proposed Project or as a result of the Proposed Project *with Option E1*. For both Thomas Hunter Hall and Imperial House Apartments, impacts would occur, but would not be adverse, and mitigation of these impacts to both properties would be incorporated into the Proposed Project.

Transportation

Temporary Impacts during Construction

Maintenance and Protection of Traffic (MPT) plans would be submitted to and approved by New York City Department of Transportation. The project would require the relocation of utility lines under Lexington Avenue at East 68th Street. During utility relocation, Lexington Avenue would be

reduced to two travel lanes, and East 68th Street would be closed for brief periods with approval from NYCDOT. At other times, three travel lanes would be maintained on Lexington Avenue (as is the current condition), and one travel lane would remain open on both East 68th Street and East 69th Street (as is the current condition). No significant adverse impacts are anticipated during construction.

Within the station, passengers would be diverted from areas of construction activity and some delays can be expected. After the new entrances are open, the entrances/exits at the northeast and southeast corners of East 68th and Lexington Avenue would be closed to expand the mezzanine in this area, replace the street stairs, install the ADA street elevator, and relocate the sewer at the intersection. During this phase of construction, northbound passengers would enter and exit the station via the new stairs and the stairs on the west side of Lexington Avenue at East 68th Street. For the duration of project construction at least two entrance/exits for northbound passengers and two entrance/exits for southbound passengers would remain open at all times.

Permanent Impacts during Operation

Traffic. Surface transportation is not expected to change as a result of the Proposed Project or the Proposed Project *with Option E1*. The Proposed Project would not affect lane geometry or introduce additional vehicle trips within the study area. Therefore, no significant adverse impacts to traffic would occur as a result of the Proposed Project or the Proposed Project with Option E1.

Subway Transit. Circulation within the station would substantially improve as a result of the Proposed Project. The main control area on the mezzanine level at the East 68th Street end of the station would improve with the Proposed Project or the Proposed Project *with Option E1*, as some customers would use the new street access towards the northern end of the station at East 69th Street and midblock north of East 68th Street.

Similarly, platform stair clearance times would decrease (improve) as some customers would be diverted and use the new platform stairs towards the northern end of the station.

The operation of existing street stairs at East 68th Street would also improve due to both the proposed rehabilitation of these stairs as well as the reduction in overall volumes as some customers would be diverted to the proposed 69th Street access.

No significant adverse impacts to subway transit would occur as a result of the Proposed Project or the Proposed Project *with Option E1*.

Bus Transit. The Proposed Project or the Proposed Project *with Option E1*.would not require the relocation of bus routes or bus stop locations. Therefore, the Project or the Proposed Project *with Option E1* would have no significant adverse impacts to bus operations.

Parking. The Proposed Project or the Proposed Project *with Option E1* includes the installation of a sidewalk bulb-out which would eliminate a limited number of curbside parking spaces. However, there would be sufficient on-street parking capacity to accommodate the future parking demand, even with the projected loss of spaces. Therefore, the Project or the Proposed Project *with Option E1* would have no significant adverse impacts on parking conditions.

Pedestrian Circulation. Overall, pedestrian elements (sidewalk, corner, and crosswalk) at East 68th Street and Lexington Avenue would operate at the same or better Level of Service (LOS) due to the diversion of some customers to the new street stairs north of the existing street stairs at East 68th Street: a new street stair connecting to southbound service at East 69th Street (southbound service) and a new street stair connecting to northbound service located midblock along the east side of Lexington Avenue north of East 68th Street or in the case of the Proposed Project with Option E1 at East 69th Street. Diverting pedestrians to East 69th Street and Lexington Avenue would increase pedestrian volumes at that intersection and cause some pedestrian

elements to operate at a slightly worse LOS; however, all of these elements would still operate at LOS D or better, and there would be no significant adverse impacts as a result of the Proposed Project *with Option E1*.

Air Quality

Temporary Impacts during Construction

Exhaust from non-road construction equipment would result in emission of air pollutants. During the peak construction year in 2017, which would include site preparation (breaking of the pavement, loading it on a truck and hauling it away), excavation and construction, on-site equipment may include a hydraulic crane, a backhoe or loader, a compressor, a concrete pump and a small welding machine. During the remaining phases of construction, on-site equipment may include a hydraulic crane, a concrete pump, and welding machines. Because of the temporary nature of construction activities using non-road equipment, and the limited number of such pieces of equipment, the operation of the construction equipment would be unlikely to result in concentrations that would exceed ambient air quality standards.

Construction activities such as excavation, grading, soil handling, and vehicles traveling on dirty road surfaces have the potential to create fugitive dust emissions. Fugitive dust can also be generated by and from wind erosion of stockpiled materials. Contractors would be required to implement fugitive dust control measures such as watering of exposed areas, installation of dust covers on trucks, and use of tracking mats to reduce dust emissions from truck tires. Dust generated by street excavation typically consists mostly of relatively large particles that would settle within a short distance from the construction activities. Based on the above, no significant adverse air quality impacts are anticipated during the construction period.

Contractors at the project site would comply with the Diesel Emissions Reduction Act of 2006 (see Chapter 10). In addition, MTA NYCT would incorporate control measures to minimize potential construction-related air quality effects into construction contract documents (see Chapter 13: Construction). The measures would include:

- Use ultra-low sulfur diesel (ULSD) fuel in off-road construction equipment with engine horsepower (HP) rating of 60 HP and above.
- Limit unnecessary idling times on diesel powered engines to three minutes.
- Locate diesel powered exhausts away from fresh air intakes.
- Control dust related to construction site activities through a Soil Erosion Sediment Control Plan that includes, among other things:
    - Spraying of a suppressing agent on dust pile (non-hazardous, biodegradable);
    - Containment of fugitive dust; and,
    - Adjustment for meteorological conditions as appropriate.

Furthermore, during demolition activities (sidewalk removal and limited excavation), dust control, erosion control, and vapor control (if necessary) measures would be implemented as practicable. Truck loading practices would be implemented to limit loss of materials, and prior to leaving the area, each truck would be inspected for residual materials and cleanliness. A cover would be placed over each load of debris prior to the truck leaving the site.

Permanent Impacts during Operation

The Proposed Project would not create new sources of air pollutants and would not introduce new uses near existing or planned future sources. The Proposed Project would not affect current

dispersion patterns of existing stationary (or mobile) sources. Therefore no air quality impacts related to stationary sources are expected and no further analysis is warranted.

The Proposed Project would change the configuration of East 69th Street as a result of the installation of a neckdown on the south side of the street west of Lexington Avenue, but this would not affect travel lanes on East 68th Street, East 69th Street, or Lexington Avenue.

The Proposed Project *with Option E1*: in addition to changing the configuration of East 69th Street as a result of the installation of a neckdown on the south side of the street *west* of Lexington Avenue, would also require the installation of a neckdown on the south side of the street *east* of Lexington Avenue. This would not affect travel lanes on East 68th Street, East 69th Street, or Lexington Avenue.

The Proposed Project and the Proposed Project *with Option E1* would not generate new or additional traffic in the study area or cause the redistribution of traffic in the area, nor would it create other mobile sources of pollutants or add new uses near existing mobile pollution sources. Therefore no air quality impacts related to mobile sources are anticipated as a result of the Proposed Project or the Proposed Project *with Option E1*.

Noise and Vibration

Temporary Impacts during Construction

During construction of the Proposed Project, noise and vibration levels would be expected to increase during working hours because of the use of construction equipment on-site and construction-related traffic off-site. Construction equipment would generate varying levels of noise depending on the specific activity and the location of the activity, as well as the equipment being used. Construction noise would be intermittent and temporary.

Construction noise levels would be expected to be greatest during the early phases of construction, when activities would include pavement breaking using jackhammers, and the concurrent use of rubber tire loaders and dump trucks to remove the resultant debris. Construction activity would be audible in portions of the adjacent Hunter College and at some businesses and residences in the immediate vicinity of construction.

Construction would be conducted in accordance with the New York City Construction Noise Code, which mandates that all construction be conducted in accordance with noise mitigation plans that address the specific location, type of work, and timing of a project. The Construction Noise Code also sets standards for noise levels created by handling containers and construction material on public streets, and identifies ways to lessen the noise from each type of construction equipment. In order to maintain noise levels below the thresholds mandated by the Noise Code, jackhammers would likely be outfitted with noise-reducing mufflers and/or have portable street barriers to reduce the sound impact on the area.

To comply with the Noise Code, contractors must develop a noise mitigation plan prior to the start of work. If noise complaints are received, a New York City Department of Buildings (NYCDOB) inspector would ensure the contractor has posted the plan and that it is being followed. This will determine whether or not the plan needs modification. When construction activity is planned near locations such as schools, hospitals and houses of worship, as is the case for the Proposed Project, the noise mitigation plan would be sensitive to these receptors.

Noise that exceeds the ambient sound levels by more than 10 dB, as measured 15 feet from the source or from inside any property or on a public street, is prohibited, and sounds that occur abruptly and for a short duration, called impulsive sounds (e.g., blasting or pile driving), are restricted.

Construction hours under the Construction Noise Code are from 7:00 AM to 6:00 PM on weekdays. However, in order to reduce the overall construction duration, and with the expressed authorization from the NYCDOB and the New York City Department of Transportation (NYCDOT), work could be conducted in two shifts per day, between 7:00 AM and 10:00 PM, and on weekends. A noise mitigation plan must be in place before any authorization is granted.

Construction activity within the station would be carried out at various times during a twenty-four hour period/seven days per week. The hours of work would be dictated by the programmed periods of diversion of subway services, which would only occur weekday nights and on weekends.

Noise from construction activities would be minimized by using properly maintained equipment with sound baffling where necessary, and by adhering to the permitted hours of construction specified in the New York City Construction Noise Code. Design considerations and project layout approaches may also be included, such as construction of temporary noise barriers, placing construction equipment farther from noise-sensitive receptors, constructing walled enclosures/sheds around especially noisy activities such as pavement breaking, and sequencing operations to combine especially noisy operations to occur in the same time period. Potential construction noise impacts would be mitigated by implementation and adherence to the New York City Construction Noise Code.

Permanent Impacts during Operation

The Proposed Project and the Proposed Project *with Option E1* include a louvered ventilation fan to provide ventilation for the station's Elevator Machine Room. The louvered fan would ventilate to the light well located between the sidewalk and Thomas Hunter Hall. The adjacent basement room in Thomas Hunter Hall is a battery backup system for the Main Telephone Switch Room for Hunter College. Although noise specifications for the ventilation fan would be determined as the design details are completed, no impacts from the fan are anticipated.

The Proposed Project and the Proposed Project *with Option E1* do not include the introduction of new noise sources, such as tunnel ventilation facilities, at the 68th Street/Hunter College Station and would not increase the frequency of train traffic through the station. Future operational noise levels are expected to remain as they are today. The new stairs would not provide a line-of-sight path for train noise to surface receptors, and any noise emanating from the new stairs is not expected to increase current ambient levels. No significant adverse impacts to ambient noise levels from the operation of the Proposed Project are anticipated.

The Proposed Project and the Proposed Project *with Option E1* do not include the introduction of new vibration sources at the 68th Street/Hunter College Station, such as tunnel ventilation facilities, and would not increase the frequency of train traffic through the station. Future operational vibration levels are expected to remain as they are today.

Contaminated Materials

Operation of the Proposed Project would not introduce new sources of contaminated materials to the 68th Street/Hunter College Station and would not open new pathways for any existing contamination to reach the public or the environment. If hydraulic fluid is used to operate the new elevators, such fluid would be contained in the mechanical apparatus. Secondary containment would be used to capture fluid in the event of a rupture or other equipment failure. During excavation and construction, any contaminated soils encountered would be disposed of according to applicable regulations.

For the Proposed Project, building materials at 931 Lexington Avenue would be characterized to determine if asbestos or lead-based paint are present. If encountered, these materials would be

handled and disposed of according to all applicable regulations. The Proposed Project *with Option E1* would not require modification at 931 Lexington Avenue and therefore no building materials would be disturbed. No adverse impacts from contaminated materials are anticipated for the Proposed Project or the Proposed Project *with Option E1*.

Natural Resources

The project area is outside the Federal Emergency Management Agency (FEMA) 100-year floodplain and landward of the New York State Department of State coastal zone boundary. The project area is entirely urbanized and no sensitive habitats or threatened and endangered species are expected in the areas that would be modified by the Proposed Project and the Proposed Project *with Option E1*. The project area does not contain any floodplains or wetlands. Two street trees would require removal under the Proposed Project. Four street trees would require removal under the Proposed Project *with Option E1*. Street trees requiring removal would be replaced in coordination with NYCDPR. No significant adverse impacts to natural resources would occur during construction or operation of the Proposed Project or the Proposed Project *with Option E1*.

Utilities

Temporary Impacts during Construction

There may be brief periods of utility service interruptions when relocated utility transmission lines are reconnected. MTA NYCT would coordinate with utility providers and the community to minimize utility disruptions.

Permanent Impacts during Operation

Although some transmission lines would be relocated to provide the necessary room for elements of the Proposed Project and the Proposed Project *with Option E1*, after completing construction of the Proposed Project, all utility transmission would be functioning as it was prior to construction of the project.

Section 4(f) Resources

Section 4(f) applies to any federally funded transportation project if the project proposes to use property from a significant publicly owned park, recreation area, wildlife or waterfowl refuge area, or any significant historic site. No parkland resources would be affected by the Proposed Project or the Proposed Project *with Option E1*.

As discussed above under “cultural resources,” the Upper East Side Historic District, Thomas Hunter Hall (a contributing element to the historic district) and the Imperial House Apartments, which is located outside the Upper East Side Historic District, are potentially affected by the Proposed Project. In a letter dated October 27, 2015, FTA informed OPRHP that it will use the August 29, 2012, and April 2, 2015, no-effect findings to make a ***de minimis*** use finding under Section 4(f) for the Thomas Hunter Hall and the Imperial House Apartments (see Appendix B). For each of these resources, neither the Proposed Project, nor the Proposed Project *with Option E1*, would adversely affect the features, attributes, or activities qualifying the resources for protection under Section 4(f). The public and other agencies (including SHPO) will be afforded an opportunity to review and comment on the proposed ***de minimis*** impact findings during the NEPA public comment period on this EA.

Indirect and Cumulative Impacts

Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other

effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems.

CEQ regulations for implementing NEPA define a cumulative effect as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of agency (federal or non-federal) or person undertaking such other actions".

This EA includes the analysis of potential indirect impacts and analysis of potential cumulative impacts. Due to the nature of the Proposed Project, the nature of past, present and reasonably foreseeable projects in the area, and the characteristics of the neighborhood in which the project is situated, no significant adverse indirect and cumulative impacts are anticipated.

Public Outreach and Project Coordination

MTA NYCT has been conducting ongoing public outreach related to the Proposed Project. MTA NYCT has been, and will continue to be in contact with Community Board 8 and has established relationships with civic organizations, the management of residential buildings, officials at Hunter College and with businesses within the project area of Lexington Avenue between East 68th and East 69th Streets.

In addition, between November 2012 and November 2013 (see Section 14.5 for dates and details), MTA NYCT met with the 69th Street Tenants Corporation to describe the environmental review process, existing congestion at the station, the scope of the Proposed Project, anticipated construction duration and the cost, and street stair options identified in this EA. At some of these meetings, the 69th Street Tenants Corporation suggested options for a street stair to serve the northbound platform at the north end of the station; options that would not involve a street stair on south sidewalk of East 69th Street east of Lexington Avenue. For each suggested option, MTA NYCT analyzed the alternative presented to determine if it satisfied the project goals and objectives and project purpose and need.

Coordination with public agencies, including New York City Department of Transportation, New York City Department of Environmental Protection, New York City Department of Parks and Recreation, New York State Department of Parks, Recreation and Historic Preservation, and the New York City Landmarks Preservation Commission, has occurred and is ongoing for the 68th Street/Hunter College Subway Station Improvement Project. These efforts will continue as the project is developed in greater detail during final design.

This EA has been made available for public review. Copies of the EA are available for review on MTA's website and at the offices of MTA, FTA and Community Board 8. A public meeting will be held regarding the project and a 30-day public comment period will be extended for the EA. A public hearing, promoted through newspaper announcements and advertisements, will be conducted and the public will be invited to make oral and written comments. After considering public comments, FTA's findings under NEPA will be issued and made available to the public.

Based on the analyses presented in the EA and after considering public comments, FTA will determine whether or not the Proposed Action would result in any significant adverse environmental impacts. If applicable, FTA will issue a Finding of No Significant Impact (FONSI) if there are no significant environmental impacts.

1.1 INTRODUCTION

The Federal Transit Administration (FTA), in cooperation with the Metropolitan Transportation Authority (MTA) and MTA New York City Transit (NYCT), proposes to implement improvements to the 68th Street/Hunter College Station to bring the station into substantial compliance with the Americans with Disabilities Act (ADA) of 1990 (as amended), and to add necessary passenger circulation improvements throughout the station. Improvements to bring the station into compliance with ADA include the installation of ADA-compliant elevators, ADA Fare-card Access System, communications systems and physical modifications to public and employee areas. These proposed improvements would result in an ADA-compliant subway station for both passengers and MTA NYCT employees. Improvements intended to increase the station's circulation performance include widening of existing stairs, constructing additional stairs and other improvements. These improvements (the Proposed Project) would be implemented at the subway station located at Lexington Avenue and East 68th Street in Manhattan.

This environmental assessment (EA) has been prepared pursuant to the National Environmental Policy Act (NEPA) of 1969 (as amended) and in accordance with the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 C.F.R. §§ 1500 through 1508) and FTA's Environmental Impact and Related Procedures (23 C.F.R. § 771). The purpose of this EA is to provide information of the Proposed Project's potential impacts on the human and natural environments.

This EA is consistent with requirements of the New York State Environmental Quality Review Act (SEQRA) Article 8 of the NYS Environmental Conservation Law (ECL), and its implementing regulations found at 6 NYCRR Part 617, and, where appropriate, with New York City's CEQR, Executive Order 91 of 1977 as amended, and the technical guidance of the New York CEQR Technical Manual, 2014 Edition, and with relevant New York City codes and regulations.

1.2 PURPOSE AND NEED FOR THE PROPOSED PROJECT

According to the United States Code of Federal Regulation, (C.F.R.) Title 49 § 37.47, certain commuter authorities (such as the MTA) are required to make Key Stations on their system readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs. After consideration of the criteria in 49 C.F.R. § 37.47 for the determination of Key Stations, New York State designated the 68th Street/Hunter College Station as an ADA Key Station and included it in MTA's NYCT system-wide list of 100 ADA Key Stations. As a Key Station, the 68th Street/Hunter College Station would become part of the network of ADA-accessible stations that interconnect with MTA NYCT's accessible bus system, the ADA-accessible stations of Metro-North Railroad and Long Island Rail Road, and other ADA-accessible subway stations.

In 1994, New York State amended Section 51 of the public buildings law requiring, with exceptions, the construction or rehabilitation of public facilities to conform to the requirements of the state building construction code relating to facilities for the physically handicapped. The 68th Street/Hunter College Station is one on the list of 54 Key Stations to be rehabilitated in order to render this transportation facility accessible to the physically handicapped, including persons in wheelchairs. The 68th Street/Hunter College Station was again listed in the revised Key Station Goals of 2000 generated by MTA NYCT, and the Key Stations Report of April 2013.

MTA NYCT must meet ADA requirements for all of its designated Key Stations by the year 2020 to avoid potential financial penalties. The target date for the 68th Street/Hunter College Station to become ADA compliant is 2020.

In addition to its inaccessibility for some passengers with mobility impairment, the 68th Street/Hunter College Station has several circulation deficiencies. Although conditions may improve with operation of the Second Avenue Subway, the station will continue to perform below desired levels (see analyses in Chapter 5).

The purpose of the Proposed Project is to (1) provide ADA accessibility to public areas of the 68th Street/Hunter College Station, and (2) improve pedestrian circulation and reduce congestion within the station and at street level, and to foster efficient train access and occupancy.

Several goals and objectives are described below that are essential to meeting the purpose and need.

1.2.1 MTA NYCT Goals and Objectives

All the build alternatives considered in this EA (see Chapter 2) would bring the station substantially into compliance with the ADA, and to some degree, improve circulation and reduce congestion at the station. To identify the best solution, key goals and objectives were established by MTA NYCT for this project in order to measure the ability of alternatives to meet the purpose and need. These goals and objectives were based on MTA NYCT best practice principles for the planning and design of station improvements. The goals and objectives include transportation-related criteria as well as project schedule, budget, safety, quality, customer satisfaction, and best practices pertaining to the natural and the man-made environment.

1.2.2 Project-specific Goals and Objectives

In order for a solution to best address the problems identified in Section 1.2, the following objectives were used to guide the development of the project.

Improve Circulation at all Locations with Deficiencies

- Reduce congestion at platform stairs.
- Reduce congestion at street stairs.
- Improve distribution of passenger volumes on the train and along the length of the platform.
- Improve passenger convenience and circulation efficiency: locate capacity that best serves passengers.
- Improve or maintain fare control and mezzanine performance.

Minimize Cost

A key principle in the design of MTA NYCT's facilities is to achieve economy, efficiency, and effectiveness, as much as practicable. Station designs should demonstrate an efficient use of space, material, and structure. The station design should meet the functional requirements of the program in an economical manner, while maximizing functional value for the public, customers, and MTA NYCT. An important strategy to contain costs is an emphasis on maintaining project schedules. Construction schedules are critical to the success of a station project and directly affect the budget. Schedule can be influenced through the use of modular design principles and appropriate materials and methods of construction. For this reason, designs and construction

methods that minimize construction cost and the time required to complete construction, including time to implement construction through property acquisition, relocation of occupants, utility relocation, and site preparation, are generally preferred.

In order to address the problems identified in Section 1.2, project goals and objectives include:

- Avoid or minimize costly construction methods.
- Maintain project schedule.

Minimize Construction Risk

MTA NYCT seeks to meet the functional requirements of a station improvement program in accordance with good engineering practice and in an economical manner. This translates into designs and methods of construction that minimize construction risk. To address the problems identified in Section 1.2 and minimize construction risk, the project was designed to:

- Avoid or minimize costly construction, for example, extensive excavation.
- Avoid or minimize interference with utility infrastructure and ECS duct banks.
- Avoid or minimize interference with sensitive structures, including historic or fragile buildings.

Minimize Real Estate Conflicts

It is a practice of MTA NYCT to minimize the displacement of occupied residential units or active commercial space, when other alternatives are available. Acquisition and relocation of buildings containing residential occupants should only be considered after all other possibilities have been exhausted. It is also MTA NYCT practice to avoid or minimize real estate acquisition where doing so could significantly affect project schedule and cost.

In order for a solution to address the problems identified in Section 1.2, goals and objectives include:

- Avoid locating subway infrastructure in occupied residences or occupied commercial space.

Minimize Impacts during Construction

Rehabilitation and improvement of transit facilities often requires periods during which transit service is interrupted in order to complete certain construction activities that cannot be undertaken while the station or parts of it are in active service. Additionally, rehabilitation or construction of underground facilities in the City often requires excavation of streets and sidewalks. As such, goals of the project are to:

- Minimize disruption to station and subway operations and minimize passenger disruptions during construction.
- Minimize disruption to the neighborhood during construction.

Improve and Maintain Environmental Conditions and Minimize Environmental Impacts

The 68th Street/Hunter College Station is located adjacent to a historic district and historic buildings. Avoidance and/or minimization of impacts to historic resources is therefore a key objective, consistent with the requirements of NEPA, Section 106 of the National Historic Preservation Act, and Section 4(f) of the U.S. Department of Transportation Act of 1966.

Therefore, a goal of the project is to:

- Minimize impacts to historic resources and Section 4(f) resources.

1.3 PROBLEM IDENTIFICATION

1.3.1 STATION CONDITIONS

The 68th Street/Hunter College Station is located along Lexington Avenue and East 68th Street in Manhattan (Figure S-1). It opened in 1918 and is almost one hundred years old.

The station serves the IRT Lexington Avenue Line. It serves the 6 Train at all times, and the 4 Train during the late night hours, with 23 peak hour, peak direction trains. It is ranked 30th highest of the 420 stations in MTA NYCT's 2013 Subway Ridership ranking. The station has an average weekday usage of approximately 36,562 daily passenger trips, and in terms of average weekday ridership, the station's one control area is the fifth busiest control area in the entire subway system.[2] Although the station is not an express station or transfer station, it is a major origin/destination station because of the presence of City University of New York's Hunter College (located at East 68th Street and Lexington Avenue), the proximity of medical facilities located east of the station, cultural attractions (Museum Mile, Central Park) located west of the station, and dense residential uses in the area. The proximity of these land uses to the station results in very large peak usage by passengers in the morning and evening at this station. During a typical weekday AM peak hour, over 7,200 passengers exit the station and over 1,800 enter the station. During the peak 15-minute period in the AM peak hour, for example, 2,254 passengers exit the platform stairs.[3] During the peak 15-minute period in the PM peak hour, 1,392 enter via the platform stairs.

By 2020 a segment of the Second Avenue Subway would be operational and would influence ridership volumes at the 68th Street/Hunter College Station, as some users would shift to the Second Avenue Subway. However, even with the diversion of riders to the Second Avenue Subway, there would still be 2,035 passengers exiting the station's platform stairs during the peak 15-minute period in the AM peak hour, and 1,306 entering the station's platform stairs during the peak 15-minute period in the PM peak hour. The station would thus continue to exhibit the deficiencies (identified below) that necessitate the Proposed Project.

1.3.1.1 Station Structure

The station consists of a two-level subway structure below street level. The two levels of the station include the mezzanine, situated one level below the intersection of East 68th Street and Lexington Avenue, and the tracks and platforms extending under Lexington Avenue, below the mezzanine level. A description of the station, including the station's elements at street level follows.

Street Level

The street level entrances to the station are located at Lexington Avenue and East 68th Street in Manhattan (Figures 1-1 through 1-3). There are four publicly accessible, street level stairway entry points that provide access between the sidewalk and the mezzanine. These street stairs are

[2] MTA, New York City Transit, Memorandum, Draft Scope of Work – ADA Accessibility at 68 St / Hunter College (LEX), May, 2007. (Document available upon request.)

[3] NYCT Operations Planning observations and Automatic Fare Collections (MetroCard) data, April 2007, March 2010, April 2010, and May 2010. (Document available upon request.)

located at each corner of the intersection of Lexington Avenue and East 68th Street. Both of the street stairs on the south side of East 68th Street are located on property owned by the City University of New York's Hunter College, and both of the street stairs on the north side of the street are located on New York City (NYC) sidewalks.

Mezzanine Level

The mezzanine is located directly under the intersection of East 68th Street and Lexington Avenue, and is confined to the area under the NYC-owned streets, except for small portions that extend under Hunter College property at the southeast and southwest corners of the intersection. The mezzanine includes one double-agent, full-time control booth (control area R-246), turnstiles, seating, MTA program space (bathrooms, janitor closets, etc.) and MetroCard Vending Machines (MVMs). From the mezzanine, two stairs connect to the northbound platform below and two stairs connect to the southbound platform below.

Platform Level

At the platform level, the station has a two-track configuration with one northbound and one southbound platform. The platform level, also confined to the area under NYC-owned streets, extends from a point midway between East 67th Street and East 68th Street to a point midway between East 69th Street and East 70th Street. There are two pairs of stairs providing access between the platforms and the mezzanine, one pair for the northbound platform and one pair for the southbound platform. Both pairs of platform stairs are located near the south end of the platform, under the intersection of East 68th Street and Lexington Avenue (Figure S-4).

1.3.2 STATION DEFICIENCIES

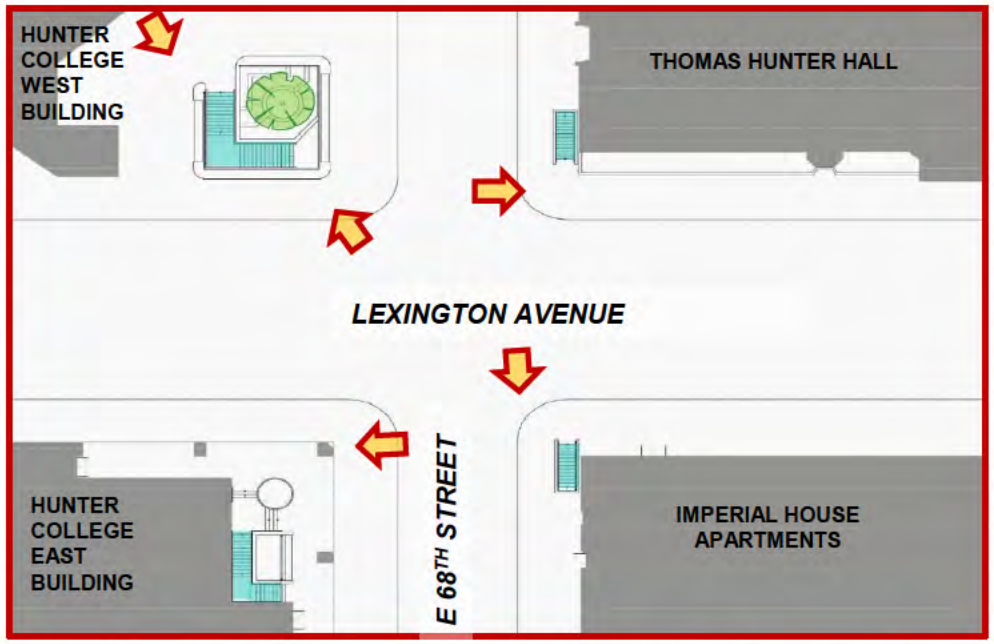
The 68th Street/Hunter College Station has the following deficiencies:

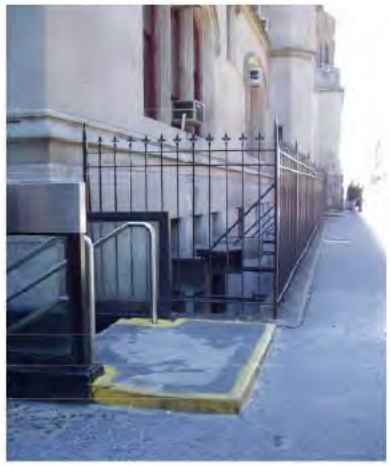
- Absence of ADA compliant access
- Passenger circulation problems including:
    - Pedestrian congestion at the platform stairs and at the platform level approaching these stairs
    - Pedestrian congestion at the street stairs and at the mezzanine level approaching these stairs
    - Pedestrian interference at the northeast corner of East 68th Street and Lexington Avenue

These deficiencies are further described below. Additional detail regarding the circulation deficiencies is provided in Chapter 5: Transportation and Pedestrian Circulation.

1.3.2.1 Deficiency: Absence of ADA Compliant Access

Although it is one of the busiest stations in the subway system and serves major activity centers, including institutions of higher education, hospitals and other major health care facilities, the 68th Street/Hunter College Station is not readily accessible to, and usable by, some individuals with disabilities. For some mobility-impaired passengers, absence of ADA-compliant access results in their inability to use the 68th Street/Hunter College Station, and increases travel times to reach the area via public transportation, for example, taking a bus to/from the nearest ADA-accessible stations at either 51st Street or 125th Street.





East 68th Street and Lexington Avenue

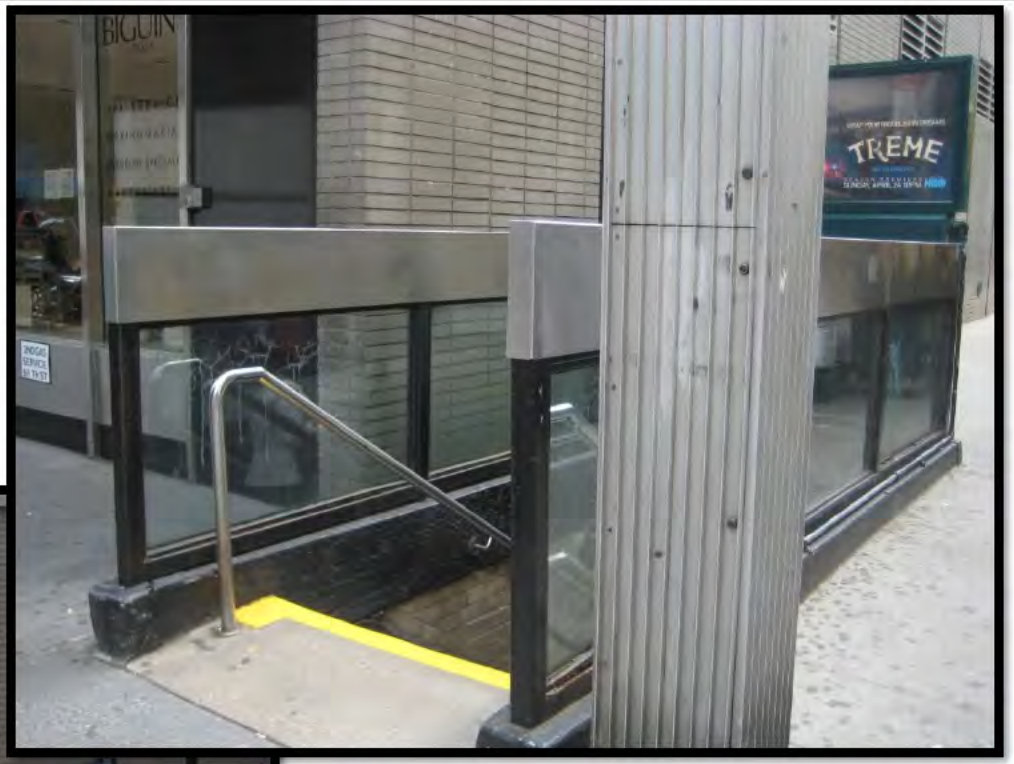
Existing Street Stairs

Camera Location

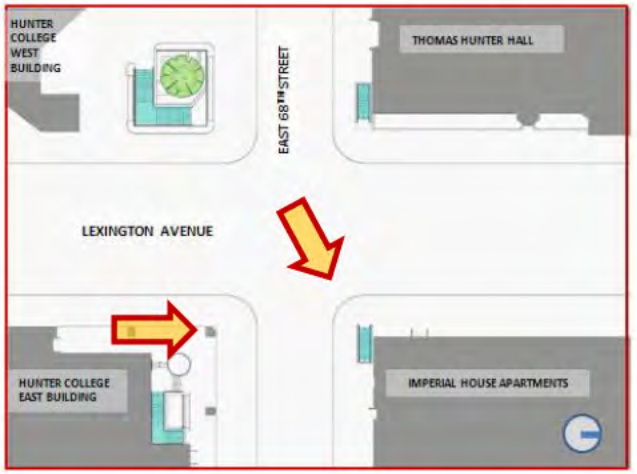
Existing 68th Street Level Views

Figure 1-1

Head of Street Stair Extends into Lexington Avenue Sidewalk



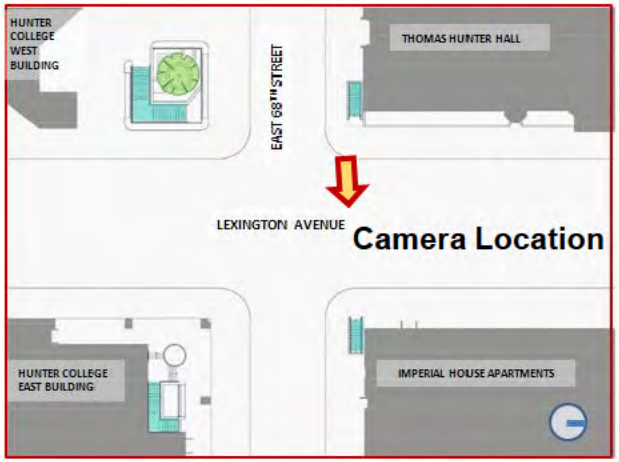
Street Stair, Subway Sign, Light Pole, Trash Bags & Receptacle, & Other Obstacles Restrict Flow on Lexington Avenue Sidewalk



Camera Location

NE Corner – 68th Street & Lexington Avenue

Figure 1-2



Sidewalk Conditions – NE Corner Lexington Avenue & East 68th St.

NE Corner – 68th Street & Lexington Avenue

Figure 1-3

According to 49 C.F.R. § 37.47, certain commuter authorities (such as the MTA) are required to make Key Stations on their system readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, and those with hearing and vision impairment. The regulations stipulate that each commuter authority should determine which stations on its system are Key Stations, taking into consideration the following criteria:

1. Stations where passenger boardings exceed average station passenger boardings on the rail system by at least 15 percent, unless such a station is close to another accessible station;
2. Transfer stations on a rail line or between rail lines;
3. Major interchange points with other transportation modes, including stations connecting with major parking facilities, bus terminals, intercity or commuter rail stations, passenger vessel terminals, or airports;
4. End stations, unless an end station is close to another accessible station; and
5. Stations serving major activity centers, such as employment or government centers, institutions of higher education, hospitals or other major health care facilities, or other facilities that are major trip generators for individuals with disabilities.

Considering the above criteria, in 1994 New York State designated the 68th Street/Hunter College Station as an Americans with Disabilities Act (ADA) Key Station and included it in MTA's system-wide list of 100 ADA Key Stations. As a Key Station, the 68th Street/Hunter College Station would become part of the network of ADA-accessible stations that interconnects with MTA NYCT's accessible bus system, the ADA-accessible stations of Metro-North Railroad and Long Island Rail Road, and other ADA-accessible subway stations. As of March 2015, out of 100 Key Stations identified, 85 have been completed; 2 are in construction, 6 are in design, and 7 are in planning. In addition, 24 non-Key Stations are fully or partially wheelchair accessible.

MTA must meet ADA requirements for all of its designated Key Stations by the year 2020 to avoid being referred to the Department of Justice for the assessment of financial penalties, including suspension or termination of federal financial assistance. MTA initiated the development of a Master Plan to meet ADA requirements at the 68th Street/Hunter College Station in 2007. In order for MTA to meet its schedule to have all 100 Key Stations ADA compliant by 2020, the target date for the 68th Street/Hunter College Station to become ADA compliant is 2020.

1.3.2.2 Passenger Circulation Deficiencies at the Station

The existing station configuration, which cannot properly accommodate the high volume of passengers using the station, is characterized by passenger circulation problems. This is reflected by the station's poor performance in terms of metrics used to assess pedestrian circulation of the various elements of transportation facilities, including subway stations. Such metrics include level of service (LOS)[4] ratings and "clearance time." In addition to congested conditions reflected in

[4] Level of Service (LOS) refers to a letter designation that describes a range of operating conditions of a particular type of transportation facility (e.g., highway, intersection, sidewalk or stairway), and is defined as a qualitative measure that characterizes operating conditions. Several key measures are used to describe service quality in these terms, including speed and travel time, density, and delay. LOS ratings, typically from A (best) to F (worst), are widely used in transport planning to evaluate problems and potential solutions. As described in the CEQR Technical Manual, the analysis of conditions within subway stations is based on a comparison of the capacities of circulation and fare control elements against the volume of passengers expected to use them. This ratio of passenger volume and element capacity (v/c ratio) equates to a LOS rating for each station element (CEQR Technical Manual, 2014).

these metrics, other conditions have been observed at this station on multiple occasions that indicate problems with pedestrian circulation resulting from the combination of station configuration and high passenger volumes at certain times.

An overview of the passenger circulation problems of the 68th Street/Hunter College Station for each station element (platforms, platform stairs, mezzanine, street stairs) and associated LOS ratings or clearance times for different station elements is provided below. A qualitative discussion is provided for those problems observed, but not expressed in metrics. The qualitative discussion is augmented with reference to relevant practices, polices and guidelines where applicable. The following circulation problems are discussed:

- Pedestrian congestion at the platform stairs and at the platform level approaching these stairs
- Pedestrian congestion at the street stairs and at the mezzanine level approaching these stairs
- Pedestrian interference associated with the subway entrance at the northeast corner of East 68th Street and Lexington Avenue
- Inefficient train access and occupancy
- Inefficient and inconvenient pedestrian circulation relative to passenger destinations

A more detailed description of the station's circulation problems is provided in Chapter 5, including a more extensive discussion of LOS ratings and clearance times.

Pedestrian Congestion at the Platforms and Platform Stairs

Existing access between the mezzanine and the platforms is limited to one pair of platform stairs for each of the northbound (P2/P4) and southbound (P1/P3) platforms (Figure S-4). As all of the platform stairs are concentrated at the southern end of the station's two platforms, all passengers exiting the train at the north end of each platform must use these stairs as well. The main reason for the congestion on the platform and on the stairs from the platform to the mezzanine is that a large number of people get off of any given train in a very short time, resulting in high volume exit surges. This is especially acute on the northbound platform. The large number of people present on the platform at any given time overwhelms the existing platform stairs, and the capacity of the stairs is often exceeded. This causes congestion at both the platform stairs and at the platform level approaching the stairs, consequently increasing the time it takes passengers to exit the station. Image 1 illustrates crowding on stair P4, leading from the northbound platform to the mezzanine (see Figure S-5 for

Image 1: Passengers Ascending Stair P4

stair locations). Image 2 illustrates crowding on stair P2, also leading from the northbound platform to the mezzanine. Image 3, below, illustrates crowding on stair P3, leading from the southbound platform to the mezzanine. These three images were taken on Wednesday, October 14 at approximately 9:00 am. For more photographs depicting congestion at the station, as well as a photograph location key, see Appendix D: Station Congestion Photographs.

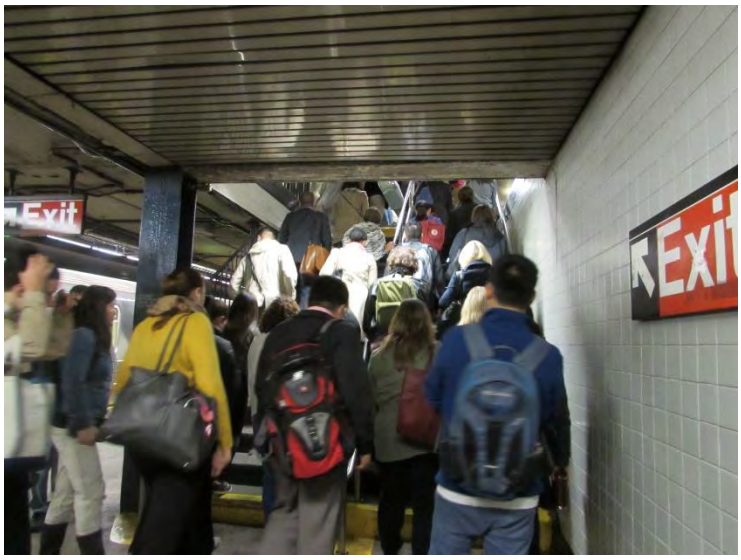


Image 2: Passengers exiting via Platform Stair P 2

Level of Service and Clearance Times

The poor pedestrian circulation described above is reflected in the station's performance metrics. Observations and analyses[5] of conditions at the station during peak periods revealed that during the morning rush (the "AM Peak")[6], the northbound platform stairs experience heavy crowding, because pedestrians must queue up to ascend one of two stairs leading to the mezzanine level. Almost every train observed during the AM peak disembarked passengers in sufficient numbers to cause a queue to form approaching platform stair P4, leading to the station's mezzanine area. In addition, during the AM peak, 11 of the 20 train arrivals resulted in passengers waiting in line to ascend both stair P2 and stair P4. In technical terms, stair P4 operates at LOS D/E during the AM peak period and stair P2 at LOS B.

Image 3: Passengers Ascending Platform Stair P3

The LOS ratings above are usually used in a different context, where the stream of pedestrians is constant. Therefore, this standard transportation planning measure understates congestion on circulation elements, such as the platform stairs at the 68th Street/Hunter College Station that are subjected to surged[7] passenger flow. This is because the

[5] NYCT Operations Planning data, and visual observation by transportation consultant on April 2007, March 2010, April 2010, and May 2010.

[6] Based on review of passenger data, including pedestrian counts, the peak periods for analysis of transit elements (stairs) were determined to be 8:45 AM–9:00 AM (morning), 1:45 PM–2:00 PM (midday) and 5:15 PM–5:30 PM (evening))

[7] Surged flow entails the arrival of a large and heavily concentrated group of passengers whose arrival is a result of a particular occurrence, such as an arriving train.

LOS formula *averages* the number of passengers on circulation elements over a 15-minute time period, and does not identify peak flows within the 15-minute period. The LOS formula therefore does not account for the surged use of the circulation element (e.g. platform stair): during the 15-minute period the element may be heavily used when passengers disembark from an arriving train, but the element may see little or no use between arriving trains. The congestion effect of a surge, such as that occurring at the 68th Street/Hunter College Station, is more accurately reflected in the "clearance time" metric used to measure stair performance. For platform stairs like those at the 68th Street/Hunter College Station, the MTA NYCT clearance time guideline[8] states that it should take 30 seconds or less to process the 80th percentile detraining surge—the surge volume that will meet or exceed 80 percent of all surges during the peak hour—off each platform.

Existing AM clearance times for northbound platform stairs P2 and P4 are 59 seconds and 134 seconds, respectively (Table 1-1). These times are 2 to 4.5 times the 30-second guideline, and as the number of detraining surges that were observed to result in queuing at the bottom of both stairs illustrates, these stairs are being used at rates well above their capacities.

Table 1-1:
Existing/Future (2020) No-Build
Platform Stair Clearance Time (Seconds)

Location	Stair ID†	AM Peak (Existing/2020)	PM Peak (Existing/2020)
Southbound Platform	P1	18/15	6/4
	P3	88/82	15/9
Northbound Platform	P2	59/53	43/20
	P4	134/121	78/34

*Clearance times exceeding the 30-second guideline are underlined and red
†Stair IDs are indicated on Figure S-4.

On the southbound platform during the morning peak, the existing clearance time is 18 seconds for P1 and 88 seconds for stair P3. Stair P3 is overcrowded as indicated by the fact that clearance time on the stair significantly exceeds the 30-second guideline.

During the evening rush ("PM Peak"), the existing clearance time is 43 seconds for stair P2 and 78 seconds for P4. Each of these stairs, therefore, exceeds the 30-second guideline for clearance times.

Although LOS and clearance times would improve somewhat in 2020 with the diversion of some passengers to the Second Avenue Subway, platform stairs and street stairs will remain congested and deficient. For example, in 2020 the AM peak clearance time for stair P2 is projected to be 53 seconds, for stair P3, 82 seconds, and for P4, 121 seconds.

Pedestrian Congestion at the Mezzanine Level due to Street Stair Congestion

At the base of the street stairs at the mezzanine level, heavy crowding has been observed[9] as pedestrians line up to ascend stair S4 (northeast corner of Lexington Avenue and East 68th Street) and Stair O2/O4 (southeast corner of the intersection). Counter flow (pedestrians entering) at these stairs further restricts exiting passengers.

[8] *Methodology for Surged Flow Analysis,* NYCT Division of Operations Planning/Station Planning, December 2012.

[9] Visual observations by transportation consultant – March 2010, April 2010, and May 2010.

Pedestrian Congestion at the Street Stairs

The street stairs on the north side of East 68th Street are too narrow to accommodate the large numbers of pedestrians who wish to go either up or down these stairs at the same time, causing pedestrian congestion and delays on these street stairs at certain times during the day (see Table 1-2 for LOS ratings of the station's street stairs). Images 4 and 5, illustrate the lines that form as passengers wait to ascend stairs leading from the mezzanine to the street. Image 4 shows crowding at the bottom of stair S4 and Image 5 shows crowding at stair O2/O4.

Image 4: Passenger Line Ascending Stair S4

Image 5: Passenger Line Ascending Stair O2/O4

Table 1-2:
Existing/Future (2020) No-Build LOS at East 68th Street Stairs*

Stair ID†	Location	AM Peak Existing/Future	Midday Peak Existing/Future	PM Peak Existing/Future
S4	Northeast Corner	F/E	B/A	D/D
S3	Northwest Corner	D/C	A/A	B/A
O2/O4	Southeast Corner	F/E	C/B	E/D
O1/O3	Southwest Corner	C/B	A/A	B/A

*LOS E and worse are underlined and in red
†Stair IDs are indicated on Figure S-4.

Pedestrian Interference at the Northeast Corner of East 68th Street and Lexington Avenue.

The existing street stair at this location faces Lexington Avenue and extends into the eastern sidewalk of Lexington Avenue (Figure 1-2). Because the stair extends into the pedestrian flow on the sidewalk, the flow of passengers using this stair (both entering and exiting the station) conflicts with pedestrian flow on the sidewalk and adjacent crosswalks. This congestion is shown on Figure 1-3.

Inefficient Train Access and Occupancy

Because access to the platform is located exclusively near the southern end of the platform, passengers are not distributed evenly along the length of the platform. This condition leads to uneven loading of the train and platform, and heightened conflict in movement between those leaving the train and those entering.

Inefficient and Inconvenient Pedestrian Circulation Relative to Passenger Destinations.

Many passengers have origins/destinations north of East 68th Street (including hospitals and medical facilities). As East 68th Street is the station's only access and exit point, passengers with destinations or origins north of the station must walk the length of the platform (either at platform level or street level) when using the station.

1.4 ANALYSIS FRAMEWORK, ENVIRONMENTAL PROCESS, AND REQUIRED REVIEWS/APPROVALS

1.4.1 ANALYSIS FRAMEWORK

To assess the potential environmental impacts that could result from the Proposed Project, it is necessary to evaluate future conditions with and without the project. In accordance with NEPA, this EA evaluates potential environmental impacts of the No-Action (or No-Build) Alternative and the Action Alternative (the Proposed Project).

To prepare the technical analyses for an EA, it is necessary to determine the year or years during which potential environmental impacts are anticipated to be greatest. These may occur during construction, operation, or both.

For the Proposed Project, construction is expected to begin in 2016 and continue for approximately 36 to 39 months, until late 2019. Potential construction impacts were evaluated for the year 2017, the anticipated peak construction year.

The Proposed Project is expected to be operational by 2020. To assess environmental impacts during operation, conditions expected after completion of the project (Build) were compared with conditions that would be expected without the project (No-Build) for the year 2020.

1.4.2 ENVIRONMENTAL PROCESS AND REQUIRED REVIEWS/APPROVALS

As indicated in Section 1.1, this EA has been prepared by FTA and MTA NYCT. FTA is a funding entity for the Proposed Project and is the Lead Agency for the NEPA environmental review process. The EA has been prepared in accordance with regulations for implementing NEPA as issued by the FTA (23 C.F.R. § 771) in conformance with the regulations of the CEQ (40 C.F.R. §§ 1500–1508). MTA NYCT has determined that, in accordance with New York State Public Authorities Law §1266-c (11), the Proposed Action is exempt from the New York SEQRA as codified in Article 8 of the New York State Environmental Conservation Law (ECL Sections 8-0101 et seq.) and its implementing regulations in Title 6 of the New York Codes, Rules and Regulations (6 NYCRR Part 617). That is because, as specified in Public Authorities Law §1266-c (11), the

Proposed Action is: “a NYCT project to be constructed upon real property theretofore used for a transit or transportation purpose, or on an insubstantial addition to such property contiguous thereto, which will not change in a material respect the general character of such prior transit or transportation use.” Nevertheless, the EA has been conducted to be consistent with the requirements of SEQRA, and, where appropriate, with New York City’s City Environmental Quality Review (CEQR), Executive Order 91 of 1977 as amended, and the technical guidance of the New York CEQR Technical Manual, 2014 Edition, and with relevant New York City codes and regulations.

The Proposed Project would comply with all applicable federal regulations and standards, including the Clean Air Act, Clean Water Act, Section 106 of the Historic Preservation Act, Executive Order 12898 on Environmental Justice, Executive Order 13274 on environmental streamlining and stewardship, and Executive Order 13514 on federal sustainability. A table of applicable approvals, permits and coordination required for the project is included in Chapter 14.

Section 4(f) of the United States Department of Transportation Act of 1966 (49 U.S.C. § 303 (c)), as implemented by regulations codified at 23 C.F.R. § 774, prohibits federal approval or funding of a transportation project if the project requires use of a significant publicly owned park, recreation area, wildlife or waterfowl refuge area, or any significant historic site, unless there is no prudent and feasible alternative to such use and all possible planning to minimize harm to the resource has occurred or a determination of a ***de minimis*** impact has been made. MTA NYCT has prepared an evaluation of Section 4(f) resources for the project; it is included in Chapter 12.

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2.1 INTRODUCTION

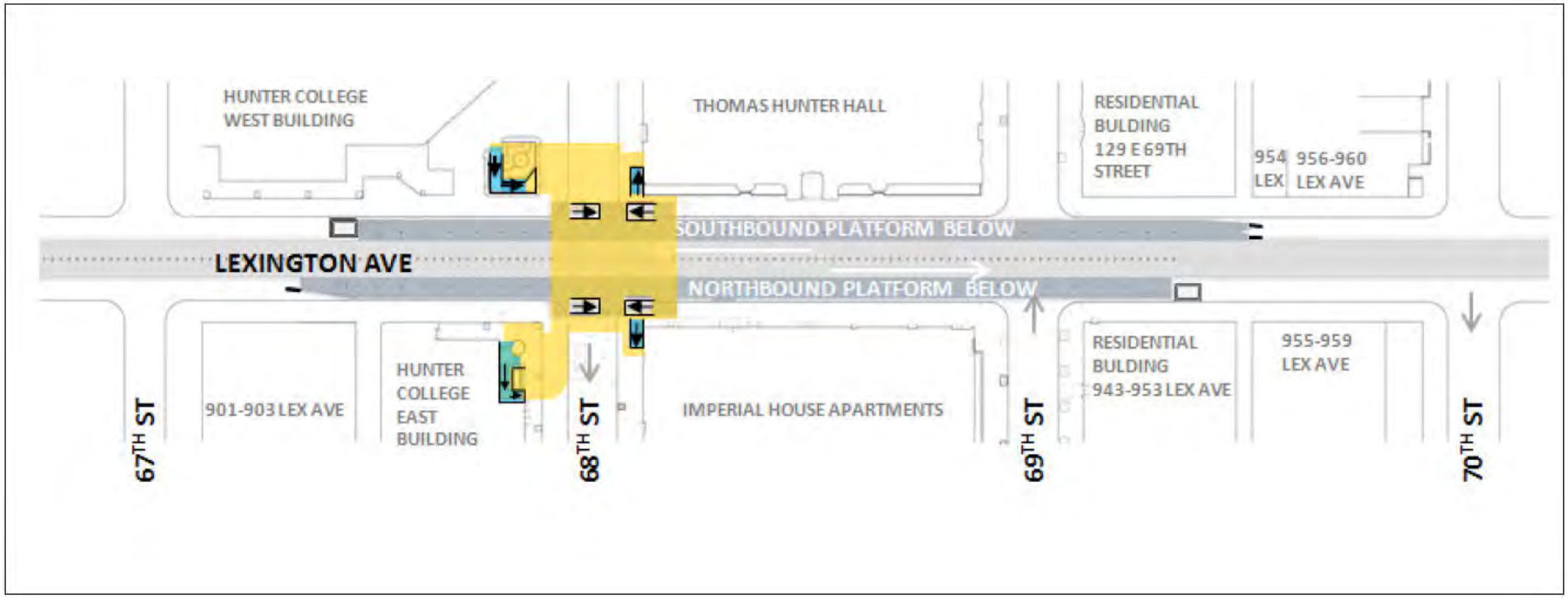
Two alternatives are evaluated in the 68th Street/Hunter College Subway Station Improvement Project EA. This chapter describes the alternatives considered for the project and provides the planning background for the development of the alternatives.

Section 2.2 describes the background and planning of the project, the evolution of different alternatives, public outreach and input, and an overview of preliminary alternatives considered. The No Build Alternative is illustrated in Figure 2-1, and the preliminary alternatives evaluated are illustrated in the following pages. Additional information on the preliminary alternatives and their evaluation with regard to the purpose and need and goals and objectives is provided in Table S-1, above and in Appendix A. Preliminary alternatives that did not meet the purpose and need or did not sufficiently meet the goals and objectives were eliminated from further consideration. A summary of the alternatives evaluation is provided as Table A-2 in Appendix A.

2.2 BACKGROUND

MTA NYCT undertook a conceptual design effort to provide ADA accessibility to the station (ADA accessibility necessarily involves vertical circulation between the platform level, the mezzanine, and the street level for those who cannot use stairs) and to address the circulation deficiencies at the 68th Street/Hunter College Station. This initial effort resulted in the development of the Mezzanine Expansion Alternative (Alternative 1, Figure 2-2). Further study of this preliminary alternative revealed unforeseen construction and engineering challenges and risks associated with the plan, which called for expanding the mezzanine north over the tracks and constructing additional platform stairs to the expanded mezzanine at East 68th Street. In addition to numerous disruptions in subway service (due to work at the track level), the plan would have required costly relocation of communication infrastructure, and the underpinning of adjacent historic structures (Thomas Hunter Hall and the Imperial House Apartments).

A second alternative (Alternative 2 – Northern Access, Figure 2-3) was therefore developed by MTA NYCT to address these concerns. Alternative 2 – Northern Access would provide new platform stairs and street stairs at East 69th Street, near the north end of the station, thereby avoiding the need to expand the existing mezzanine and construct new platform stairs to the expanded mezzanine at East 68th Street. By eliminating the need to construct additional platform stairs feeding into the mezzanine and the need to substantially enlarge the mezzanine at East 68th Street, Alternative 2 – Northern Access would avoid or minimize the risks associated with relocating communication/data infrastructure and would not require the underpinning of Thomas Hunter Hall. It would reduce construction impacts and require far fewer subway service outages when compared with Alternative 1. MTA NYCT subsequently studied the transportation performance of the two alternatives in greater detail (Appendix C) and determined that Alternative 2 – Northern Access would perform better than Alternative 1. As a result, MTA NYCT decided to advance Alternative 2 – Northern Access.



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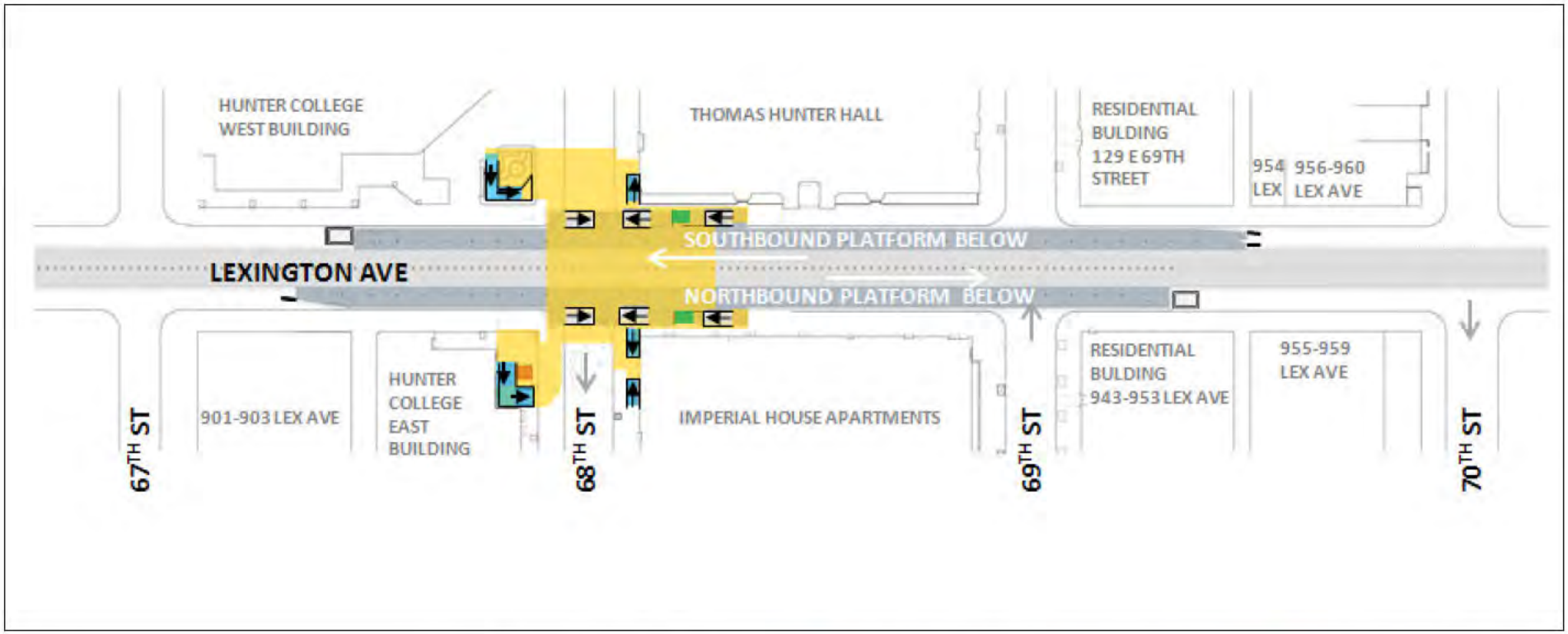
NORTH

No Build Alternative
Figure 2-1



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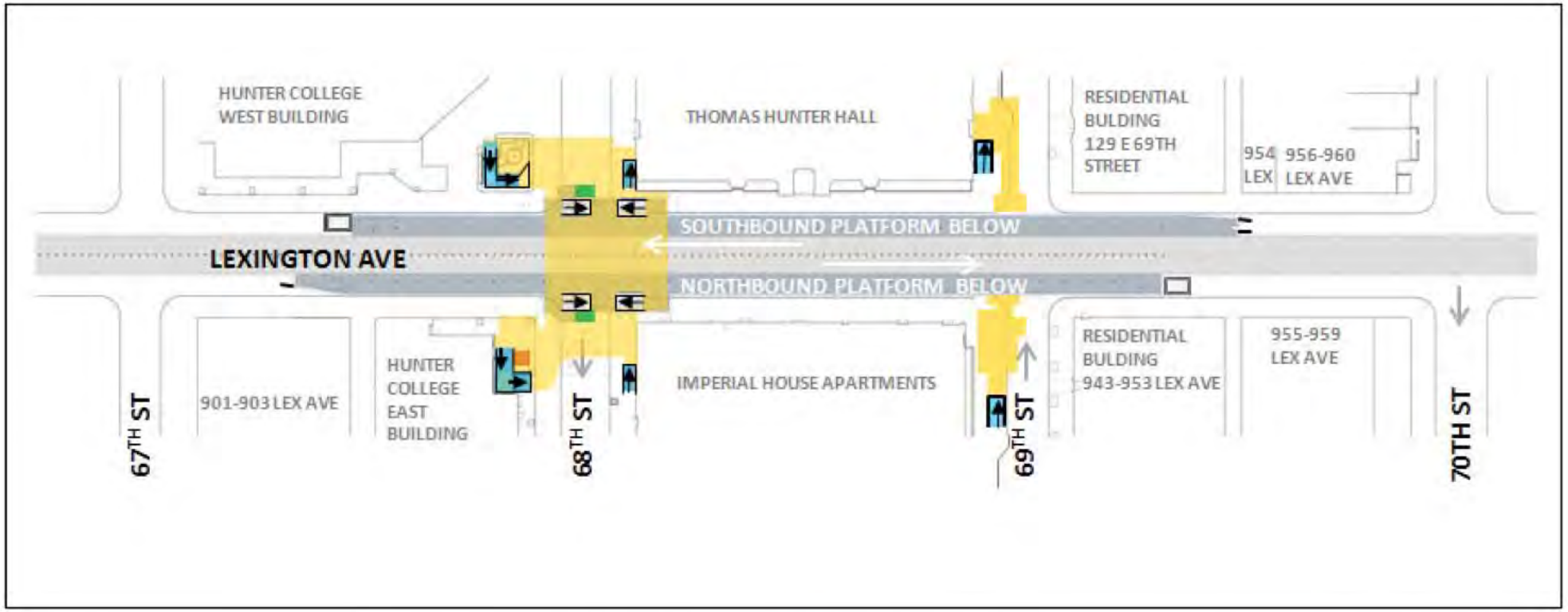
Alternative 1
Figure 2-2



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NORTH

Alternative 2 – Northern Access

Figure 2-3

MTA NYCT then conducted a series of public meetings to inform residents and businesses surrounding the 68th Street/Hunter College Station of the planned improvements to the station (see Chapter 14). During these meetings, members of the community proposed other alternatives that did not include street entrances on East 69th Street. These alternatives suggested by public comments included new street entrances at East 67th Street (Alternative 3, Figure 2-4), new entrances at East 70th street (Alternative 4, Figure 2-5), and other proposals identified in Appendix A.

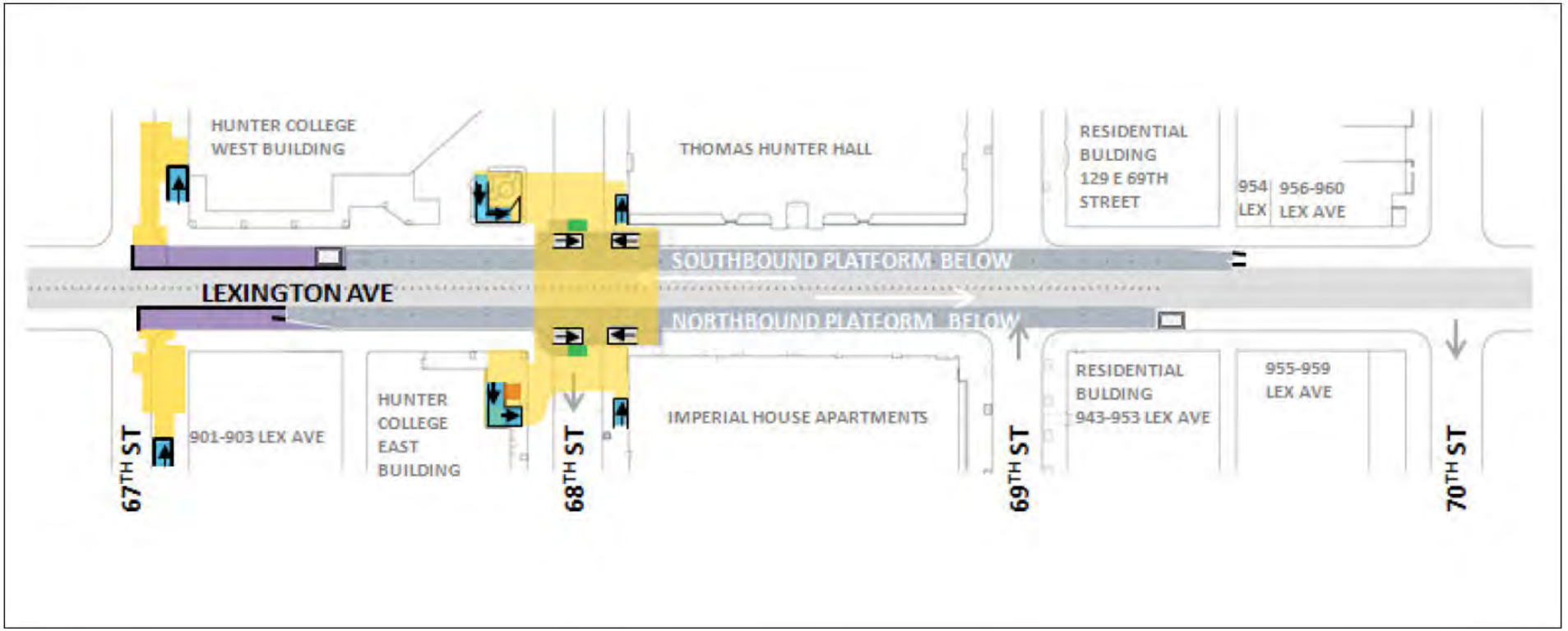
MTA NYCT identified a set of criteria to evaluate the ability of each alternative and each street stair option to satisfy the project purpose and need and the project goals and objectives. Criteria focused on ADA compliance for the station; improving circulation on the platform stairs and street stairs; improving the distribution of passenger load on the train and along platform length; passenger convenience and circulation efficiency; and fare control area and mezzanine performance. The criteria included construction phase issues such as minimizing cost and construction risk, construction duration, disruption to station and subway operations and passengers, and construction impacts to the surrounding neighborhood. Other criteria included impacts to historic resources and use of Section 4(f) resources.

Using these criteria, Alternatives 3 and 4 were evaluated for their ability to satisfy the project goals and objectives and were eliminated from further consideration (Appendix A).

As part of the development of Alternative 2 – Northern Access, MTA NYCT explored different options for the location of street entrances at the north end of the station. Options included stair locations on the north and south sidewalks of East 69th Street both east and west of Lexington Avenue, and on the east and west sidewalks of Lexington Avenue both north and south of East 69th Street.

As a result of the evaluation of these options (see Appendix A), a configuration of new entrances – one for each platform – was initially identified that best met the goals and objectives of the proposed project (this configuration is illustrated in Figure 2-3). For the southbound platform, this configuration would consist of a new, small mezzanine under East 69th Street (identified as Option W1 in Appendix A). This mezzanine would connect to the street via a new street stair on the south sidewalk of East 69th Street west of Lexington Avenue; a new platform stair would connect the mezzanine to the platform. For the northbound platform, this configuration would consist of a new platform stair connecting to a new, small mezzanine under East 69th Street and a connecting street stair on the south sidewalk of East 69th Street east of Lexington Avenue (identified as Option E1 in Appendix A).

This set of street stair options was presented by MTA NYCT to the community and other interested parties during several meetings conducted to solicit feedback. Some members of the community requested that MTA NYCT explore locating a street-level entrance within one of the retail spaces on the ground floor of a building that occupies the entire block encompassed by Third Avenue, Lexington Avenue, East 68th Street, and East 69th Street, with ground-floor retail fronting Lexington Avenue between the two streets. In an effort to be responsive to community concerns, MTA NYCT entered into discussions with representatives of the building. During these discussions, MTA NYCT was presented with the possible opportunity for locating a street stair in a retail space in the building. This space, located at 931 Lexington Avenue, approximately midway between East 68th Street and East 69th Street, was identified as a viable stair option and MTA NYCT subsequently incorporated this possible location as Option E10 into the mix of Alternative 2 – Northern Access stair options.



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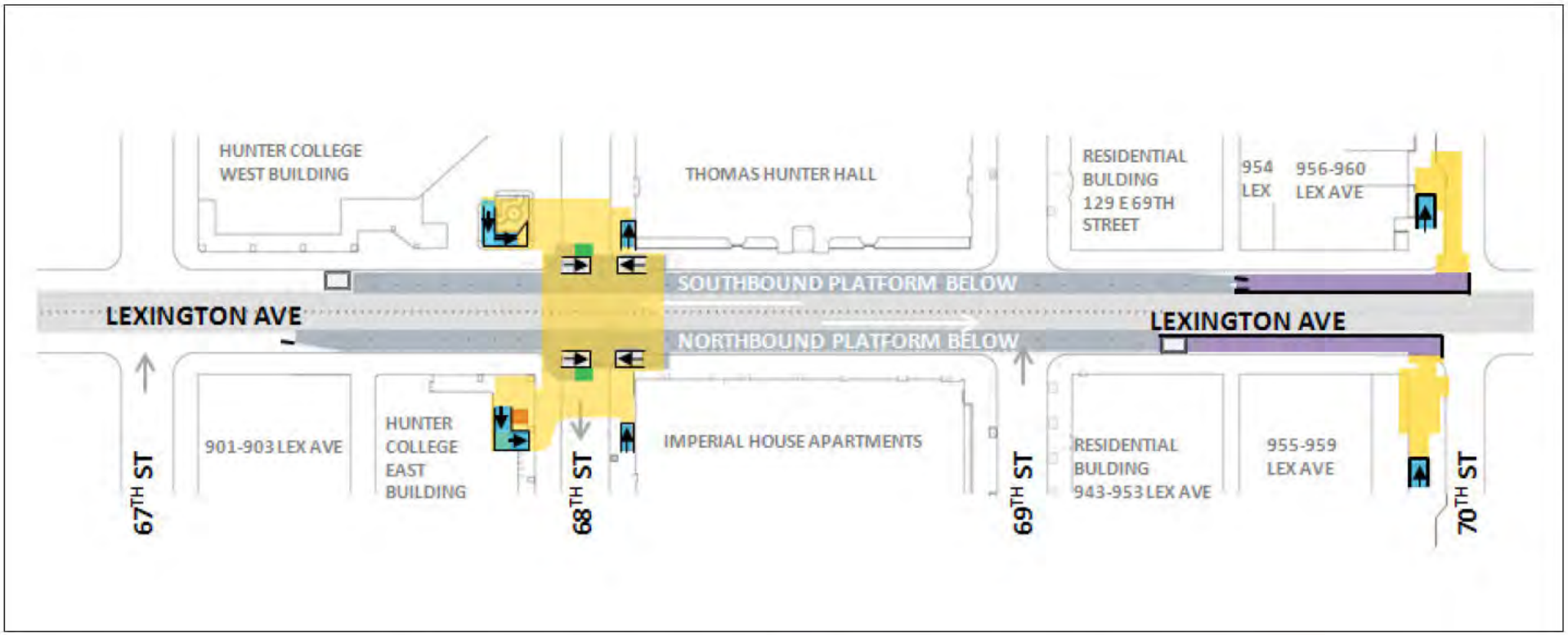
NORTH

Alternative 3
Figure 2-4



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NORTH

Alternative 4

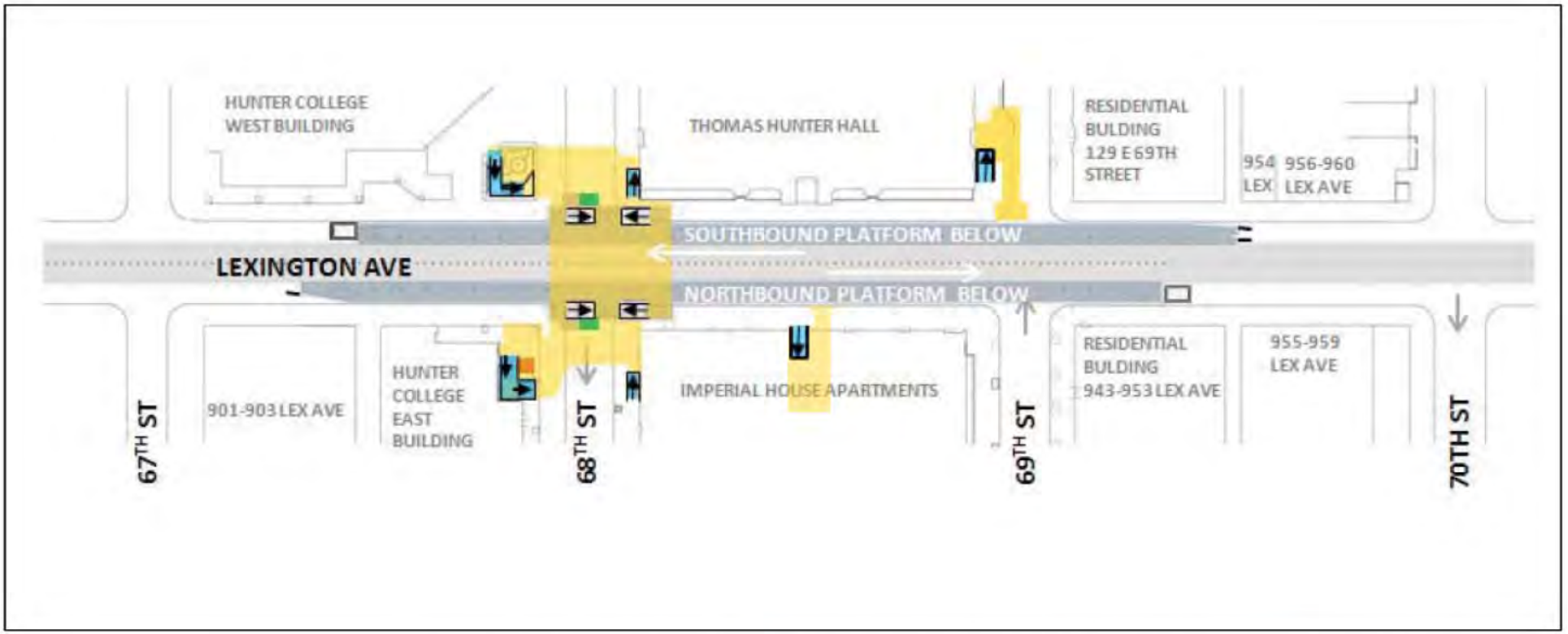
Figure 2-5

In consideration of community concerns, the project purpose and need and project goals and objectives, MTA NYCT then re-evaluated the various Alternative 2 – Northern Access street stair options (see Appendix A) and identified the retail space at 931 Lexington Avenue (Option E10) as the preferred location for street access to the northbound platform, and maintained Option W1 on the southwest corner of East 69th Street at Lexington Avenue as the preferred location for street access to the southbound platform. These street stair locations are preferred because they would result in fewer environmental impacts and fewer conflicts with surrounding land uses, are more responsive to community concerns, and/or would be less expensive to construct. Therefore, Alternative 2, now comprising these preferred stair locations (Option E10 and Option W1), is being advanced as the Proposed Project. The Proposed Project is illustrated in Figure 2-6.

Street Stair Option W1 is illustrated in Figure 2-7, Street Stair Option E10 is illustrated in Figure 2-8, and Street Stair Option E 1 is illustrated in Figure 2-9.

At the time of preparation of this document, the owner of the building identified for locating Option E10 could not yet state with certainty that the commercial space at 931 Lexington Avenue (Option E10) would be available. Pending confirmation of availability of the space at 931 Lexington Avenue, MTA NYCT therefore retained the option for a street stair at the south sidewalk of East 69th Street east of Lexington Avenue (Option E1) as an optional entrance location to the northbound platform.

In addition to the Proposed Project (which includes Option E10 at 931 Lexington Avenue) this EA therefore also evaluates the Proposed Project with Option E1. The Proposed Project with Option E1 is identical to the Proposed Project but replaces the 931 Lexington Avenue entrance with a street entrance on the south sidewalk of East 69th Street east of Lexington Avenue (Option E1).



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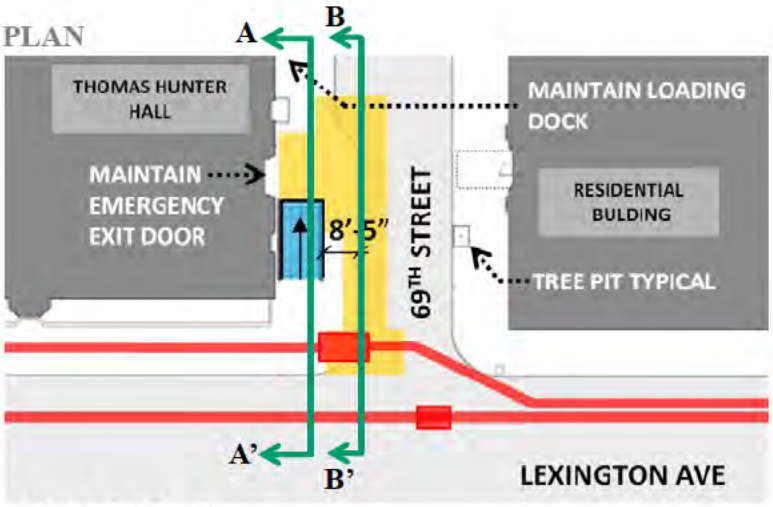
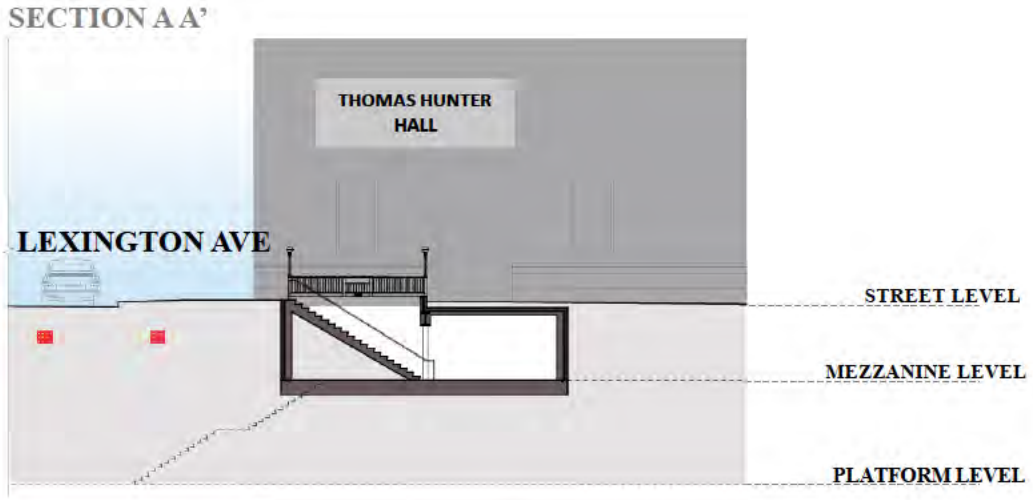
Alternative 2 – Proposed Project

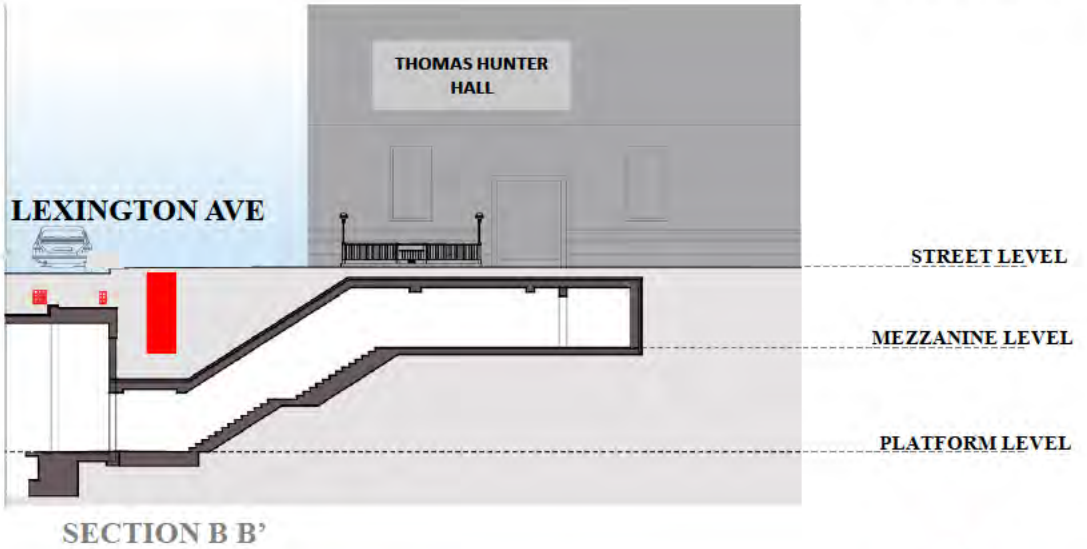
Figure 2-6





SW CORNER

- 9' Wide stair
- Emergency Exit Door of Thomas Hunter Hall maintained
- Loading dock of Thomas Hunter Hall maintained
- Stair clears ECS Duct Bank
- 6' Curb extension of 69th St required to accommodate stair
- 4 Parking spaces removed
- 1 Tree removed



SECTION B B'

Stair Descending

ECS Duct Bank

Mezzanine Below

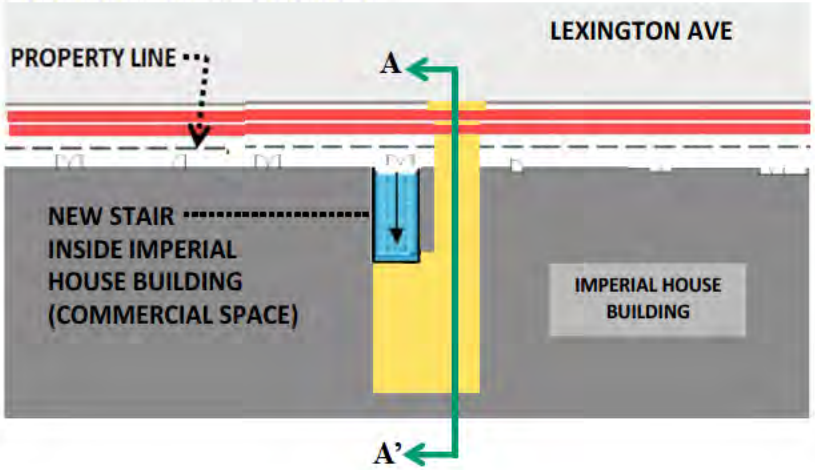
NORTH

Not to Scale

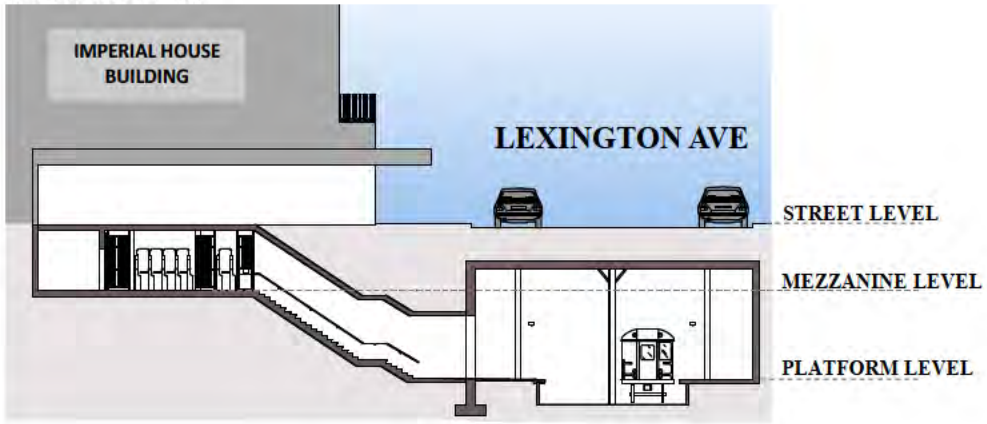
Street Stair Option W1

Figure 2-7

PLAN AT STREET LEVEL



SECTION A A'



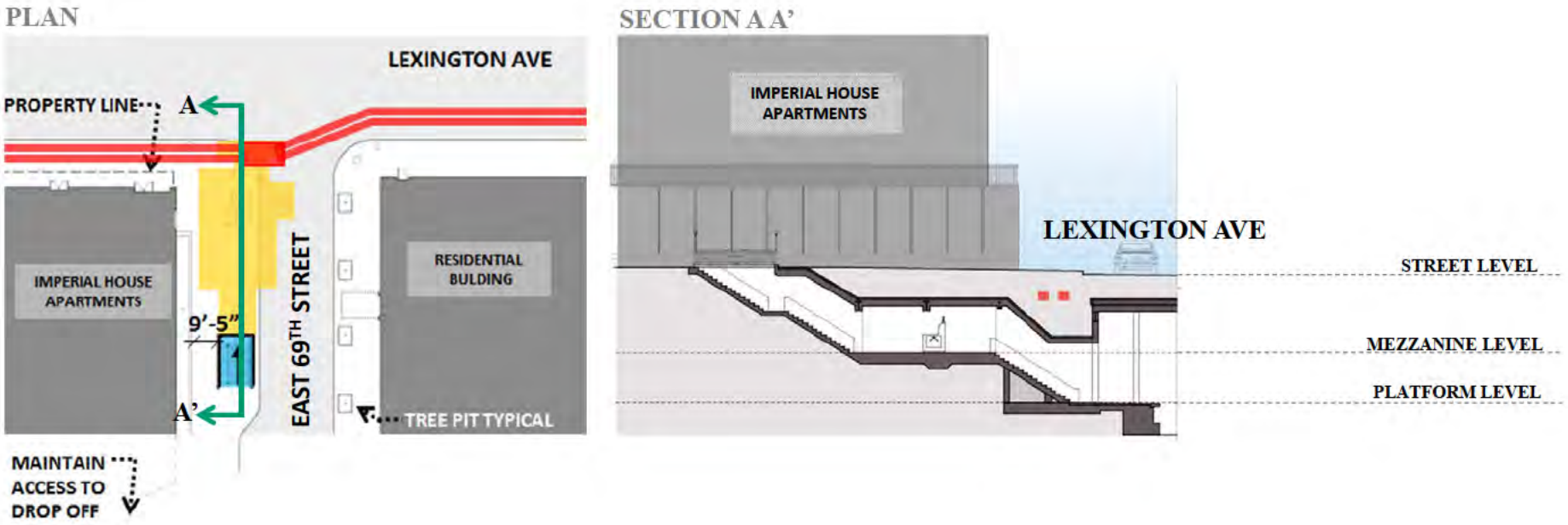
MID-BLOCK STAIR

- 10' Wide stair
- Stair clears ECS Duct Bank
- No Trees Removed
- No Parking Space Removed
- Property acquisition required

Stair Descending | ECS Duct Bank | Mezzanine Below | Not to Scale

NORTH

Street Stair Option E10
Figure 2-8



SE CORNER

- 9' Wide stair
- Access to Imperial House drop off maintained
- Stair clears ECS Duct Bank
- 3 Parking spaces removed
- 2 Trees removed

Stair Descending | ECS Duct Bank | Mezzanine Below | Not to Scale

NORTH

Street Stair Option E1

Figure 2-9

2.3 NO-BUILD ALTERNATIVE

Under the No-Build Alternative, the Proposed Project would not be advanced. Improvements to the platform stairs and street stairs, ADA elevators and other improvements throughout the station would not be implemented. Without the ADA-compliant elevators, the station would remain inaccessible to some persons with disabilities. Under the No-Build Alternative, MTA NYCT would not meet ADA requirements for all of its designated Key Stations by the year 2020 and would be liable to potential financial penalties. Although congested conditions may improve somewhat by 2020 because of diverted ridership from the Lexington Avenue Line to the Second Avenue Subway, the improvement would be marginal and deficiencies would remain, especially in the AM peak. The existing curb parking lane and sidewalk configuration on East 69th Street would remain unchanged, and the retail space at 931 Lexington Avenue would not contain a subway access stair.

Considering the two metrics commonly used to evaluate passenger circulation through New York City subway stations, Tables 2-1 and 2-2 illustrate the station performance in terms of clearance times and LOS, as observed in the existing, and as calculated for the 2020 No-Build condition.

Table 2-1:
Existing and 2020 No-Build Clearance Times (seconds)—Platform Stairs

Stair ID†	Existing Peak Conditions		2020 No-Build Peak Conditions	
	AM	PM	AM	PM
P1	18	6	15	4
P3	88	15	82	9
P2	59	43	53	20
P4	134	78	121	34

†Stair IDs are indicated on Figure 2-10.

Table 2-2:
Existing and 2020 No-Build LOS - Street Stairs

Stair ID†	Existing Peak Conditions		2020 No-Build Peak Conditions	
	AM	PM	AM	PM
S4	F	D	E	D
S3	D	B	C	A
O2/O4	F	E	E	D
O1/O3	C	B	B	A

†Stair IDs are indicated on Figure 2-10.

As illustrated in the above tables, station performance marginally improves in 2020 with the operation of the Second Avenue Subway. However, Stairs P2, P3, and P4 continue to perform below MTA NYCT standards in the AM peak, and during the AM peak period, the street stairs located on the east side of Lexington Avenue remain over capacity.

2.4 PROPOSED PROJECT

(The discussion below applies to both the Proposed Project and the Proposed Project *with Option E1*, unless otherwise indicated.) The Proposed Project consists of several improvements to the 68th Street/Hunter College Station. The Proposed Project addresses congestion and circulation problems, which occur on the two levels at this station and the street level above, as well as the need to provide ADA-compliant access between all three levels. An evaluation of vertical access in support of ADA compliance is provided in Section 2.4.3, after this summary of the proposed changes to the station.

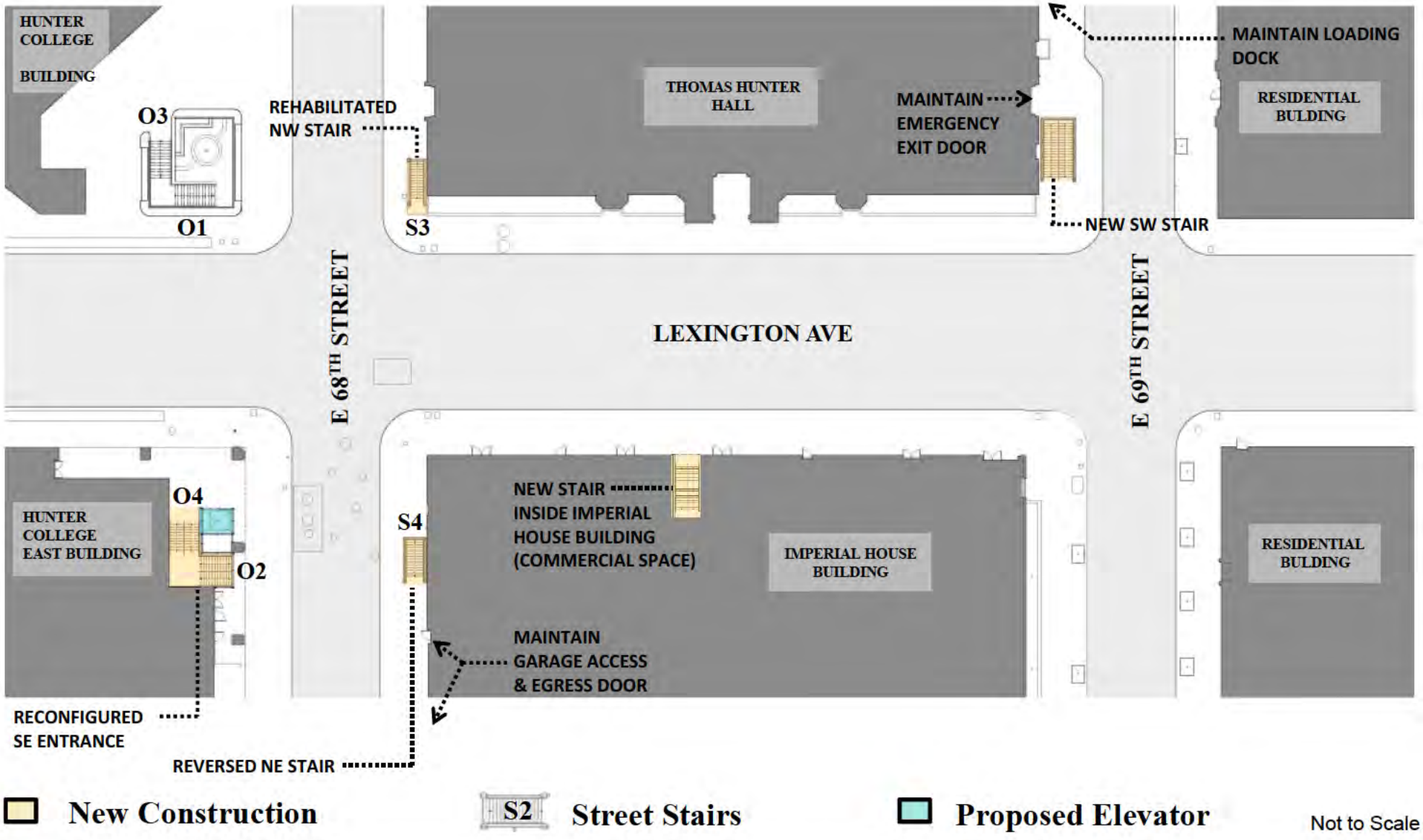
The station would be reconfigured, resulting in changes at the street level and below street level at the Lexington Avenue intersections of East 68th Street and East 69th Street. The reconfiguration would also result in changes at the station's existing mezzanine level and at the platform level. The proposed improvements can be summarized as follows:

- Installation of three ADA-compliant elevators and related improvements (see the list at the end of Section 2.4.2) to bring this Key Station into compliance with ADA.
- Reconstruction and/or relocation of three of the four existing street stairs—at the southeast, northeast, and northwest corners of East 68th Street and Lexington Avenue—to improve pedestrian circulation on these street stairs and throughout the mezzanine, and to provide necessary space for the ADA-compliant elevator to street level on the southeast corner of the intersection.
- Installation of a new street stair on the south sidewalk of East 69th Street west of Lexington Avenue. This street stair would connect to a new subway mezzanine and platform stair serving the southbound platform.
- Installation of a new street stair in a retail space at 931 Lexington Avenue, within the Imperial House apartment building. This street stair would connect to a new subway mezzanine and platform stair serving the northbound platform.
- Proposed Project *with Option E1*. If street stair Option E10 is not available, installation of a new street stair on the south sidewalk of East 69th Street east of Lexington Avenue (Proposed Project with Option E1). This street stair would connect to a new subway mezzanine and platform stair serving the northbound platform.

An overview is provided below for the improvements at each level.

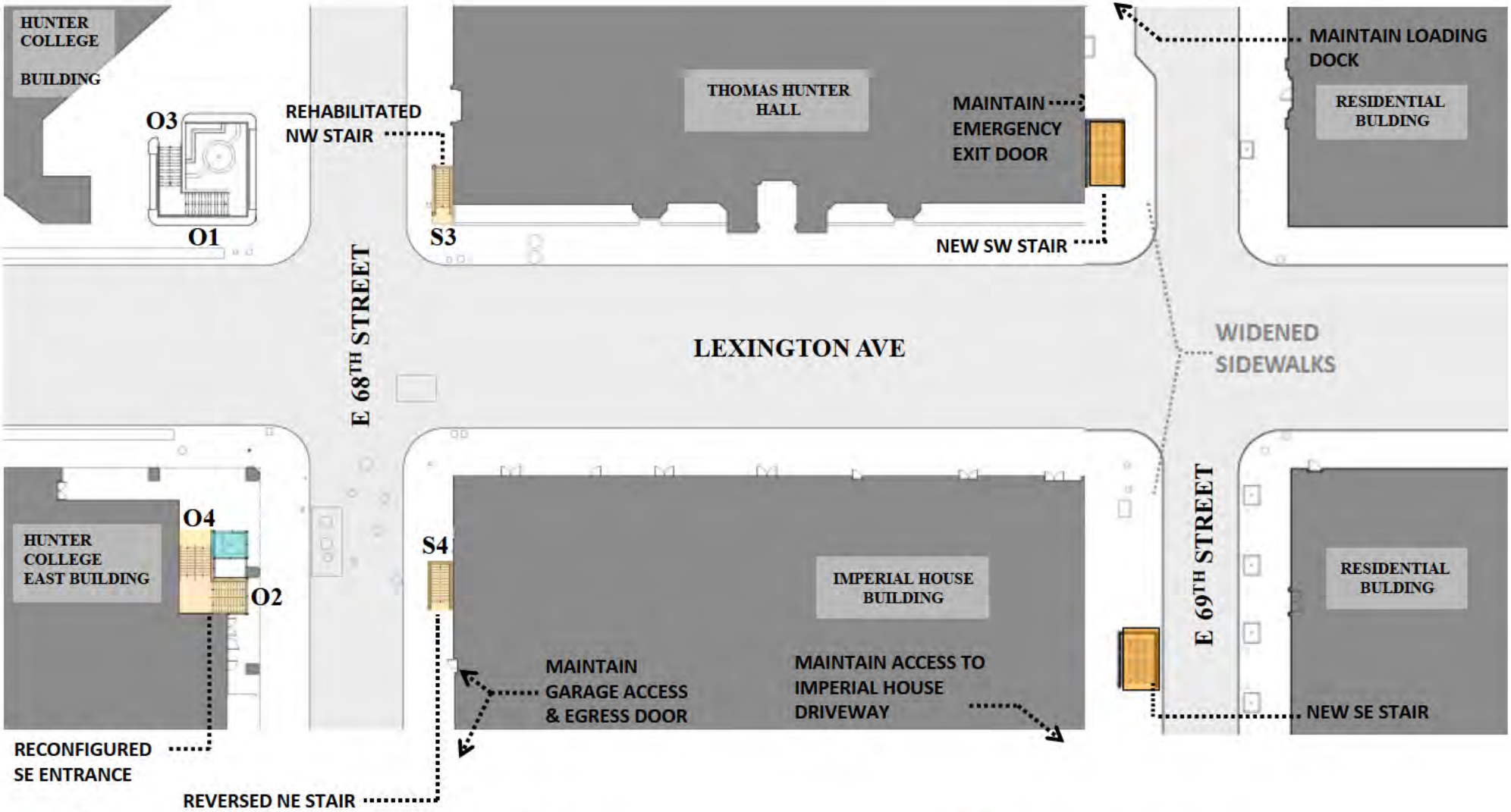
2.4.1 STREET LEVEL

Figures on the following pages illustrate the changes at street level that would result from the Proposed Project at East 68th Street and East 69th Street. Figure 2-10, Street Level Plan, illustrates the future conditions with the Proposed Project. Figure 2-11, Street Level Plan – Option E1, illustrates the future conditions under the Proposed Project *with Option E1*.



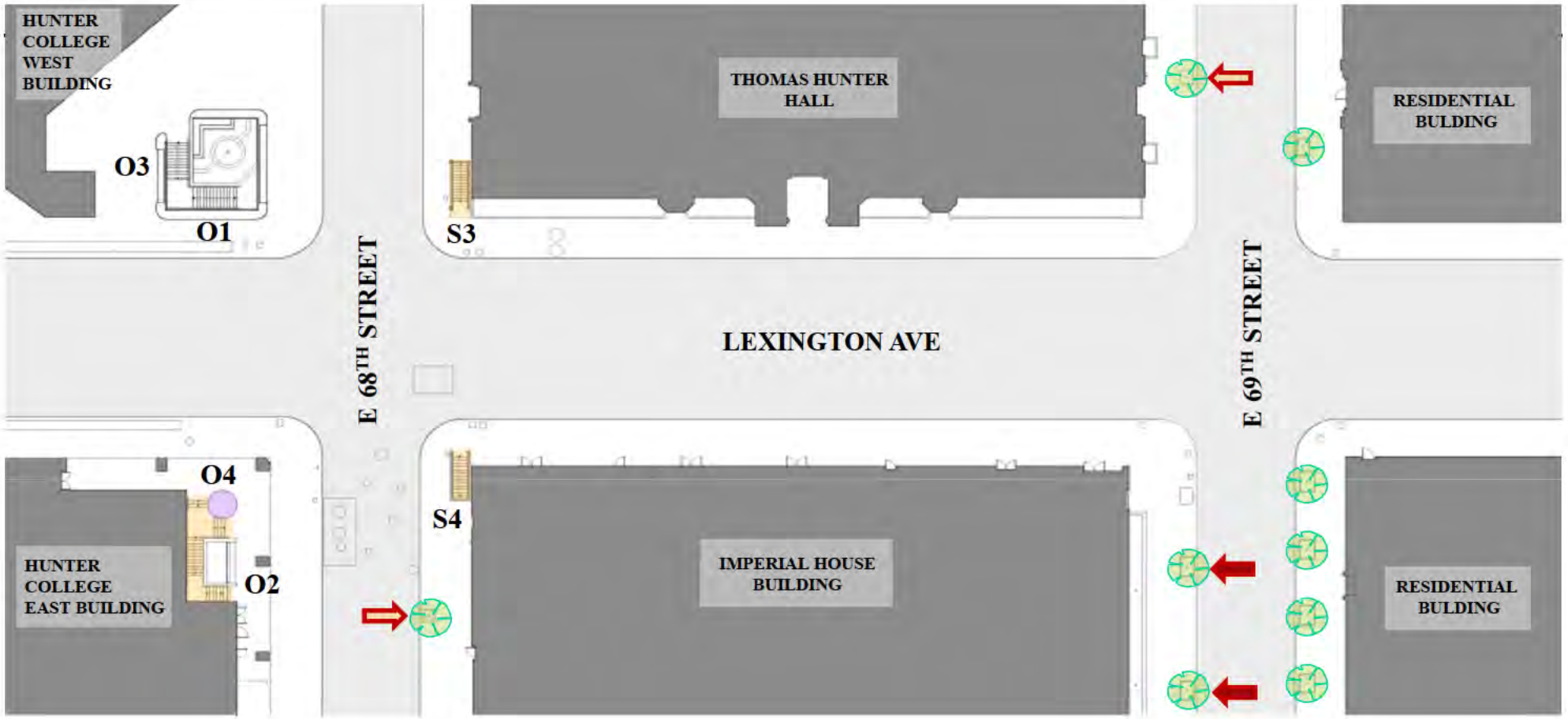
Street Level Plan - Proposed Project

Figure 2-10



Street Level Plan - Proposed Project with Option E1

Figure 2-11



LEGEND:

- EXISTING TREE
- TREE REMOVAL UNDER PROPOSED PROJECT
- ADDITIONAL TREE REMOVAL WITH OPTION E1

Not to Scale

NORTH

Street Tree Removal Plan

Figure 2-12

East 68th Street – New ADA-Compliant Elevator and Improvement of Existing Street Stairs, Proposed Project and Proposed Project with Option E1

Street Stair O2/O4 **–** At street level on East 68th Street, the Proposed Project would increase the width of the stair O2/O4 at the southeast corner of Lexington Avenue and East 68th Street.

Street Level ADA-Compliant Elevator **–** An ADA-compliant elevator would be provided adjacent to stair O2/O4, described above. The elevator entrance at the sidewalk level would require removal of the flower kiosk. The elevator would provide access to the mezzanine from the street.

Street Stair S3 **–** The project would rehabilitate stair S3 at the northwest corner of the intersection, but would retain the existing dimensions.

Street Stair S4 **–** Stair S4 would be moved approximately 30 feet east of its current position, widened by 1 foot and reoriented so that persons exiting the stairs would be facing east. A street tree in the area of the new stair would be removed.

East 69th Street – New Street Stairs

The Proposed Project would provide new street stair access to the station on the south sidewalk of East 69th Street west of Lexington Avenue and via the retail space at 931 Lexington Avenue on the east side (Figure 2-10). Space on the sidewalk for the new street stair would be provided by extending the width of the south sidewalk of East 69th Street west of Lexington Avenue into the south curb lane of East 69th Street. The sidewalk curb extension (or bulb-out, which is an increase in the width of the sidewalk at the expense of the curb lane) west of Lexington Avenue would extend for approximately 80 feet west of the avenue. The East 69th Street crosswalk on the west side of Lexington Avenue would be widened to maintain pedestrian flow and safety.

The stair west of Lexington Avenue would be set back approximately 23 feet from the avenue and oriented toward the east (Figure 2-10). Access to the Thomas Hunter Hall loading dock on the south side of East 69th Street would be maintained. One street tree on the south sidewalk would be removed (Figure 2-12) and four parking spaces would be eliminated. The new stair on the east side of Lexington Avenue would be located completely within a commercial space in the Imperial House Apartments, approximately mid-block between East 68th Street and East 69th Street. The existing street and sidewalk configuration along Lexington Avenue would be maintained.

The Proposed Project *with Option E1*. The Proposed Project with Option E1 would provide new street stair access to the southbound platform as described above. However, access to the northbound platform would be via a new street stair on the south sidewalk of East 69th Street east of Lexington Avenue (Figure 2-11). Space on the sidewalk for the stair under Option E1 would be provided by extending the width of the south sidewalk of East 69th Street east of Lexington Avenue into the south curb lane of East 69th Street. The sidewalk curb extension east of Lexington Avenue would extend for approximately 80 feet east of the avenue. Two street trees on the south sidewalk would be removed (Figure 2-12) and three parking spaces would be eliminated. The East 69th Street crosswalk on the east side of Lexington Avenue would be widened to maintain pedestrian flow and safety.

2.4.2 MEZZANINE LEVEL IMPROVEMENTS AT EAST 68TH STREET AND EAST 69TH STREET

Street Elevator

A street elevator for the Proposed Project and the Proposed Project *with Option E1* (same as discussed above) would be installed in the southeast corner of the mezzanine adjacent to stair O2/O4 to provide ADA-compliant access between the mezzanine and the sidewalk at the southeast corner of the intersection of East 68th Street and Lexington Avenue. A new employee

bathroom and locker room and a new elevator machine room would also be constructed in this vicinity. The location of the elevator is shown on Figure 2-13.

Platform Elevators

At the mezzanine level, the Proposed Project and the Proposed Project *with Option E1* would provide two ADA-compliant elevators to the platforms. One elevator would serve the northbound platform and one elevator would serve the southbound platform. The elevator serving the northbound platform would be installed east of, and adjacent to the existing northbound platform stairs terminating at the mezzanine. On the west side of the mezzanine level, an elevator serving the southbound platform would be constructed west of, and adjacent to the existing platform stairs. An elevator machine room, cleaners' room and electrical room would be constructed in the vicinity. The location of the platform elevators are shown on Figure 2-13.

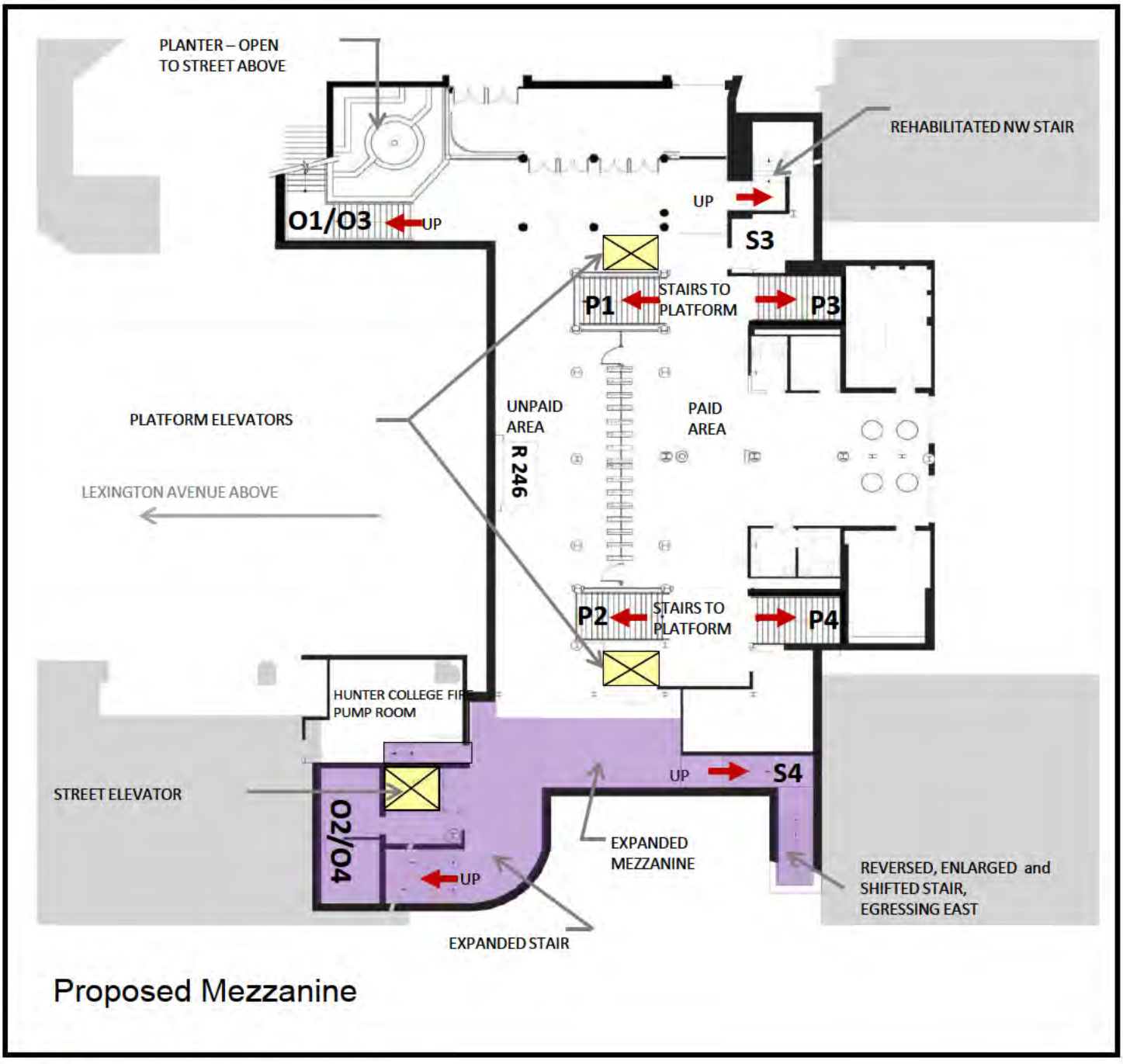
Mezzanine Improvements

The Proposed Project and the Proposed Project *with Option E1* would increase the eastern portion of the mezzanine area by approximately 10 feet (Figure 2-13) to accommodate the platform elevator serving the northbound platform, to increase circulation capacity on the mezzanine, and to reduce congestion and to accommodate the wider street stairs.

The existing mezzanine is currently configured so that it has two floor levels, with floor levels differing by approximately 2 feet, connected via steps. The Proposed Project and the Proposed Project *with Option E1* would rebuild the mezzanine so that the difference in floor levels would be eliminated, and the entire station mezzanine would be at one level. This would improve overall passenger circulation, and provide ADA access to the new ADA-compliant street elevator from the mezzanine.

New Mezzanines

The new mezzanine for the southbound platform for both the Proposed Project and the Proposed Project *with Option E1,* would be located under the south sidewalk of East 69th Street west of Lexington Avenue (Figure 2-14). The new mezzanine for the northbound platform for the Proposed Project would be in the basement of the commercial space in the Imperial House Apartments (Figure 2-15). For the Proposed Project *with Option E1,* the mezzanine would be located under the south sidewalk of East 69th Street east of Lexington Avenue (Figure 2-16).



PROPOSED ELEVATOR

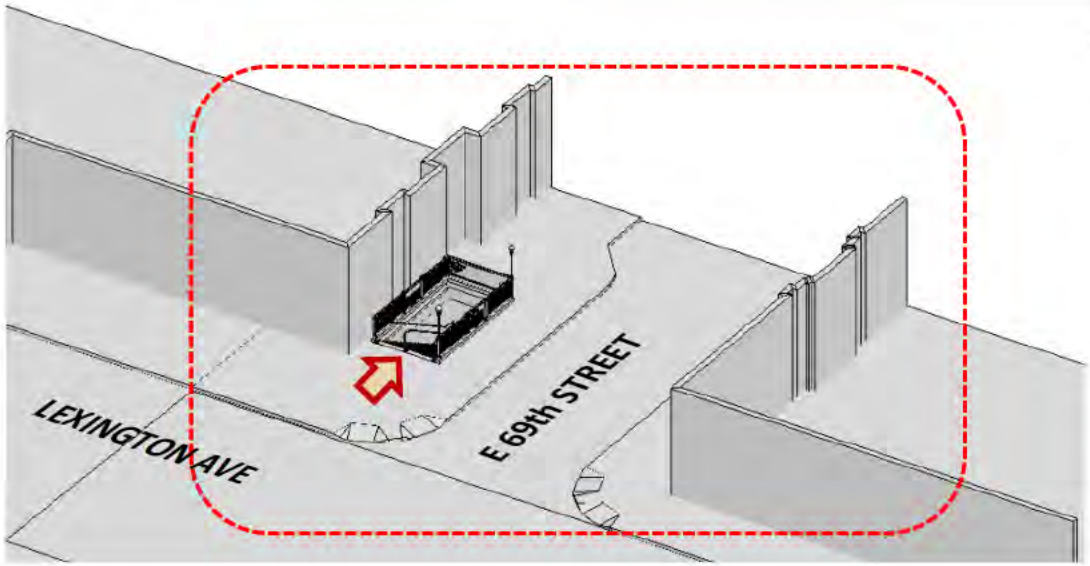
RECONFIGURED MEZZANINE

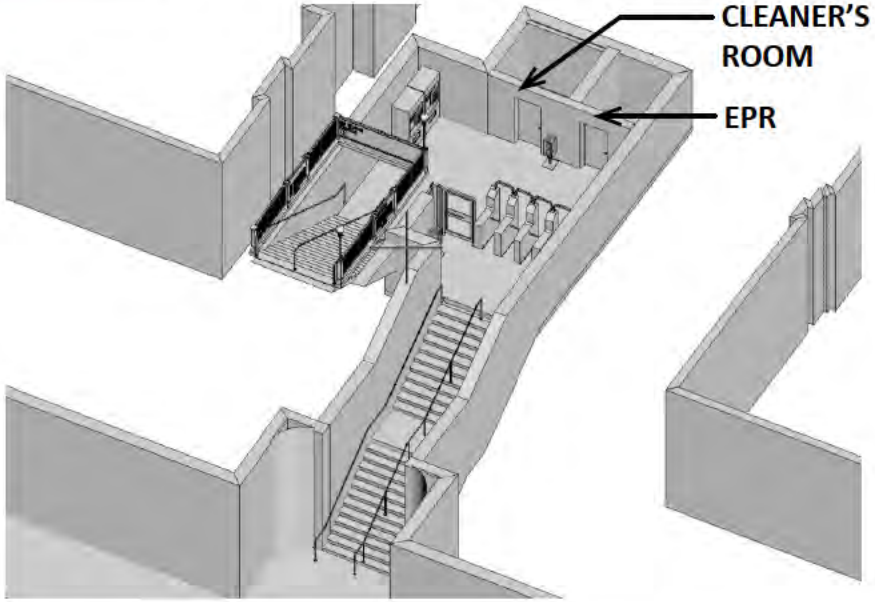
Not to Scale

Mezzanine Level Plan East 68th Street

Figure 2-13

Street Level





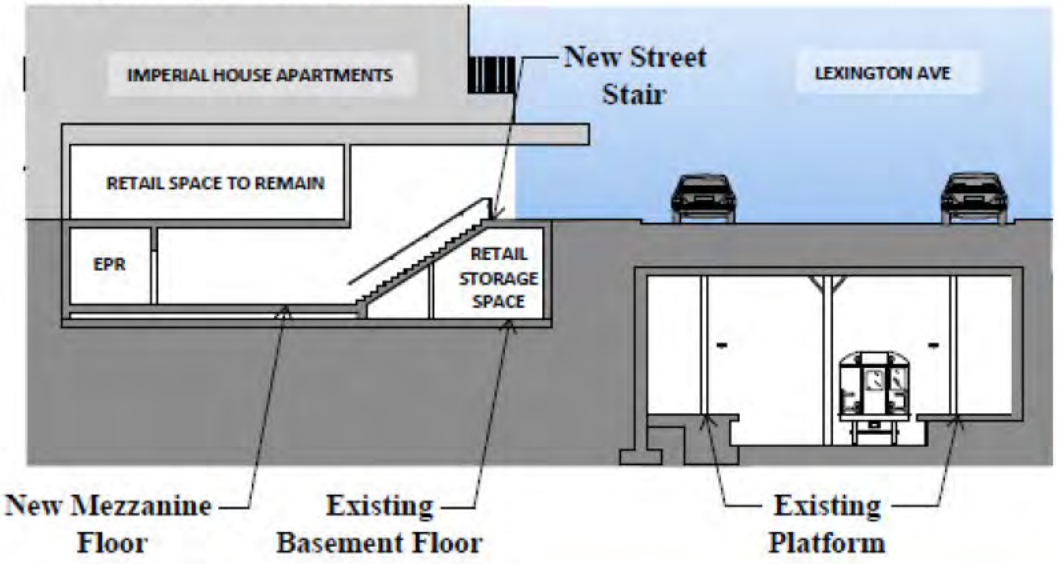
Platform and Mezzanine Level

Not to Scale

Street and Platform Stairs and Mezzanine, East 69th Street - Proposed Project

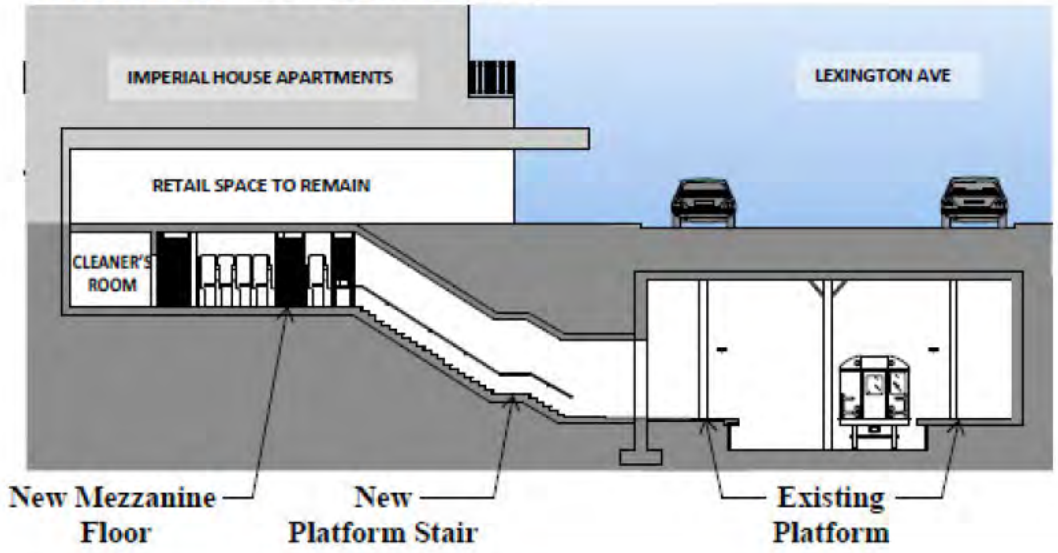
Figure 2-14

SECTION A A' - STREET STAIR

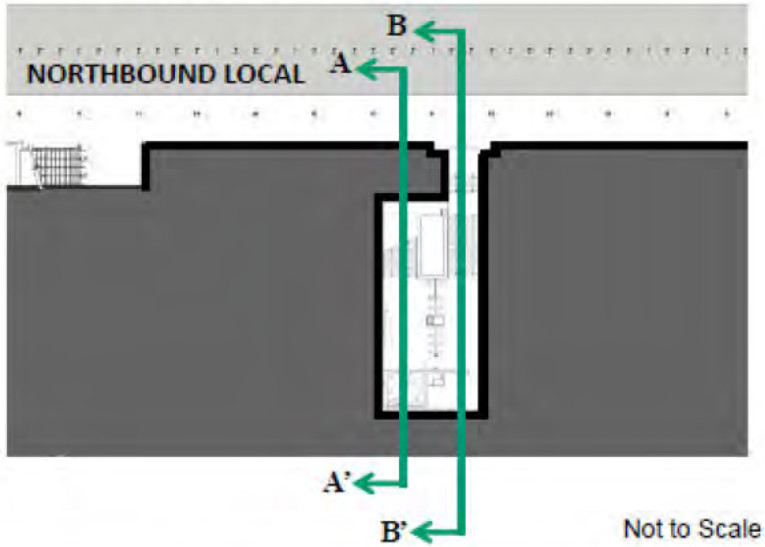


MID-BLOCK ENTRANCE VIEW

SECTION B B' - PLATFORM STAIR



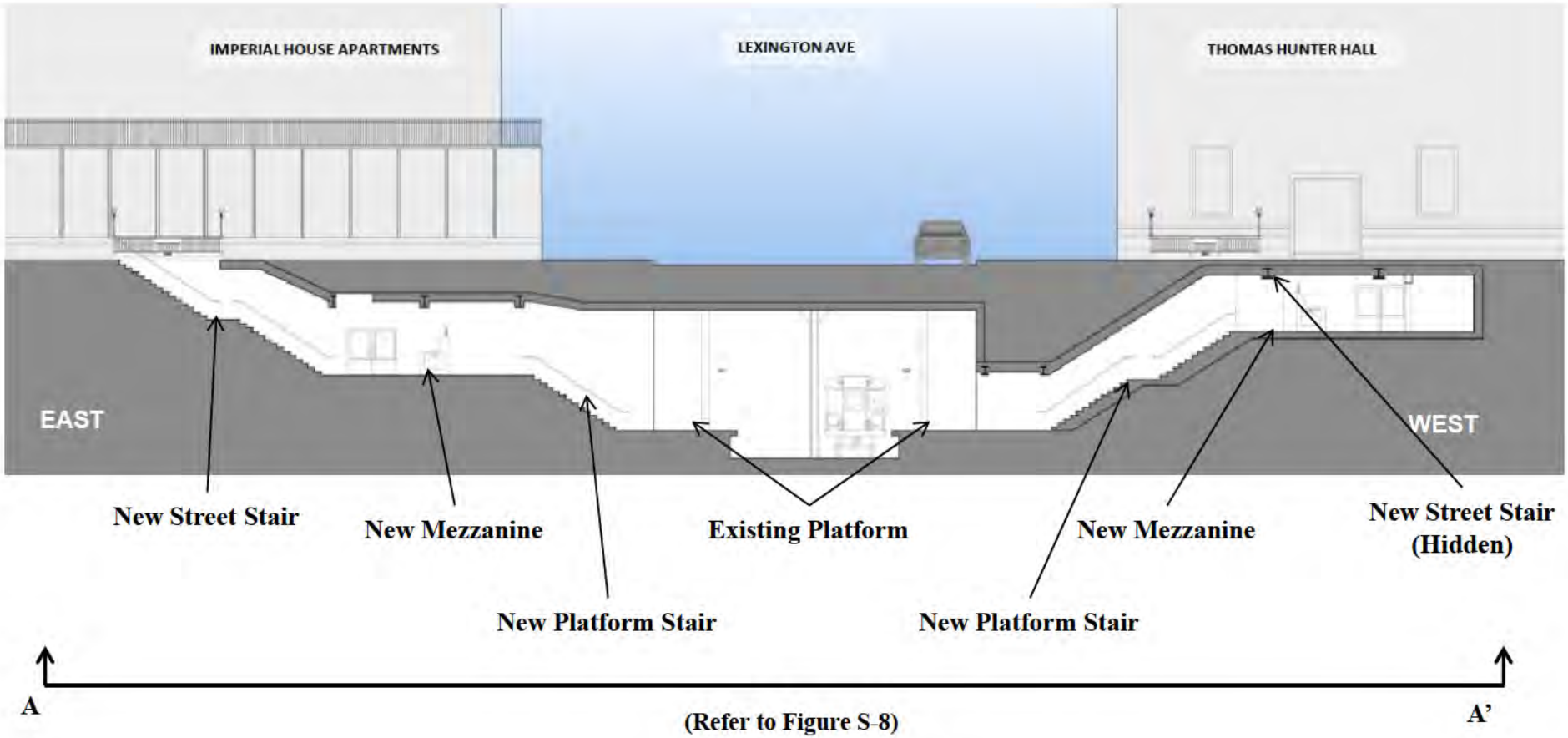
PLAN AT PLATFORM LEVEL



Not to Scale

Mid-Block Entrance - Proposed Project

Figure 2-15



Not to Scale

Section Along East 69th Street – Proposed Project with Option E1

Figure 2-16

Other Station Improvements

In addition to the ADA-compliant elevators and the improvements described above, either the Proposed Project or the Proposed Project *with Option E1* would include the following:

- New Electrical Panel Rooms (EPR), and elevator machinery rooms (EMR)
- New ADA Fare-card Access System gate adjacent to the new reconfigured East 68th Street/Hunter College Station fare control area
- Modified existing agent booth to become ADA compliant
- A "Call-Button" communication system between accessible fare control gate and agent booth
- ADA-compliant station maintenance facilities/rooms including accessible toilets
- Electrical upgrades for equipment, lighting, emergency lighting, facility rooms
- Braille signs and signage with identification of accessible paths of travel
- Modified platforms to provide ADA-compliant boarding areas, new tactile platform edge warning strip
- Relocation of the existing fire standpipe, and provision of a new fire standpipe where needed
- Installation of Closed Circuit TV (CCTV) cameras near elevators and elevator landings, with video monitoring from the agent's booth
- Installation of all communication requirements, including ADA-compatible telephones, text-type telephones, sound power telephones in elevators, fire alarm system and intercoms
- Installation of new Passenger Assistance Stations (PAS) in control areas at the north end of the station
- Installation of new ADA-compliant stainless steel stair side-rails, handrails and center railings
- Provision of drainage for new and reconstructed stairways
- Relocation and/or maintenance of utilities (water, steam, sewer, communication, electrical)
- Replacement of the existing public address (PA) system

2.4.3 EVALUATION OF VERTICAL ACCESS AND PATH OF TRAVEL

2.4.3.1 Background

The 68th Street/Hunter College Subway Station Improvements Project addresses vertical accessibility and overcrowding at the 68th St (IRT/Lexington Avenue Line) station. This station has been designated as one of the Key Stations by MTA NYCT.

A "Path of Travel" analysis was conducted in accordance with FTA Circular C 4710.1, issued on November 4, 2015. This Circular provides guidance to recipients and sub-recipients of FTA financial assistance necessary to carry out provisions of the Americans with Disabilities Act (ADA) of 1990, Section 504 of the Rehabilitation Act of 1973, as amended, and the U.S. Department of Transportation's implementing regulations at 49 CFR Parts 27, 37, 38, and 39.

As used in this section, a “path of travel” includes a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, parking areas, and streets), an entrance to the facility, and other parts of the facility. The term also includes the restrooms, telephones, and drinking fountains serving the altered area. An accessible path of travel may include walks and sidewalks, curb ramps and other interior or exterior pedestrian ramps, clear floor paths through corridors, waiting areas, concourses, and other improved areas, parking access aisles, elevators and lifts, bridges, tunnels, or other passageways between platforms, or a combination of these and other elements.

The path of travel analysis was conducted to evaluate whether, upon completion of the proposed alterations to this key station, people using wheelchairs can reach all primary function areas needed to use the station (including platforms, ticketing, toilets, waiting rooms, drinking fountains, etc.), although their path of travel may vary from the general public access route. In addition the analysis evaluates whether the key station meets all other DOT Standards throughout for elements in place when the station was made accessible, including signs, detectable warnings on platform edges, accessible fare vending, text telephones, and visual display of public address announcements.

The Proposed Project or the Proposed Project with Option E1 includes the following improvements:

1. An elevator (Elev. No. 282) from street level to mezzanine at the southeast corner East 68th Street.
2. Two elevators (Elev. Nos. 283 & 284) from mezzanine to southbound and northbound platforms.
3. Reconstruction and widening of mezzanine to street stair O2/O4 at the southeast corner of East 68th Street.
4. Reconstruction, reorientation and widening of mezzanine to street stair S4 at the northeast corner of East 68th Street.
5. Reconstruction and rehabilitation of street stair S3 at the northwest corner of East 68th Street.
6. An ADA-compliant employee toilet and employee locker room provided in the mezzanine.
7. New stair entrances to the subway at East 69th Street on the southwest corner of the intersection with Lexington Avenue next to the Thomas Hunter Hall Building and mid-block on Lexington Avenue inside a commercial space in the Imperial House Apartment building, or – for the Proposed Action *with Option E1* – at the southeast corner of East 69th Street east of Lexington Avenue

2.4.3.2 Siting Assumptions for Elevator and Stair Placement/Path of Travel

To incorporate vertical access at this station, construction cost, constructability, underground utility relocation, ADA compliance, passenger flow/convenience, intermodal transfers, safety and security were evaluated. At street level, roadway and sidewalk width, traffic patterns, and bus routes/stops were reviewed. Within the existing constraints and the factors mentioned above, the proposed locations of the elevators provide the safest path of travel. Roadway traffic patterns and bus routes/stops, as well as property line limitations also were evaluated.

Within these constraints, elevators and station entrances were sited in locations that could functionally best process current and future passenger loads while considering the following:

- sited to be centrally located and provide the safest path of travel for disabled and other passengers on the street/sidewalk levels,
- sited to provide a safe distance from platform edges at the platform level for wheelchair users and pedestrians,
- sited in locations that would minimize the negative impact to vehicle flow, and to passenger flow within the stations.

Designs were completed in accordance with the ADA Accessibility Guidelines as applicable to MTA NYCT.

Figure 2-17 provides a depiction of the existing street level plan, illustrating the current four entry points on all four corners of East 68th Street and Lexington Avenue: stairs O1/O3, O2/O4, S3, and S4. It should be noted that this location represents one of the busiest local stations in the system. At many hours of the day, the two southern sets of stairs experience crush loads of passengers entering and exiting.

Street-level Entrance Modifications

As illustrated in Figure 2-18, a new elevator (282) at street level would be installed under Hunter College's East Building arcade, sheltered from rain and snow, away from vehicular traffic and not impeding sidewalk pedestrian traffic. The new elevator would be conveniently located next to the bus stop so that intermodal transfers are easy for passengers using the elevators.

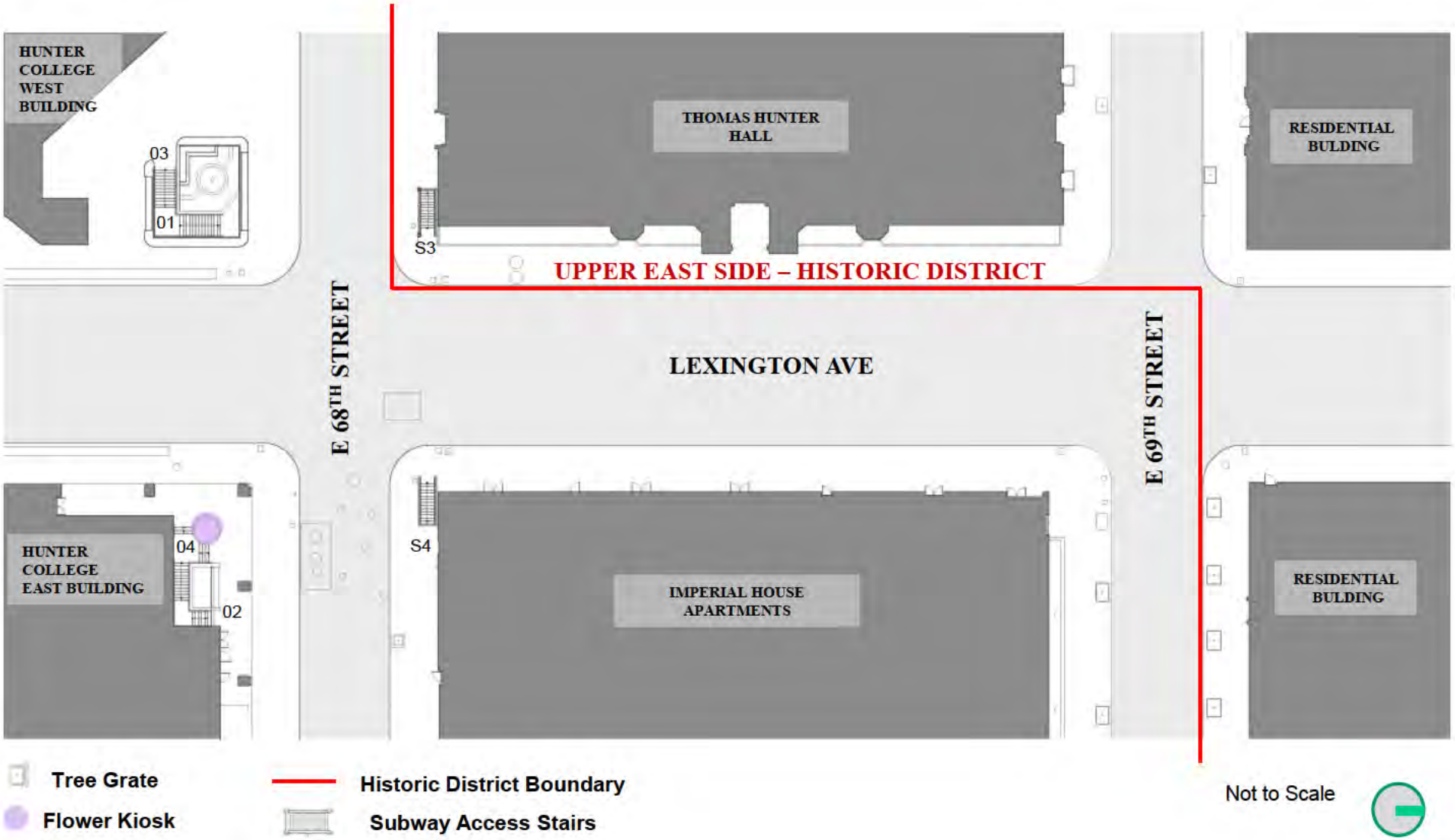
The adjacent entrance stairs (O2 and O4) would be widened to be 10.0 feet and would comply with all ADA regulations. The widening of the stairs alleviates existing overcrowding at this location.

Stair S4 at the northeast corner of East 68th Street and Lexington Avenue would likewise be reconstructed and widened to 6.0 feet. It would be reoriented to egress towards the east. The stair egress reversal follows the preferred path of travel for most passengers existing the station via this stair. The new stair would comply with all ADA regulations.

Stair S3 at the northwest corner of 68th Street and Lexington Avenue would be reconstructed and rehabilitated to comply with all ADA regulations.

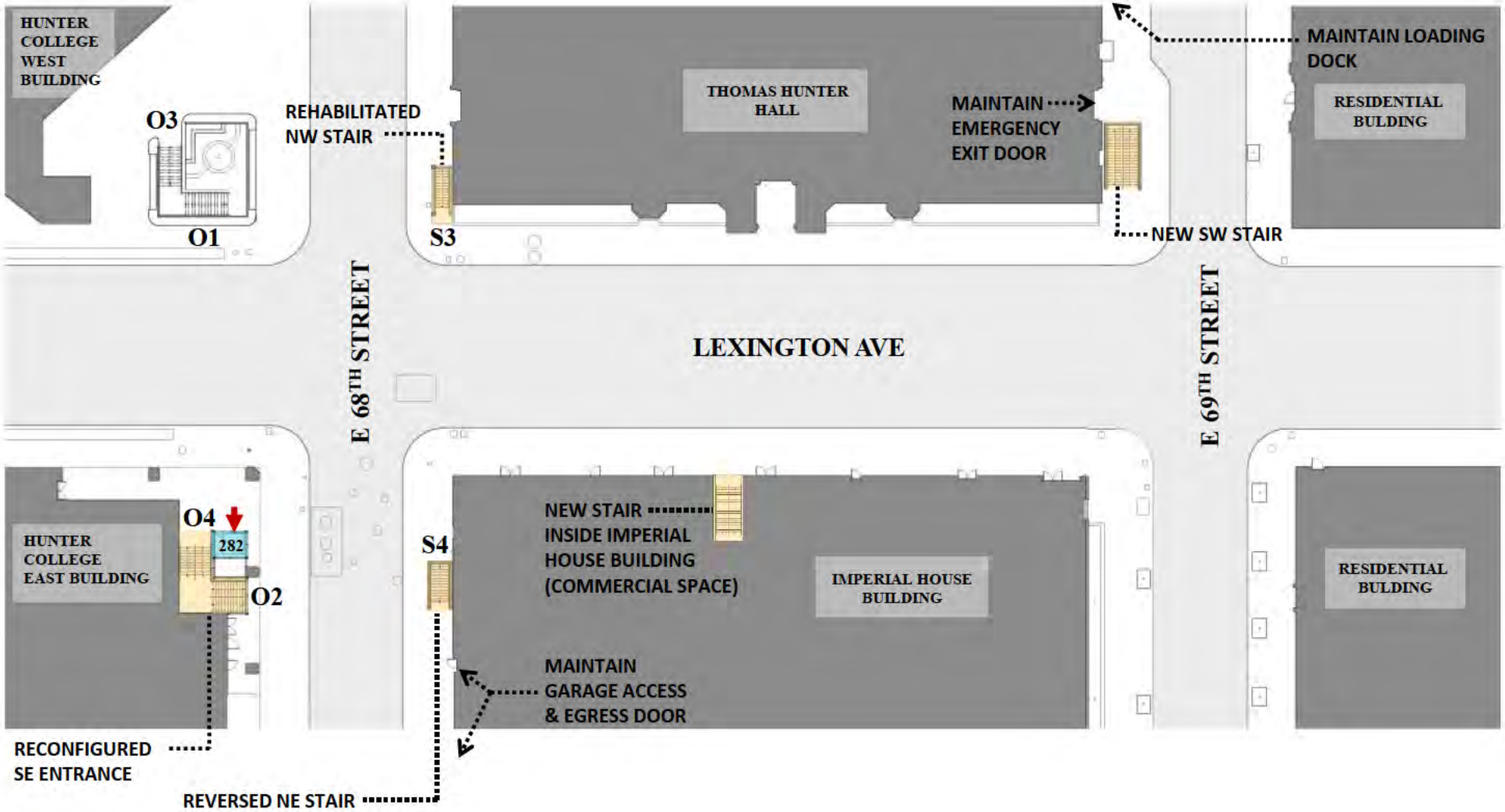
Subway Mezzanine Modifications

As illustrated on Figure 2-19, two new elevators (283 and 284) would be installed on the mezzanine level to provide access to the southbound and northbound platforms. These elevators would be conveniently located next to stairs P1 and P2, which provide access between the mezzanine and the platforms below. Stair M2, at the southeast side of the mezzanine would be demolished and the structural slab in front of street elevator 282 would be extended to meet the level of the main mezzanine with the fare arrays. This would ensure an unobstructed path of travel for disabled and other passengers from the street elevator to the platform elevators on the mezzanine level.



Existing Street Level Plan

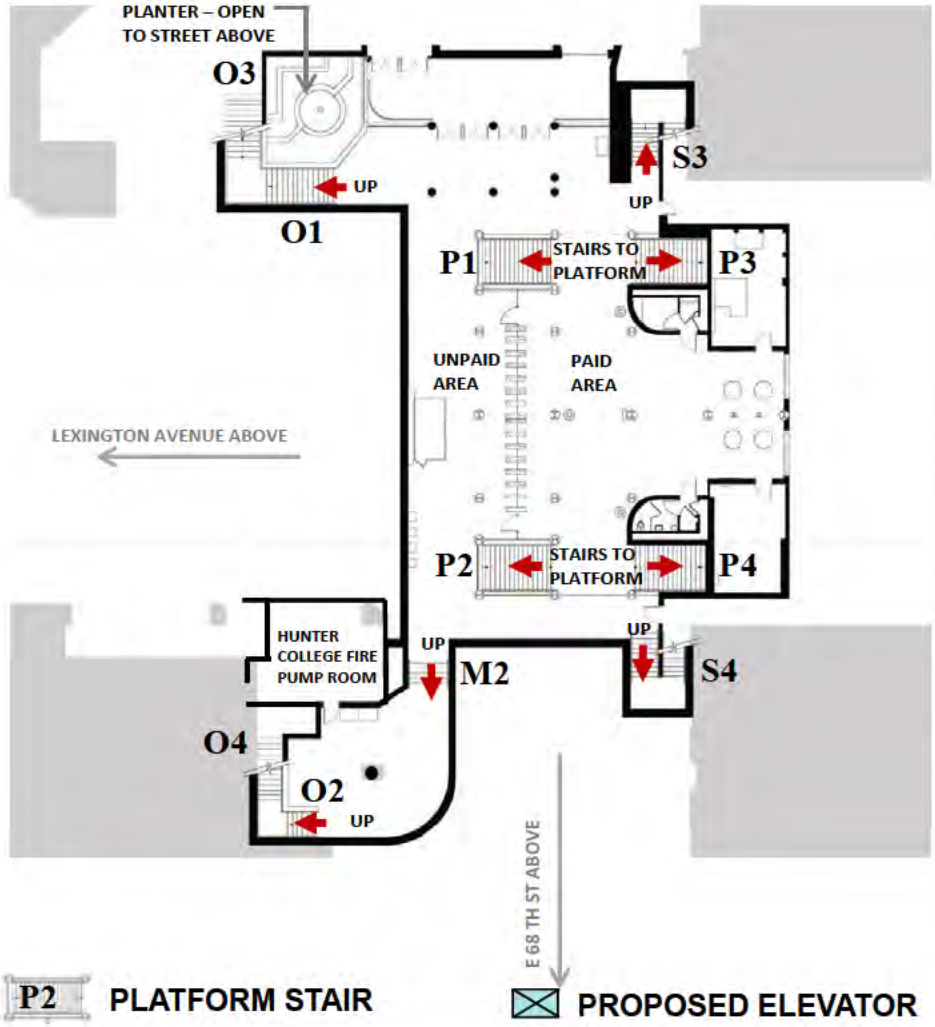
Figure 2-17



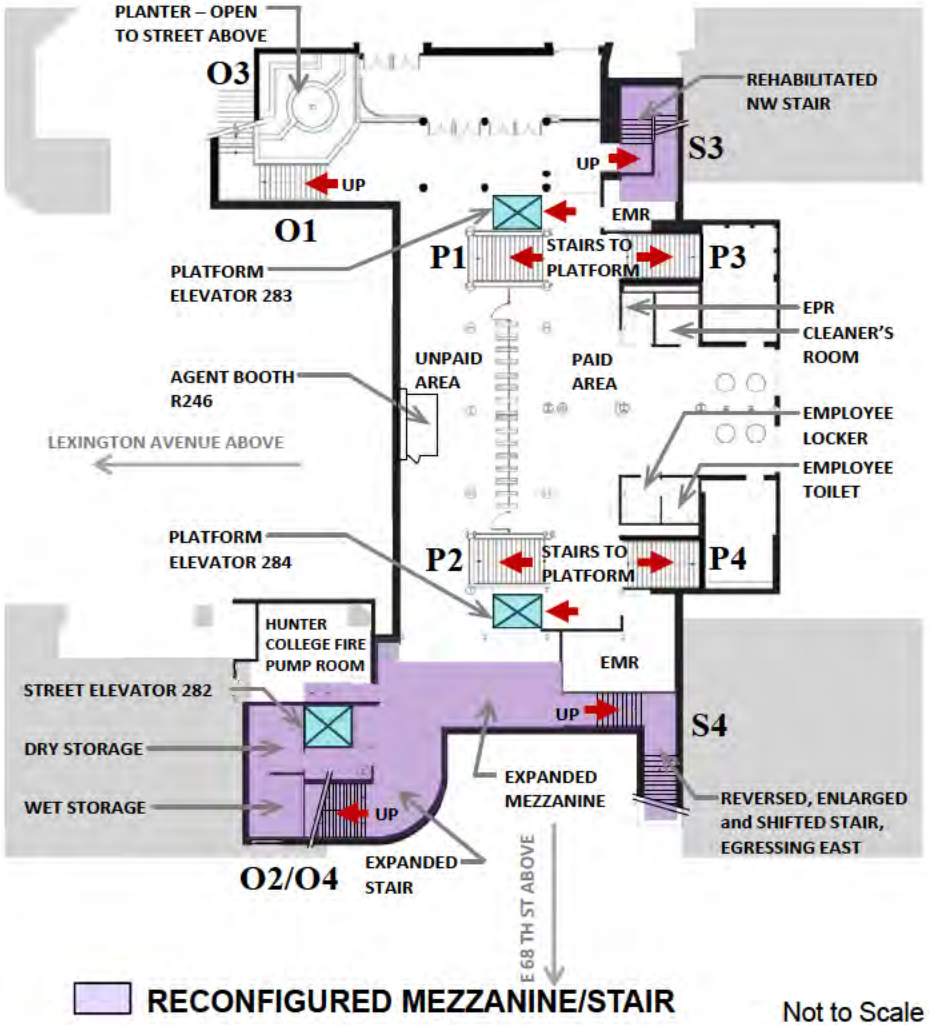
Street Level Plan - Proposed Project

Figure 2-18

Existing Mezzanine



Proposed Mezzanine



P2 PLATFORM STAIR

PROPOSED ELEVATOR

RECONFIGURED MEZZANINE/STAIR

Not to Scale

NORTH

Mezzanine Level Plan East 68th Street

Figure 2-19

Subway Platform Access

As illustrated on Figure 2-20, the new elevator lobbies on each platform would not encroach into the existing platform area. The elevator lobbies adjoin the stair lobbies and are outside the confines of the current subway station public space. This configuration would allow passengers in wheelchairs to arrive on the platform level at a safe distance from the platform edge. Also, it would not impede passenger flow on the platform.

Two new stair entrances would be provided on the north side of the platforms to improve passenger circulation and relieve overcrowding. The new stair on the southbound platform would provide egress at the southwest corner of East 69th Street and Lexington Avenue, next to Thomas Hunter Hall. The new stair entrance on the northbound platform would provide egress mid-block on Lexington Avenue through a commercial space in the Imperial House Apartments building. All stairs would comply with ADA regulations.

These proposed changes would offer the most optimal combination of platform, mezzanine and street level improvements to achieve the maximum level of access for able and disabled passengers without impacting established and projected passenger loads. Street level impacts are likewise minimized by taking into account vehicular and pedestrian flows. These issues were closely coordinated with NYCDOT and the Community Board.

2.5 ANTICIPATED BENEFITS WITH THE PROPOSED PROJECT

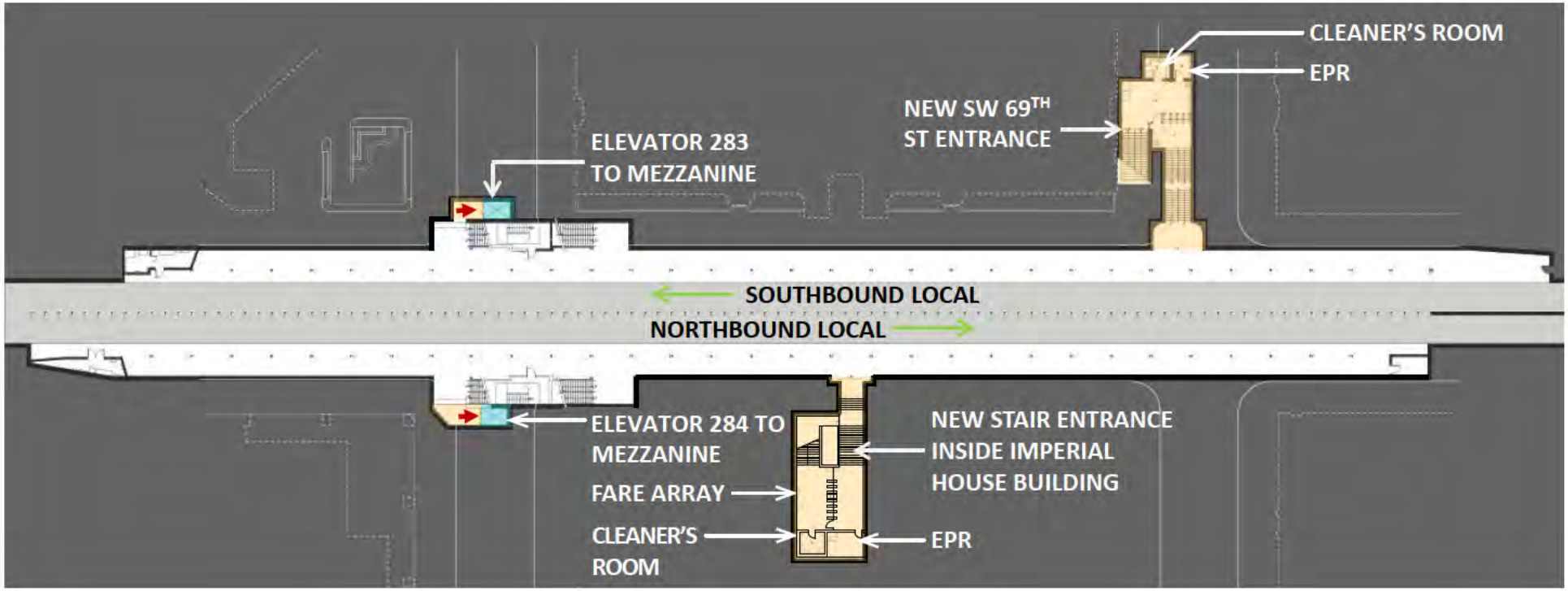
To assess the extent to which the project would address the transportation deficiencies that, along with the ADA modifications, form the basis for the purpose and need, conditions expected after completion of the project (Build Condition) were compared with conditions that would be expected without the project (No-Build Condition) for the year 2020. Transportation analyses completed for the Proposed Project are provided in Chapter 5 and in Appendix C.

As described below, implementation of either the Proposed Project or the Proposed Project *with Option E1* would address the deficiencies identified in Section 1.2, and would meet the project purpose and need, as well as the project goals and objectives described in Section 1.2.1. An overview of how the Proposed Project would address the deficiencies is provided below. More detailed analyses are included in Chapter 5 and Appendix C.

- *This Key Station would become ADA-compliant*. With implementation of the station improvements, the station would provide ADA-compliant access to passengers with mobility impairments or other disabilities, thereby increasing the system-wide number of destinations accessible for these passengers. The station would also be ADA-accessible for employees of MTA NYCT.
- *Reduced pedestrian congestion at platform stairs*. With the addition of new stairs at the north end of the platform, the existing congestion at the stairs leading to the East 68th Street mezzanine would be reduced. Table 2-3 provides the clearance times for the platform stairs during peak periods under existing conditions and conditions expected in 2020 without and with the Proposed Project. These conditions are the same for the Proposed Project and the Proposed Project *with Option E1*. Although not all stairs would meet the 30-second clearance time guideline,[10] the Proposed Project would result in a substantial improvement of clearance times, especially for stairs performing poorly under existing conditions.

[10] *Methodology for Surged Flow Analysis*, NYCT Division of Operations Planning/Station Planning, December 2012.

Platform Level



New Construction

Proposed Elevator

Not to Scale

NORTH

Platform Level Plan - Proposed Project

Figure 2-20

Table 2-3:
Peak Clearance Times at Platform Stairs (Seconds)

Stair ID†	Existing Conditions		2020 No-Build/ Build Conditions	
	AM Peak	PM Peak	AM Peak	PM Peak
P1	18	6	15/12	4/2
P3	88	15	82/48	9/6
P2	59	43	53/40	20/16
P4	134	78	121/88	34/28

Clearance times exceeding the 30-second guideline are underlined and red
†Stair IDs are indicated on Figure 2-10.

- *Improved circulation at the mezzanine level*. With the operation of new entrances, fewer passengers would be using the East 68th Street mezzanine. Under the Proposed Project in 2020, for the peak 15-minute period in the morning, approximately 28 percent fewer passengers (625 persons) would be using the East 68th Street mezzanine than would be the case under the No-Build condition. Similarly, in 2020, for the PM peak 15-minute period, approximately 26 percent fewer passengers (444 persons) would be using the East 68th Street mezzanine than would be the case under the No-Build condition. The reduction of passenger volume on the mezzanine would improve mezzanine circulation; with additional improvement resulting from the widening of street stairs as discussed below.
- *Reduced pedestrian congestion at the street stairs*. With the widening of stair O2/O4 on the southeast corner of the East 68th Street/Lexington Avenue intersection and stair S4 at the northeast corner of the intersection, and the new station access at East 69th Street, congestion at the street stairs is expected to be reduced under the Proposed Project when compared with the existing conditions and when compared with No-Build Conditions. During the 2020 AM peak, for example, LOS at stair S4 would improve from E to A, and stair O2/O4 would improve from LOS F to LOS C. Similar improvements are anticipated during the PM peak (Table 2-4). (These conditions are the same for the Proposed Project and the Proposed Project *with Option E1*.)
- *Elimination of pedestrian interference at the northeast corner of East 68th Street and Lexington Avenue*. The street stair at this location would be relocated east approximately 30 feet and reoriented so that passengers exiting the stair would be heading east. As such, exiting passengers would no longer emerge and interfere with pedestrian flow along the east sidewalk of Lexington Avenue. Passengers entering from the east would no longer have to negotiate through, and interfere with, pedestrians traveling along the east sidewalk of Lexington Avenue.

Table 2-4:
No-Build and Build LOS at East 68th Street Stairs

	Existing Conditions		2020 No-Build/ Build Conditions	
Stair ID/Location†	AM Peak	PM Peak	AM Peak	PM Peak
S4 Northeast Corner	F	D	E/A	D/A
S3 Northwest Corner	D	B	C/A	A/A
O2/O4 Southeast Corner	F	E	E/C	D/B
O1/O3 Southwest Corner	C	B	B/B	A/A

LOS E and worse are underlined and in red
†Stair IDs are indicated on Figure 2-10.

- *Improved efficiency of train access and occupancy*. With the provision of additional access to the station at the northern end of the station, it is anticipated that most passengers with

origins/destinations north of East 68th Street would use the new entrances, and thus, utilize cars at the north end of the train, thereby providing greater balance in train loading/unloading and utilization, and better utilization of the platforms.

- *Improved efficiency of pedestrian circulation and reduced walking time*. With the new access to the station, passengers leaving trains at the north end of the platform with a destination north of East 68th Street would no longer have to double back to the north at street level along Lexington Avenue, resulting in more convenient station access. Similarly, passengers approaching the station from points north of East 68th Street could enter via the new entrances, avoiding the extra walk.

Compared with Alternatives 1, 3, and 4, the Proposed Project and the Proposed Project *with Option E1* would have fewer construction impacts. They would avoid disturbance of sensitive utilities, such as ECS duct banks and interference with historic Thomas Hunter Hall, thereby reducing construction risks, duration and costs. The Proposed Project and the Proposed Project *with Option E1* would not require extensive excavation along Lexington Avenue and would therefore generate fewer construction impacts to businesses and residents on the avenue. Compared with the other build alternatives, the Proposed Project and the Proposed Project *with Option E1* would require less work at the track level and therefore involve fewer interruptions of the transit system during construction. Station access conflicts would be minimized by providing alternate station access at the north end of the station during construction at East 68th Street.

In addition to the above, an important advantage inherent in the design when compared with Alternative 1, is that the Proposed Project and the Proposed Project *with Option E1* would provide two distinct and separate locations for station egress, one at East 68th Street and one at East 69th Street. As such, if need be, the station could be evacuated more quickly, and if events render one egress area inaccessible, an alternative means of egress would exist.

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3.1 INTRODUCTION

Social conditions are defined for purposes of this EA as those components of a community that influence its character. These conditions include the population and economic base, land uses and the public policies that support those land uses, municipal facilities, parks, the architectural design and streetscape, traffic and pedestrian conditions, and noise. The introduction of street stairs at the north end of the station could affect some of these components of neighborhood character, either temporarily (during construction) or permanently (during operation). This chapter assesses existing social and economic conditions potentially affected by the Proposed Project, focusing on the characteristics of the neighborhood. Future conditions common to both the No-Build Alternative and the Proposed Project are presented, followed by a discussion of potential impacts during operation of the station, and if applicable, a description of mitigation measures to ameliorate any adverse impacts that are identified. Potential construction impacts are presented in Chapter 13.

Specifically, this chapter addresses the following topics:

- Land Use, Zoning and Public Policy
- Business Impacts and Socioeconomic Conditions
- Community Facilities and Services
- Open Space
- Urban Design and Visual Resources, including shadows
- Public Health
- Neighborhood Character
- Environmental Justice

The study area for the analyses of potential project-related impacts to the resource categories examined in this chapter derive from the nature and scale of the project and the areal extent to which the project could influence conditions. Considering that the project would not introduce new populations to the area, would not substantially increase ridership on the 6 Line or at the 68th Street/Hunter College Station, would not substantially change land use in the area and would not substantially alter the economic conditions, a study area consisting of the project site and, depending on the resource category being evaluated, up to six blocks surrounding the project site was selected. The study area is generally bounded on the south by East 67th Street, on the north by East 70th Street, on the west by Park Avenue and on the East by Third Avenue.

3.2 LAND USE, ZONING, AND PUBLIC POLICY

3.2.1 METHODOLOGY

Information on existing land use and zoning was obtained from datasets maintained by the New York City Department of City Planning (NYCDCP). Public policies potentially applicable to the Proposed Project were reviewed, including PlaNYC, the Community Board 8 Fiscal Year 2016 District Need Statement, and the New York Metropolitan Transportation Council's Regional Transportation Plan and Transportation Improvement Program.

The analysis is guided by the methodologies and criteria provided by the 2014 CEQR Technical Manual.[11] In general, a project could result in a direct effect to land use and zoning if it conflicted with adopted plans and goals of the community, or if it would result in a substantial alteration to the present or planned land use of an area. If a project would result in substantial new development or prevent such development elsewhere, it could have a significant indirect effect.

3.2.2 EXISTING CONDITIONS

3.2.2.1 Land Use

The 68th Street/Hunter College Station is situated in the Upper East Side neighborhood of Manhattan. The Upper East Side comprises Manhattan Community Board 8, the boundaries of which extend from the north side of East 59th Street to the south side of East 96th Street, and from Fifth Avenue to the East River, and includes Roosevelt Island and Mill Rock, both of which are islands located in the East River.

The Upper East Side is laid out in a rectangular grid, with relatively broad avenues running north-south and narrow streets running east-west. The neighborhood is densely developed with residential, commercial, and institutional land uses, containing approximately 6.7 million square feet of commercial office and retail space.[12] The neighborhood is characterized by high-rise apartment buildings interspersed with areas of smaller row houses, generally three to six stories in height, commercial retail establishments, educational institutions, and concentrations of large museums and medical institutions (Figure 3-1). Commercial uses often occupy ground-level floors in buildings located along the avenues.

Within the study area, institutional uses (Hunter College and several schools and religious facilities) occupies all or portions of three blocks immediately surrounding the station, multi-family residential (Imperial House Apartments located east of the project site) and mixed commercial, residential at the northern end of the study area. Medical institutions are located east of the study area and cultural institutions (Museum Mile) are located along the west of the study area.

3.2.2.2 Zoning

The site of the Proposed Project is located in an area zoned for residential use and designated R9X. The Zoning Resolution designates 10 basic residence districts: R1 through R10. The numbers refer to permitted bulk and density (with R1 having the lowest density and R10 the highest) and other controls such as required parking. A second letter or number in some districts signifies additional controls. Unless otherwise stated, the regulations for each district apply to all subcategories within that district.

R9X contextual districts are governed by Quality Housing regulations. With a floor area ratio and height limit substantially greater than other R9 districts, R9X regulations produce the taller, bulkier 16- to 18-story apartment buildings characteristic of the study area and other Manhattan neighborhoods.

[11] New York City Mayor's Office of Environmental Coordination, City Environmental Quality Review Technical Manual, 2014.

[12] MTA NYCT, Second Avenue Subway in the Borough of Manhattan, New York County, New York, Final Environmental Impact Statement, April 2004.

Source: http://www.oasisnyc.net/map.aspx

Project Site **Study Area**

0 feet 1000

Land Use
Figure 3-1

The Quality Housing Program (referred to by the X) encourages development consistent with the character of many established neighborhoods. Its bulk regulations set height limits and allow high lot coverage buildings that are set at or near the street line. The Quality Housing Program also requires amenities relating to interior space, recreation areas, and landscaping.

3.2.2.3 Law and Public Policy

Public policies include Urban Renewal Plans, 197-a Plans, Industrial Business Zones, the Criteria for the Location of City Facilities ("Fair Share" criteria), the New York State Smart Growth Public Infrastructure Policy Act, Business Improvement Districts, the New York City Landmarks Law, the Waterfront Revitalization Program (WRP) and Sustainability, as defined by PlaNYC. Some of these policies have regulatory status, while others describe general goals. They can help define the existing and future context of the land use and zoning of an area. These policies may change over time to reflect the evolving needs of the City, as determined by appointed and elected officials and the public.

The 68th Street/Hunter College Station is not located within a designated Business Improvement District or in an area covered by a 197-a Plan or an Urban Renewal Plan. The station is not located within the coastal zone applicable to the WRP.

The New York State Smart Growth Public Infrastructure Policy Act (2010) is intended to "augment the state's environmental policy by declaring a fiscally prudent state policy of maximizing the social, economic and environmental benefits from public infrastructure development through minimizing unnecessary costs of sprawl development including environmental degradation, disinvestment in urban and suburban communities and loss of open space induced by sprawl facilitated by the funding or development of new or expanded transportation, sewer and waste water treatment, water, education, housing and other publicly supported infrastructure inconsistent with smart growth public infrastructure criteria." Within the body of the Act are ten goals, as they relate to public infrastructure:

1. Use, maintain or improve public infrastructure
2. Locate public infrastructure within municipal centers
3. Promote development projects in developed areas or in areas identified for development in a comprehensive plan, local waterfront revitalization plan or brownfield redevelopment plan.
4. Protect, preserve New York State resources
5. Foster mixed land uses and compact development
6. Provide for mobility through a variety of transportation choices including improved public transportation
7. Coordinate between state and local governments
8. Promote community-based planning and collaboration
9. Ensure predictability in land use codes
10. Strengthen existing communities so as to reduce greenhouse gas emissions.

The Proposed Project is either consistent with or not applicable to the ten goals of the New York State Smart Growth Public Infrastructure Policy Act. The project improves public transportation infrastructure within a developed area, and through provision of ADA-compliant station access ensures mobility choices for all persons. Smart Growth policies related to land use development

are not applicable because the project involves changes to existing transportation infrastructure, not land use or zoning decisions. By supporting public transit, the project is supportive of greenhouse gas emissions reduction (goal #10).

The Manhattan Community Board 8 Fiscal Year 2016 District Need Statement indicated the need for subway service improvements on the Lexington Avenue Line, and encourages the continued development of the Second Avenue Subway project. The Need Statement cites the overcapacity nature of service on the Lexington Avenue Line, and supports development of measures to address the subway congestion.

The Proposed Project is included in the current 2014-2018 Transportation Improvement Program (TIP) – PIN number ST04-6951 – developed by the New York Metropolitan Transportation Council (NYMTC), the designated entity responsible for coordinating transportation planning and decision-making in the New York City metropolitan region. The applicable goals of the 2014-2040 Regional Transportation Plan, include "providing convenient, flexible transportation access" regardless of ability and the desired outcomes of the Regional Transportation Plan include increased transit ridership and safety improvements.

As described in Chapter 1: Purpose and Need, MTA NYCT policy includes provision of ADA access to Key Stations in the City's subway system. The 68th Street/Hunter College Station is one of the Key Stations identified in this policy.

3.2.3 IMPACTS AND MITIGATION

3.2.3.1 No-Build Alternative

According to government agencies contacted regarding planned development in the study area (see Appendix B: Agency Correspondence), no major development projects are planned that would substantially change land use in the immediate vicinity of the Proposed Project or in the study area. No-Build condition projects considered in terms of effects on future transportation conditions are discussed in Chapter 5: Transportation and Pedestrian Circulation.

The No-Build Alternative would not affect land use at the Project Site or in the study area. The No-Build Alternative would be consistent with existing zoning, but would be inconsistent with public policies such as the Manhattan Community Board 8 Fiscal Year 2016 District Need Statement (indicating the need for subway service improvements on the IRT Line); the Regional Transportation Plan goals related to accessible transit; and MTA NYCT goals for Key Stations.

3.2.3.2 Proposed Project

Direct Impacts

The majority of the Proposed Project and the Proposed Project *with Option E1* would consist of improvements to underground subway infrastructure that would have minimal effect on aboveground land use. The aboveground elements of the Proposed Project, such as the elevator head house, new entrance stairs north of East 68th Street and the modifications to existing stairs, would be consistent with the existing land uses in the study area, which already include numerous transportation elements that are common throughout New York City (roadways, sidewalks, parking, subway entrances, and bus stops). The Proposed Project would not substantially alter the present or planned land uses for the study area. The Proposed Project is consistent with existing zoning and would not require City Map or Zoning Map changes. Therefore, no impacts related to land use and zoning from the Proposed Project are anticipated.

Because the Proposed Project would promote the use of mass transit, it is consistent with PlaNYC and with the relevant criteria in the New York State Smart Growth Public Infrastructure Policy Act.

The Proposed Project is consistent with the Manhattan Community Board 8 Fiscal Year 2016 District Need Statement and would advance the goals of the 2014-2018 Regional Transportation Plan. Finally, the Proposed Project would advance MTA NYCT's goal of completing development of this Key Station.

The improvements to the subway station would bring benefits to the neighborhood it serves by relieving overcrowding at the 68th Street/Hunter College Station. Persons with mobility constraints would have access to Hunter College and cultural attractions in the area, such as museums and events at the Park Avenue Armory. Residents of the neighborhood with mobility constraints would gain access to many destinations via the new connection to MTA NYCT's Key Stations, including transportation options to JFK Airport, Amtrak and New Jersey Transit via New York Penn Station, and others.

Indirect Impacts

The potential for the Proposed Project and the Proposed Project *with Option E1* to induce development or impact land values is very low because the Proposed Project would improve an existing facility that has been operational for almost a century and the project is located in a fully built-out urban environment. The station improvements would be located at the same location as the existing station, and would continue to serve the area in its present function, albeit in a more convenient, safe, and functional manner. The new and modified station entrances would not change accessibility to the subway line to a degree that would appreciably influence development patterns. The area surrounding the station is well developed and any notable development activity in the area would consist of redevelopment driven primarily by regional economic forces. For these reasons, it can be concluded that the Proposed Project would not generate measurable secondary development or related impacts.

3.2.3.3 Impacts of Street Stair Options

Street Stair *West* of Lexington Avenue

The Proposed Project would place a street stair on the south sidewalk adjacent to Thomas Hunter Hall. Installation of street stair would change the land use by widening the sidewalk and adding a street entrance to the subway adjacent to an institutional facility.

Street Stair *East* of Lexington Avenue

The Proposed Project would install a single street stair within a retail space in the Imperial House Apartments. This option would change approximately 1,960 square feet of retail space to a transportation use (270 square feet at ground level and 1,690 square feet in the basement).

The Proposed Project *with Option E1* would place a single street stair on the south sidewalk adjacent to the Imperial House Apartments. Installation of the street stair would change the land use by widening the sidewalk and adding a street entrance to the subway adjacent to retail land use.

3.2.3.4 Mitigation

Neither the Proposed Project nor the Proposed Project *with Option E1* would cause significant adverse impacts to land use, zoning or public policy. No mitigation measures would be warranted.

3.3 BUSINESS IMPACTS AND SOCIOECONOMIC CONDITIONS

3.3.1 METHODOLOGY

Existing street-level businesses (including street vendors) were identified through field visits to the project area. The impacts to businesses were assessed considering the methodologies and criteria in the 2014 CEQR Technical Manual: A project could have an adverse effect on businesses if it would displace businesses essential to the local economy that would no longer be available in its "trade area" to local residents or businesses due to the difficulty of either relocating the businesses or establishing new, comparable businesses; or the displaced businesses are subject to special policies designed to protect and enhance them.

3.3.2 EXISTING CONDITIONS

The existing 68th Street/Hunter College Station includes stairs leading from the station to the street level that are located at the four corners of the intersection of Lexington Avenue and East 68th Street (Figure 1-1). The entrances to the stairs on the north side of East 68th Street are located on the sidewalk, and the entrances to the stairs on the south side of the street are located on property controlled by Hunter College. A kiosk that is licensed to a flower vendor is located adjacent to the existing stair on the southeast corner of the intersection, on property controlled by Hunter College. The flower kiosk is privately owned and operates on the property through an agreement with Hunter College.

On the east side of Lexington Avenue north of East 68th Street are ground floor retail shops with a tall apartment building (Imperial House) above, and south of East 68th Street is the East Building of Hunter College followed by apartment buildings. On the west side of Lexington Avenue, Hunter College buildings occupy the blocks between East 67th Street and East 69th Street. Food carts and street vendors are often located in the vicinity of the Proposed Action, including those located on the sidewalks of East 68th Street and East 69th Street on either side of Lexington Avenue. Depending on the time of day, two street vendors operate near the northeast corner of Lexington Avenue and East 68th Street, one near the northwest corner of the intersection, and three operate near the southwest corner of the intersection. Two street vendors operate near the southeast corner of Lexington Avenue and East 69th Street.

3.3.3 IMPACTS AND MITIGATION

3.3.3.1 No-Build Alternative

Under the No-Build Alternative, no impacts to businesses and socioeconomic conditions are anticipated.

3.3.3.2 Proposed Project

The Proposed Project and the Proposed Project *with Option E1* would require acquisition of Hunter College property to increase the width of the stair on the southeast corner of Lexington Avenue and to install the ADA-compliant street elevator. The placement of the elevator would require the displacement of the flower kiosk, potentially displacing one job. MTA NYCT would compensate the owner of the florist kiosk and provide relocation assistance in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act. The displacement of the flower kiosk would not constitute a significant adverse business displacement impact because flowers would continue to be available throughout the study area and flowers are not a protected business type.

The locations of street vendors would not be affected by the Proposed Project (see Chapter 13: Construction for information on temporary impacts to street vendors).

3.3.3.3 Impacts of Street Stair Options

Street Stair *West* of Lexington Avenue

The street stair west of Lexington Avenue would not affect businesses or socioeconomic conditions.

Street Stair *East* of Lexington Avenue

The Proposed Project would use commercial space within the Imperial House Apartments building offered to MTA NYCT specifically for the purpose of a new street stair. The existing commercial tenant is moving from that retail location to another retail space within the Imperial House Apartments building.

The Proposed Project *with Option E1* would not involve modification of the Imperial House Apartments building commercial space. Instead, it would include a new street stair in the sidewalk on the south side of East 69th Street.

3.3.3.4 Mitigation

Neither the Proposed Project nor the Proposed Project *with Option E1* would cause significant adverse impacts to businesses or socioeconomic conditions. No mitigation measures are warranted.

3.4 COMMUNITY FACILITIES AND SERVICES

3.4.1 METHODOLOGY

An inventory of existing community facilities in the study area was prepared based on NYCDCP databases, and the potential for the Proposed Project to directly or indirectly affect community facilities was assessed. According to the 2014 CEQR Technical Manual, impacts on community facilities and services (i.e., schools, daycare centers, hospitals, libraries, and police, fire, and emergency management services) could occur if a Proposed Project would: (1) physically displace or alter access to a facility that provides such services, or (2) introduce a substantial number of new residents or employees that could overburden the provision of such services.

3.4.2 EXISTING CONDITIONS

Community facilities in the study area include the Park East Synagogue, located mid-block on East 67th Street between Third Avenue and Lexington Avenue, adjacent to which is the Fire Department of New York (FDNY) Engine Company 39, followed to the west by New York Police Department (NYPD) 19th Precinct and the Kennedy Child Study Center (Table 3-1). On the south side of the street, across from the synagogue, is the Tajikistan Embassy. The Park Avenue Armory is located on the south side of East 67th Street between Lexington Avenue and Park Avenue, and on the north side of this block is the West Building of Hunter College.

Table 3-1:
Schools and Public Facilities in the Study Area

Name of Facility	Address
Kennedy Child Study Center	151 East 67th Street
NYPD 19th Precinct	153 East 67th Street
FDNY 16 Ladder/39 Engine Companies	159 East 67th Street
Park East Synagogue	163 East 67th Street
Hunter College	695 Park Avenue
Saint Vincent Ferrer High School	151 East 65th Street
Rabbi Arthur Schneier Park East Day School	164 East 68th Street
Dominican Academy	44 East 68th Street
Manhattan High School For Girls	154 East 70th Street
Julia Richman Education Complex	317 East 67th Street

3.4.3 IMPACTS AND MITIGATION

3.4.3.1 No-Build Alternative

The No-Build Alternative would not affect community services and facilities at the Project Site or in the study area.

3.4.3.2 Proposed Project

MTA, on behalf of NYCT, would enter into an agreement with Hunter College for a permanent easement for the street elevator and a ventilation fan that would vent to the air/light well located between Thomas Hunter Hall and the sidewalk. Depending on the needs of the construction contractor, MTA may also enter into either (1) an agreement for a temporary construction easement (for the duration of the construction) or (2) a "permit to enter" for construction activities associated with the elevator. MTA NYCT would also secure approval from Hunter College for the use of additional space for the stair widening and for the easement required for the ventilation fan. Depending on the final design regarding the location of the elevator machine room, if the room is on Hunter College property rather than under the street, MTA would include space for the machine room in the permanent easement area. MTA would also enter into an access easement to maintain, repair and replace the elevator as required.

The Proposed Project would not physically displace or alter access to any community facilities and would not introduce new residents. Therefore, no significant adverse impacts to community facilities are anticipated.

3.4.3.3 Impacts of Street Stair Options

Street Stair Options *East and West* of Lexington Avenue

The Proposed Project and the Proposed Project *with Option E1* would place a street entrance to the subway adjacent to a community facility – Hunter College. Placement of a stair or pair of stairs would not block or restrict access to the facility.

3.4.3.4 Mitigation

Neither the Proposed Project nor the Proposed Project *with Option E1* would cause significant adverse impacts to community facilities and services. No mitigation measures are warranted.

3.5 OPEN SPACE

3.5.1 METHODOLOGY

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. New York City Department of Parks and Recreation (NYCDPR) parks, street trees (which are within the jurisdiction of NYCDPR) and other publicly-accessible open space resources were identified through review of available mapping and field review. Impacts were assessed at a screening level consistent with the 2014 CEQR Technical Manual by comparing the availability of open space with and without the Proposed Project. Given the minor nature of the impacts discussed below, detailed analysis and calculation of change in open space ratios was not warranted.

3.5.2 EXISTING CONDITIONS

The nearest NYCDPR park is Central Park, located approximately 0.28 mile west of the project site. A survey of street trees conducted in June 2013 identified the trees located on the sidewalks along East 68th Street and East 69th Street between Park Avenue and Third Avenue. The survey did not include those trees located on private property (Imperial House Apartments) or in the courtyard entrance to the North Building of Hunter College. The numbers of trees are identified in Table 3-2.

Table 3-2:
Street Trees on East 68th and 69th Streets between Third and Park Avenues

	Between Lexington Avenue and Park Avenue	Between Third Avenue and Lexington Avenue
East 68th Street	18 Trees	15 Trees
East 69th Street	22 Trees	27 Trees

A public open space is located in the area surrounding the entrance to the subway station on the southwest corner of East 68th Street and Lexington Avenue. The plaza includes seating and a sculpture, and the stairwell includes one tree. Entrances to the Hunter College West Building open to this area. The plaza is owned by Hunter College.

Additional open space is located on the median between the northbound and southbound lanes of Park Avenue, one block west of Lexington Avenue. The Park Avenue median, approximately 20 feet wide, extends from East 46th Street to East 97th Street.

3.5.3 IMPACTS AND MITIGATION

3.5.3.1 No-Build Alternative

No impacts to parks or public open space are anticipated under the No-Build Alternative.

3.5.3.2 Proposed Project

No parks are located within 0.25 miles of the Proposed Project and therefore no impacts to NYCDPR parkland are anticipated. The plaza at the southwest corner of East 68th Street and Lexington Avenue would remain unchanged.

Street trees are located in the immediate vicinity of the proposed location of the street stairs on the south sidewalk of East 69th Street and the proposed location of the reconfigured street stair on the northeast corner of East 68th Street and Lexington Avenue. Consequently, the Proposed

Project would require the removal of one tree located west of the avenue on East 69th Street, and one street tree located on the north sidewalk of East 68th Street east of Lexington Avenue (Figure 2-7).

NYCDPR has authority over all trees in any park, or any other property under its jurisdiction and generally over all trees in any street as defined in Section 18-103 of the Administrative Code of the City of New York. Such trees are an integral part of the health, beauty and vitality of the City, and provide important benefits for its residents by absorbing gaseous air pollutants, capturing particulate matter, providing for cooler summer temperatures, and beautifying neighborhoods. Trees under the jurisdiction of NYCDPR may not be removed without a permit pursuant to Title 18 of the Administrative Code of the City of New York. Chapter 5 of Title 56 of the Rules of the City of New York establishes rules for valuing trees that are approved for removal in order to determine the appropriate number of replacement trees. Any person or contractor wishing to remove a tree or trees, or perform work on a tree or trees under the jurisdiction of NYCDPR is required to obtain a permit from NYCDPR. Issuance of such permits follows a review process that may entail the submission of documentation and/or modification or alteration of the work plan.

MTA NYCT would obtain the appropriate permit to remove trees affected by the Proposed Action, and would protect, according to permit requirements, any tree within 50 feet of construction activity related to the Proposed Project. Replacement trees for the two street trees that would be removed from the sidewalks east and west of Lexington Avenue as a result of the Proposed Project, would be planted in locations to be determined in coordination with the NYCDPR. Due to the small number of trees affected, (less than three percent of the total identified above) and the provision of mitigation (replacement trees), no significant adverse impacts related to street trees would occur.

3.5.3.3 Impacts of Street Stair Options

Street Stair *West* of Lexington Avenue

The proposed street stair west of Lexington Avenue would not affect open space; however, it would require removal of one street tree on East 69th Street.

Street Stair *East* of Lexington Avenue

Under the Proposed Project, the street stair east of Lexington Avenue at 931 Lexington Avenue would not require removal of street trees on East 69th Street and would not affect open space.

The Proposed Project *with Option E1* would require the removal of two street trees on East 69th Street but would not significantly affect open space.

3.5.3.4 Mitigation

Street trees removed for the Proposed Project and the Proposed Project *with Option E1* would be replaced in coordination with NYCDPR. No further mitigation for street tree removal is warranted. Neither the Proposed Project nor the Proposed Project *with Option E1* would cause significant adverse impacts to open space. No mitigation measures are warranted.

3.6 URBAN DESIGN AND VISUAL RESOURCES

3.6.1 METHODOLOGY

The assessment of urban design and visual resources focuses on the components of a Proposed Project that may have the potential to alter the arrangement, appearance, and functionality of the

built environment. Existing conditions in the study area were characterized through field review and impacts were assessed qualitatively. According to the 2014 CEQR Technical Manual, a project could result in adverse visual impacts if it would negatively affect a pedestrian's experience of the area. Shadow impacts could occur if shadows cast on open space or historic resources substantially reduce or eliminate natural sunlight.

3.6.2 EXISTING CONDITIONS

The Proposed Project is located within an existing urban area, characterized by a commercial, institutional and residential streetscape. The existing station is located predominantly below ground, with the only visible components being the four existing stairway entrances, the sidewalk pedestals indicating a subway entrance, and sidewalk grating, all typical of NYC subway entrances. The stairwell on the southwest corner emerges to a courtyard of the Hunter College West Building. The stairwell supports a large tree and surrounding the stairwell is public seating and a large sculpture. The stairwell on the southeast corner is situated under a cantilevered portion of the Hunter College East Building and is similar in appearance. Seating is provided here and a vendor of flowers operates from a kiosk adjacent to the stairs. Both sets of stairs on the northeast and northwest corners are typical of older subway stairs found throughout the City.

3.6.3 IMPACTS AND MITIGATION

3.6.3.1 No-Build Alternative

Under the No-Build Alternative, the urban nature and the visual characteristics of the area would remain unchanged.

3.6.3.2 Proposed Action

The visible components of the Proposed Project would consist of a subway street entrance situated on the sidewalk and one entrance in an indoor commercial space, sidewalk grates and an elevator head house. These elements would cast no or insignificant shadows. As such, the study area for visual resources consists of the areas within visual contact of the above ground elements. The Proposed Project would have minimal effect on the visual context of the study area. The southwest and northwest corners of East 68th Street and Lexington Avenue would not be affected by the Proposed Project. The southeast corner would have an elevator head house and a wider stair, and the subway improvements at this corner would require the removal of the florist kiosk.

On the northeast corner of East 68th Street and Lexington Avenue, the existing five-foot-wide stair would be enlarged and relocated to a position approximately 30 feet east of its current position to allow improved circulation at the corner. The installation of the stair at this location would require the removal of a street tree on East 68th Street east of Lexington Avenue. The tree would be replaced with one or more trees in the same vicinity or at a different location, depending on consultation and agreement with NYCDPR. (See Section 3.5.3.2, above)

The Proposed Project would also provide new street stairs located at the north end of the station and leading to East 69th Street on the west side of Lexington Avenue and to the mid-block location on the east side of the avenue. These stairs would be similar in appearance to subway stairs recently installed throughout the City. The appearance of the street would change with the addition of a bulb out—the widening of the sidewalk on the south side of East 69th Street on the west side of Lexington Avenue. The new stair on East 69th Street would require the removal of one street tree west of Lexington Avenue. All removed trees would be replaced according to an agreement with NYCDPR. (See Section 3.5.3.2, above.)

3.6.3.3 Impacts of Street Stair Options

Street Stair *West* of Lexington Avenue

The proposed street stair west of Lexington Avenue would be visible from the immediate vicinity of the stair. At street level, the stair would be visible from the south sidewalk but would be largely blocked from view by parked cars from vantages across East 69th Street. The stair would be visible from the upper floors of the residential buildings on the north side of the street. Signage and a typical pedestal indicating a MTA NYCT Subway entrance would be visible from the vicinity of the entrance.

Street Stair *East* of Lexington Avenue

The proposed street stair east of Lexington Avenue would be visible from Lexington Avenue directly in front of the location, with the subway identification globe visible up and down the block. The entrance in the commercial space in the Imperial House Apartments would slightly change the appearance of the front of the building by replacing the existing windows with an opening to access the new stair. The affected portion of the building face would be approximately 12 feet wide and extend from the sidewalk to the roof of the one-story commercial space. Signage and a typical pedestal indicating a MTA NYCT Subway entrance would be visible from north, south, and west of the entrance.

The Proposed Project *with Option E1* would be visible from the immediate vicinity of the stairs. At street level, the stair would be visible from the south sidewalk but would be largely blocked from view by parked cars from vantages across East 69th Street. The stair would not be visible from inside the Imperial House Apartments or the associated retail spaces; however, it would be visible from the upper floors of the residential buildings on the north side of the street.

3.6.3.4 Mitigation

The subway's visible elements, including station entrances, the elevator head house and ventilation grates, are all common features of Manhattan streetscapes, and would not be incongruous to the visual environment. Moreover, the design of the station entrances would be sensitive to the surrounding architectural context; they would not disturb views in the study area, nor would they change the study area's urban design. No urban design and visual resource impacts would result from the placement of such facilities and no mitigation would be warranted.

3.7 PUBLIC HEALTH

According the 2014 CEQR Technical Manual, a public health analysis would be necessary when a significant unmitigated adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. No such significant unmitigated impacts were identified and therefore, a public health assessment is not warranted for the project and was not conducted for this EA.

3.8 NEIGHBORHOOD CHARACTER

According the 2014 CEQR Technical Manual, a neighborhood character analysis would be appropriate when a significant unmitigated adverse impact is identified in one or more of the CEQR analysis areas listed:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions

- Open Space
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Shadows
- Transportation
- Noise

Alternatively, a significant adverse neighborhood character impact could occur due to a combination of moderate impacts in several of the topic areas listed above. Visual impacts could result if the street stairs were located on the north sidewalk of East 69th Street because they would be situated in front of residential windows. Additional impacts to community character could result from increased noise and increased pedestrian traffic on the street adjacent to the new street stairs. The following sections evaluate the potential for such impacts.

3.8.1 EXISTING CONDITIONS

The neighborhood in the vicinity of the Proposed Project is a vibrant area that generates pedestrian activity from early morning to late evening. Retail shopping establishments, which occupy the ground floors of many buildings in the area, especially along Lexington Avenue north of East 68th Street, generate sidewalk activity along the avenue and side streets. Retail shops along Lexington Avenue include a liquor store, clothing stores, a beauty shop, an ATM bank branch, a coffee shop among others. Many of these remain open until 8:00 and 9:00 PM and later. The presence of Hunter College attracts large and diverse population of students who, in addition to attending classes from early morning into the evening, gather on the sidewalks and the plaza near the college entrances. The Kaye Playhouse at Hunter College offers various entertainment programs, often ending at 10:30 PM.

3.8.2 IMPACTS AND MITIGATION

The location of street stairs at the north end of the station would likely generate more pedestrian traffic on East 69th Street, especially to the east of Lexington Avenue. However, the percentage of pedestrians currently using East 69th Street to travel between the 68th Street/Hunter College Station and points to the east is already substantial.

According to an intercept survey conducted to evaluate the effects of the Proposed Project on East 69th Street (see Section 8 of Appendix C), of the total pedestrians on East 69th Street between Lexington Avenue and Third Avenue, the percentage of subway riders on the north side of the street was observed to be 42.9 percent, 29.4 percent, and 58.3 percent during the peak 15-minute AM, midday, and PM periods, respectively. The percentage of subway riders was observed to be higher on the south side of East 69th Street, with percentages of 79.6 percent, 43.5 percent, and 50.5 percent during the peak 15-minute AM, midday, and PM periods, respectively. Although the overall percentage of subway riders in the sample was high, the actual percentage of pedestrians coming from or heading to the 68th Street/Hunter College subway station was probably higher, since it was observed that a large percentage of the pedestrians who could not be surveyed (talking on cell phones or wearing head phones) were observed by the surveyors to be coming from or going to the subway.

In order to evaluate the potential increase in sidewalk volumes due to the Proposed Project, MTA NYCT calculated existing pedestrian volumes on East 69th Street and projected future volumes with the Proposed Project. Using the projected 2020 East 68th Street subway stair volumes and the results of the intercept survey, future pedestrian volumes were calculated for East 69th Street

between Lexington Avenue and Third Avenue for a 12-hour period from 7:00 AM to 7:00 PM (see Appendix C). The study showed that overall, the pedestrian sidewalk volumes increased on the south side of the street and slightly decreased on the north side of the street.

As demonstrated in Chapter 7 of this EA, operation of the subway with new entrances at the north end of the station is not expected to result in noise impacts. Furthermore, sounds attributable to subway riders are not expected to increase noise levels in the area of the stairs, as riders are generally in transit from an origin to a destination and do not linger at or near the subway entrances.

Under the Proposed Project, the new street stair on the south sidewalk of East 69th Street west of Lexington Avenue would be visible from vantages along the street and from residences located on the north side of the street, it would not block views out of residential windows, would not disturb views in the study area and would not be incongruous with the visual environment. The new mid-block entrance would be visible from pedestrians on Lexington Avenue but would not disturb views in the study area and would not be incongruous with the visual environment.

The Proposed Project *with Option E1*: the new street stair on the south sidewalk of East 69th Street east of Lexington Avenue would be visible from vantages along the street and from residences located on the north side of the street; it would not block views out of residential windows, disturb views in the study area, or be incongruous with the visual environment.

The Proposed Project and the Proposed Project *with Option E1* would not alter the number or patterns of people using the neighborhood for shopping or attending events and would not alter the hours when people use the neighborhood. The project would slightly increase the number of pedestrians on the south sidewalk of East 69th Street east of Lexington Avenue. The Proposed Project and the Proposed Project *with Option E1* would be consistent with the character of development in the area. No neighborhoods would be divided or altered, and the cohesion of the community would not be affected by the Proposed Project. Community outreach regarding the Proposed Project has included several meetings with Community Board 8 during 2011 and 2012. The community outreach effort is described in Chapter 14.

No significant adverse impacts to neighborhood character due to the Proposed Project are anticipated. No mitigation would be warranted.

3.9 ENVIRONMENTAL JUSTICE

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of federal laws, regulations, policies, programs, and projects. Environmental justice requirements seek to avoid environmental discrimination.

There are three fundamental environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and/or low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

The framework for the evaluation of potential environmental justice impacts is provided by existing statues, executive orders and agency-specific policies. These include Title VI of the Civil Rights

Act of 1964 (which addresses discrimination on the basis of race, color or national origin, but not income), Executive Order 12898 (which applies to minority as well as low income populations) and U.S. Department of Transportation Order 5610.2 (which describe Department of Transportation environmental justice policies).

In August 2012 FTA issued Circular 4703.1: Environmental Justice Policy Guidance for Federal Transit Administration Recipients. The Circular does not establish new requirements, but rather provides guidance to incorporate environmental justice principles in projects and planning. The Circular addresses (1) how to fully engage environmental justice populations in the transportation decision-making process, (2) how to determine if environmental justice populations would be subject to disproportionately high and adverse impacts as a result of a project/plan, and (3) how to avoid, minimize or mitigate these effects (FTA, 2012c).

Under FTA environmental justice policies, a significant adverse environmental impact must occur for there to be the potential for "disproportionately high and adverse human health and environmental effects."

The Proposed Project and the Proposed Project *with Option E1* would improve passenger circulation, provide ADA-compliant access, allow for enhanced emergency egress, and reduce sidewalk congestion at East 68th Street and Lexington Avenue. No single racial/ethnic group would be denied the aforementioned benefits anticipated by the Proposed Action, and no racial/ethnic or low-income group would experience disproportionately high or adverse effects from the Proposed Action. The area of the Proposed Action is not identified as a Potential Environmental Justice Area on NYSDEC Potential Environmental Justice mapping. Additionally, according to EPA's EJSCREEN data (see Appendix E), persons with minority status comprise 13 percent of the study area population and low income persons comprise 9 percent of the study area population. Based on the nature of the Proposed Project and the study area, and surrounding region demographics, no environmental justice impacts are anticipated to result from the construction or operation of the Proposed Project. The Proposed Action would not have significant adverse environmental impacts, and there would be no disproportionate impacts to environmental justice communities as a result of the Proposed Action. No mitigation measures would be warranted.

4.1 INTRODUCTION

This chapter assesses the potential effects to historic structures and archaeological resources as a result of the construction and operation of the Proposed Project in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966. This law requires that federal agencies consider the effects of their actions on any properties listed on, or determined eligible for listing on, the State and National Registers of Historic Places (S/NR). The requirements of another statue applicable to historic resources (Section 4(f) of the Department of Transportation Act of 1966) are addressed separately in Chapter 12.

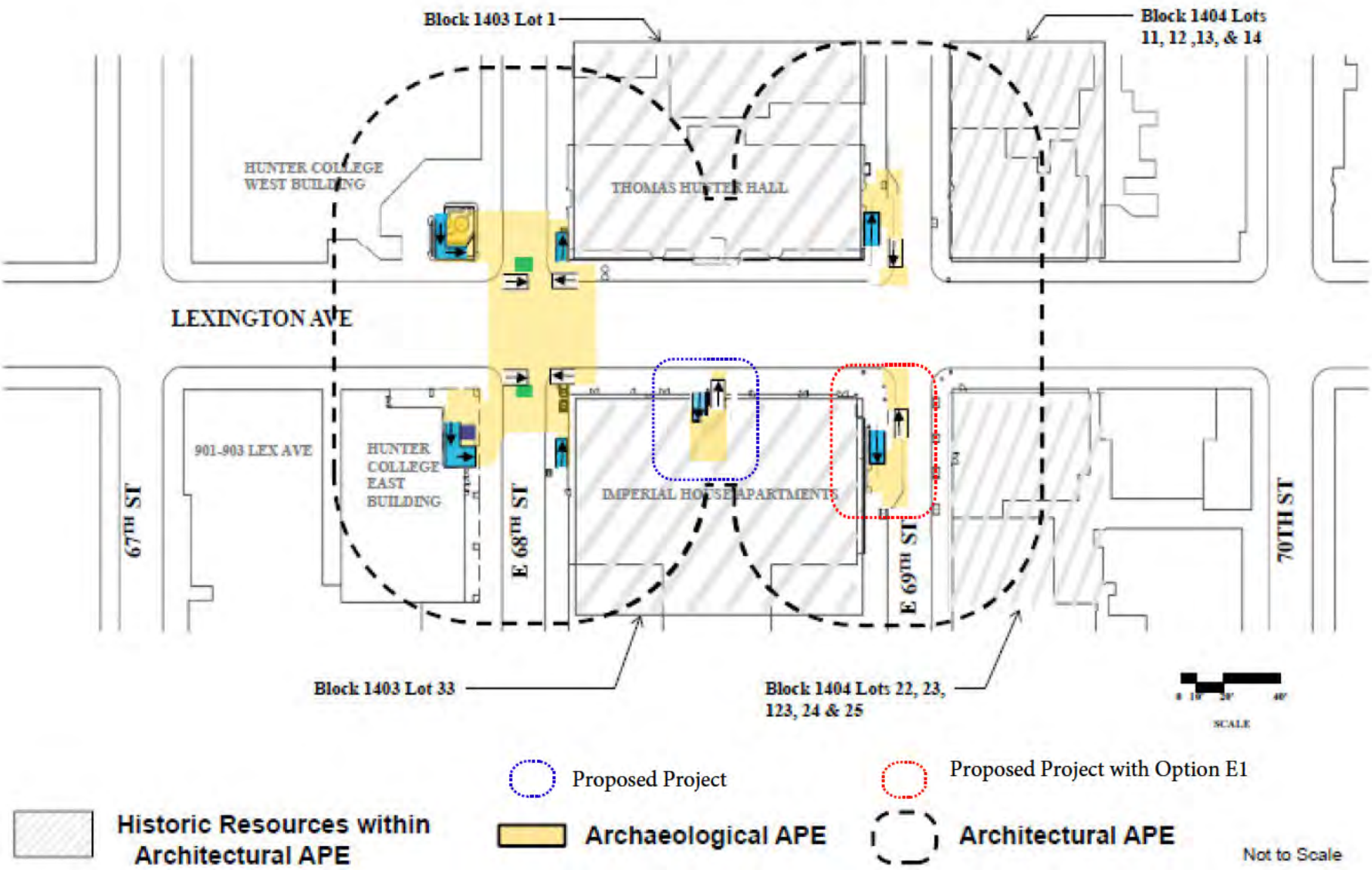
4.2 METHODOLOGY

To assemble the project area's known historic properties, a review of previously documented historic properties was conducted at several repositories, including the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission (LPC). The review was focused on the areas that would be physically modified through construction (either directly or indirectly by construction vibration). The area potentially affected by direct impacts from construction formed the archaeological Area of Potential Effect (APE) while the area potentially affected by indirect effects formed the historic architectural APE (and included the archaeological APE). The architectural APE and resources located within the APE are provided in Figure 4-1. For historic architectural resources, a review was undertaken to identify any historic properties that are National Historic Landmarks (NHLs), listed on the State or National Registers of Historic Places (S/NR) or determined eligible for such listing. Additionally, a survey of the APE was undertaken to identify any properties that may meet S/NR eligibility criteria.

4.3 EXISTING CONDITIONS

4.3.1 ARCHAEOLOGICAL RESOURCES

The Proposed Project's archaeological APE is located within the confines of the sidewalks and streets along Lexington Avenue from the south side of East 68th Street to the north side of East 69th Street, including the area on East 69th Street west of the avenue that could be excavated for the new subway entrance. These sidewalks and streets contain significant subsurface utilities as well as transportation elements associated with the IRT Lexington Avenue line. A review of previously recorded archaeological sites within the archaeological APE did not identify any known archaeological sites within the project's archaeological APE. Analysis of the project area's history does not indicate that the proposed locations for the new entrances at East 68th and East 69th Streets was the site of any historic occupation that may yield evidence of previously unknown historic activities. Also, the construction of the Lexington Avenue IRT 4/5/6 subway line by cut and cover would have disturbed the entire width of Lexington Avenue, thereby eliminating the potential to encounter areas with undisturbed soils. Therefore the project's archaeological APE lacks sensitivity for encountering archaeological resources. In a letter dated August 29, 2012, OPRHP has concurred that the Proposed Project and the Proposed Project *with Option E1* would have No Adverse Effect on archaeological resources (see Appendix B).



Archaeological and Architectural APE

Figure 4-1

4.3.2 HISTORIC ARCHITECTURAL RESOURCES

The APEs for the evaluation of the new subway entrances at East 69th and 68th Streets include the area within 90 feet of any excavation area associated with the Proposed Project. The NYC Technical Policy and Procedure Notice (TPPN) #10/88 requires an APE of 90 feet for the protection of historic properties resulting from the effects of construction conducted without subsurface blasting. The 90-foot APE was used to evaluate potential impacts that could occur as a result of vibrations from construction as well as to assess the potential contextual effects of above-ground subway infrastructure once these entrances have been opened for use by the public.

The historic architectural APE for the Proposed Project is shown in Figure 4-1. The APE extends along Lexington Avenue and East 68th Street and East 69th Street and covers 90 feet from the edge of construction. In this area, a single known historic resource was identified – the Upper East Side Historic District, listed on the National Register of Historic Places and a New York City Landmark Historic District (Figure S-2). The Upper East Side Historic District was originally listed on the National Register of Historic Places on September 7, 1984 while the boundaries of the district were expanded on September 12, 2006 (Upper East Side Historic District Extension). The Upper East Side Historic District is historically and architecturally significant for its extraordinary concentration of fine examples of New York's most characteristic late nineteenth and early twentieth century residential buildings, including brownstone rowhouses, grand mansions and elegant apartment houses. Among these buildings are represented the full range of architectural styles of the period from the Italianate, neo-Grec and Queen Anne of the 1860s to 1880s, the Beaux-Arts, neo-Renaissance and Neoclassical from the turn of the century, to and including excellent examples of more recent architecture. In addition, the Upper East Side Historic District is designated as a New York City Landmarked historic district as of May 19, 1981; the district was similarly expanded on March 23, 2010 to coincide with the boundaries of the district as listed on the National Register of Historic Places.

The APE for the Proposed Project intersects with the Upper East Side Historic District from East 69th Street to the west side of East 68th Street. Table 4-1 identifies the contributing elements to the Upper East Side Historic District located within the Proposed Project's historic architecture APE.

Table 4-1:
Contributing Elements – Upper East Side Historic District

Block	Lot	Address	Description
1404	11	123 E. 69th Street	5-Story Residence, C.1873
1404	12	125 E. 69th Street	5-Story Residence, C. 1873
1404	13	127 E. 69th Street	5-Story Residence, C. 1873
1404	14	944 Lexington Ave/129 E. 69th St.	11-Story, Neo-Georgian Apartment Building, C. 1916
1404	22	943 Lexington Ave/131 E. 69th St.	11-Story, Neo-Renaissance Apartment Building, C. 1924
1404	23	141 E. 69th Street	4-Story Neo-Grec Residence, C. 1880
1404	123	143 E. 69th Street	4-Story Neo-Grec Residence, C. 1880
1404	24	145 E. 69th Street	4-Story Neo-Grec Residence, C. 1880
1404	25	147 E. 69th Street	3-Story Residence, C.1902
1403	1	930 Lexington Avenue/Thomas Hunter Hall (Part Of Hunter College)	6-Story Limestone School Building, Neo-Gothic, C. 1914.

Within the Upper East Side Historic District, Thomas Hunter Hall is listed as a contributing element to the historic district. This building was completed in 1913 as part of a new campus plan for Hunter College, though the western portion of the proposed plan was never executed. The

building was designed by C.B.J. Snyder as New York City Superintendent of School Buildings and retains many of his standard treatments for schools within New York City.

In addition to the Upper East Side Historic District, the project area also contains one additional historic resource – the Imperial House Apartments. This resource was evaluated for its potential eligibility for inclusion on the S/NR as part of this project and determined to be eligible for inclusion in the S/NR. This resource is significant in the areas of urban development and architecture as a good and representative example of modern style, white brick residential towers built after World War II in New York City and in the same style as the New York City Landmarked Manhattan House at East 66th Street and Second Avenue. On August 29, 2012, OPRHP concurred with the eligibility of the Imperial House Apartments as eligible for inclusion on the State/National Registers (see Appendix B).

4.4 IMPACTS AND MITIGATION

4.4.1 NO-BUILD ALTERNATIVE

No impacts to cultural resources would occur under the No-Build Alternative.

4.4.2 PROPOSED PROJECT

4.4.2.1 Archaeological Resources

The 68th Street/Hunter College Station is located in a densely developed urban setting with a mix of historic properties and recently constructed buildings; the subsurface locations associated with the Proposed Project and the Proposed Project *with Option E1* have been previously disturbed by the installation of the IRT Subway (Figure 13-1), and by the excavation for and installation of utilities from the late nineteenth century through to the present. As a result, and following the concurrence from OPRHP on August 29, 2012, and on April 2, 2015, and concurrence from LPC on February 1, 2012, it has been concluded that the project site does not possess the potential for subsurface archaeological resources within the construction zone for the Proposed Action and the Proposed Project *with Option E1*. While no impacts to archaeological resources are anticipated, should any potential artifacts be found, MTA NYCT and FTA will initiate the Section 106 process with OPRHP.

4.4.2.2 Historic Resources

As discussed in detail in Chapter 12: Section 4(f) Resources, the Proposed Project requires the installation of a ventilation fan that vents into the light well of Thomas Hunter Hall, and the installation of a street stair in the commercial space in the Imperial House Apartments. For both Thomas Hunter Hall and Imperial House Apartments, impacts would occur but would not be adverse, and mitigation of these impacts to both properties would be incorporated into the Proposed Project. The appearance and physical integrity of the two buildings would not be altered by the Proposed Project. Similarly, subway entrance stairways adjacent to the contributing resources of the Upper East Side Historic District and an entrance in the Imperial House Apartments would not directly or indirectly diminish these historic resources.

OPRHP has concurred that the Proposed Project and the Proposed Project *with Option E1* would have “no adverse effect” to historic properties under Section 106 of the NHPA, provided that a construction protection plan (CPP) for historic resources within 90 feet of construction is prepared and executed prior to the start of construction, as stated in the August 29, 2012, and the April 2, 2015, letters from OPRHP. A CPP will be developed for the following historic properties within the project area: all contributing resources to the Upper East Side Historic District – Block 1404, Lots

11, 12, 13, 14, 22, 23, 123, 24, 25 (structures along the north side of East 69th Street from approximately 150 feet west of Lexington Avenue to approximately 150 east of the avenue); Block 1403, Lot 1 (Thomas Hunter Hall and the Hunter College North Building), and the Imperial House Apartments (Block 1403, Lot 33).

To avoid the potential for any adverse physical impacts to historic resources as a result of ground-borne vibrations from construction, a Historic Resource Construction Protection Plan (HRCPP) will be developed in consultation with OPRHP and LPC prior to construction. The HRCPP would follow the requirements established in the NYCDOB Technical Policy and Procedure Notice (TPPN) #10/88, concerning procedures for the avoidance of damage to adjacent historic structures from nearby construction. It would also follow the guidelines set forth in Chapter 9, Section 522 of the CEQR Technical Manual, including conforming to LPC's Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings.

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5.1 INTRODUCTION

This Chapter describes the potential impacts of the Proposed Project on the transportation system, including automobile circulation and parking, public and private bus transportation, pedestrian circulation and subway operations. The Proposed Project would change the configuration of access to the station, including the widening and/or reconfiguration of three of the four existing street stair entrances at East 68th Street and the addition of street stairs at East 69th Street and midblock between East 68th Street and East 69th Street (together referred to as the "new stairs at East 69th Street"), and would modify the street geometry on East 69th Street.

The Proposed Project also includes ADA-compliant elevators providing access from the street to the platforms. However, most passengers are expected to use the stairs for subway access and, therefore, the new elevators are not expected to affect passenger circulation to a significant degree. As such, this analysis focuses on the performance of passenger access to the station, pedestrian circulation in the vicinity of the new and reconfigured street stairs, and traffic circulation in the vicinity of the new street stairs on East 69th Street. The assessment of transportation impacts during construction is provided in Chapter 13.

This chapter consists of the following sections:

- Traffic (Section 5.2)
- Transit (Section 5.3)
- Parking (Section 5.4), and
- Pedestrians (Section 5.5)

For each of these transportation elements, an element-specific study area is defined. Each section provides a discussion of the methodology for data collection and analysis and a discussion of impact criteria. In order to assess potential project-related impacts to the transportation system and determine appropriate mitigation measures, each section describes existing conditions and provides an analysis of conditions expected without the Proposed Project, conditions with the Proposed Project, and conditions under the Proposed Project *with Option E1*. The discussion in this chapter applies to both the Proposed Project and the Proposed Project *with Option E1*, unless otherwise indicated.

The Proposed Project is expected to be completed before 2020, and conditions with (Build) and without (No-Build) the Proposed Project were analyzed to assess impacts for 2020. The Second Avenue Subway, expected to be operational in 2017, would divert a portion of the riders using the IRT line (which serves the 68th Street/Hunter College Station) to the Second Avenue Subway, and this change in ridership was accounted for in the transportation projections.

The Proposed Project would not substantially change the number of passengers using the station or the ❻ Train, would not change traffic patterns in the area, would not influence population characteristics, and would not substantially change land use in the area. Specific study areas for the multiple transportation modes (e.g., transit, pedestrian, auto traffic) were established considering these project characteristics and are discussed in the appropriate sections below.

As per the 2012 CEQR Technical Manual, background growth in this study area would be 0.25 percent per year for the first five years (through 2016) and 0.125 percent per year for the next four years (through 2020), and the corner, sidewalk, crosswalk, subway stair, turnstile, and

traffic volumes were increased accordingly for the 2020 horizon year. In addition to the background growth, subway and street pedestrian volumes from the following proposed development projects that would affect transportation conditions in the area were considered for projecting the No-Build conditions for transit and auto trips in addition to the background growth rate:

- Hospital for Special Surgery Expansion
- Memorial Sloan Kettering Cancer Center – Phase II
- Memorial Hospital for Cancer and Allied Diseases

Detailed information regarding the additional pedestrian, subway transit and auto trips attributed to each of these developments is provided in Appendix C. In total, these developments would add approximately 181, 43, and 208 new subway trips to the 68th Street/Hunter College Station during the weekday AM, midday, and PM peak hours, respectively.

The No-Build Alternative does not include the proposed Memorial Sloan-Kettering Cancer Center Ambulatory Care Center and CUNY – Hunter College – Science and Health Professions Building ("new facility"). Subsequent to the evaluation of transportation resources for this EA, information regarding potential transportation effects of this new facility became available. This new facility would consist of more than 1.1 million square feet of medical treatment and research facilities to be located east of York Avenue at East 73rd Street. According to the Draft Environmental Impact Statement (DEIS) prepared for this new facility, the facility is expected to result in 786, 390, and 730 project-generated subway trips during the weekday morning, midday, and evening peak hours, respectively. According to the DEIS for the new facility, visitors traveling to and from the new facility via subway would be distributed among three subway stations: the 68th Street/Hunter College Station, the 77th Street Station (Lexington Avenue Line) and the planned 72nd Street subway station (Q line) along the future Second Avenue Subway.

According to the DEIS,[13] fewer than 200 passengers with a destination to or from the new facility would use the 68th Street/Hunter College Station during the peak hours (and therefore, did not cross the threshold for which a detailed station analysis is required for the DEIS). While these additional passengers using the 68th Street/Hunter College Station would contribute to further deterioration of this station's performance, additional analysis to account for them is not warranted for purposes of this EA; given the small number of additional passengers generated by the new facility that would use the 68th Street/Hunter College Station relative to the total number of passengers at this station during peak hour (approximately 7,200 exiting and 1,800 entering in the AM peak), the increase is accounted for in background growth and the results of the transportation analysis would not appreciably change. The additional passengers using the 68th Street/Hunter College Station associated with the new facility can be considered to be accounted for in the No-Build background growth and are thus not factored into the No Build and Build analyses or the tables and text of this EA.

5.2 TRAFFIC

The Proposed Project includes new sidewalk bulb-outs on the south side of East 69th Street west of Lexington Avenue to provide adequate room for subway entrances at this location. In addition, the Proposed Project *with Option E1* provides new sidewalk bulb-outs on the south side of East 69th Street east of Lexington Avenue to provide adequate room for subway entrances at this

[13] Memorial Sloan - Kettering Cancer Center Ambulatory Care Center and CUNY - Hunter College - Science and Health Professions Building, Draft Environmental Impact Statement (March 2013).

location. The new subway entrances could increase pedestrian activity at the intersection of Lexington Avenue and East 69th Street. Because traffic conditions could be affected by changes in pedestrian volumes and changes in roadway geometry, an analysis of traffic conditions during operation of the Proposed Project was conducted. A study area was established that encompasses the intersection at the location of the proposed station street entrances at or near East 69th Street. The additional subway access at East 69th Street would divert passengers from the street stairs at East 68th Street. As a result, fewer passengers would be using the East 68th Street/Lexington Avenue sidewalks and crosswalks. Therefore, traffic conditions at the East 68th Street/Lexington Avenue intersection were not analyzed.

Traffic conditions were also analyzed to identify potential traffic impacts that may occur during construction of the project (see Chapter 13 for impacts during construction).

5.2.1 METHODOLOGY

5.2.1.1 Data Collection

Traffic volumes for the Lexington Avenue/East 69th Street intersection were developed based on manual turning movement counts and Automatic Traffic Recorder (ATR) counts. Manual turning movement counts and pedestrian crosswalk counts were conducted on Wednesday, November 9, 2011 during the AM (7:30 to 9:30 AM), midday (12:00 to 2:00 PM), and PM (4:30 to 6:30 PM) peak periods. The peak hour factors (PHF) and heavy vehicle percentages for each of the intersection approaches were calculated for each weekday peak hour. ATR machines were placed on Lexington Avenue between East 69th Street and East 68th Street for a continuous period between Saturday, November 5, 2011 and Sunday, November 13, 2011. Based on the traffic data, the weekday peak hours were determined to be:

- Weekday AM Peak Hour: 8:00 – 9:00 AM
- Weekday Midday Peak Hour: 1:00 – 2:00 PM
- Weekday PM Peak Hour: 5:30 – 6:30 PM

A physical inventory and field reconnaissance survey of this intersection was conducted to establish the existing physical characteristics including traffic control devices (e.g., traffic signals, stop signs, yield signs), roadway and lane widths, the number of travel lanes, crosswalk widths, curb parking regulations, lane utilization (turn prohibitions), bus stop locations, and fire hydrant locations. Traffic signal timing was obtained from the New York City Department of Transportation (NYCDOT) and verified in the field.

5.2.1.2 Analysis Methodology

In accordance with the CEQR Technical Manual, the operations of the signalized intersections in the traffic study area were analyzed by applying the methodologies presented in the 2000 Highway Capacity Manual (HCM) using the Highway Capacity Software (HCS+ 5.5). The Level of Service (LOS) of a signalized intersection is defined in terms of control delay per vehicle (seconds per vehicle). Control delay is the portion of total delay experienced by a motorist that is attributable to the traffic signal. It is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors contribute to the delay at a signalized intersection including cycle length, pedestrian crossing times, progression/signal coordination, and volume-to-capacity (v/c) ratios. For signalized intersections, LOS A describes operations with minimal delays (up to 10 seconds per vehicle), while LOS F describes operations with delays in excess of 80 seconds per vehicle. Under LOS F, excessive delays and longer queues are common as a result of over-saturated conditions (i.e., demand rates exceeding the capacity).

Delays experienced at LOS A, B, C or mid-D (less than 45 seconds per vehicle) are generally considered "acceptable" operating conditions according to the CEQR Technical Manual. Conversely, LOS E and F are generally considered "unacceptable" operating conditions.

5.2.1.3 Impact Criteria

The criteria for traffic impacts used in the traffic analyses are those contained in the CEQR Technical Manual for signalized intersections. The function of a transportation element, including automobile transportation elements, and pedestrian and subway transportation elements, can be quantified in terms of LOS, and LOS is used in the CEQR Technical Manual to identify impacts on transportation elements. In addition, projected LOS and clearance times for transportation elements can be used to evaluate and compare different approaches to improvements to a given element. As such, the LOS for transportation elements was established for the existing conditions and was projected to 2020 to identify impacts due to the Proposed Project.

For signalized intersections, increases in lane group delays of five seconds or more beyond the No-Build Alternative conditions at LOS D, five seconds or more beyond the No-Build Alternative conditions at LOS E, four seconds or more beyond the No-Build Alternative conditions at LOS F (less than 120 seconds of delay), or three seconds or more beyond the No-Build Alternative conditions at LOS F (at or exceeding 120 seconds of delay) are considered significant and require mitigation. Also, should a level of service deteriorate from acceptable LOS A, B, or C (No-Build Alternative conditions) to marginally unacceptable mid-LOS D or unacceptable LOS E or F (No-Build Alternative conditions), such changes are also considered significant (unless the Proposed Project generates fewer than five vehicles through the entire intersection).

5.2.2 EXISTING CONDITIONS

There are three roads located adjacent to the 68th Street/Hunter College Station including Lexington Avenue, East 68th Street, and East 69th Street. Lexington Avenue is a one-way five lane roadway that is composed of three southbound travel lanes with parking on each side of the street. During the AM peak period between 7:00 and 10:00 AM on weekdays (Monday through Friday), the western curb lane is used as an exclusive bus lane. East 68th Street traffic travels in the eastbound direction and East 69th Street traffic travels in the westbound direction. East 68th Street and East 69th Street accommodate one travel lane with parking lanes on both sides of the street.

The Lexington Avenue at East 69th Street signalized intersection was analyzed for the weekday AM, midday, and PM peak hours using HCS+ (version 5.5). Based upon these results (Table 5-1), all movements operate at an LOS C or better during the three peak hours.

Table 5-1:
2011 Existing Conditions: Signalized Intersection Level of Service
Lexington Avenue at East 69th Street

Intersection	Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Lexington Avenue at East 69th Street												
Westbound	LT	0.50	24.1	C	LT	0.40	22.1	C	LT	0.45	22.9	C
Southbound	TR	0.57	16.9	B	TR	0.41	14.8	B	TR	0.58	17.0	B
Overall			18.3	B			16.3	B			18.0	B

Notes: L = Left Turn, T= Through, R = Right Turn, LOS = Level Of Service, Sec = Seconds.

Source: Sam Schwartz Engineering, DPC, 2015

5.2.3 2020 FUTURE NO BUILD CONDITIONS

Based on background growth rates identified in the CEQR Technical Manual, No-Build traffic conditions (conditions expected if the project were not to progress) at the Lexington Avenue/East 69th Street signalized intersection were projected for the three peak hours (weekday AM, midday, and PM peak hours) for the 2020 analysis year. The capacity analysis results for the Lexington Avenue/East 69th Street intersection are provided in Table 5-2 and show that there would be no change in LOS and minimal change in delay between the existing conditions and the 2020 No-Build Condition.

Table 5-2:
2020 No-Build Conditions: Signalized Intersection Level of Service
Lexington Avenue at East 69th Street

Intersection	Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Lexington Avenue at East 69th Street												
Westbound	LT	0.51	24.3	C	LT	0.41	22.2	C	LT	0.46	23.1	C
Southbound	TR	0.58	17.1	B	TR	0.42	14.9	B	TR	0.59	17.2	B
Overall			18.4	B			16.4	B			18.2	B

Notes: L = Left Turn, T= Through, R = Right Turn, LOS = Level Of Service, Sec = Seconds.

Source: Sam Schwartz Engineering, DPC, 2015

5.2.4 2020 BUILD CONDITIONS

Traffic conditions at the Lexington Avenue/East 69th Street signalized intersection were analyzed for the weekday AM, midday, and PM peak hours for the 2020 analysis year under the Build condition (Table 5-3). To determine the presence of potential significant traffic impacts resulting from the operation of the Proposed Project, the 2020 No-Build condition analysis results for the Lexington Avenue at East 69th Street intersection were compared to the 2020 Build condition for the weekday AM, midday, and PM peak hours. Traffic conditions for the 2020 Build condition would be almost identical to the 2020 No-Build condition, with all movements projected to operate at LOS C or better.

Table 5-3:
2020 Build Conditions: Signalized Intersection Level of Service
Lexington Avenue at East 69th Street

Intersection	Weekday AM Peak Hour				Weekday Midday Peak Hour				Weekday PM Peak Hour			
	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Lexington Avenue at East 69th Street												
Westbound	LT	0.52	24.7	C	LT	0.40	22.0	C	LT	0.48	23.5	C
Southbound	TR	0.58	17.1	B	TR	0.41	14.8	B	TR	0.59	17.2	B
Overall			18.5	B			16.3	B			18.3	B

Notes: L = Left Turn, T= Through, R = Right Turn, LOS = Level Of Service, Sec = Seconds.

Source: Sam Schwartz Engineering, DPC, 2015

As a result of the Proposed Project, traffic under the 2020 Build and No-Build condition would remain virtually unchanged from the existing condition. The sidewalk bulb-outs and the additional number of passengers entering and exiting the proposed 69th Street stairs are not expected to impact traffic at the East 69th Street/Lexington Avenue intersection. Based on the intersection impact criteria identified in the CEQR Technical Manual, there would be no significant adverse traffic impacts as a result of the Proposed Project. Therefore, no mitigation measures would be warranted.

Under the Proposed Project *with Option E1*, vehicular traffic volumes and the analysis results for the 2020 Build Condition would be the same as for the Proposed Project. There would be no significant adverse traffic impacts as a result of the Proposed Project *with Option E1*. Therefore, no mitigation measures would be warranted.

5.3 SUBWAY TRANSIT

To ensure an accurate representation of future passenger demand at the 68th Street/Hunter College Station, the analysis of subway transit considered major destinations likely to be frequented by users of the station that may not be included in background growth, including hospitals and other medical facilities to the east and north of the station. This approach is consistent with similar transportation analyses for subway projects such as the Second Avenue Subway.

To evaluate potential impacts of the Proposed Project on transit, a transit study area has been defined as the area adjacent to and including the 68th Street/Hunter College Station and the proposed stairs at East 69th Street. The transit study area encompasses subway passenger activity at the four subway stairs connecting the station mezzanine to the street at East 68th Street, the mezzanine and control area (R-246), the platform stairs connecting the mezzanine to the platform, and the proposed street stairs, platform stairs and mezzanines for the new East 69th Street access points (see Figures S-3, S-4, and S-5).

In order to project the change in ridership in the transit study area, this analysis considered background growth figures derived from the CEQR Technical manual, and known development projects that could influence ridership at the 68th Street/Hunter College Station. As per the CEQR Technical Manual, background growth in the transit study area would be 0.25 percent per year for the first five years (through 2016) and 0.125 percent per year for the next four years (through 2020). Subway passenger volumes were increased accordingly for the 2020 analysis year.

5.3.1 METHODOLOGY

5.3.1.1 Data Collection

Pedestrian circulation at the eight 68th Street/Hunter College subway station stairs (four at street level and four at platform level) and turnstiles were analyzed during the peak 15-minute period on a weekday during the AM, midday, and PM peak hours. Street stair data were collected by MTA NYCT in April 2010 for the AM and PM peak periods and were collected for the midday peak period during a field visit on November 9, 2011. All of the count data were summarized into 15-minute intervals. The stair data were also used to calculate the entering and exiting turnstile data. These volumes were checked against the entering turnstile registration data provided by MTA NYCT. Measurements were taken of the total width at the four street stairs and the effective stairway widths were calculated by reducing the total width by six inches on either side of any obstructions (walls, handrails, etc.).

5.3.1.2 Analysis Methodology and Impact Criteria

Subway Stairs

The volume to capacity (v/c) ratio and LOS for stairways is based on the peak 15-minute passenger volume divided by the capacity. The MTA NYCT guideline capacity for stairs is 10 pedestrians per foot per minute (PFM), which is the rate based on the Volume/SVCD (service volume between LOS C and D) capacity ratio. The border between LOS C and LOS D at a v/c ratio of 1.00 has been established by MTA NYCT as the minimum acceptable standard for pedestrian conditions. Therefore, LOS C/D is used to determine the design capacity of the stairway locations in a station during each peak 15-minute period. Details of the subway stair LOS calculation procedure are provided in Appendix C.

Platform Stairs

The LOS calculation averages passenger volumes over a 15-minute time period and therefore does not always capture congested conditions during the short-term surges when trains arrive within the 15-minute time period. Such conditions can occur as a result of large volumes of passengers using the stairs immediately following a train arrival. To better account for the peaked nature of surged passenger flow, MTA NYCT also evaluates platform stair performance based on the number of seconds it takes for a detraining surge to move up the stair ("clearance time"). The 80th percentile surge (the surge volume that will meet or exceed 80 percent of all surges during the peak hour) is thus analyzed and crush capacity of the stair (after counter flow) is assumed for exit flow.

New York City Transit Operations Planning has established a Clearance Time guideline of 30 seconds for platform stairs to clear during crush conditions.[14] The goal is to have a vertical circulation element clear the 80th-percentile detraining surge (platooned group of pedestrians) within 30 seconds.

Control Areas

Station control areas separate the unpaid and paid areas of the station and are composed of turnstiles and service gates. The v/c ratios of these fare control elements providing access to the station are based on the peak 15-minute passenger volume divided by the 15-minute capacity.

[14] *Methodology for Surged Flow Analysis,* NYCT Division of Operations Planning/Station Planning, December 2012.

The MTA NYCT guideline capacities are 420 entries and 645 exits at turnstiles and 750 (combined entries and exits) at service gates. For these control area elements, overall capacity is measured by the number of elements, the MTA NYCT optimum capacity per element, surging factors, and friction factors. For regular turnstiles, if the No Build Condition v/c ratio is less than 1.00 but the Build Condition v/c ratio increases to 1.00 or greater, the impact is considered significant. If both the No Build and Build condition v/c ratios are 1.00 or greater, a 0.01 change in v/c ratio is considered significant. Details of the control area LOS calculation procedure are provided in Appendix C.

5.3.2 EXISTING CONDITIONS

The 68th Street/Hunter College Station is served by the MTA NYCT 6 Train on the Lexington Avenue IRT Line. The 4 Train also serves the station at night. The 6 Train operates between Pelham Bay Park in the Bronx and City Hall in Manhattan. The line serves all local stops throughout Manhattan but has both local and express service in the Bronx during specified periods of the day. All 6 Trains stop at the 68th Street/Hunter College Station.

The 68th Street/Hunter College Station is located under Lexington Avenue extending from between East 67th and East 68th Streets northward to between East 69th and East 70th Streets. There are stairs on all four corners of the East 68th Street and Lexington Avenue intersection that connect the mezzanine level of the station to the street. The array of stairs at East 68th Street is located towards the southern end of the station. There are no street stairs that provide access to the northern end of the station.

The current 68th Street Subway wall-to-wall stair widths at their narrowest points are:

- Southeast corner (O2/O4) = 60 inches
- Southwest corner (O1/O3) = 88 inches
- Northeast corner (S4) = 55 inches
- Northwest corner (S3) = 55 inches

All of the subway passengers are served by a single mezzanine area (control area R-246) that is currently composed of 14 turnstiles and two service gates. There is also a direct connection between the basement of the West Building of Hunter College and the west side of the station mezzanine. (The access point to Hunter College from the station is staffed with security and open only to Hunter College staff and students with a valid ID card. It is only open on school days between 7:00 AM and 6:00 PM.)

General Station Observations

Heavy crowding was observed on the northbound (uptown) platform during the AM peak period as subway passengers attempted to exit the station using the two available platform stairs (P2 and P4). During periods when these stairs were crowded, it was difficult for passengers to access the northbound platform from the mezzanine to board a train. Also during this period and within the mezzanine, queues were observed to emanate from the crowded northeast (S4) and southeast (O2/O4) street stairs when passengers attempted to exit the station. At times during this period, these street stair queues interfered with the ability for passengers to move freely within the station mezzanine. Congestion was also observed at street level during the weekday AM and PM peak periods at the street stairs located on the northeast and northwest corners of East 68th Street since these stairs are located in close proximity to their respective street corners.

Street Stairs

Detailed stairway analyses were conducted for the four street stairs in the 68th Street/Hunter College Station. As illustrated in Table 5-4, both street stairs on the east side of Lexington Avenue operate at LOS F in the AM peak hour, and the street stair on the southeast corner of the intersection operates at LOS E during the PM peak. The street stair on the northwest corner of the intersection operates at LOS D in the AM peak, while the stair on the northeast corner operates at LOS D in the PM peak hour. Otherwise, the stairs operate at LOS C or better during the three peak hours.

Table 5-4:
2011 Existing Conditions: Subway Street Stair Level of Service
68th Street/Hunter College Station

Stair ID	Corner	Effective Width (feet)	Peak 15-Min Entry Volume			Peak 15-Min Exit Volume			v/c Ratio			LOS		
			AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
S4	NE	3.58	231	133	418	531	141	158	1.85	0.64	1.27	F	B	D
S3	NW	3.58	43	88	208	374	37	83	1.06	0.28	0.64	D	A	B
O2/O4	SE	4.00	138	233	464	708	226	221	1.89	0.95	1.37	F	C	E
O1/O3	SW	6.33	44	104	166	504	141	272	0.79	0.33	0.59	C	A	B

Source: Sam Schwartz Engineering, DPC, 2015

Subway Platform Stairs

Analyses were conducted for the subway platform stairs in the 68th Street/Hunter College Station. The results of the analysis, summarized in Table 5-5, indicate that the north stair on the northbound platform (P4) operates at LOS D/E during the AM peak hour. Except for stair P4 during the AM peak hour, all of the platform stairs operate at an LOS C or better during the weekday AM, midday, and PM peak hours.

The clearance times for the four platform stairs were also calculated. In the AM peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are 18, 88, 59, and 134 seconds, respectively. In the midday peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are 18, 4, 16, and 50 seconds, respectively. In the PM peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are 6, 15, 43, and 78 seconds, respectively.

Table 5-5:
2011 Existing Conditions: Subway Platform Stairs Level of Service
68th Street/Hunter College Station

Stairway Location	ID	Peak 15-Min Entry Volumes			Peak 15-Min Exit Volumes			v/c Ratio			LOS		
		AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
South S/B Platform	P1	216	248	487	124	103	42	0.37	0.37	0.52	A	A	B
North S/B Platform	P3	210	314	575	502	22	117	0.87	0.34	0.72	C	A	C
South N/B Platform	P2	17	63	151	511	110	269	0.60	0.20	0.49	B	A	B
North N/B Platform	P4	13	84	179	1117	326	478	1.33	0.51	0.81	D/E	B	C

Source: New York City Transit, 2012

Turnstiles

Analyses were also conducted for control area R-246 in the 68th Street/Hunter College Station. The results of the analyses, summarized in Table 5-6, indicate that the control area operates at LOS B during the weekday AM and PM peak hours and at LOS A during the midday peak hour.

Table 5-6:
2011 Existing Conditions: Subway Control Area Level of Service
68th Street/Hunter College Station

Station Element	Qty	Peak 15 Minute Entering Volume			Peak 15 Minute Exiting Volume			15 Minute Capacity for Entries	15 Minute Capacity for Exits	v/c Ratio			LOS		
		AM	MD	PM	AM	MD	PM			AM	MD	PM	AM	MD	PM
Turnstile	14	456	709	1,393	2,254	562	906	5,292	6,502	0.58	0.27	0.49	B	A	B

Source: Sam Schwartz Engineering, DPC, 2015

Summary of Operations for Station Elements

During the morning peak period, the northbound platform stairs and adjacent landings experiences heavy crowding as pedestrians queue to exit at one of two stairs that connect to the mezzanine level. Almost every observed northbound detraining surge in the morning resulted in a large queue of passengers waiting to exit at stair P4. In addition, 11 of the 20 surges resulted in queuing at the bottom of stair P2. Although stairs P2 and P4 operate at LOS B and D/E, respectively, during the morning peak 15-minute period, their clearance times are well over the 30-second guideline during the morning peak period. The P2 stair takes 59 seconds to clear and the P4 stair takes 134 seconds to clear during the AM peak hour. On the southbound platform, the P1 stair takes 18 seconds to clear and the P3 stair takes 88 seconds to clear during the AM peak hour.

Within the 68th Street/Hunter College Station mezzanine, heavy crowding was observed at the bottom of the street stairs as pedestrians queued from street stair S4 located at the northeast corner of the Lexington Avenue and East 68th Street intersection and street stair O2/O4 located at the southeast corner of the intersection. During certain periods, the pedestrian queue emanating from these east side street stairs extended back to disrupt passenger movement through the mezzanine level. Heavy crowding was also observed at street level during the weekday AM and PM peak periods at street stairs S4 and S3 as entering/exiting subway passengers mixed with pedestrians traversing along the sidewalk at the corner. Congestion was also observed at street stair O2/O4 as entering and exiting passengers competed at street level for limited storage space as pedestrians queued waiting to enter the station.

5.3.3 2020 FUTURE NO BUILD

The Second Avenue Subway project is proposed to include a new two-track line operating below Second Avenue from 125th Street to the Financial District in Lower Manhattan. Phase One is currently under construction along a section of the line from 105th Street to 63rd Street with stations at 96th Street, 86th Street, 72nd Street, and a connection to the existing Lexington Avenue/63rd Street Station. This phase of construction is expected to be completed in 2017.

Many subway passengers currently using the ❻ Train to access the East Side are expected to switch to the Second Avenue Subway once it is operational. MTA NYCT has developed a set of reduction factors for subway riders at the 68th Street/Hunter College Station used in their preliminary analysis of the station. These factors account for passengers that would divert to the

Second Avenue Subway Line. These diversion factors, summarized in Table 5-7, are used to project 2020 future conditions for subway transit and pedestrian analyses in this EA.

Table 5-7:
Projected Diversion of Passengers from 68th Street/Hunter College Station to Second Avenue Subway

Peak Hour	Diversions	
	Entry	Exit
AM	58.0%	17.0%
Midday	37.5%	37.5%
PM	17.0%	58.0%

Source: Sam Schwartz Engineering, DPC, 2015

Street Stairs

Using CEQR methodology to determine future increases in passengers using the station, street stair performance characteristics were projected for the 2020 analysis year (see Table 5-8). Due to the diversions away from the 68th Street/Hunter College Station due to the Second Avenue Subway, the analysis revealed improvements in stair performance; however, the street stairs on the east side of Lexington Avenue would continue to operate at LOS D or worse during the AM and PM peak hours in 2020.

Table 5-8:
2020 No-Build Conditions: Subway Street Stairs Level of Service 68th Street/Hunter College Station

Stair ID	Location	2020 No-Build		
		Volume	v/c Ratio	LOS
AM Peak Hour				
S4	NE Corner	618	1.54	E
S3	NW Corner	333	0.85	C
O2/O4	SE Corner	727	1.65	E
O1/O3	SW Corner	442	0.58	B
Midday Peak Hour				
S4	NE Corner	187	0.44	A
S3	NW Corner	79	0.18	A
O2/O4	SE Corner	304	0.63	B
O1/O3	SW Corner	155	0.21	A
PM Peak Hour				
S4	NE Corner	496	1.06	D
S3	NW Corner	210	0.45	A
O2/O4	SE Corner	561	1.09	D
O1/O3	SW Corner	255	0.33	A

Source: Sam Schwartz Engineering, DPC, 2015

According to the CEQR Technical Manual, passengers using stairs operating at LOS D experience crowded conditions with reduced walking speeds. Passengers using stairs operating at LOS E experience congestion, shuffling and queuing, while passengers using stairs operating at LOS F experience severe congestion and queuing.

Platform Stairs

Analyses were conducted for the subway platform stairs for the three peak hours during the 2020 analysis year. All subway platform stairs are projected to operate at LOS C or better except for stair P4 during the AM peak hour which would operate at LOS D (Table 5-9).

The clearance times for the four platform stairs were also calculated for the 2020 No-Build condition during the AM and PM peak hours (Table 5-10). In the AM peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are projected to be 15, 82, 53, and 121 seconds, respectively. In the midday peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are projected to be 13, 3, 12, and 33 seconds, respectively. In the PM peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are projected to be 4, 9, 20, and 34 seconds, respectively.

Table 5-9:
2020 No-Build Conditions: Subway Platform Stairs Level of Service
68th Street/Hunter College Station

Stair ID	Location	2020 No-Build		
		Volume	v/c Ratio	LOS
AM Peak Hour				
P1	South S/B Platform	207	0.23	A
P3	North S/B Platform	548	0.69	C
P2	South N/B Platform	468	0.53	B
P4	North N/B Platform	1012	1.20	D
Midday Peak Hour				
P1	South S/B Platform	228	0.24	A
P3	North S/B Platform	216	0.22	A
P2	South N/B Platform	115	0.13	A
P4	North N/B Platform	273	0.34	A
PM Peak Hour				
P1	South S/B Platform	471	0.46	B
P3	North S/B Platform	587	0.60	B
P2	South N/B Platform	266	0.29	A
P4	North N/B Platform	387	0.45	A/B

Source: New York City Transit, 2012

Table 5-10:
2020 No-Build Conditions
Platform Stairs Clearance Times (Seconds)

Stair ID	Station Element	Location	Clearance Time (Sec)
AM Peak Hour			
P1	Stairway	South S/B Platform	15
P3	Stairway	North S/B Platform	82
P2	Stairway	South N/B Platform	53
P4	Stairway	North N/B Platform	121
Midday Peak Hour			
P1	Stairway	South S/B Platform	13
P3	Stairway	North S/B Platform	3
P2	Stairway	South N/B Platform	12
P4	Stairway	North N/B Platform	33
PM Peak Hour			
P1	Stairway	South S/B Platform	4
P3	Stairway	North S/B Platform	9
P2	Stairway	South N/B Platform	20
P4	Stairway	North N/B Platform	34

Source: New York City Transit, 2012

Turnstiles

Using CEQR methodology to determine future increases in passengers using the station in 2020 and considering the operation of Second Avenue Subway for predicted passenger diversions, platform stair performance characteristics were projected for the 2020 analysis year (see Table 5-11). In the 2020 No-Build condition, the control area is projected to operate at LOS B or better for all three peak hours.

Table 5-11:
2020 No-Build Conditions: Subway Control Area Level of Service
68th Street/Hunter College Station

Peak Hour	Station Element (Quantity)	2020 No-Build		
		Volume	v/c Ratio	LOS
AM	Turnstile (14)	2,234	0.48	B
Midday	Turnstile (14)	831	0.18	A
PM	Turnstile (14)	1,711	0.36	A

Source: Sam Schwartz Engineering, DPC, 2015

5.3.4 2020 FUTURE BUILD

Street Stairs

Subway stair analyses were conducted for the four stairs in the 68th Street/Hunter College Station and the proposed stairs at the East 69th Street entrances during the three peak hours in the 2020

Build condition (Table 5-12). The 68th Street/Hunter College Subway Station Improvement Project would greatly enhance pedestrian flow throughout all of the subway elements in comparison to the No-Build condition. All subway street stairs projected to operate at LOS D or worse in the No-Build condition would be improved by the Proposed Project to a LOS C or better.

For the Proposed Project *with Option E1*, the proposed east stair at East 69th Street would have the same volume as the Proposed Project, but the subway street stair would be 108 inches wide rather than 120 inches wide. Under the Proposed Project *with Option E1*, this stair would operate at LOS A during all three peak periods, which is the same LOS as for the Proposed Project.

Table 5-12:
2020 Build Conditions: Subway Street Stairs Level of Service
68th Street/Hunter College Station

Intersection	Stair ID	2020 Build					2020 Build with Option E1				
		Location	Volume	v/c Ratio	LOS	Impact?	Location	Volume	v/c Ratio	LOS	Impact?
AM Peak Hour											
Lexington Avenue at East 68th Street	S4	NE Corner	201	0.36	A	No	NE Corner	201	0.36	A	No
	S3	NW Corner	124	0.28	A	No	NW Corner	124	0.28	A	No
	O2/O4	SE Corner	727	0.76	C	No	SE Corner	727	0.76	C	No
	O1/O3	SW Corner	442	0.58	B	No	SW Corner	442	0.58	B	No
Lexington Avenue at East 69th Street	New	Midblock (East)	393	0.37	A	N/A	SE Corner	393	0.41	A	N/A
	New	SW Corner	232	0.25	A	N/A	SW Corner	232	0.25	A	N/A
Midday Peak Hour											
Lexington Avenue at East 68th Street	S4	NE Corner	63	0.10	A	No	NE Corner	63	0.10	A	No
	S3	NW Corner	29	0.06	A	No	NW Corner	29	0.06	A	No
	O2/O4	SE Corner	304	0.29	A	No	SE Corner	304	0.29	A	No
	O1/O3	SW Corner	155	0.21	A	No	SW Corner	155	0.21	A	No
Lexington Avenue & East 69th Street	New	Midblock (East)	84	0.08	A	N/A	SE Corner	84	0.09	A	N/A
	New	SW Corner	91	0.09	A	N/A	SW Corner	91	0.09	A	N/A
PM Peak Hour											
Lexington Avenue at East 68th Street	S4	NE Corner	186	0.28	A	No	NE Corner	186	0.28	A	No
	S3	NW Corner	75	0.16	A	No	NW Corner	75	0.16	A	No
	O2/O4	SE Corner	561	0.50	B	No	SE Corner	561	0.50	B	No
	O1/O3	SW Corner	255	0.33	A	No	SW Corner	255	0.33	A	No
Lexington Avenue at East 69th Street	New	Midblock (East)	148	0.14	A	N/A	SE Corner	148	0.15	A	N/A
	New	SW Corner	296	0.28	A	N/A	SW Corner	296	0.28	A	N/A

Source: Sam Schwartz Engineering, DPC, 2015

Platform Stairs

Analyses were conducted for the subway platform stairs in the 68th Street/Hunter College Station for the three peak hours for the 2020 Build condition (Table 5-13). The 68th Street/Hunter College Subway Station Improvement Project would also greatly enhance pedestrian flow at platform level in comparison to the No-Build Alternative. All subway platform stairs projected to operate at LOS D or worse in the No-Build Alternative would be improved by the Proposed Project to a LOS C or

better. The proposed platform stairs connected to the proposed fare control areas at East 69th Street are projected to operate at LOS A during all three peak hours.

Table 5-13:
2020 Build Conditions: Subway Platform Stairs Level of Service
68th Street/Hunter College Station

Station	Stair ID	Location	2020 Build			Impact?
			Volume	v/c Ratio	LOS	
AM Peak Hour						
East 68th Street	P1	South S/B Platform	141	0.16	A	No
	P3	North S/B Platform	382	0.48	B	No
	P2	South N/B Platform	342	0.39	A	No
	P4	North N/B Platform	743	0.88	C	No
East 69th Street	New	S/B Platform	232	0.27	A	N/A
	New	N/B Platform	393	0.44	A	N/A
Midday Peak Hour						
East 68th Street	P1	South S/B Platform	181	0.19	A	No
	P3	North S/B Platform	172	0.17	A	No
	P2	South N/B Platform	91	0.10	A	No
	P4	North N/B Platform	213	0.27	A	No
East 69th Street	New	S/B Platform	91	0.09	A	N/A
	New	N/B Platform	84	0.10	A	N/A
PM Peak Hour						
East 68th Street	P1	South S/B Platform	338	0.33	A	No
	P3	North S/B Platform	424	0.43	A	No
	P2	South N/B Platform	204	0.23	A	No
	P4	North N/B Platform	300	0.35	A	No
East 69th Street	New	S/B Platform	296	0.28	A	N/A
	New	N/B Platform	148	0.16	A	N/A

Note: The results in this table are exactly the same for the Proposed Project as for the Proposed Project with Option E-1.

Source: New York City Transit, 2012

The clearance times for the four platform stairs were also calculated for the 2020 Build condition during the AM, midday and PM peak hours (Table 5-14). In the AM peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are projected to be 12, 48, 40, and 88 seconds, respectively. During the AM peak hour, the clearance time for the proposed East 69th Street platform stairs are projected to be 25 seconds for the southbound platform and 46 seconds for the northbound platform. In the midday peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are projected to be 11, 2, 9, and 26 seconds, respectively. During the midday peak hour, the clearance time for the proposed East 69th Street platform stairs are projected to be 3 seconds for the southbound platform and 9 seconds for the northbound platform. In the PM peak hour, the clearance times for platform stairs P1, P3, P2, and P4 are projected to be 2, 6, 16, and 28 seconds, respectively. The clearance time for the proposed East 69th Street platform stairs is projected to be 2 seconds for the southbound platform and 8 seconds for the northbound platform during the PM peak hour.

As illustrated in Table 5-14, the clearance times for the platform stairs are all projected to improve (substantially in many cases) in comparison to the No-Build Alternative during all three peak hours as a result of the Proposed Project. However, some platform stairs are still not projected to meet the New York City Transit clearance guideline of 30 seconds.

For the Proposed Project *with Option E1*, the platform stair volumes and analysis results would be the same as for the Proposed Project.

Table 5-14:
2020 Build Conditions
Platform Stairs Clearance Times (Seconds)

Stair ID	Station Element	Location	Clearance Time (sec)
AM Peak Hour			
P1	Stairway	South S/B Platform	12
P3	Stairway	North S/B Platform	48
P2	Stairway	South N/B Platform	40
P4	Stairway	North N/B Platform	88
New	Stairway	S/B E 69th Street	25
New	Stairway	N/B E 69th Street	46
Midday Peak Hour			
P1	Stairway	South S/B Platform	11
P3	Stairway	North S/B Platform	2
P2	Stairway	South N/B Platform	9
P4	Stairway	North N/B Platform	26
New	Stairway	S/B E 69th Street	3
New	Stairway	N/B E 69th Street	9
PM Peak Hour			
P1	Stairway	South S/B Platform	2
P3	Stairway	North S/B Platform	6
P2	Stairway	South N/B Platform	16
P4	Stairway	North N/B Platform	28
New	Stairway	S/B E 69th Street	2
New	Stairway	N/B E 69th Street	8

Note: The results in this table are exactly the same for the Proposed Project as for the Proposed Project with Option E-1.

Source: New York City Transit, 2012

Turnstiles

Using CEQR methodology to determine future increases in passengers using the station in 2020, and considering the operation of Second Avenue Subway for predicted passenger diversions, control area performance characteristics were projected for the 2020 analysis year (see Table 5-15). Under the 2020 Build condition, the control area is projected to operate at LOS A for all three peak hours.

For the Proposed Project *with Option E1*, the turnstile volumes and analysis results would be the same as for the Proposed Project.

Table 5-15:
2020 Build Conditions: Subway Control Area Level of Service
68th Street/Hunter College Station

Control Area	Station Element (Quantity)	2020 Build			Impact?
		Volume	v/c Ratio	LOS	
AM Peak Hour					
East 68th Street	Turnstile (14)	1,609	0.34	A	No
East 69th Street (East Side)	Turnstile (5)	393	0.24	A	N/A
East 69th Street (West Side)	Turnstile (4)	232	0.17	A	N/A
Midday Peak Hour					
East 68th Street	Turnstile (14)	657	0.14	A	No
East 69th Street (East Side)	Turnstile (5)	84	0.05	A	N/A
East 69th Street (West Side)	Turnstile (4)	91	0.07	A	N/A
PM Peak Hour					
East 68th Street	Turnstile (14)	1,267	0.27	A	No
East 69th Street (East Side)	Turnstile (5)	148	0.09	A	N/A
East 69th Street (West Side)	Turnstile (4)	296	0.22	A	N/A

Note: The results in this table are exactly the same for the Proposed Project as for the Proposed Project with Option E-1.

Source: Sam Schwartz Engineering, DPC, 2015

5.4 BUS TRANSIT

This section describes current bus operations near the project site and assesses if the Proposed Project or the Proposed Project *with Option E1* would result in any significant adverse impacts to bus transit. A detailed transit analysis is not warranted because the Proposed Project and the Proposed Project *with Option E1* would not require the relocation of bus routes or bus stop locations, and the Proposed Project and the Proposed Project *with Option E1* would not significantly change bus ridership in 2020.

5.4.1 EXISTING CONDITIONS

A total of six bus routes (BXM1, M66, M98, M101, M102, and M103) operated by MTA NYCT provide local and limited-stop bus service serving the 68th Street/Hunter College Station. In addition, private carrier service to Long Island, operated by Hampton Jitney, serves the study area. A total of four bus stops are provided adjacent to the station. This includes a stop on the south side of East 68th Street on the east side of Lexington Avenue, which accommodates a high number of subway-to-bus transfers especially during the AM peak period. The remaining three bus stops are located along the west side of Lexington Avenue at the south side of East 70th Street, the south side of East 69th Street (Hampton Jitney), and the south side of East 68th Street. A description of each local bus route and the frequency of service (according to the Manhattan Bus Service Guide) during the weekday AM, midday, and PM peak periods are provided below.

M66 Bus

The M66 bus route provides local cross town bus service between the Upper East and Upper West sides of Manhattan. The M66 bus route operates on East 67th Street in the westbound direction and on East 68th Streets in the eastbound direction. On average, the M66 local bus route operates every 5 minutes during the weekday AM peak period, every 9 minutes during the midday peak period, and every 5 minutes during the PM peak period.

M98 Bus

The M98 bus route provides limited-stop service on weekdays between Washington Heights and the Upper East Side in Manhattan. On average, the M98 limited-stop bus route operates every 8 minutes during the weekday AM peak period and every 15 minutes during the PM peak period. The M98 bus route does not operate during the weekday midday period or on weekends. The M98 bus route operates on Lexington Avenue in the southbound direction through the study area and on Third Avenue in the northbound direction.

M101 Bus

The M101 bus route provides limited-stop service during the peak hours (approximately 6:00 AM to 8:00 PM) and local bus service during the off-peak hours between Washington Heights and the East Village in Manhattan. The M101 bus route operates on Lexington Avenue in the southbound direction through the study area and on Third Avenue in the northbound direction. On average, the M101 limited-stop bus route operates every 8 minutes during the weekday AM peak period, every 8 minutes during the midday peak period, and every 7 minutes during the PM peak period.

M102 Bus

The M102 bus route operates on Lexington Avenue in the southbound direction through the study area and on Third Avenue in the northbound direction. The M102 bus route provides local bus service between Harlem and the East Village in Manhattan operating every 10 minutes during the weekday AM peak period, every 12 minutes during the midday peak period, and every 11 minutes during the PM peak period.

M103 Bus

The M103 bus route provides local bus service between East Harlem and City Hall in Manhattan operating every 12 minutes during the weekday AM peak period, every 12 minutes during the midday peak period, and every 12 minutes during the PM peak period. The M102 bus route operates on Lexington Avenue in the southbound direction through the study area and on Third Avenue in the northbound direction.

5.4.2 2020 FUTURE NO-BUILD

Bus ridership was not projected to 2020 because a detailed bus transit analysis is not warranted. However, it is likely that the opening of the Second Avenue Subway would in fact reduce transit trips at the bus stops closest to project site with riders being diverted away from the Lexington Avenue line, and no significant adverse impacts to bus operations and bus ridership are expected in 2020 under the No-Build condition.

5.4.3 2020 FUTURE BUILD

As the Proposed Project would not require the relocation of bus routes or bus stop locations, the Project would not significantly change bus ridership when compared to the 2020 No Build

condition. Therefore, there would be no significant adverse impacts to bus operations as a result of the Proposed Project.

5.5 PARKING

The Proposed Project would include a sidewalk bulb-out and would thus eliminate some parking spaces. As such, parking conditions were evaluated to determine if the Proposed Project would generate significant impacts to this resource. Operation of the Second Avenue Subway is not expected to have an effect on parking and was not considered in the parking analysis. The on-street parking study area centers around the intersection of Lexington Avenue and East 68th Street, which is where the proposed parking elimination would occur and is where the reduction in parking capacity would be most critical. The study area includes Lexington Avenue between East 68th and East 70th Streets as well as East 69th Street for approximately 150 feet east and west of Lexington Avenue.

5.5.1 METHODOLOGY

5.5.1.1 Data Collection

Existing on-street parking conditions were evaluated based upon a field inventory of parking regulations and utilization in the parking study area. No parking is permitted along the west side curb of Lexington Avenue during the AM peak period (between 7:00 and 10:00 AM) because it is used as an exclusive bus lane. During the field inventory, the approximately three spaces located on the south curb of East 69th Street to the west of Lexington Avenue were occupied with construction equipment and materials associated with ongoing construction activity.

5.5.1.2 Analysis Methodology

The parking analysis identifies the extent to which on-street and off-street parking is available and utilized under Existing, No Build, and Build conditions. Typically, this analysis encompasses a study area within ¼-mile of the project site. However, the study area selected for the Proposed Project was selected to be significantly smaller (approximately one block in each direction) to be conservative. If the analysis produces a shortfall in parking in the study area, the study area could be extended to identify additional parking supply. The analysis, which takes into consideration anticipated changes in area parking supply, provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from additional demand generated by the Proposed Project.

5.5.1.3 Impact Criteria

According to the CEQR Technical Manual, if the Proposed Project generates more parking demand than it supplies, this shortfall may be considered significant. However, for projects in Manhattan (and other locations as identified in CEQR), the inability of the Proposed Project or the surrounding area to accommodate a project's future parking demands is considered a parking shortfall, but is generally not considered significant due to the magnitude of available alternative modes of transportation.

5.5.1.4 Existing Conditions

Available on-street parking conditions are illustrated in Table 5-16 and Table 5-17.

Table 5-16:
2011 Existing Conditions: On-Street Parking Capacity
Lexington Avenue at East 69th Street

Time Period	Parking Space Capacity								
	Lexington Avenue (between E 69th and E 70th Streets)		Lexington Avenue (between E 68th and E 69th Streets)		East 69th Street (west of Lexington Avenue)		East 69th Street (east of Lexington Avenue)		
	East	West	East	West	North	South	North	South	Total
AM	9	0	9	0	3	0	6	5	32
Midday	9	5	9	6	3	0	6	5	43
PM	9	5	9	6	3	0	6	5	43

Source: Sam Schwartz Engineering, DPC, 2015

Table 5-17:
2011 Existing Conditions: On-Street Parking Spaces Occupied
Lexington Avenue at East 69th Street

Time Period	Capacity	Occupied Spaces	Percent Spaces Occupied
AM	32	20	63%
Midday	43	36	84%
PM	43	33	77%

Source: Sam Schwartz Engineering, DPC, 2015

5.5.2 2020 FUTURE NO-BUILD

The existing on-street parking volumes were increased using the general annual background growth of 0.25 percent through 2016 and 0.125 percent through 2020 per the CEQR Technical Manual. As such, the number of occupied spaces is projected to increase by one vehicle as a result of the background growth rate. On-street parking in the study area was analyzed for the three peak hours, and no on-street parking shortfall was identified for the 2020 No-Build condition. Table 5-18 shows the available parking under the 2020 No-Build condition, while Table 5-19 shows the percentages of occupied spaces during all three peak hours.

Table 5-18:
2020 No-Build Condition: On-Street Parking Capacity
Lexington Avenue at East 69th Street

Time Period	Parking Space Capacity								
	Lexington Avenue (between E 69th and E 70th Streets)		Lexington Avenue (between E 68th and E 69th Streets)		East 69th Street (west of Lexington Avenue)		East 69th Street (east of Lexington Avenue)		
	East	West	East	West	North	South	North	South	Total
AM	9	0	9	0	3	0	6	5	32
Midday	9	5	9	6	3	0	6	5	43
PM	9	5	9	6	3	0	6	5	43

Source: Sam Schwartz Engineering, DPC, 2015

Table 5-19:
2020 No-Build Condition: On-Street Parking Spaces Occupied
Lexington Avenue at East 69th Street

Time Period	Capacity	Occupied Spaces	Percent Spaces Occupied
AM	32	21	66%
Midday	43	37	86%
PM	43	34	79%

Source: Sam Schwartz Engineering, DPC, 2015

5.5.3 2020 FUTURE BUILD

The Proposed Project would eliminate four parking spaces on the south side of East 69th Street to the west of Lexington Avenue because of the proposed bulb-outs to accommodate the new street subway stairs.

The Proposed Project and the Proposed Project *with Option E1* would not lead to an increase in demand for parking. The maximum number of available spaces within the parking study area would still be greater than the projected number of occupied spaces. On-street parking capacity within the parking study area would therefore be adequate to accommodate the projected demand through 2020 during all three peak hours. Table 5-20 shows the available parking under the 2020 Build condition, while Table 5-21 shows the percentages of occupied spaces during all three peak hours.

For the Proposed Project *with Option E1*, there would be an additional bulb-out on the south side of East 69th Street to the east of Lexington Avenue to accommodate the new street subway stair, which would result in a loss of three parking spaces on the south side of East 69th Street. On-street parking capacity within the parking study area would still be able to accommodate the projected demand through 2020 during all three peak hours.

Table 5-20:
2020 Proposed Project Condition: On-Street Parking Capacity
Lexington Avenue at East 69th Street

	Time Period	Parking Space Capacity								
		Lexington Avenue (between E 69th and E 70th Streets)		Lexington Avenue (between E 68th and E 69th Streets)		East 69th Street (west of Lexington Avenue)		East 69th Street (east of Lexington Avenue)		
		East	West	East	West	North	South	North	South	Total
2020 Build	AM	9	0	9	0	0	0	6	5	29
	Midday	9	5	9	6	0	0	6	5	40
	PM	9	5	9	6	0	0	6	5	40
2020 Build with Option E1	AM	9	0	9	0	0	0	6	2	26
	Midday	9	5	9	6	0	0	6	2	37
	PM	9	5	9	6	0	0	6	2	37

Source: Sam Schwartz Engineering, DPC, 2015

Table 5-21:
2020 Proposed Project Condition: On-Street Parking Spaces Occupied
Lexington Avenue at East 69th Street

	Time Period	Capacity	Occupied Spaces	Percent Spaces Occupied
2020 Build	AM	29	21	72%
	Midday	40	37	93%
	PM	40	34	85%
2020 Build with Option E1	AM	26	21	81%
	Midday	37	37	100%
	PM	37	34	92%

Source: Sam Schwartz Engineering, DPC, 2015

5.6 PEDESTRIAN

Pedestrian elements in the immediate vicinity of the Proposed Project, including sidewalks, corner reservoirs, and crosswalks could be affected by the diversion of passengers from the subway entrances on East 68th Street to the new entrances on East 69th Street. However, because the project would not increase the number of pedestrians in the area, it would not affect pedestrian circulation at more distant intersections. As such, the study area for pedestrian analyses encompasses the two intersections along Lexington Avenue (East 68th Street and East 69th Street). The pedestrian elements represent locations that would most likely be affected by the Proposed Project.

5.6.1 DATA COLLECTION

All crosswalk, corner, and sidewalk locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed during the peak 15-minutes of the weekday AM, midday and PM peak hours. Counts at all of these pedestrian elements were conducted during these peak periods on November 9, 2011. The 15-minute peak period was identified separately for each pedestrian element (crosswalk, corner, and sidewalk) during the three peak hours. Measurements of each pedestrian element were taken in the field.

5.6.2 ANALYSIS METHODOLOGY

Crosswalk/Corner

Crosswalk and corner analyses are conducted at signalized intersections using the analytical procedures described in the 2000 Highway Capacity Manual (HCM). The capacity of crosswalks and corners are evaluated on the basis of pedestrian space measured in terms of square feet per pedestrian. In order to calculate pedestrian space, effective crosswalk widths and corner areas, peak 15-minute pedestrian volumes (crosswalk, corner, and sidewalk), conflicting peak 15-minute turning vehicles, average walking speed (3.5 feet/second or 3.0 feet/second if 20 percent of pedestrians are seniors and/or school children, or if the intersection is in a Senior Pedestrian Focus Area), and signal timing are required.

Sidewalk

As identified in the HCM 2000, pedestrian unit flow rate is the primary performance measure used to evaluate sidewalks. This measure is based on pedestrians per foot per minute (PFM), which is

calculated by dividing the average per minute two-way pedestrian volume (during the peak 15-minute period) by the effective sidewalk width in feet (taking into account a buffer between walls, curbs, and obstructions). To accurately calculate sidewalk LOS, it is important to determine if the pedestrian flow is generally "platoon" or "non-platoon." Platoon flow occurs when pedestrian volumes vary significantly within the peak period because of surges from a bus stop, subway station, or a crosswalk. Non-platoon flow occurs when pedestrian volumes within the peak period being analyzed are relatively uniform. Accounting for platoon flows in the analysis generally results in a poorer LOS.

5.6.3 IMPACT CRITERIA

The CEQR Technical Manual provides guidance on the impact criteria for pedestrian facilities based on the general comfort and convenience levels of pedestrians, according to the location of the pedestrian study area. Pedestrians in central business district (CBD) areas have become accustomed to higher pedestrian volumes and generally are more tolerant of restricted LOS conditions that might not be acceptable in other less congested (non-CBD) locations. An acceptable LOS for CBD areas is generally a mid-LOS D or better while an acceptable LOS for non-CBD areas is generally the upper limit of LOS C or better. The methodology for determining impacts when LOS is D or worse is based on the change in average pedestrian space between the No Build and Build conditions and is detailed in full in Appendix C.

5.6.4 EXISTING CONDITIONS

Crosswalks

The four crosswalk locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed using the pedestrian data within the pedestrian study area. All eight crosswalk locations operate at an LOS C or better during the three peak hours, except the west crosswalk at East 69th Street during the PM peak hour which operates at LOS D (see Table 5-22). LOS D represents conditions where pedestrians are crowded and walking speed is restricted.

Table 5-22:
2011 Existing Conditions: Crosswalk Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Crosswalk	Crosswalk Length	Crosswalk Width	Available Crosswalk Circulation Space (ft^2/p)			Crosswalk Circulation LOS		
				AM	MD	PM	AM	MD	PM
Lexington Avenue at East 68th Street	North	50.3	13.5	41	81	109	B	A	A
	South	51.5	14.0	34	37	52	C	C	B
	East	28.7	15.3	101	55	59	A	B	B
	West	29.8	18.0	57	58	29	B	B	C
Lexington Avenue at East 69th Street	North	50.0	13.0	127	174	223	A	A	A
	South	50.0	13.0	68	60	106	A	B	A
	East	29.1	13.5	26	46	35	C	B	C
	West	29.0	12.5	47	41	16	B	B	D

Source: Sam Schwartz Engineering, DPC, 2015

Corners

The four corner reservoir locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed using the pedestrian data within the pedestrian study area. All eight corner locations operate at an LOS C or better during the three peak hours with the exception of one: the northwest corner of the Lexington Avenue and East 68th Street intersection operates at LOS D during the AM and PM peak hours (see Table 5-23). Under existing conditions, the intersection corners at Lexington Avenue at East 69th Street have higher pedestrian volumes than the corners at Lexington Avenue at East 68th Street.

Table 5-23:
2011 Existing Conditions: Corner Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Corner	Required Corner Circulation Space (ft^2/s)			Corner Circulation LOS		
		AM	MD	PM	AM	MD	PM
Lexington Avenue at East 68th Street	Northeast	36	65	46	C	A	B
	Northwest	22	36	21	D	C	D
	Southeast	66	59	70	A	B	A
	Southwest	51	50	44	B	B	B
Lexington Avenue at East 69th Street	Northeast	64	102	84	A	A	A
	Northwest	96	90	46	A	A	B
	Southeast	73	137	108	A	A	A
	Southwest	97	94	60	A	A	A

Source: Sam Schwartz Engineering, DPC, 2015

Sidewalks

The 16 sidewalk locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed using the pedestrian data within the pedestrian study area. All 16 sidewalk locations operate at an LOS C or better for the non-platoon and platoon conditions during the three peak hours with the exception of two: the west sidewalk of Lexington Avenue north of East 68th Street and the west sidewalk of Lexington Avenue north of East 69th Street, both of which operate at LOS D during the PM peak hour under platoon conditions (see Table 5-24).

Table 5-24:
2011 Existing Conditions: Sidewalk Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Approach	Sidewalk	Effective Width (feet)	Peak 15-Min Volumes			Flow Rate (pfm)			Non-Platoon LOS			Platoon LOS		
				AM	MD	PM	AM	MD	PM	AM	MD	PM	AM	MD	PM
Lexington Avenue at East 68th Street	Lexington Avenue South of E 68th Street	East	5.3	241	191	205	3.01	2.39	2.56	A	A	A	C	B	B
		West	6.0	281	171	230	3.12	1.90	2.56	A	A	A	C	B	B
	Lexington Avenue North of E 68th Street	East	9.0	750	262	547	5.56	1.94	4.05	B	A	A	C	B	C
		West	5.5	364	268	605	4.41	3.25	7.33	A	A	C	C	C	D
	E 68th Street West of Lexington Ave	North	7.7	191	219	184	1.66	1.90	1.60	A	A	A	B	B	B
		South	7.0	239	250	474	2.28	2.38	4.51	A	A	A	B	B	C
	E 68th Street East of Lexington Ave	North	8.7	379	156	338	2.92	1.20	2.60	A	A	A	B	B	B
		South	10.6	237	63	206	1.49	0.40	1.30	A	A	A	B	A	B
Lexington Avenue at East 69th Street	Lexington Avenue South of E 69th Street	East	10.5	586	262	547	3.72	1.66	3.47	A	A	A	C	B	C
		West	8.1	364	268	605	3.00	2.21	4.99	A	A	A	C	B	C
	Lexington Avenue North of E 69th Street	East	7.0	484	238	370	4.61	2.27	3.52	A	A	A	C	B	C
		West	5.3	351	250	544	4.39	3.13	6.80	A	A	B	C	C	D
	E 69th Street West of Lexington Ave	North	7.0	37	81	65	0.35	0.77	0.62	A	A	A	A	B	B
		South	14.3	77	115	103	0.36	0.53	0.48	A	A	A	A	B	A
	E 69th Street East of Lexington Ave	North	8.0	56	36	92	0.47	0.30	0.77	A	A	A	A	A	B
		South	8.0	304	135	179	2.53	1.13	1.49	A	A	A	B	B	B

Source: Sam Schwartz Engineering, DPC, 2015

5.6.5 2020 FUTURE NO-BUILD CONDITION

The crosswalk, corner, and sidewalk locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed for the three peak hours for the 2020 analysis year under the No-Build condition.

Crosswalks

As illustrated in Table 5-25, all crosswalks in the pedestrian study area would operate at LOS C or better in the 2020 No Build condition except for the west crosswalk at the intersection of Lexington Avenue and East 69th Street, which would operate at LOS D in the PM peak hour.

Table 5-25:
2020 No-Build Conditions: Crosswalk Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Crosswalk	2020 No-Build	
		Circulation Area Per Pedestrian (ft^2/p)	LOS
AM Peak Hour			
Lexington Avenue at East 68th Street	North	42	B
	South	34	C
	East	111	A
	West	57	B
Lexington Avenue at East 69th Street	North	124	A
	South	66	A
	East	25	C
	West	46	B
Midday Peak Hour			
Lexington Avenue at East 68th Street	North	82	A
	South	38	C
	East	57	B
	West	57	B
Lexington Avenue at East 69th Street	North	171	A
	South	58	B
	East	45	B
	West	40	B
PM Peak Hour			
Lexington Avenue at East 68th Street	North	116	A
	South	60	A
	East	61	A
	West	29	C
Lexington Avenue at East 69th Street	North	223	A
	South	103	A
	East	34	C
	West	15	D

Source: Sam Schwartz Engineering, DPC, 2015

Corners

In the 2020 No-Build condition, all corners would operate at LOS C or better except the northwest corner, which would operate at LOS D in the PM peak hour (Table 5-26).

Table 5-26:
2020 No-Build Conditions: Corner Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Corner	2020 No-Build	
		Circulation Area Per Pedestrian (ft^2/p)	LOS
AM Peak Hour			
Lexington Avenue at East 68th Street	Northeast	38	C
	Northwest	24	C
	Southeast	68	A
	Southwest	51	B
Lexington Avenue at East 69th Street	Northeast	62	A
	Northwest	94	A
	Southeast	72	A
	Southwest	95	A
Midday Peak Hour			
Lexington Avenue at East 68th Street	Northeast	73	A
	Northwest	38	C
	Southeast	61	A
	Southwest	50	B
Lexington Avenue at East 69th Street	Northeast	100	A
	Northwest	88	A
	Southeast	134	A
	Southwest	93	A
PM Peak Hour			
Lexington Avenue at East 68th Street	Northeast	45	B
	Northwest	23	D
	Southeast	76	A
	Southwest	45	B
Lexington Avenue at East 69th Street	Northeast	82	A
	Northwest	45	B
	Southeast	106	A
	Southwest	59	B

Source: Sam Schwartz Engineering, DPC, 2015

Sidewalks

In the 2020 No-Build condition, all sidewalks in the pedestrian study area would operate at LOS C or better with two exceptions: in the PM peak hour, the west sidewalk of Lexington Avenue north of East 68th Street and the west sidewalk of Lexington Avenue north of East 69th Street would operate at LOS D (Table 5-27).

Table 5-27:
2020 No-Build Conditions: Sidewalk Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Approach	Sidewalk	2020 No-Build		
			Flow Rate (pfm)	Non-Platoon LOS	Platoon LOS
AM Peak Hour					
E 68th Street & Lexington Avenue	Lexington Ave South of E 68th St	East	2.90	A	B
		West	3.16	A	C
	Lexington Ave North of E 68th St	East	4.75	A	C
		West	3.90	A	C
	E 68th St West of Lexington Ave	North	1.36	A	B
		South	2.30	A	B
	E 68th St East of Lexington Ave	North	2.63	A	B
		South	2.07	A	B
E 69th Street & Lexington Avenue	Lexington Ave South of E 69th St	East	3.78	A	C
		West	3.05	A	C
	Lexington Ave North of E 69th St	East	4.70	A	C
		West	4.46	A	C
	E 69th St West of Lexington Ave	North	0.36	A	A
		South	0.36	A	A
	E 69th St East of Lexington Ave	North	0.48	A	A
		South	2.58	A	B
Midday Peak Hour					
E 68th Street & Lexington Avenue	Lexington Ave South of E 68th St	East	2.29	A	B
		West	1.90	A	B
	Lexington Ave North of E 68th St	East	1.47	A	B
		West	2.99	A	B
	E 68th St West of Lexington Ave	North	1.78	A	B
		South	2.32	A	B
	E 68th St East of Lexington Ave	North	1.00	A	B
		South	0.47	A	A
E 69th Street & Lexington Avenue	Lexington Ave South of E 69th St	East	1.70	A	B
		West	2.25	A	B
	Lexington Ave North of E 69th St	East	2.30	A	B
		West	3.18	A	C
	E 69th St West of Lexington Ave	North	0.78	A	B
		South	0.54	A	B
	E 69th St East of Lexington Ave	North	0.31	A	A
		South	1.14	A	B
PM Peak Hour					
E 68th Street & Lexington Avenue	Lexington Ave South of E 68th St	East	2.46	A	B
		West	2.54	A	B
	Lexington Ave North of E 68th St	East	3.34	A	C
		West	7.00	B	D
	E 68th St West of Lexington Ave	North	1.29	A	B
		South	4.36	A	C
	E 68th St East of Lexington Ave	North	2.71	A	B
		South	1.82	A	B
E 69th Street & Lexington Avenue	Lexington Ave South of E 69th St	East	3.54	A	C
		West	5.08	B	C
	Lexington Ave North of E 69th St	East	3.59	A	C
		West	6.93	B	D
	E 69th St West of Lexington Ave	North	0.63	A	B
		South	0.49	A	A
	E 69th St East of Lexington Ave	North	0.78	A	B
		South	1.52	A	B

Source: Sam Schwartz Engineering, DPC, 2015

5.6.6 2020 FUTURE BUILD CONDITION

The crosswalk, corner, and sidewalk locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed for the three peak hours for the 2020 Build condition. Existing pedestrians originating from or destined for the subway were assigned in the analysis to the East 69th Street stairs based on the assumptions previously cited (Table 5-7).

For the Proposed Project *with Option E1*, subway ridership would be the same as for the Proposed Project; therefore, all pedestrian and transit volumes would be the same except at a few locations. These differences exist because under Option E1, the east side street stair at East 69th Street would be located east of the southeast corner of the Lexington Avenue and East 69th Street intersection, rather than mid-block on the east side of Lexington Avenue. Specifically, the following six pedestrian elements would have different pedestrian volumes under the Proposed Project *with Option E1* compared to the Proposed Project:

- Lexington Avenue east sidewalk, south of East 69th Street (lower volumes under Option E1)
- East 69th Street south sidewalk, east of Lexington Avenue (higher volumes under Option E1)
- East 69th Street north sidewalk, east of Lexington Avenue (lower volumes under Option E1)
- East crosswalk at Lexington Avenue and East 69th Street intersection (lower volumes under Option E1)
- Southeast corner at Lexington Avenue and East 69th Street intersection (lower volumes under Option E1)
- Northeast corner at Lexington Avenue and East 69th Street intersection (lower volumes under Option E1)

Crosswalks

Because pedestrian flows are anticipated to shift from the street subway stairs at East 68th Street to East 69th Street with the implementation of the Proposed Project, some crosswalk pedestrian flows at the Lexington Avenue and East 69th Street intersection are projected to increase. As part of the design of the Proposed Project, two crosswalks at the Lexington Avenue at East 69th Street intersection would be widened. The width of the west crosswalk would be widened by one foot to 13 feet-6 inches and the width of the south crosswalk would be widened by one foot to 14 feet.

The crosswalk analysis results for the 2020 Build condition were compared with the 2020 No-Build condition for the AM, midday, and PM peak hours. As presented in Table 5-28, all four crosswalk locations at the intersection of Lexington Avenue with East 68th Street are projected to operate at an LOS C or better during the three peak hours. At the intersection of Lexington Avenue with East 69th Street, all four crosswalks would continue to operate at an LOS C or better during the AM and midday peak hours in 2020 except for the East crosswalk, which is projected to operate at LOS D during the AM peak hour. During the PM peak hour, all crosswalks would continue to operate at an LOS C or better except for the west crosswalk, which is projected to operate at LOS D with the Proposed Project.

For the Proposed Project *with Option E1*, pedestrian volumes would be different for the east crosswalk at the Lexington Avenue and East 69th Street intersection. This crosswalk would operate at LOS C during the AM peak hour (compared to LOS D for the Proposed Project), LOS

A during the midday peak hour (same as Proposed Project), and at LOS B during the PM peak hour (same as Proposed Project).

Table 5-28:
2020 No-Build and Build Condition: Crosswalk Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Crosswalk	2020 No-Build		2020 Build			2020 Build with Option E1		
		Circulation Area Per Pedestrian (ft^2/p)	LOS	Circulation Area Per Pedestrian (ft^2/p)	LOS	Impact?	Circulation Area Per Pedestrian (ft^2/p)	LOS	Impact?
AM Peak Hour									
Lexington Avenue at East 68th Street	North	42	B	42	B	No	42	B	No
	South	34	C	31	C	No	31	C	No
	East	111	A	92	A	No	92	A	No
	West	57	B	54	B	No	54	B	No
Lexington Avenue at East 69th Street	North	124	A	62	A	No	62	A	No
	South	66	A	31	C	No	31	C	No
	East	25	C	23	D	No	29	C	No
	West	46	B	62	A	No	62	A	No
Midday Peak Hour									
Lexington Avenue at East 68th Street	North	82	A	82	A	No	82	A	No
	South	38	C	37	C	No	37	C	No
	East	57	B	56	B	No	56	B	No
	West	57	B	57	B	No	57	B	No
Lexington Avenue at East 69th Street	North	171	A	129	A	No	129	A	No
	South	58	B	48	B	No	48	B	No
	East	45	B	63	A	No	68	A	No
	West	40	B	46	B	No	44	B	No
PM Peak Hour									
Lexington Avenue at East 68th Street	North	116	A	116	A	No	116	A	No
	South	60	A	58	B	No	58	B	No
	East	61	A	59	B	No	59	B	No
	West	29	C	29	C	No	29	C	No
Lexington Avenue at East 69th Street	North	223	A	82	A	No	82	A	No
	South	103	A	41	B	No	41	B	No
	East	34	C	47	B	No	53	B	No
	West	15	D	16	D	No	15	D	No

Source: Sam Schwartz Engineering, DPC, 2015

Corners

The eight corner reservoir locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed for the 2020 Build condition. All eight corner locations are projected to operate at an LOS C or better during the three peak hours as indicated in Table 5-29.

For the Proposed Project *with Option E1*, pedestrian volumes would be different for the southeast and northeast corners at the Lexington Avenue and East 69th Street intersection; however, these corners would operate at the same LOS as for the Proposed Project.

Table 5-29:
2020 No-Build and Build Conditions: Corner Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Corner	2020 No-Build		2020 Build			2020 Build with Option E1		
		Circulation Area Per Pedestrian (ft^2/p)	LOS	Circulation Area Per Pedestrian (ft^2/p)	LOS	Impact?	Circulation Area Per Pedestrian (ft^2/p)	LOS	Impact?
AM Peak Hour									
Lexington Avenue at East 68th Street	Northeast	38	C	80	A	No	80	A	No
	Northwest	24	C	32	C	No	32	C	No
	Southeast	68	A	61	A	No	61	A	No
	Southwest	51	B	48	B	No	48	B	No
Lexington Avenue at East 69th Street	Northeast	62	A	51	B	No	58	B	No
	Northwest	94	A	82	A	No	82	A	No
	Southeast	72	A	64	A	No	108	A	No
	Southwest	95	A	105	A	No	105	A	No
Midday Peak Hour									
Lexington Avenue at East 68th Street	Northeast	73	A	112	A	No	112	A	No
	Northwest	38	C	42	B	No	42	B	No
	Southeast	61	A	60	A	No	60	A	No
	Southwest	50	B	50	B	No	50	B	No
Lexington Avenue at East 69th Street	Northeast	100	A	117	A	No	124	A	No
	Northwest	88	A	84	A	No	84	A	No
	Southeast	134	A	146	A	No	215	A	No
	Southwest	93	A	123	A	No	123	A	No
PM Peak Hour									
Lexington Avenue at East 68th Street	Northeast	45	B	93	A	No	93	A	No
	Northwest	23	D	28	C	No	28	C	No
	Southeast	76	A	73	A	No	73	A	No
	Southwest	45	B	44	B	No	44	B	No
Lexington Avenue at East 69th Street	Northeast	82	A	81	A	No	88	A	No
	Northwest	45	B	37	C	No	37	C	No
	Southeast	106	A	104	A	No	158	A	No
	Southwest	59	B	67	A	No	67	A	No

Source: Sam Schwartz Engineering, DPC, 2015

Sidewalks

The 16 sidewalk locations at the Lexington Avenue intersections with East 68th Street and East 69th Street were analyzed for the 2020 Build condition. As presented in Table 5-30, the 16 sidewalk locations are projected to operate at an LOS C or better for the non-platoon conditions during the three peak hours.

For platoon conditions, the west sidewalk of Lexington Avenue north of East 69th Street is projected to operate at LOS D during the PM peak hour. Otherwise, all sidewalks would operate at LOS C or better under platoon conditions for all three peak hours. Therefore, no sidewalk locations at either intersection are projected to be affected by the Proposed Project in either platoon or non-platoon conditions in 2020.

For the Proposed Project *with Option E1*, pedestrian volumes would be different for three sidewalks at the Lexington Avenue and East 69th Street intersection. All three of these sidewalks (east side of Lexington Avenue south of East 69th Street, south side of East 69th Street east of Lexington Avenue, and the north side of East 69th Street east of Lexington Avenue) would operate at LOS C or better for both platoon and non-platoon conditions. Therefore, no sidewalk locations at either intersection are projected to be affected by the Proposed Project in either platoon or non-platoon conditions in 2020.

Table 5-30:
2020 No Build and Build Conditions: Sidewalk Level of Service
Lexington Avenue at East 68th Street and East 69th Street

Intersection	Approach	Sidewalk	2020 No-Build			2020 Build				2020 Build with Option E1			
			Flow Rate (pfm)	Non-Platoon LOS	Platoon LOS	Flow Rate (pfm)	Non-Platoon LOS	Platoon LOS	Impact ?	Flow Rate (pfm)	Non-Platoon LOS	Platoon LOS	Impact ?
AM Peak Hour													
East 68th Street & Lexington Avenue	Lexington Ave South of E 68th St	East	2.90	A	B	2.98	A	B	No	2.98	A	B	No
		West	3.16	A	C	3.46	A	C	No	3.46	A	C	No
	Lexington Ave North of E 68th St	East	4.75	A	C	2.80	A	B	No	2.80	A	B	No
		West	3.90	A	C	2.29	A	B	No	2.29	A	B	No
	E 68th St West of Lexington Ave	North	1.36	A	B	0.79	A	B	No	0.79	A	B	No
		South	2.30	A	B	2.30	A	B	No	2.30	A	B	No
	E 68th St East of Lexington Ave	North	2.63	A	B	1.64	A	B	No	1.64	A	B	No
		South	2.07	A	B	2.07	A	B	No	2.07	A	B	No
East 69th Street & Lexington Avenue	Lexington Ave South of E 69th St	East	3.78	A	C	3.56	A	C	No	1.31	A	B	No
		West	3.05	A	C	1.57	A	B	No	1.57	A	B	No
	Lexington Ave North of E 69th St	East	4.70	A	C	4.29	A	C	No	4.29	A	C	No
		West	4.46	A	C	3.54	A	C	No	3.54	A	C	No
	E 69th St West of Lexington Ave	North	0.36	A	A	0.55	A	B	No	0.55	A	B	No
		South	0.36	A	A	1.04	A	B	No	1.04	A	B	No
	E 69th St East of Lexington Ave	North	0.48	A	A	1.27	A	B	No	0.68	A	B	No
		South	2.58	A	B	2.23	A	B	No	3.43	A	C	No
MD Peak Hour													
East 68th Street & Lexington Avenue	Lexington Ave South of E 68th St	East	2.29	A	B	2.34	A	B	No	2.34	A	B	No
		West	1.90	A	B	1.93	A	B	No	1.93	A	B	No
	Lexington Ave North of E 68th St	East	1.47	A	B	0.88	A	B	No	0.88	A	B	No
		West	2.99	A	B	2.56	A	B	No	2.56	A	B	No
	E 68th St West of Lexington Ave	North	1.78	A	B	1.66	A	B	No	1.66	A	B	No
		South	2.32	A	B	2.32	A	B	No	2.32	A	B	No
	E 68th St East of Lexington Ave	North	1.00	A	B	0.70	A	B	No	0.70	A	B	No
		South	0.47	A	A	0.47	A	A	No	0.47	A	A	No
East 69th Street & Lexington Avenue	Lexington Ave South of E 69th St	East	1.70	A	B	1.23	A	B	No	0.75	A	B	No
		West	2.25	A	B	1.76	A	B	No	1.76	A	B	No
	Lexington Ave North of E 69th St	East	2.30	A	B	1.64	A	B	No	1.64	A	B	No
		West	3.18	A	C	3.05	A	C	No	3.05	A	C	No
	E 69th St West of Lexington Ave	North	0.78	A	B	0.78	A	B	No	0.78	A	B	No
		South	0.54	A	B	1.13	A	B	No	1.13	A	B	No
	E 69th St East of Lexington Ave	North	0.31	A	A	0.44	A	A	No	0.33	A	A	No
		South	1.14	A	B	1.19	A	B	No	1.57	A	B	No
PM Peak Hour													
East 68th Street & Lexington Avenue	Lexington Ave South of E 68th St	East	2.46	A	B	2.50	A	B	No	2.50	A	B	No
		West	2.54	A	B	2.59	A	B	No	2.59	A	B	No
	Lexington Ave North of E 68th St	East	3.34	A	C	2.22	A	B	No	2.22	A	B	No
		West	7.00	B	D	5.90	B	C	No	5.90	B	C	No
	E 68th St West of Lexington Ave	North	1.29	A	B	0.92	A	B	No	0.92	A	B	No
		South	4.36	A	C	4.36	A	C	No	4.36	A	C	No
	E 68th St East of Lexington Ave	North	2.71	A	B	1.55	A	B	No	1.55	A	B	No
		South	1.82	A	B	1.82	A	B	No	1.82	A	B	No
East 69th Street & Lexington Avenue	Lexington Ave South of E 69th St	East	3.54	A	C	2.76	A	B	No	1.90	A	B	No
		West	5.08	B	C	4.12	A	C	No	4.12	A	C	No
	Lexington Ave North of E 69th St	East	3.59	A	C	2.90	A	B	No	2.90	A	B	No
		West	6.93	B	D	6.75	B	D	No	6.75	B	D	No
	E 69th St West of Lexington Ave	North	0.63	A	B	0.70	A	B	No	0.70	A	B	No
		South	0.49	A	A	1.18	A	B	No	1.18	A	B	No
	E 69th St East of Lexington Ave	North	0.78	A	B	1.17	A	B	No	0.94	A	B	No
		South	1.52	A	B	1.79	A	B	No	2.30	A	B	No

Source: Sam Schwartz Engineering, DPC, 2015

5.7 CONCLUSION

Currently, the 68th Street/Hunter College Station exhibits several deficiencies, including absence of ADA-compliant access and passenger circulation constraints. In particular, during the peak hours, the platform stairs and street stairs (and the levels approaching these stairs) were observed to be heavily congested. Additionally, several sidewalk elements above ground, including crosswalks and corners, were observed to be overcrowded.

To improve the overall operations at this station, the Proposed Project addresses each of the problems identified. In addition to providing ADA-compliant access between all three levels, the station would be reconfigured. A new street stair, platform stair, and mezzanine on the south sidewalk of 69th Street west of Lexington Avenue and a new street stair, platform stair, and mezzanine in the retail space at 931 Lexington Avenue on the east side of the avenue are proposed to be installed. In addition, three of the four existing stairs at the 68th Street would be reconstructed. The analysis presented in this chapter examined the potential traffic, transit, parking, and pedestrian impacts of the Proposed Project.

Traffic

The Proposed Project would not affect lane geometry or introduce additional vehicle trips within the study area. Therefore, the Project would have no significant adverse impact on the surrounding traffic network in the 2020 Build condition.

Subway Transit

The main control area on the mezzanine level at the 68th Street end of the station would improve with the Proposed Project as some customers would now use the proposed 69th Street access in the 2020 Build condition.

Similarly, platform stair clearance times in the 2020 Build condition would decrease as some customers would be diverted and use the platform stairs at the northern end of the station.

The existing street stairs at 68th Street would also improve due to both the proposed rehabilitation of these stairs as well as the reduction in overall volumes as some customers would be diverted to the proposed 69th Street access.

Bus Transit

The Proposed Project would not require the relocation of bus routes or bus stop locations. Therefore, the Project would have no significant adverse impacts to bus operations.

Parking

The Proposed Project includes the installation of a sidewalk bulb-out which would eliminate a few curbside parking spaces. However, there would be sufficient on-street parking capacity to accommodate the future parking demand, even with the projected loss of spaces.

Pedestrian

Overall, pedestrian elements (sidewalk, corner, and crosswalk) at 68th Street and Lexington Avenue would operate at the same or better LOS due to the diversion of customers to the new 69th Street access point. Diverting these pedestrians to 69th Street and Lexington Avenue would increase pedestrian volumes at that intersection and cause some pedestrian elements to operate at a slightly worse LOS; however, all of these elements would still operate at LOS D or better, and there would be no significant adverse impacts as a result of the project.

6.1 INTRODUCTION

This chapter presents a project-level analysis of the potential for air quality impacts that could result from mobile and stationary sources of air emissions generated by the Proposed Project and the Proposed Project *with Option E1*. The air quality analysis was conducted in accordance with federal and state rules and regulations including NEPA, the Clean Air Act and Amendments (CAA), the New York State Implementation Plan (SIP), the New York State Environmental Quality Review Act (SEQRA), in consideration of the technical guidance in the 2014 CEQR Technical Manual, and in accordance with the applicable requirements of transportation conformity rules.

6.2 REGULATORY FRAMEWORK

6.2.1 NATIONAL AMBIENT AIR QUALITY STANDARDS

As required by the Clean Air Act, primary and secondary National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), ozone, particulate matter (PM), sulfur dioxide (SO2), and lead. In addition to retaining 24-hr PM10 standards (for particulate matter with an aerodynamic equivalent diameter less than 10 micrometers), the U.S. Environmental Protection Agency (EPA) has adopted 24-hour and annual standards for PM2.5, or particulate matter with an aerodynamic equivalent diameter less than 2.5 micrometers (µm). Table 6-1 shows the standards for these pollutants. Some of the NAAQS have also been adopted as the ambient air quality standards by the State of New York. The primary standards protect the public health, and represent levels at which there are no known significant effects on human health. Secondary standards are designed to protect the environment from any known or anticipated adverse effects of a pollutant, including the effects on the natural environment (soil, water, vegetation) and the manmade environment (physical structures). Areas that do not meet the NAAQS for a particular pollutant are called “nonattainment areas” for this criteria pollutant; areas that meet both primary and secondary standards are known as “attainment areas.” Former nonattainment areas are known as “maintenance areas.”

New York State has air quality standards for other pollutants not shown on this summary table, including Total Suspended Particulates and non-methane hydrocarbons.

6.2.2 COMPLIANCE STATUS

The Borough of Manhattan (e.g., New York County) is in attainment with the NAAQS for the criteria pollutants SO2, NO2, and lead (Pb). Manhattan is designated as a nonattainment area for the following NAAQS:

- 8-hr average ozone
- 24-hr average PM10

Manhattan is also designated a maintenance area for carbon monoxide and PM2.5.

6.2.3 TRANSPORTATION CONFORMITY

The 1990 CAA Section 176(c) requires all federally sponsored or approved activities in nonattainment or maintenance areas to conform to the applicable SIP. The Proposed Project is

included in the current 2014-2018 TIP – PIN number ST04-6951 – developed by NYMTC, the designated entity responsible for coordinating transportation planning and decision-making in the New York City metropolitan region. The applicable goals of the 2014–2040 Regional Transportation Plan, include "providing convenient, flexible transportation access" regardless of ability and the desired outcomes of the Regional Transportation Plan include increased transit ridership and safety improvements.

The Proposed Project and the Proposed Project *with Option E1* would be exempt from transportation conformity requirements because it consists of reconstruction or renovation of transit buildings and structures (40 C.F.R. § 93.126[15]). Therefore no conformity determination is required.

Table 6-1:
National and State Ambient Air Quality Standards

Pollutant	Averaging Period	Type of Standard	Form	NAAQS	NYSAAQS
Carbon Monoxide (CO)	8-hour	Primary	Not to be exceeded more than once per year	9.0 ppm	9.0 ppm
	1-hour			35.0 ppm	35.0 ppm
Lead (Pb)	Rolling 3-month Average	Primary and Secondary	Not to be exceeded	0.15 µg/m^3	None
Nitrogen Dioxide (NO_2)	Annual	Primary and Secondary	Annual Mean	0.053 ppm	0.05 ppm
	1-hour	Primary	98th percentile, averaged over 3 years	0.100 ppm	None
Particulates (PM_{10})	24-hour	Primary and Secondary	Not to be exceeded more than once per year on average over 3 years	150.0 µg/m^3	None
Particulates ($PM_{2.5}$)	24-hour	Primary and Secondary	98th percentile, averaged over 3 years	35.0 µg/m^3	None
	Annual	Secondary	Annual mean, averaged over 3 years	15.0 µg/m^3	None
	Annual	Primary	Annual mean, averaged over 3 years	12.0 µg/m^3	None
Ozone (O_3)	8-hour (2008 std)	Primary and Secondary	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years	0.075 ppm	0.08 ppm
	1-hour	N/A	N/A	N/A	0.12 ppm
Sulfur Dioxide (SO_2)	1-hour	Primary	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	75.0 ppb	None
	3-hour	Secondary	Not to be exceeded more than once per year	0.5 ppm	0.50 ppm
	24-hour	N/A	Maximum	N/A	0.14 ppm
	Annual	N/A	Arithmetic Mean	N/A	0.03 ppm

ppm = parts per million
µg/m3 = micrograms per cubic meter
Source: 40 C.F.R. § 50, National Primary and Secondary Ambient Air Quality Standards; NYCRR, Title 6, Chapter III, Subpart B, Part 257 and http://www.dec.ny.gov/chemical/8542.html#fn7. http://www.epa.gov/air/criteria.html

[15] Code of Federal Regulations, Title 40 -- Protection of Environment, § 93.126 Exempt Projects, Table 2.

6.3 METHODOLOGY

The baseline air quality conditions in the study area were determined based on the review of existing ambient air quality data monitored by the New York Department of Environmental Conservation (NYSDEC).

NEPA and SEQRA do not include detailed air quality analysis procedures and therefore the air quality impact analysis follows the guidelines and protocol established by New York City Department of Environmental Protection (NYCDEP) as described in the 2014 CEQR Technical Manual for evaluating air quality impacts associated with the Proposed Action.

6.4 EXISTING CONDITIONS

Table 6-2 summarizes the available ambient air quality monitoring data for the New York area. The data is presented in terms of "design value" which is directly comparable to the statistical form of each of the NAAQS. For example, the 24-hour PM2.5 NAAQS is based on the average of the 98th percentile 24-hour concentrations for each of the three years of monitoring data. The design values presented in Table 6-2 use data from 2011–2013. The data shows that concentrations of the criteria pollutants were all below the applicable NAAQS.

Table 6-2:
Representative Monitored Ambient Air Quality Data (2011 - 2013)

Pollutant	Period	2011-2013 Design Value	NAAQS
Carbon Monoxide (CO)	1-hour	1.8 ppm	35 ppm
	8-hour	1.2ppm	9 ppm
Particulates ($PM_{2.5}$)	24-hour	26 µg/m^3	35 µg/m^3
	Annual	10.8 µg/m^3	12 µg/m^3
Particulates (PM_{10})	24-hour	87 µg/m^3	150 µg/m^3
Ozone (O_3)	8-hour	0.072 ppm	0.075 ppm
Nitrogen Dioxide (NO_2)	Annual Average	21 ppb	53 ppb
	1-hour average	60 ppb	100 ppb
Sulfur Dioxide (SO2)	1-hour average	31 ppb	75 ppb

Source: http://www.epa.gov/airtrends/values.html
$PM_{2.5}$ design value for New York County, last updated 8/28/14
O_3 design value for New York County, last updated 8/1/2014
CO design values for New York County, last updated 7/1/2014
NO_2 design values for Bronx County (no data for New York County), last updated 7/2/2014
SO_2 design value for Bronx County (no data for New York County), last updated 7/8/2014
PM10 design value from Hudson County, New Jersey (Jersey City), no data for New York County (highest 24-hr concentration from 2011 through 2013). Data obtained from http://www.epa.gov/airdata/ad_maps.html

There is no recent monitoring data available for lead in New York City.

6.5 MOBILE SOURCES

According to the 2014 CEQR Technical Manual, projects may result in significant mobile source air quality impacts when they (1) increase or cause a redistribution of traffic, (2) create any other mobile sources of pollutants (such as diesel trains, helicopters, etc.), or (3) add new uses near mobile sources (roadways, garages, parking lots, etc.).

The Proposed Project would change the configuration of East 69th Street by the installation of a neckdown on the south side of the street west of Lexington Avenue. The Proposed Project *with Option E1* would install a neckdown on the south side of East 69th Street both east and west of Lexington Avenue. The neckdowns under the Proposed Project and the Proposed Project *with Option E1* would not affect travel lanes on either East 68th Street, East 69th Street or Lexington Avenue. The Proposed Project and the Proposed Project *with Option E1* would not generate new or additional traffic in the study area or cause the redistribution of traffic in the area, nor would it create other mobile sources of pollutants or add new uses near existing mobile pollution sources (see Chapter 5: Transportation and Pedestrian Circulation). Additionally, the Proposed Project and the Proposed Project *with Option E1* would not generate air emissions. Therefore no air quality impacts related to mobile sources are expected and no further analysis is warranted.

Street Stair Options

The Proposed Project and the Proposed Project *with Option E1* would not affect or generate mobile source air emissions.

6.6 STATIONARY SOURCES

Projects may result in stationary source air quality impacts when they would (1) create new stationary sources of pollutants (such as emission stacks for industrial plants, hospitals, other large institutional uses, or building boilers) that may affect surrounding uses; (2) introduce certain new uses near existing (or planned future) emissions stacks that may affect the use; or (3) introduce structures near such stacks so that the structures may change the dispersion of emissions from the stacks so that surrounding uses are affected.

The Proposed Project and the Proposed Project *with Option E1* would not create new sources of air pollutants and would not introduce new uses near existing or planned future sources. The Proposed Project would not affect current dispersion patterns of existing stationary (or mobile) sources.

The Proposed Project and the Proposed Project *with Option E1* include a louvered fan to provide ventilation for the Elevator Machine Room. The louvered fan would be used to dissipate heat from the Elevator Machine Room, and the exhaust air stream would not contain air emissions or any other hazardous constituents. No air quality impacts related to stationary sources are expected and no further analysis is warranted.

Street Stair Options

The Proposed Project and the Proposed Project *with Option E1* would not affect or generate stationary source air emissions.

6.7 CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

In September 2006, MTA NYCT submitted an application to the New York City Transportation Coordinating Committee (NYCTCC) for partial federal funding of the Proposed Project under the

Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ). The main goal of the CMAQ Program is to fund transportation projects that reduce emissions in nonattainment and maintenance areas. CMAQ funds are eligible for rehabilitated subway station projects where physical improvements to the station will result in expanded capacity.

The CMAQ application is supported by a Logit travel demand model method that New York City Transit has developed to address the items on the NYCTCC CMAQ application forms, and that has been previously applied to estimate the emissions benefit of its subway station rehabilitation projects. This method focuses on the meso-scale (regional) level of emissions estimation, and is based on estimated changes in vehicle miles traveled between the No-Build and Build conditions. The effects of the rehabilitation at the meso-scale level of analysis are based on the estimated change in daily passenger trips using the subway routes that serve the station complex, and roadway usage throughout New York City, rather than the peak-hour entering and exiting passengers that are analyzed above. It accounts for several facets of the rehabilitation that will make the 68th Street/Hunter College Station and the subway system more attractive to subway usage, as well as the increased capacity of the station that will accommodate growth.

As described in the CMAQ application, the Proposed Project and the Proposed Project *with Option E1* would result in a 1.58 percent increase in daily subway ridership at the 68th Street/Hunter College Station. These new riders would represent a diversion of daily vehicular usage to transit, thereby reducing the total Vehicle Miles Traveled (VMT) by cars and reducing associated emissions. The diversion from cars to subway would predominantly occur during the off-peak period and the mobile source air quality analysis did therefore not assume any emission reduction during the peak hour. However, the diversion from car to subway would reduce overall emissions on a daily basis and thereby improve air quality. The CMAQ application projected that the reduction in Vehicle Miles Traveled (VMT) by cars as a result of the Proposed Project would reduce the total VOC emissions from 2013 to 2030 by 28,525 pounds, total NOx emissions by 31,226 pounds and total CO emissions by 636,909 pounds.

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This section assesses the potential for noise and vibration impacts from operation of the proposed 68th Street/Hunter College Subway Station Improvement Project. (Construction-related noise and vibration impacts are discussed in Chapter 13: Construction Impacts.)

7.1 NOISE

7.1.1 METHODOLOGY

Because the project is proposed to be funded by the FTA, the noise analyses were conducted according to FTA guidelines published as Transit Noise and Vibration Impact Assessment (2006). Additionally, the CEQR Technical Manual was consulted for information specific to projects located in New York City.

According to FTA's Transit Noise and Vibration Impact Assessment guidelines, in many instances it is possible to determine that a project would not have the potential for a significant noise impact simply from its proposed physical characteristics, and therefore no further analysis is necessary. According to these guidelines, noise generated by subways is generally not concern for surface receptors. A General Noise Assessment would be appropriate if the project included certain ancillary subway facilities such as ventilation plants. The screening guidelines in the CEQR Technical Manual indicate that a noise analysis would be appropriate if the project would: (1) generate any mobile or stationary sources of noise; and/or (2) be located in an area with existing high ambient noise levels.

7.1.2 EXISTING CONDITIONS

Existing noise levels in the project area are dominated by traffic noise.

7.2 IMPACTS AND MITIGATION

The Proposed Project and the Proposed Project *with Option E1* include a louvered ventilation fan to provide ventilation for the proposed Elevator Machine Room within the subway station. The louvered fan would ventilate to the light well located between the sidewalk and Thomas Hunter Hall. The adjacent basement room in Thomas Hunter Hall is a battery backup system for the Main Telephone Switch Room for Hunter College. Although noise specifications for the ventilation fan would be determined as the design details are finalized, no impacts from the fan are anticipated because of the existing urban noise environment.

The Proposed Project and the Proposed Project *with Option E1* do not include the introduction of new noise sources at the 68th Street/Hunter College Station, such as tunnel ventilation facilities, and would not increase the frequency of train traffic through the station. Future operational noise levels are expected to remain as they are today. No significant adverse impacts to ambient noise levels from operation of the Proposed Project and the Proposed Project *with Option E1* are anticipated.

Street Stair Options

The Proposed Project would place a new subway entrance adjacent to a building with institutional uses and a new subway entrance within a commercial space. The new subway entrances would not provide a line-of-sight path for train noise to surface receptors and any noise emanating from

the new stairs is not expected to increase current ambient levels. Noise from passengers using the subway entrances is not expected to elevate existing noise levels.

The Proposed Project *with Option E1* would place a new subway entrance adjacent to a building with institutional uses and a new subway entrance adjacent to a building with ground floor retail uses. The new subway entrances would not provide a line-of-sight path for train noise to surface receptors and any noise emanating from the new stair is not expected to increase current ambient levels. Noise from passengers using the subway entrances is not expected to elevate existing noise levels.

7.3 VIBRATION

FTA guidelines regarding screening for vibration analyses indicate that transit projects that do not involve vehicles, such as a station rehabilitation, do not have potential for vibration impact unless the track system will be modified (e.g., tracks moved or switches modified). Operation of the Proposed Project would not modify the tracks at the station or result in other sources of vibration. No further analysis was conducted and no significant adverse impacts from vibration are anticipated. Analysis of vibration due to construction of the Proposed Project is provided in Chapter 13.

Street Stair Options

The Proposed Project and the Proposed Project *with Option E1* would not change vibration levels in the area.

8.1 FLOODPLAINS

The project site is not located within a floodplain. The closest Federal Emergency Mapping Agency's 100-year flood boundary floodplain is approximately 0.6 mile to the east. Therefore no impacts on floodplains are anticipated. The site is located in a developed urban area that is drained by storm sewers. The Proposed Project and the Proposed Project *with Option E1* would not modify the existing pattern of runoff and would not impact the floodplain.

8.2 NAVIGABLE WATERWAYS

The Proposed Project is located more than 0.6 mile west of the East River, the nearest navigable waterway. Construction and operation of the Proposed Project and the Proposed Project *with Option E1* would not impact navigable waterways.

8.3 WETLANDS AND COASTAL ZONE

The project site is located in a developed, densely populated urban area. Review of New York State Department of Environmental Conservation (NYSDEC) wetlands mapping confirmed that there are no wetlands within the vicinity of the project. The Proposed Project and the Proposed Project *with Option E1 are* not within the Coastal Zone. No impacts to wetlands or the Coastal Zone are anticipated as a result of the Proposed Project or the Proposed Project *with Option E1*.

8.4 PROTECTED SPECIES

The U.S. Department of the Interior, Fish and Wildlife Service (USFWS) and NYSDEC, Natural Heritage Program were consulted regarding the potential for sensitive plant and animal species occurring on the project site and environs. Both agencies confirmed (Appendix B) that there are no known records of occurrences of protected species or significant habitats in the study area. USFWS noted that, with the exception of occasional transient species, no federally-listed or proposed endangered or threatened species are known to exist in the area of the Proposed Action. Additionally, no habitat in the area is currently designated or proposed "critical habitat" in accordance with provisions of the Endangered Species Act. The New York State Department of Environmental Conservation, Fish, Wildlife and Marine Services did advise that the state-listed endangered peregrine falcon (*Falco peregrinus*) is known to occur in the vicinity of the Proposed Project, within Riverside Park located near the Hudson River between West 135th Street and West 153rd Street, approximately 3.5 miles northwest of the Proposed Project site.

Street Stair Options

The only difference between the Proposed Project and the Proposed Project *with Option E1* is the location of a new street stair on the east side of Lexington Avenue. The Proposed Project and the Proposed Project *with Option E1* would not affect natural resources.

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9.1 INTRODUCTION

(The following applies to the Proposed Project and the Proposed Project *with Option E1* unless otherwise indicated.) Contaminated materials are potentially harmful substances that may be present in soil, groundwater, and building materials. Contaminated materials are frequently encountered during construction activities in urban areas that have been subject to past disturbance from construction, excavation, and industrial uses. This section discusses the potential presence and type of contaminated materials that may be encountered during construction of the Proposed Project. Construction activities for the Proposed Project would occur at the intersection of East 68th Street and Lexington Avenue, at the intersection of East 69th Street west of Lexington Avenue and along the avenue between the two streets, and for this area is referred to as the "project site."

9.2 EXISTING CONDITIONS

Existing conditions at the project site and within the project vicinity were determined from a review of historical, regulatory agency and other information sources. Although no studies or reports were found that identify the presence of lead-based paint (LBP) or asbestos containing materials (ACMs) in the station, because of the age of the facility, it is possible that these potential contaminants exist in the station. The following is a summary of existing conditions extracted from a review of historical sources and regulatory agency databases. The source material is available from MTA NYCT upon request.

9.2.1 HISTORICAL INFORMATION SOURCES

Historical fire insurance maps (Sanborn Maps) with coverage of the project site for the years 1892, 1907, 1951, 1976, 1979 1982, 1985, 1987, 1988 1991, 1992, 1993, 1994, 1995, 1996, 2001, 2002, 2003, 2004, and 2005 were reviewed. By 1892 the area adjacent to the project site was fully developed. The 1892 Sanborn map identifies the armory on the block southwest of the intersection of East 67th Street and Lexington Avenue and Mount Sinai Hospital on the southeast corner. Educational uses occupy both sides of Lexington Avenue between East 67th and East 68th Street. The State Normal College occupies the west side of Lexington Avenue between East 68th Street and East 69th Street and the Foundling Hospital occupies the east side. Brownstone-style housing units occupy both sides of Lexington Avenue for several blocks north of East 69th Street.

With the exception of a change of land use on the east side of Lexington Avenue between East 66th and East 67th Street – from hospital use to apartments – no significant changes are indicated on the 1907 Sanborn map.

According to the 1951 map, Thomas Hunter Hall, built in 1912-13, occupies the west side of Lexington Avenue between East 68th Street and East 69th Street. Stairs leading to the Interborough Rapid Transit (IRT) subway station are indicated on the four corners of the intersection of Lexington Avenue and East 68th Street, and new development has occurred on both sides of Lexington Avenue between East 69th and East 70th Streets. No changes are indicated north of East 70th Street.

Changes indicated on the 1976 map include the removal of buildings on both sides of Lexington Avenue between East 67th and East 68th Streets. The parcel on the west side is used for parking.

As some point between 1951 and 1976 the Imperial House Apartments have been developed on the block between East 68th Street and East 69th Street east of Lexington Avenue. No other significant changes are indicated.

No significant changes are indicated on the 1979 map. By 1982 facilities for Hunter College have been developed on both sides of Lexington Avenue between East 67th and East 68th Streets. No other significant changes are indicated on the 1982 map, and no significant changes are indicated on the subsequent maps.

No recognized environmental conditions (RECs) were indicated on the Sanborn Map series.

9.2.2 REGULATORY AGENCY INFORMATION SOURCES

A commercial compilation of records from federal, state and local regulatory agencies was reviewed for information regarding the project site and surrounding properties.[16] The review revealed the following RECs, which are present upgradient of the project site:

- Eleven facilities within 660 feet of the project site and 41 facilities within ¼ mile of the project site that store, handle, treat or dispose of hazardous waste (as defined by the Resource Conservation and Recovery Act [RCRA]). One facility is located at Hunter College, adjacent to the project site.
- Three active leaking petroleum storage tank (LTANKS) cases, 68 closed cases, and 55 historic LTANKS cases within ½ mile of the project site;
- Thirty-six active underground petroleum storage tanks (UST) and 71 above ground petroleum storage tanks (AST) within ¼ mile of the project site
- Twenty-three New York spills and 18 historic spills within approximately 650 feet of the project site; and
- Nine registered dry cleaning facilities within ¼ mile of the project site.

9.3 IMPACTS AND MITIGATION

9.3.1 NO-BUILD ALTERNATIVE

Under the No-Build Alternative the existing conditions within the project site would remain unchanged. Minor upgrades and maintenance activities that could be undertaken could impact potential ACMs and LBP surfaces. These activities may also impact equipment containing polychlorinated biphenyl (PCB) and equipment, switches or light bulbs containing mercury. Such activities would be subject to MTA NYCT's usual abatement and removal procedures. No significant impacts from contaminated materials are anticipated under the No-Build Alternative.

9.3.2 PROPOSED PROJECT

The Proposed Project could potentially encounter RECs and environmental concerns that are present at the project site. American Society for Testing and Materials (ASTM) defines a "recognized environmental concern" as: the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or material threat of a release into structures on the property or into the ground,

[16] Environmental Data Resources, Inc., Radius Map Report, April 2012.

ground water or surface water of the property. Areas of "potential environmental concern" are not necessarily "recognized environmental concerns."

The RECs and environmental concerns identified involve documented and undocumented releases of petroleum-related and dry cleaning constituents from upgradient sources.

Prior to construction activities at the 68th Street/Hunter College Station, the contractor would be required to prepare a Health and Safety Plan (HASP) and a Soil Management Plan, which would detail management measures to be followed should contaminated materials (i.e., petroleum-related and dry cleaning constituents) be encountered.

Surveys of ACM, LBP and PCB would be performed at locations throughout the station where construction activities could disturb surfaces or equipment potentially containing these materials. Construction contractors would prepare a Construction Environmental Protection Plan (CEPP) with specific plans regarding the management of contaminated or hazardous materials. If identified, ACM, LBP and/or PCB would be removed and disposed of according to all applicable regulations.

Under the CEPP prepared for the Proposed Project, potential sources of contamination would be identified and remediated prior to or during construction, thus reducing or avoiding the potential for adverse impacts. Provided that construction activities comply with all applicable regulations, no adverse impacts from contaminated materials are anticipated and no further mitigation measures would be warranted.

Street Stair Options

The Proposed Project and the Proposed Project *with Option E1* would not affect, or be affected by, hazardous materials. If materials suspected of containing hazardous materials, including but not limited to petroleum, asbestos, or lead-based paint, are encountered during construction of any street stair, these materials would be handled and disposed of in accordance with all appropriate regulations.

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10.1 NYCT, ISO 14001, AND NEW YORK STATE E.O. 88

MTA NYCT's Department of Capital Program Management is the first public agency in the United States and the first transit entity in the world to have an Environmental Management System (EMS) certified to the International Organization for Standardization (ISO) 14001. The primary objective of an EMS is to reduce the impact of an organization's activities, products, and services on the environment; an ISO 14001 EMS provides a structured approach to achieve the organization's environmental objectives. This is achieved by considering environmental aspects and impacts of the operations and activities at all stages of the projects, setting objectives and targets for continuous improvement in environmental performance, minimizing and eliminating adverse impacts on the employees, contractors, passengers and communities, and establishing environmental programs and procedures that prevent pollution and ensure adherence to all applicable environmental laws and regulations.

New York State Executive Order (E.O.) 88 "Directing State Agencies and Authorities to Improve the Energy Efficiency of State Buildings" was issued in 2012 to address issues such as energy efficiency and green building practices. MTA produces an annual report to the state on its activities to implement Executive Order 88.

MTA NYCT strives to apply the latest in energy efficient technologies, building materials, and design and management techniques to:

- Reduce smog, greenhouse gas and polluting emissions – By using clean, alternative energy sources such as photovoltaic panels, reducing dependence on electricity generated from fossil fuels. MTA NYCT is reducing emissions and improving the City's air quality by using ultra low sulfur diesel in construction equipment used on its projects.
- Conserve water – Water conservation measures are being built into new facilities. MTA NYCT has designed bus and subway car washing systems that would use rain and storm water and recycle 50-80 percent of wash water.
- Reduce Stormwater runoff – MTA NYCT uses green infrastructure strategies like planters, vegetated roofs, rainwater collection etc. for capture and detention of rainwater to protect surface waters of America, to decrease flooding and to minimize burden on the city sewer system.
- Protect Natural Resources and Lower embedded energy – MTA NYCT specifies use of materials with high recycled content and extracted, manufactured and assembled regionally.
- Recycle materials and reduce landfill needs – Waste management and material recovery are required standard practice for MTA NYCT contractors. Diversion goals are established for all materials from demolition, renovation and construction projects.
- Reduce energy consumption and lower operating costs – New facilities and systems are designed to exceed New York State Energy Code in accordance with New York State Executive Order 88.
- Provide cleaner and safer terminals, depots, facilities and offices – Both passengers and employees benefit from designs that use fresh air ventilation systems and bring natural light to platforms, foyers and workplaces.

The ISO 14001 EMS is used to monitor implementation of Sustainable Design into MTA NYCT's projects.

10.2 EXISTING CONDITIONS

Electric service to the existing 68th Street/Hunter College Station is provided and maintained by the Consolidated Edison Company of New York (Con Ed).

10.3 NO-BUILD ALTERNATIVE

Under the No-Build Alternative, the proposed subway station improvements would not be constructed and operated. It is anticipated that the energy used by the existing 68th Street/Hunter College Station would remain similar to the existing condition. No adverse impacts to energy use would be anticipated under the No-Build Alternative.

10.4 PROPOSED PROJECT

10.4.1 CONSTRUCTION

Contractors at the project site will comply with the Diesel Emissions Reduction Act of 2006 (DERA). DERA requires that construction equipment used for the project, including on and off-road vehicles having a gross vehicle weight greater than 8,500 pounds, will use ultra-low sulfur diesel fuel (ULSD) and use Best Available Retrofit Technology (BART) to reduce emissions of nitrous oxide and particulate matter.

10.4.2 OPERATION

MTA NYCT has an overall energy efficiency target of 20% Average Source Energy Use Intensity reduction by the year of 2020, in accordance with EO88. Proposed measures for maximizing energy efficiency include increased energy performance, operating cost reductions, reductions in the environmental impacts associated with energy consumption, and improvements in the overall quality of the indoor workplace environment. The following energy-saving measures would be considered: natural lighting, energy efficient long-lasting light fixtures, premium-efficiency motors, energy-efficient escalator and elevator equipment, small-scale photovoltaic devices for local use.

The use of non-polluting and renewable technologies on-site would be considered in an effort to reduce atmospheric pollutants, operating costs, and the environmental impacts associated with energy consumption.

MTA NYCT's intention is that the station improvements would be highly energy efficient relative to the existing station and it is considered unlikely that the station's energy provisions would be negatively affected by the proposed facility. The Proposed Project and the Proposed Project *with Option E1* would not significantly affect the generation or transmission of energy, nor would it consume large quantities of fuel. Therefore no adverse impacts to energy are anticipated.

Street Stair Options

The Proposed Project and the Proposed Project *with Option E1* would have similar energy requirements.

This chapter identifies safety considerations related to design, construction, and operation. The Proposed Project and the Proposed Project *with Option E1* would feature current safety and security systems and procedures, to protect passengers and workers as well as the community. This chapter addresses safety procedures to be implemented during construction as well as those that would be in place during operation. The following applies to the Proposed Project and the Proposed Project *with Option E1* unless otherwise indicated.

11.1 EXISTING CONDITIONS

The Proposed Project involves the rehabilitation of an existing subway station. Currently the station is not accessible to all persons with mobility impairments as there are no elevators servicing the station. As described earlier, the station experiences congestion at all levels – on the platform stairs and at the platform level approaching these stairs, on the street stairs and at the mezzanine level approaching these stairs, and on the sidewalk near the stair at the northeast corner of East 68th Street and Lexington Avenue. These conditions are considered to be safe and secure.

11.2 SAFETY AND SECURITY DURING CONSTRUCTION

MTA NYCT will develop a Construction Health and Safety Plan (HASP) to be implemented throughout all aspects of construction of the project. Contractors would be responsible to provide detailed work scopes to include a HASP appropriate to their scope of work, which would be reviewed and approved by MTA NYCT to assure safety at the project site. The HASP would identify potential safety concerns on the project site and describe methods to protect the public, construction workers on the site, and the environment and would also identify response procedures to be followed in the event of an emergency. MTA NYCT would implement an audit program to ensure all contractors are in conformance with their individual HASP plans and the overall project HASP.

11.3 NO-BUILD ALTERNATIVE

Under the No-Build Alternative the 68th Street/Hunter College Station improvements would not occur. The conditions within the Station and surrounding area would remain as in the existing conditions. No improvements or adverse impacts to safety and security would occur under the No-Build Alternative.

11.4 PROPOSED PROJECT

The Proposed Project and the Proposed Project *with Option E1* include adequate provisions for safe and secure operations, including the installation of closed-circuit television (CCTV) monitoring to increase passenger and employee security. The station would become ADA-compliant addressing the need for better access for passengers with mobility impairments. The Proposed Project would improve passenger circulation and emergency ingress and egress. The new entrance/exit at the north end of the station would improve passenger circulation at the platform and at the existing platform stairs, mezzanine and street stairs by reducing the number of passengers using the southern exit. If some event were to restrict or close egress at one end of the station an alternative means of egress would be available. The Proposed Project and the Proposed Project *with Option E1* are expected to improve safety and security at the

68th Street/Hunter College Station, and no significant adverse impacts to safety and security are anticipated.

Plans for all aspects of passenger safety within the train and station (including emergency communications systems and fire exit procedures, for example) are a key component of the design of the renovated 68th Street/Hunter College Station. Once completed, the new station would be substantially compliant with MTA NYCT's overall System Safety Program Plan.

12.1 REGULATORY FRAMEWORK

This section has been prepared pursuant to federal regulations contained in 23 C.F.R. § 774 that implements Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966 (23 U.S.C. § 138 and 49 U.S.C. § 303). These statutes are commonly referred to as Section 4(f). The following applies to the Proposed Project and the Proposed Project *with Option E1* unless otherwise indicated.

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land, and the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use, or
- the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures), will have a *de minimis* impact, as defined in 23 C.F.R. § 774.17, on the property.

On August 10, 2005, Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. 109-59, amended the Section 4(f) legislation. Section 6009 simplified the process and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). The requirements to consider avoidance alternatives and document all possible planning to minimize harm prior to the approval of the use of Section 4(f) property do not apply if the use qualifies as a *de minimis* impact. *De minimis* impact findings are made on a resource-by-resource basis. The *de minimis* impact finding can include consideration of mitigation measures incorporated into the project.

For historic sites, *de minimis* impact means that FTA has determined, in accordance with the Section 106 process (36 C.F.R. § 800) that no historic property is affected by the project or that the project will have ‘‘no adverse effect’’ on the historic property in question. Prior to making a *de minimis* impact determination, FTA must receive written concurrence from the pertinent State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), and from the Advisory Council on Historic Preservation (ACHP) if participating in the consultation process, in a finding of ‘‘no adverse effect’’ or ‘‘no historic properties affected’’ in accordance with 36 C.F.R. § 800. FTA is required to inform these officials of its intent to make a *de minimis* impact determination based on their concurrence in the finding of ‘‘no adverse effect’’ or ‘‘no historic properties affected” (23 C.F.R. § 774.5(b)).

12.2 IDENTIFICATION AND DESCRIPTION OF SECTION 4(f) RESOURCES

There is one Section 4(f) parkland resource in the vicinity of the Proposed Project—a public plaza located in the area surrounding the entrance the subway station on the southwest corner of East 68th Street and Lexington Avenue (Figure 4-1). The plaza includes seating and a sculpture, and the stairwell includes one tree. Entrances to the Hunter College West Building open to this area. The plaza is owned by Hunter College.

Historic resources in the vicinity of the Proposed Project (Figure 4-1) include the Upper East Side Historic District, Thomas Hunter Hall (a contributing element to the historic district) and the Imperial House Apartments that is located outside the Upper East Side Historic District. The Upper East Side Historic District was originally listed in the National Register of Historic Places on September 7, 1984, and the boundaries of the district were expanded on September 12, 2006 (Upper East Side Historic District Extension). The Upper East Side Historic District is historically and architecturally significant for its extraordinary concentration of fine examples of New York's most characteristic late nineteenth- and early twentieth-century residential buildings, including brownstone rowhouses, grand mansions and elegant apartment houses. Thomas Hunter Hall was completed in 1913 as part of a new campus plan for Hunter College. The building was designed by C.B.J. Snyder, who was New York City Superintendent of School Buildings, and the building retains many of his standard treatments for schools within New York City.

Incorporated into the design of Thomas Hunter Hall is a sub-grade light well situated along the east side of the building. The light well extends along the length of the building from East 68th Street to East 69th Street except in the center of the block where it is interrupted for an entrance to the hall. The bottom of the well is approximately 6 feet lower than the surface of the sidewalk and the well is approximately 4 feet wide. The wall at the south end of the well is adjacent to the northwest corner of the subway station.

Also incorporated in the design is the use of the plaza under the northwest corner of the Hunter College East Building. The plaza is open on the north and west sides adjacent to East 68th Street and Lexington Avenue, respectively. The plaza contains a street stair for the 68th Street/Hunter College station and a kiosk that is licensed to a flower vendor. The Proposed Project would place the elevator head house within the plaza and would remove the flower kiosk. The existing seating in the plaza would remain.

The Imperial House Apartments building was evaluated for its potential eligibility for inclusion in the State/National Registers and determined to be eligible for inclusion in both. This resource is significant in the areas of urban development and architecture as a good and representative example of modern style, white brick residential towers built after World War II in New York City and in the same style as the New York City Landmarked Manhattan House at East 66th Street and Second Avenue. On August 29, 2012, NYSOPRHP concurred with the eligibility of the Imperial House Apartments as eligible for inclusion in the State/National Registers.

12.3 IMPACTS TO SECTION 4(f) RESOURCES

The Proposed Project and the Proposed Project *with Option E1* would not result in any changes to the plaza at the southwest corner of East 68th Street and Lexington Avenue. There would be no temporary occupation of the plaza during construction. No use of this Section 4(f) resource would occur.

A new louver housing a ventilation fan will be constructed within the property line of Thomas Hunter Hall. It will penetrate the subway station wall into the south wall of the light well of Thomas Hunter Hall. The ventilation fan would be approximately the size of a household box fan or a bakery exhaust fan. The fan housing would not be visible from the street or sidewalks except for a limited view from an entrance to the hall, approximately 50 feet away and through the cast iron fence. Within Thomas Hunter Hall, the fan housing would only be visible from the southeast portion of the basement.

The south wall of the Hunter Hall light well is a common wall shared by the subway structure and Thomas Hunter Hall. The louver will be used to ventilate the Elevator Machine Room within the station and this room will be closed to the public. The louver will be approximately 2 feet by 2 feet and flush-mounted with the wall. The alteration to the common wall of the Thomas Hunter Hall

light well to install the louver is considered a permanent encroachment on the Section 4(f) resource.

The light well where the fan louver would be located is pictured in Figures 12-1 and 12-2. The photograph in Figure 12-1 was taken from the northwest corner of East 68th Street and Lexington Avenue, looking north along Lexington Avenue. This photograph shows the existing ventilation associated with Thomas Hunter Hall. The photograph in Figure 12-2 was taken facing south from inside the iron fence. The position of the louver is superimposed on the image.

The stairway adjacent to Thomas Hunter Hall would be rehabilitated but the dimensions of the stair would remain unchanged. Although this stair is within the boundaries of the Upper East Side Historic District, there would be no impact to the historic district or the integrity or appearance of Thomas Hunter Hall.

The stairway adjacent to the southwest corner of the Imperial House Apartments would be relocated. In order to reduce congestion and thus improve circulation at the corner (Figures 1-2 and 1-3), the stair would be located approximately 30 feet east of its current position. Relocation of the stair would not impact the integrity or appearance of the building.

The Proposed Project would include a new street stair in a commercial space in a row of such spaces in the Imperial House Apartments approximately mid-block between East 68th Street and East 69th Street. At street level, the new entrance would occupy approximately 12 feet of building frontage, replacing what is currently storefront windows with an opening leading to a subway stair. At the basement level, the new mezzanine and platform stair would occupy approximately 1,690 square feet, replacing what is currently storage space for commercial activity. Approximately eight to 10 feet of the west-facing basement wall would be opened to provide access to the northbound subway tunnel. A small green and white sphere (approximately 18 inches in diameter) on a pedestal would be located on the sidewalk in front to indicate the location of the subway entrance. A rendering of the proposed entrance is provided in Figure 12-3. The appearance of the entrance would be consistent with the overall commercial character of the ground floor uses of the building and would not impact the architectural features of the building that are considered historic.

The Proposed Project does not involve any potential temporary occupancy of Section 4(f) resources beyond those already identified as direct permanent uses above. The project does not involve permanent increases in noise, vibration, air quality or other proximity effects that would warrant a detailed assessment of constructive use impacts. The louver in the light well of Thomas Hunter Hall would generate noise, but this noise would not significantly impair the protected features and attributes of the Thomas Hunter Hall and thus would not constitute a constructive use. The louver noise would be imperceptible in comparison to the many other sources of urban noise surrounding Thomas Hunter Hall, including street traffic and window unit air conditioners in the building itself.

The new mid-block entrance in the commercial space in the Imperial House Apartments would not significantly impair the protected features and attributes of the resource and thus would not constitute a constructive use.

The Proposed Project *with Option E1* would not include a new street stair in a commercial space in a row of such spaces in the Imperial House Apartments but instead would place a street stair in the sidewalk adjacent to the northwest corner of the Imperial House Apartments. This street stair would not involve temporary or permanent occupancy of Section 4(f) resources, and would not affect the protected features and attributes of the resource.

Figure 12-1:
Thomas Hunter Hall Light Well Looking North

Figure 12-2:
Position of Louver on South Wall of Light Well

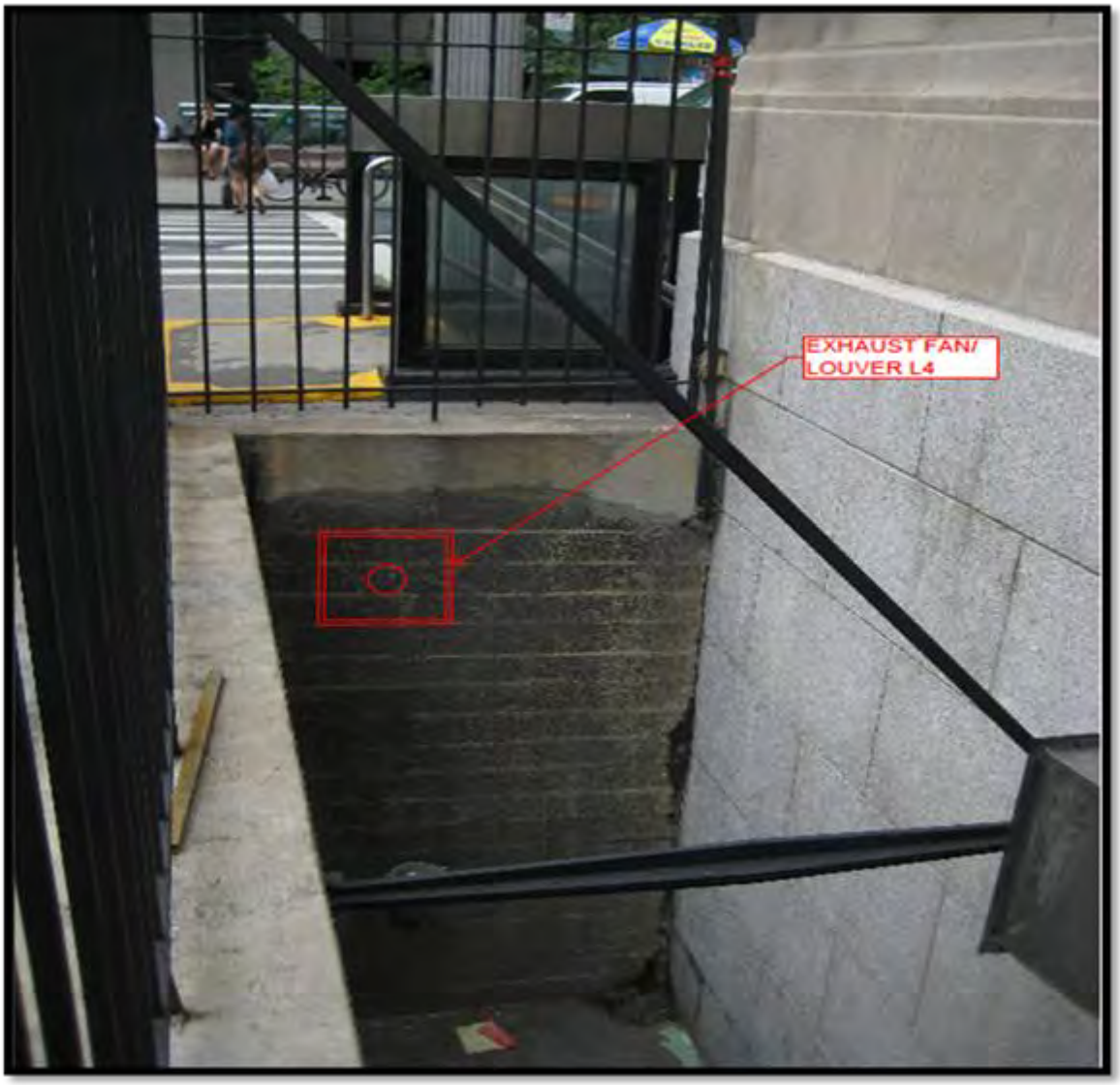

Figure 12-3:
Rendering of New Mid-Block Entrance in the Imperial House Apartments Building

12.4 SECTION 4(f) *DE MINIMIS* FINDING

As part of the Section 106 process, FTA and MTA NYCT informed SHPO about the Proposed Project and the proposed uses of the Section 4(f) resources in a series of letters dated June 2, 2011, July 19, 2012, October 19, 2012, and March 5, 2015. The SHPO responses are included in Appendix B.

As stated in its letter to MTA NYCT dated August 29, 2012, regarding the louver in the light well of Thomas Hunter Hall, SHPO concurred that there would be "no adverse effect" on historic resources, provided the following condition is met: A construction protection plan be developed and implemented for all historic buildings within 90 feet of the proposed construction activities.

As stated in its letter to MTA NYCT dated April 2, 2015, regarding the subway entrance in the commercial space of the Imperial House Apartments, SHPO concurred that the Proposed Project would have "no adverse effect" on historic resources, provided the following condition is met: A

construction protection plan be put in place for all historic buildings within 90 feet of the proposed construction activities.

For construction of the Proposed Project and the Proposed Project *with Option E1*, a construction protection plan will be put in place for all historic buildings within 90 feet of the proposed construction activities. This plan will be created in accordance with the requirements stipulated in the New York City Department of Buildings, "Technical Policy Procedure Notice #10/88" and the New York City Landmarks Preservation Commission guidelines described in "Protection Programs for Landmarked Buildings."

In a letter dated October 27, 2015, FTA informed OPRHP that it will use the August 29, 2012, and April 2, 2015, no-effect findings to make a *de minimis* use finding under Section 4(f) for the Thomas Hunter Hall, the Imperial House Apartments and the Upper East Side Historic District (see Appendix B). For each of these resources, the Proposed Project would not adversely affect the features, attributes, or activities qualifying the resources for protection under Section 4(f). For the Proposed Project *with Option E1* the Section 4(f) de minimis impact finding would apply to Thomas Hunter Hall and the Upper East Side Historic District. The public and other agencies (including SHPO) will be afforded an opportunity to review and comment on the proposed *de minimis* impact finding during the NEPA public comment period on this EA.

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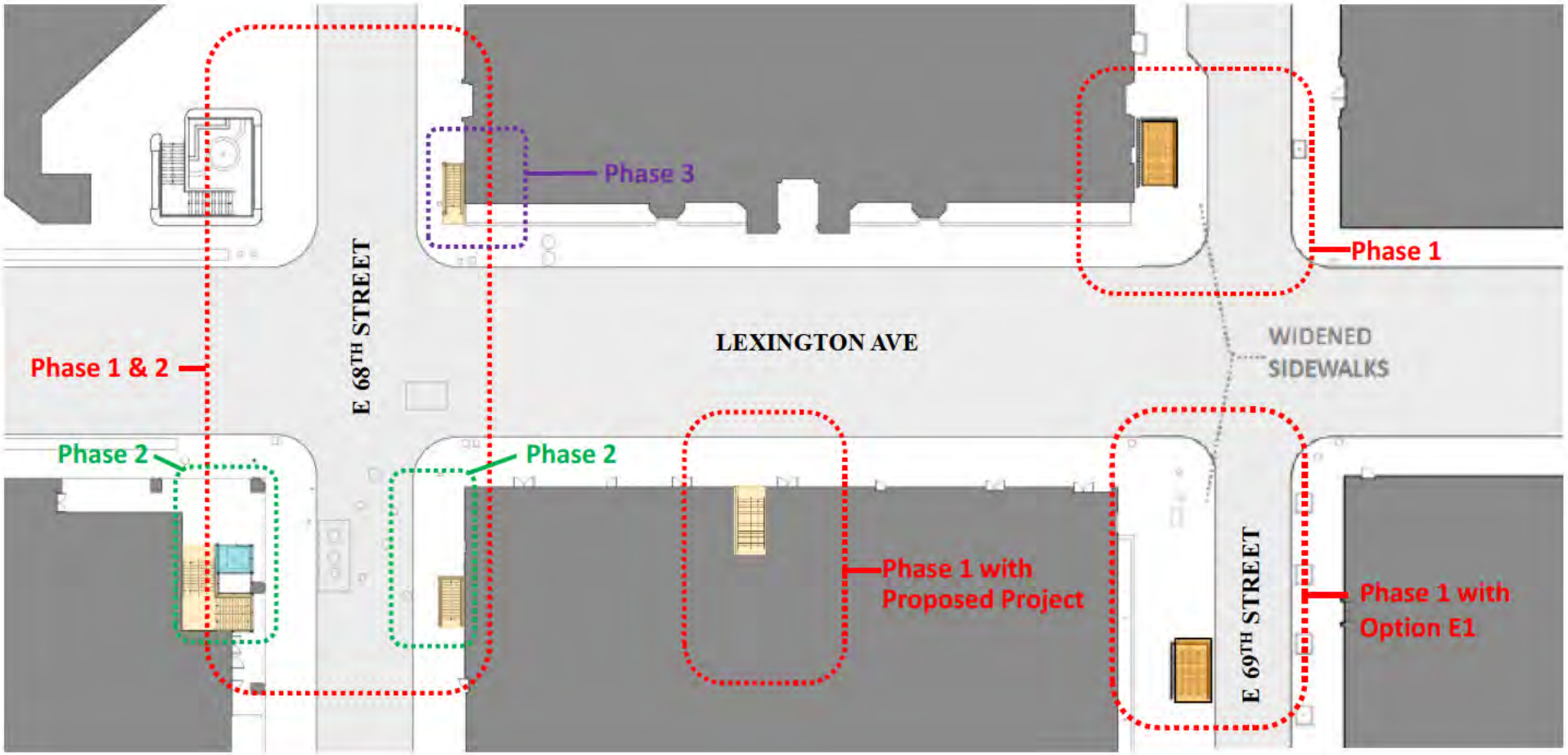
13.1 INTRODUCTION

This section provides a discussion of construction activities and the potential impacts that could result from construction activities. While the construction duration and some associated impacts would last approximately 3 or 3.5 years, many impacts would last for only a portion of the total construction duration. Construction impacts are therefore considered to be temporary. Although construction impacts are temporary, MTA NYCT recognizes the need to minimize the potential for impacts resulting from construction. Construction activities, scheduling, equipment, and impacts under the Proposed Project would be generally the same as those for the Proposed Project *with Option E1*. Where differences between the Proposed Project and the Proposed Project *with Option E1* are anticipated, they are identified in the appropriate sub-heading below.

13.2 CONSTRUCTION METHODS

Construction of the Proposed Project and the Proposed Project *with Option E1* would be conducted in three phases, where Phase 1 construction would focus on the new street entrances on East 69th Street west of Lexington Avenue and mid-block between East 68th Street and East 69th Street on the east side of the avenue (or with Option E1, on East 69th Street east of Lexington Avenue), and utility relocation activity on East 68th Street. Figure 13-1 illustrates the general location of surface construction activity for the project and Figure 13-2 illustrates the general location of subsurface construction activity. Phase 2 construction would begin after the new entrances are open and would involve construction on the east side of the existing mezzanine, including installation of the northbound platform elevator and street elevator infrastructure, reconfiguring the east side of the mezzanine, and continuing with the relocation of utilities. Phase 3 would begin when the East 68th Street entrances on the east side of Lexington Avenue are reopened and would focus on construction of the southbound platform elevator and reconfiguration of the northwest street stair.

Construction of the Proposed Project and the Proposed Project *with Option E1* would be expected to begin in 2016 and continue for approximately 36 to 39 months, ending in 2019. Work would be conducted in staggered phases to allow for continuous operation of the subway system and to minimize effects of construction activities on surface transportation, pedestrian and vehicular traffic flow, and to minimize effects of construction to businesses, community facilities and residences along Lexington Avenue, East 68th Street and East 69th Street. Work would be conducted, except where noted otherwise, in two shifts per day, between 7:00 AM and 10:00 PM (with approval from the New York City Department of Buildings [NYCDOB]). Construction phases may overlap when doing so would both minimize the construction effects noted above, and decrease the overall construction period. There may be brief periods when 68th Street is closed to vehicular traffic. These closures would likely be at night or on the weekend and an MPT would be developed and approved by NYCDOT prior to street closure. The MPT would stipulate the date and duration of the closure and would include traffic diversion routes and provisions for emergency vehicles.

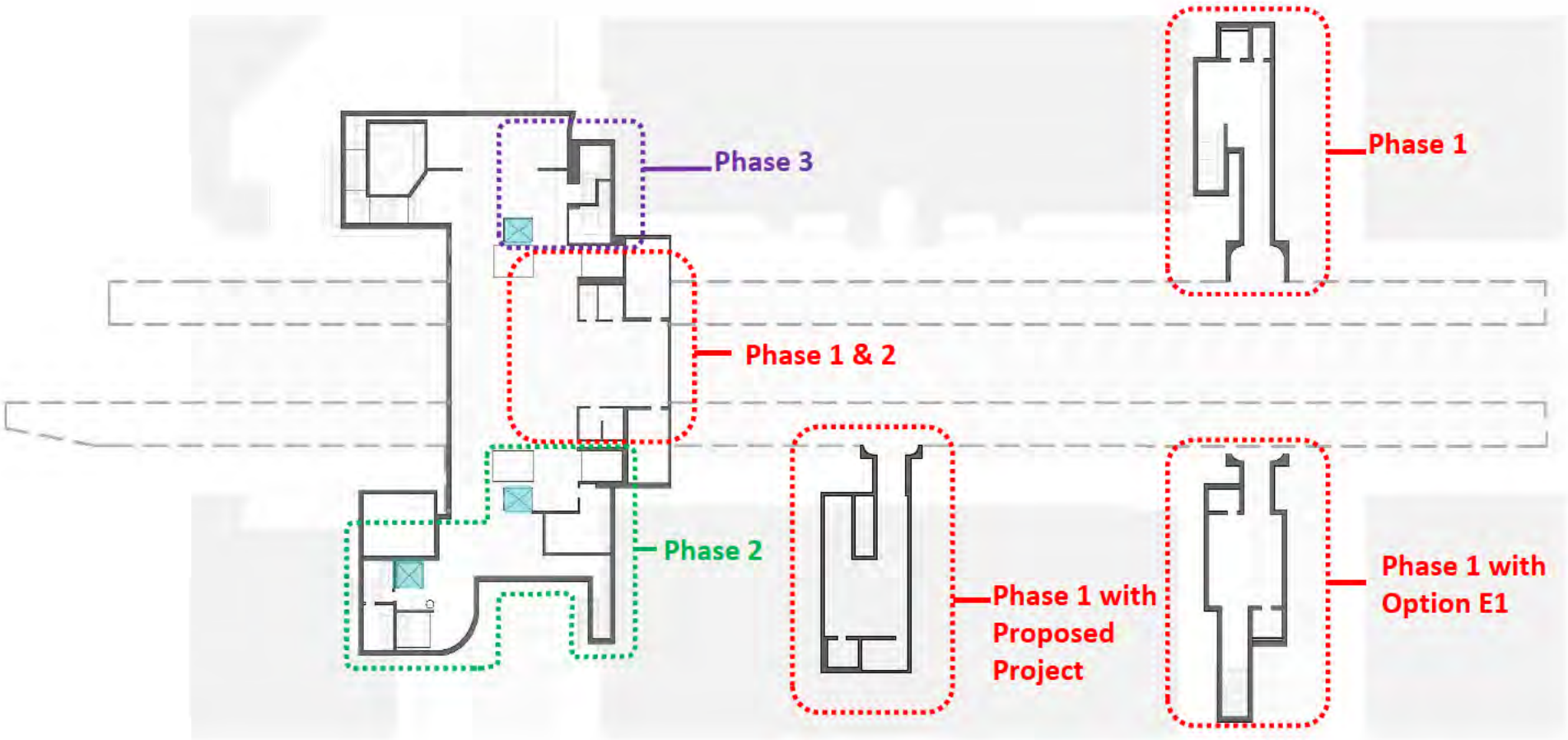


Not to Scale

NORTH

Phased Location of Surface Construction Activity

Figure 13-1



Not to Scale

NORTH

Phased Location of Subsurface Construction Activity

Figure 13-2

After the initial stages of construction in each phase, the majority of the work would be conducted under the streets and sidewalks. The initial phases involve preparing the area for excavation by closing up to approximately half of the street, either East 68th Street, East 69th Street or Lexington Avenue, depending on which phase of the project is under construction. For these initial stages, a portion of the street would be closed, but at least one travel lane on the side streets and two lanes on the avenue would remain open. The area under construction would then be closed off by construction fencing. The initial stages of construction would require removing the pavement and installing soldier piles and lagging. Soldier piles and lagging prevent the sidewalls of the excavation from caving into the work cavity, provide support for street and sidewalk decking, and support for utility transmission infrastructure.

This excavation and street decking would occur under a staggered schedule and would be located on East 69th Street west of Lexington Avenue, and on East 68th Street, both east and west of the avenue.

While the street is functioning normally, the sidewalk in the areas where street stairs are to be installed or modified would be temporarily closed, and a barrier preventing public access would be erected. In instances where a portion of the sidewalk is closed, pedestrian circulation would be maintained by diverting pedestrians to the curb lane, which would be isolated from traffic by a barrier.

After excavation, and while the street and sidewalk are covered by decking, construction would include the new platform elevators, and the small extension of the mezzanine on the east side of the station (East 68th Street), and the subway tunnel walls for the new stairs at the north end of the station. For this construction, temporary concrete forms would be built and fitted with rebar, and concrete would be poured into the forms. Concrete would be trucked to the site and pumped or poured into the forms from the surface.

Construction staging is the planning and management of equipment storage, site access, temporary truck parking, and temporary crane placement during construction. For the purposes of this analysis, temporary construction staging is assumed to be limited to places within the work area (e.g., either the east side of Lexington Avenue, East 68th Street or East 69th Street). While off-site staging may be required, it is not possible to confirm the location of these areas at this time. The requirement for, and the location of such an area, would be the responsibility of the contractor. The contractor would establish possible staging areas and would be required, as part of the contract specification, to comply with all applicable local zoning laws, and other applicable local rules and regulations, and to obtain all necessary permits and approvals.

Staging areas for construction equipment and supplies would likely occupy the curb lane adjacent to the area under construction. These staging areas would migrate as needed from East 69th Street, to Lexington Avenue and to East 68th Street according to which phase of construction is underway. At times there may be more than one staging area. Staging areas would be surrounded by a construction fence and isolated from public access.

13.3 CONSTRUCTION PHASES

13.3.1 PHASE 1

Construction activities during Phase 1 would focus on the new stairs to be located at the north end of the station. Phase 1 activities would also include excavation for the rerouting of utility infrastructure at the intersection of Lexington Avenue and East 68th Street. Phase 1 would continue for approximately one year, from mid-2016 to mid-2017. Access to the station during this phase of construction would be via the four existing stairways.

During excavation, a construction fence would be erected around the construction zone. For the new southbound station access the construction zone would include a portion of the south side of East 69th Street and portions of the south sidewalk for a distance of approximately 100 feet west of Lexington Avenue. Pedestrian traffic along the south side of East 69th Street would be maintained by providing a temporary walkway along the south side of the street. The walkway would be separated from vehicular traffic by a barrier. The service entrance to Hunter College between Thomas Hunter Hall and the North Building would be maintained.

For the new northbound station entrance at 931 Lexington Avenue under the Proposed Action, the sidewalk in front of the proposed entrance would be closed to pedestrians and temporary construction barriers would be erected. The section of sidewalk to be closed would extend for approximately 40 feet along Lexington Avenue. Access to all businesses on the east side of Lexington Avenue would be maintained at all times. Approximately 100 feet of the parking lane adjacent to the proposed entrance would be closed to vehicles and pedestrian traffic would be diverted around the excavation to the parking lane. The minimum width of the temporary sidewalk would be 8 feet, and the duration of the diversion would be approximately 3 months.

As described above, the pavement would be removed, soldier piles and lagging installed, and street and sidewalk decking would be laid. Access to Hunter College west of Lexington Avenue and the commercial spaces of the Imperial House Apartments east of Lexington Avenue would be maintained at all times. Excavation for the new stairwells and mezzanines would progress below utility transmission lines, which would be supported from above where necessary. A temporary walkway would be provided for pedestrians traveling along East 69th Street and the east sidewalk of Lexington Avenue. Pedestrian bridges across the construction zone would be provided for access to Thomas Hunter Hall and business entrances if necessary.

Utility lines would be relocated as necessary, and concrete forms would be constructed to build the walls, floor and roof of the stairs, and concrete would be pumped into the forms. During Phase 1, work at the north end of the station platform level would involve stabilizing and reinforcing the tunnel wall so that an opening in the wall can connect platform to the new platform stairs, mezzanines and street stairs. For the new northbound subway entrance a passageway would be constructed between the Imperial House basement and the existing subway platform. Since the elevation of the existing platform is lower than the Imperial House basement, concrete stairs would be constructed from the Imperial House basement to the elevation of the new passageway at the platform level. Connection of the passageway to the platform would require removing approximately 20 linear feet of the platform wall. As such, prior to construction of the new passageway, approximately 30 linear of feet of the Imperial House foundation will require underpinning. However, this work would not affect street level pedestrian and vehicular traffic. At platform level, temporary construction/noise barriers would be erected around the areas of the platform where the tunnel wall is being removed. In order to minimize impacts, the work may be conducted on a staggered schedule.

Phase 1 construction includes the relocation of utility infrastructure under the intersection of East 68th Street and Lexington Avenue. During utility relocation, Lexington Avenue would be reduced to two travel lanes for up to 12 months, and in coordination with NYCDOT, East 68th Street would be closed for brief periods. At other times, three travel lanes would be maintained on Lexington Avenue (as is the current condition), and one travel lane would remain open on both East 68th Street and East 69th Street (as is the current condition).

Equipment involved in this phase of construction could include pavement breakers (jackhammers), compressors, excavators, rubber tire loaders, dump trucks and hydraulic cranes. Jack hammers would break the street and sidewalk and debris would be loaded into dump trucks

and hauled away for disposal. Small excavators and hand tools (depending on the location and density of utility infrastructure) would be used to advance the excavation to the necessary level.

After the new entrances are finished, new street beds and curbs would be installed, and a new sidewalk would be constructed. Any sidewalk fixtures—parking meters, street lights and street trees, traffic lights and signs—that were removed would be replaced, and fire hydrants, gutters and catch basins would be rebuilt.

Proposed Project with Option E1

Under the Proposed Project *with Option E1*, a new northbound station entrance would be constructed on the south sidewalk of East 69th Street, east of Lexington Avenue, rather than at 931 Lexington Avenue. Construction for the mezzanine and street stair under the Proposed Project *with Option E1* would thus occur along East 69th Street east of Lexington Avenue instead of under the east sidewalk of Lexington Avenue midway between East 68th and East 69th Streets. For the new northbound station entrance at East 69th Street, the sidewalk in front of the proposed entrance would be closed to pedestrians and temporary construction barriers would be erected. The section of sidewalk to be closed would extend east from Lexington Avenue for approximately 100 feet along the south side of the street. Access to the Imperial House Apartment drive would be maintained at all times. Approximately 100 feet of the parking lane adjacent to the proposed entrance would be closed to vehicles, and pedestrian traffic would be diverted around the excavation to the parking lane. The minimum width of the temporary sidewalk would be 8 feet, and the duration of the diversion would be approximately 3 months.

13.3.2 PHASE 2

Once the new subway entrances are operational, Phase 2 of construction would begin. Phase 2 is identical for the Proposed Project and for the Proposed Project *with Option E1*. Construction activities during Phase 2 would focus on construction of the northbound platform elevator, construction of the street elevator and reconfiguration of the street stair at the southeast corner of East 68th Street and Lexington Avenue, reconfiguration of the east side of the mezzanine, reconfiguration of the street stair at the northeast corner of East 68th Street and Lexington Avenue, and the continued relocation of utilities under the East 68th Street/Lexington Avenue intersection. Phase 2 would continue for approximately one year, and during this time, access to the station would be via the new stairs at the north end of the station, and the existing stairs at the southwest and northwest corners of East 68th Street and Lexington Avenue.

A construction fence would be erected around the construction zone. The construction zone in Phase 2 would include the curb lane and portions of the sidewalk for a distance of approximately 60 feet east of Lexington Avenue on both sides of East 68th Street (not concurrently) and the area around the cantilevered portion of the Hunter College East building. Construction during Phase 2 would eliminate access to the station via the southeast and northeast street stairs. Construction fencing would not extend east on East 68th Street to the point of blocking access to the sidewalk vendor located approximately 80 feet east of Lexington Avenue on the south side of East 68th Street. Excavation and street decking would occur under a staggered schedule and would be located on East 68th Street east of Lexington Avenue.

The East 68th Street access to the parking garage under Imperial House Apartments would be maintained. Access to the building's service entrance would also be maintained. No businesses would be closed or relocated, except for the flower kiosk on the southeast corner of East 68th Street and Lexington Avenue. Demolition of the eastern portion of the mezzanine, and excavation for the two elevators would progress below utility transmission lines, which would be supported from above. A temporary walkway would be provided for pedestrians traveling along East 68th Street. Within the station, the work areas at the platform and mezzanine levels would be isolated

from the rest of the station with plywood barriers to reduce noise in the station and to maintain passenger safety.

The new elevator pits and walls for both the northbound platform elevator and the street elevator would be constructed, the new mezzanine would be built, and the new street stairs east of Lexington Avenue would be built. The existing stairs at the northeast corner of East 68th Street and Lexington Avenue would be enlarged and reconfigured. At the conclusion of Phase 2, new sidewalks would be constructed and sidewalk elements (street trees, street lights, mailboxes, etc.) would be replaced. The expanded mezzanine in the southeast corner of the station would be constructed, the elevator walls would be built, and the area would be backfilled. The street stair on the southeast corner of East 68th Street and Lexington Avenue would be widened and rebuilt and the street elevator head house installed.

The equipment used during the second phase of construction would be similar to that used in the first phase.

13.3.3 PHASE 3

When the street stairs on the east side of Lexington Avenue that were closed under Phase 2 reopen, Phase 3 would begin. Phase 3 is identical for the Proposed Project and for the Proposed Project *with Option E1*. The third phase includes the rehabilitation of the northwest street stair and installation of the ADA-compliant platform elevator for the southbound track. During Phase 3 of construction, access to the station would be via the street stairs on the east side of Lexington Avenue, the street stair on the southwest corner of East 68th Street and Lexington Avenue and the new entrances at the north end of the station. All access to the Hunter College East building would be maintained during Phase 3 of construction.

A new street bed and curb would be installed at East 68th Street and Lexington Avenue.

The equipment used during the third phase of construction would be similar to that used in the previous phases of construction.

13.4 POTENTIAL CONSTRUCTION IMPACTS

13.4.1 SOCIAL CONDITIONS

Construction of the Proposed Project and under the Proposed Project *with Option E1* would affect the character of the neighborhood in varying degrees for up to 39 months. Visible impacts would include construction barriers and equipment and trucks hauling debris away and trucks delivering construction material. At times, especially during the initial stages, noise generated by construction activities would be audible for area residences, workers and pedestrians in the area.

Under the Proposed Project one street tree would be removed to accommodate construction of the street stair at the northeast corner of East 68th Street and Lexington Avenue, and one tree at the southwest corner of East 69th Street and Lexington Avenue would be removed.

Under the Proposed Project *with Option E1,* two additional street trees would be removed along the south sidewalk of East 69th Street east of Lexington Avenue.

Construction would involve disruption on the streetbed, sidewalks, and some adjacent areas where construction materials and equipment would be temporarily stored. On a staggered schedule, construction of the Proposed Project includes replacement of sidewalks on the east side of Lexington Avenue, either side of East 68th Street east of Lexington Avenue, on the north side of East 68th Street west of Lexington Avenue and on the south side of East 69th Street west of the avenue. The replacement of sidewalks in these areas would not occur concurrently. At no

time would construction of the Proposed Project prevent access to businesses along Lexington Avenue, East 68th Street or East 69th Street. The proposed street elevator located on the southeast corner of East 68th Street and Lexington Avenue would require the permanent relocation of the florist kiosk at that location (see Section 3.3.3.2). The commercial space in the Imperial House Apartments would be delivered to MTA NYCT vacant, and no businesses would be displaced.

During construction of the Proposed Project and the Proposed Project *with Option E1*, access would be maintained to all buildings, businesses, loading docks, and parking facilities at all times. MTA NYCT and the contractor would provide adequate space for local deliveries during normal hours of operation, so as to minimize inconvenience to pedestrians and delivery services accessing businesses. Sidewalk access would be maintained during construction with a minimum of 5-foot-wide sidewalks. Where the reconstruction of the street stair on the north sidewalk of East 68th Street is proposed, it may be necessary to temporarily reduce the width of the sidewalk to a minimum of 5 feet for a distance of up to 60 feet, or to divert pedestrian traffic to the adjacent curb lane.

MTA NYCT will coordinate with businesses to address access/delivery issues. MTA NYCT would provide special loading and unloading areas on nearby side streets to those businesses where normal delivery access is curtailed during construction. In those designated side street areas, parking could be prohibited to allow more reliable deliveries and pick-ups.

The utility relocations would require the closing of lanes on Lexington Avenue. Excavation in the street bed would occur during normal working hours and would be covered with decking plates that would be secured in place during non-working hours.

On the southwest corner of East 69th Street and Lexington Avenue, the neckdown (widening of the sidewalk) would be constructed prior to construction of the street stair to maintain sufficient width for pedestrians along the sidewalk. Widening of the sidewalk and installation of the street stair is estimated to take 3 to 5 months to complete on the west side of Lexington Avenue.

Variously, depending on time of day and season, vendors on East 68th Street are located on the sidewalks east and west of Lexington Avenue. Depending on the phase of construction, it is expected that these locations would be unavailable for street vendors for temporary periods. Temporary locations for the street vendors would be finalized prior to construction in coordination with the NYCDOT, NYCDPR and the New York City Department of Consumer Affairs.

A traffic management plan would be implemented prior to construction in the form of a NYCDOT-approved MPT plan. This plan would include procedures for advance notification to residents and businesses of partial street/sidewalk closures and other potential construction-related activities, as well as measures to avoid or minimize noise, vibration and dust associated with construction activities. Additionally, these temporary impacts would be offset by the long-term benefits of the Proposed Action, including less congestion and better pedestrian circulation at the intersection of East 68th Street and Lexington Avenue.

With an estimated construction cost of approximately $70 million, the project would generate substantial economic benefits. The public expenditure required to implement the station improvements would provide jobs in the construction industry and jobs in the production of necessary services and materials. In addition to these jobs, the project's construction would also result in indirect or secondary economic activity generated from the direct expenditures throughout the regional economy (referred to as "multiplier" effects). In addition to employment directly attributable to construction of the Proposed Project and the Proposed Project *with Option E1*, construction expenditures would generate indirect employment, including jobs in business

establishments providing goods and services to the contractors, as well as in businesses that would provide goods and services to construction workers.

13.4.2 ENVIRONMENTAL JUSTICE

As discussed Chapter 3, the Proposed Project and the Proposed Project *with Option E1* do not have the potential to result in significant adverse construction impacts. Therefore, low-income and minority populations would not experience disproportionate high and adverse impacts during construction at a disproportionately high rate.

13.4.3 HISTORICAL AND CULTURAL RESOURCES

Construction of the Proposed Project and the Proposed Project *with Option E1* would have no adverse effect on historic properties because a construction protection plan (CPP) for historic resources located within 90 feet of construction activity is required, and would be prepared and executed, prior to the start of construction, as stated in the August 29, 2012, and April 2, 2015, letters from OPRHP. A CPP would be developed for the following historic properties within the project area: Thomas Hunter Hall, a contributing resource to the S/NR listed Upper East Side Historic District, and the Imperial House Apartments, eligible for listing on the S/NR.

To avoid the potential for any adverse physical impacts to historic resources within 90 feet of construction, including the Upper East Side Historic District (Thomas Hunter Hall) or the Imperial House Apartments, as a result of construction-induced ground-borne vibrations, a Historic Resource Construction Protection Plan (HRCPP) would be developed in consultation with NYSOPRHP and LPC prior to construction. The HRCPP would follow the requirements established in the NYCDOB Technical Policy and Procedure Notice (TPPN) #10/88 concerning procedures for the avoidance of damage to adjacent historic structures from nearby construction. It would also follow the guidelines set forth in Section 523 of the CEQR Technical Manual, including conforming to LPC's Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings.

The 68th Street/Hunter College Station is located in a densely developed urban setting with a mix of historic properties and recently constructed buildings; the subsurface locations associated with the Proposed Project have been previously disturbed by the installation of the IRT Subway, and by the excavation for and installation of utilities from the late nineteenth century through to the present. As a result, and following the concurrence from NYSOPRHP on August 29, 2012 and concurrence from LPC on February 1, 2012, the project site does not possess the potential for subsurface archaeological resources within the construction zone for the Proposed Project. No impacts to archeological resources are anticipated.

13.4.4 TRANSPORTATION AND PEDESTRIAN CIRCULATION

The Proposed Project would be constructed in three phases as identified above. Construction of the new stairs at the north end of the station, identified as Phase 1, would begin in 2016 and be completed within approximately one year. Phase 2 of the Proposed Project, which includes widening and reconfiguring the northeast and southeast street stairs at East 68th Street and Lexington Avenue, and construction of the ADA elevator at the southeast corner of the intersection, would occur the following year, in 2017–2018, and would be completed prior to the start of Phase 3. Phase 3 of the project is expected to start in 2018, and would include rehabilitation of the northwest street stair at East 68th Street and Lexington Avenue, and construction of the southbound platform elevator. This phase is expected to be complete in late 2019. No construction of the street stair at the southwest corner of East 68th Street and Lexington Avenue is planned for the project.

This section analyzes the interim construction condition years of 2014 through 2016, which are earlier than when the actual construction is expected to occur (2017 through 2019); however, the analyses for the earlier years assume that the Second Avenue subway, which is anticipated to open in 2017, would not yet be operational. As the Second Avenue subway would divert significant ridership away from the Lexington Avenue IRT Line, the construction condition analyses for the earlier years are conservative, and conditions during construction in 2017 through 2019 would be better than what is analyzed in this section for 2014 through 2016. The detailed transportation analysis results for the construction condition are included in Appendix C and summarized later in this chapter.

During Phase 2 and Phase 3 of construction, pedestrians and passengers would need to be rerouted to account for the various stair and sidewalk closures. The proposed subway street stairs to be located at the north end of the station would be operational before the start of Phase 2. Therefore the diversion of pedestrian volumes from the East 68th Street stairs to the new stairs would need to be accounted for.

For construction of the Proposed Project *with Option E1*, subway ridership would be the same as the Proposed Project; therefore, all pedestrian and transit volumes would be the same except at a few locations. These differences exist because under the Proposed Project *with Option E1*, the east side street stair at East 69th Street would be located east of the southeast corner of the Lexington Avenue and East 69th Street intersection, rather than mid-block on the east side of Lexington Avenue. Specifically, the following three pedestrian elements analyzed in this construction chapter would have different pedestrian volumes under the Proposed Project *with Option E1*:

- Lexington Avenue east sidewalk, south of East 69th Street (lower volumes under Option E1)
- East 69th Street south sidewalk, east of Lexington Avenue (higher volumes under Option E1)
- East 69th Street north sidewalk, east of Lexington Avenue (lower volumes under Option E1)

The pedestrian reassignment varies per construction phase as follows:

13.4.4.1 Phase 1 – Construction of East 69th Street Stairs

The construction of the proposed street stairs at the north end of the station would occur in Phase 1 (2016–2017). During this phase no rerouting of station passengers would be necessary as pedestrians would continue to use the existing stairs at East 68th Street.

13.4.4.2 Phase 2 – Stair Construction at East 68th Street East of Lexington Avenue

The closure of the street stairs at East 68th Street east of Lexington Avenue would require the shift of all subway passenger flows to the stairs west of Lexington Avenue and to the new north entrances/exits completed in Phase 1.

13.4.4.3 Phase 3 – Closure of the Northwest Stair at East 68th Street

The closure of the northwest corner street stair at East 68th Street would require the shift of these passenger flows to the other three entrance/exits at East 68th Street and to the new north entrances/exits completed in Phase 1.

13.4.4.4 Maintenance and Protection of Traffic

The contractor selected for the project would be responsible for preparing plans to ensure that acceptable levels of service are maintained throughout potentially affected roadways and intersections in the study area. Maintenance and Protection of Traffic (MPT) plans would be submitted to and approved by NYCDOT. At no time would Lexington Avenue be reduced to fewer than two travel lanes. One travel lane on East 69th Street would remain open throughout construction of the project. However, at times during late night or weekends, East 68th Street would be closed east of Lexington Avenue. MPT plans for these events would be submitted to and approved by NYCDOT, and would accommodate emergency vehicles that require access to buildings along East 68th Street between Lexington Avenue and Third Avenue.

13.4.4.5 Transit

Rebuilding the platform edge as part of the Proposed Project could cause brief and temporary disruption to subway operations. Disruption to subway service includes six weekend diversions of train traffic on each of the northbound and southbound tracks, and 20 weeknight shutdowns (12:01 AM to 5:00 AM) on each track.

At times during construction within the station, passenger circulation would be disrupted when street stairs are closed for widening or relocating and when the eastern part of the mezzanine is being rebuilt. At these times, pedestrians would be diverted to other exits. At no time would fewer than four entrance/exits be available to the station. The new subway stairs at the north end of the station would be open prior to construction activity that would affect the existing stairs at the southern end of the station.

The MTA NYCT bus stop for the cross town M66 bus route, located at the southeast corner of Lexington Avenue and East 68th Street, would be temporarily relocated to the southwest corner for approximately 12 months. The Proposed Project would not otherwise affect bus transit. No impacts to bus transit along Lexington Avenue are anticipated, and no adverse impacts to public transit in general are expected.

The four street stairs and turnstiles at the 68th Street entrance were analyzed for the two interim construction phases in 2015 and 2016 (2018–2019). In addition, two sets of turnstiles and street stairs (uptown and downtown) at the new entrances were analyzed for the Proposed Project.

13.4.4.6 Subway Street Stairs

Detailed street stair analyses were conducted for the four existing street stairs at the 68th Street/Hunter College Station and the proposed stairs at the north end of the station during the three peak periods for both the 2015 and 2016 (2018–2019) interim construction years.

During the Phase 2 construction at the East 68th Street entrance, the southwest stair is projected to operate at LOS C during the midday peak period. Because of the closure of the southeast stair during Phase 2 and shift of pedestrians to the southwest stair, the southwest stair is projected to operate at LOS F and E during the AM and PM peak periods, respectively. The northwest stair is projected to operate at LOS C or better during all three peak periods. During the Phase 3 construction at the East 68th Street entrance, all stairs are projected to operate at LOS C or better during all three peak periods.

The proposed East 69th Street stair on the western side of Lexington Avenue is projected to operate at LOS A at all time periods during construction Phases 2 and 3. The proposed eastern stair is projected to operate at LOS B during the AM peak period and LOS A during the midday and PM peak periods for both construction phases.

For the Proposed Project *with Option E1*, the proposed east stair at East 69th Street would have the same volume as the Proposed Project, but the subway street stair would be 108 inches wide rather than 120 inches wide. With Option E1, this stair would operate at LOS B during the AM peak period and LOS A during the midday and PM peak periods, which is the same LOS as for the Proposed Project.

13.4.4.7 Turnstiles

Detailed analyses were conducted for control area R-246 in the 68th Street/Hunter College Station and the proposed control areas at East 69th Street for the three peak periods during both the 2015 and 2016 (2018–2019) interim construction years. The results of the analyses indicate that all of the control areas at both entrances of the station are projected to operate at LOS A during the three peak periods for both construction phases.

For the Proposed Project *with Option E1*, the turnstile volumes and analysis results would be the same as those for the Proposed Project.

13.4.4.8 Pedestrian Operations

The crosswalk, corner, and sidewalk locations at the Lexington Avenue intersection with East 68th Street were analyzed for the three peak periods for both the 2015 and 2016 (2018–2019) interim construction years. For analysis purposes, existing pedestrians originating from or bound to the subway were assigned to the East 69th Street stairs as appropriate.

Crosswalks

The four crosswalk locations at the Lexington Avenue intersection with East 68th Street were analyzed for the three peak periods during both the 2015 and 2016 (2018–2019) construction conditions. During Phase 2 construction, the east and west crosswalks are projected to operate at an LOS C or better during all three peak periods. The north crosswalk is projected to operate at an LOS C or better during the midday and PM peak periods and LOS D during the AM peak period. Because of the shift of pedestrians from the southeast corner to the southwest corner stair, there would be more pedestrians crossing the south crosswalk. As a result, the south crosswalk is projected to operate at LOS F during the AM peak period and LOS E during the midday and PM peak periods.

During the 2016 Phase 3 construction condition, all four crosswalks are projected to operate at an LOS C or better during all three time periods.

For the Proposed Project *with Option E1*, crosswalk volumes and analysis results at the Lexington Avenue and East 68th Street intersection would be the same as those for the Proposed Project.

Corners

The four corner reservoir locations at the Lexington Avenue intersection with East 68th Street were analyzed for the 2015 and 2016 (2018–2019) construction conditions. During Phase 2 construction conditions, the northeast corner is projected to operate at LOS A during all three time periods. The northwest and southeast corners are projected to operate at LOS D during the AM and PM peak periods and LOS C during the midday peak period. The southwest corner is projected to operate at LOS E during the AM peak period, LOS C during the midday peak period, and LOS D during the PM peak period.

During the 2016 Phase 3 construction condition, all four corner locations are projected to operate at an LOS C or better during the three peak periods.

For the Proposed Project *with Option E1*, corner volumes and analysis results at the Lexington Avenue and East 68th Street intersection would be the same as those for the Proposed Project.

Sidewalks

The eight sidewalk locations at the Lexington Avenue intersection with East 68th Street were analyzed for the 2014, 2015 and 2016 (2017, 2018, and 2019) construction conditions. Additionally, the eight sidewalk locations at the Lexington Avenue intersection with East 69th Street were analyzed for the 2016 construction condition. During the 2014 (2017) Phase 1 construction condition, seven out of eight sidewalk locations at the intersection of Lexington Avenue at East 68th Street are projected to operate at an LOS C or better under the non-platoon and platoon conditions during the three peak periods. The west side of Lexington Avenue north of East 68th Street is projected to operate at LOS D under platoon conditions during the PM peak hour. At the intersection of Lexington Avenue at East 69th Street, six of the eight sidewalk locations are projected to operate at an LOS C or better under the non-platoon and platoon conditions during the three peak periods. The west side of Lexington Avenue north of East 69th Street is projected to operate at LOS D under platoon conditions during the PM peak hour. The east side of Lexington Avenue south of East 69th Street (midblock between East 68th Street and East 69th Street in front of 931 Lexington Avenue) would operate at LOS D during the AM peak period and LOS C or better during the midday and PM peak periods under non-platoon conditions. Under platoon conditions, it would operate at LOS D during the AM and PM peak periods and LOS C during the midday peak period.

During Phase 2 construction, six of the eight sidewalk locations are projected to operate at an LOS C or better under the non-platoon and platoon conditions during the three peak periods. The south side sidewalk west of the Lexington Avenue and East 68th Street intersection is projected to operate at LOS D during the PM peak period under non-platoon conditions and the AM and PM peak periods under platoon conditions. The south side sidewalk east of the Lexington Avenue and East 68th Street intersection is projected to operate at LOS D during the AM and PM peak periods under non-platoon conditions and LOS E during the AM and PM peak periods under platoon conditions.

During Phase 3 construction, all eight sidewalk locations are projected to operate at an LOS C or better under the non-platoon and platoon conditions except for one. The west sidewalk along Lexington Avenue north of 68th Street is projected to operate at LOS D during the PM peak period under platoon conditions.

For the Proposed Project *with Option E1*, pedestrian volumes would be different for three sidewalks at the Lexington Avenue and East 69th Street intersection during Phase 1. All three of these sidewalks (east side of Lexington Avenue south of East 69th Street, south side of East 69th Street east of Lexington Avenue, and the north side of East 69th Street east of Lexington Avenue) would operate at LOS C or better for both platoon and non-platoon conditions.

13.4.5 AIR QUALITY

Although the Proposed Project and the Proposed Project *with Option E1* would be constructed, using in part, diesel-powered machinery, adverse impacts to air quality would not be anticipated. Because of the limited space available for construction work and the magnitude of the project, it is not expected that many pieces of construction equipment would be in use concurrently. Most of the equipment used in the station (below ground) would be electric-powered.

In addition, contractors at the project site will comply with New York State's Diesel Emissions Reduction Act of 2006 (DERA). DERA requires that construction equipment used for the project, including on and off-road vehicles having a gross vehicle weight greater than 8,500 pounds, will

use ultra-low sulfur diesel fuel (ULSD) and use Best Available Retrofit Technology (BART) to reduce emissions of nitrous oxide and particulate matter.

Construction activity would increase the level of fugitive dust in the immediate vicinity of the construction site during excavation. The term fugitive dust is used to describe dust that is not emitted from definable point sources, such as industrial smokestacks, but from non-point sources such as open fields, unpaved surfaces, parking lots, roadways, storage piles, and construction sites. Air quality may also be affected by emissions from mobile sources and non-road equipment. Potential mobile sources include worker vehicles, construction truck traffic, and disruptions in local traffic caused by site activities. Off-road equipment sources include hydraulic cranes, backhoes/loaders, compressors, welders, drill rigs and concrete pumps. The pollutants of concern from these engine exhausts include nitrous oxides (NOx), carbon monoxide (CO), particulate matter (PM), and volatile organic compounds (VOCs).

13.4.5.1 Mobile Sources Construction Emissions

As described in the construction scenario, construction activity associated with the Proposed Project and the Proposed Project *with Option E1* would last approximately 36 months. Construction activity would require limited trucking during intermittent periods of construction, associated with the removal of demolition spoils and delivery of building materials. Appropriate dust control measures would be implemented during construction. Because of the limited number of trucks required to transport materials to and from the site, and because of the limited time during which traffic lanes would be closed on Lexington Avenue, East 68th Street or East 69th Street, emissions from mobile sources during construction would be minimal and no adverse impacts on air quality from mobile sources are anticipated during construction.

13.4.5.2 Stationary Source Construction Emissions

Exhaust from non-road construction equipment would result in emission of air pollutants during various phases of the construction period. During the peak construction year in 2017, which includes construction (breaking of the pavement, loading it on a truck and hauling it away), and excavation, on-site equipment may include a hydraulic crane, a backhoe or loader, a compressor, a concrete pump and a small welding machine. During the remaining phases of construction, on-site equipment may include a hydraulic crane, a concrete pump, and welding machines. Because of the temporary nature of construction activities using non-road equipment, and the limited number of such pieces of equipment, the operation of the construction equipment would be unlikely to result in high emissions. No adverse impacts to air quality as a result of off-road emission sources are anticipated.

Construction activities such as pavement breaking, excavation, and vehicles traveling on dirty or unpaved surfaces have the potential to create fugitive dust emissions. Fugitive dust can also be generated by wind erosion of stockpiled materials. Contractors would be required to implement fugitive dust control measures such as watering of exposed areas, installation of dust covers on trucks, and use of tracking mats to remove dirt and other debris from truck tires. Dust generated by street excavation typically consists mostly of relatively large particles that would settle within a short distance from the construction activities. Based on the above, no adverse air quality impacts are anticipated during the construction period.

Contractors would comply with Local Law 77, which requires diesel particulate filters on off-road equipment or alternatively, use of newer Tier 4 equipment that has substantially lower PM2.5 emissions.

As a part of policy, MTA NYCT incorporates into the construction specifications control measures to minimize potential construction-related air quality effects. The measures would include:

- Use ultra-low sulfur diesel (ULSD) fuel in off-road construction equipment with engine horsepower (HP) rating of 60 HP and above.
- Limit unnecessary idling times on diesel powered engines to three minutes.
- Locate diesel powered exhausts away from fresh air intakes.
- Control dust related to construction site activities through a Soil Erosion Sediment Control Plan that includes, among other things:
    - Spraying of a suppressing agent on dust pile (non-hazardous, biodegradable);
    - Containment of fugitive dust; and,
    - Adjustment for meteorological conditions as appropriate.

Furthermore, during demolition activities (sidewalk removal and limited excavation), dust control, erosion control, and vapor control (if necessary) measures would be implemented as practicable. Truck loading practices would be implemented to limit loss of materials, and prior to leaving the area, each truck would be inspected for residual materials and cleanliness. A cover would be placed over each load of debris prior to the truck leaving the site.

13.4.6 NOISE AND VIBRATION

13.4.6.1 Noise

During construction of the Proposed Project and the Proposed Project *with Option E1*, noise and vibration levels would be expected to increase during working hours because of the use of construction equipment use and movement on-site, and construction-related traffic to and from the site. Construction equipment would generate varying levels of noise, depending on the specific activity and the location of the activity, as well as the equipment being used. Construction noise would be intermittent and temporary, and the duration of noise impacts would depend on the specific activity, and the distance to sensitive receptors.

Construction noise levels would be expected to be greatest during the early phases of construction, when activities would include pavement breaking using jackhammers, and the concurrent use of rubber tire loaders and dump trucks to remove the resultant debris.

Construction would be conducted in accordance with the New York City Construction Noise Code, which mandates that all construction be conducted in accordance with noise mitigation plans that address the specific location, type of work, and timing of a project. The Construction Noise Code also sets standards for noise levels created by handling containers and construction material on public streets, and identifies ways to lessen the noise from each type of construction equipment. In order to maintain noise levels below the thresholds mandated by the Noise Code, jackhammers would likely be outfitted with noise-reducing mufflers and/or be surrounded by portable street barriers to reduce the sound impact on the area. The Noise Code also defines the hours when construction may occur.

To comply with the Noise Code, contractors must develop a noise mitigation plan prior to the start of work. If noise complaints are received, a New York City Department of Buildings (NYCDOB) inspector would ensure the contractor has posted the plan, and that it is being followed. This will determine whether or not the plan needs modification. When construction activity is planned near locations such as schools, hospitals and houses of worship, as is the case for the Proposed Project, the noise mitigation plan would be sensitive to these receptors.

Noise that exceeds the ambient sound levels by more than 10 dB, as measured 15 feet from the source or from inside any property or on a public street, is prohibited, and sounds that occur abruptly and for a short duration, called impulsive sounds (e.g., blasting or pile driving), are restricted.

Construction hours at the surface under the Construction Noise Code are from 7:00 AM to 6:00 PM on weekdays. Work may take place after hours and on weekends only with express authorization from the NYCDOB and the New York City Department of Transportation (NYCDOT). It is expected that, with such approval, work would be conducted between 7:00 AM and 10:00 PM. A noise mitigation plan must be in place before any authorization is granted.

Construction activity within the station would be carried out at various times during a twenty-four hour period/seven days per week. The hours of work would be dictated by the programmed periods of diversion of subway services, which would only occur weekday nights and on weekends. For street level construction activities, the work hours would be Monday to Friday 7:00 AM to 6:00 PM, and Saturday and Sunday 9:00 AM to 6:00 PM.

Noise from construction activities would be minimized by using properly maintained equipment with sound baffling where necessary, and by adhering to the permitted hours of construction specified in the City Noise Code. Design considerations and project layout approaches may also be included, such as construction of temporary noise barriers, placing construction equipment farther from noise-sensitive receptors, constructing walled enclosures/sheds around especially noisy activities such as pavement breaking, and sequencing operations to combine especially noisy operations to occur in the same time period. No significant adverse impacts from construction-related noise are anticipated.

13.4.6.2 Vibration

Paramount concerns regarding construction vibration include potential damage to buildings, annoyance experienced by residents in the vicinity of the activity, and interference to vibration-sensitive equipment. Operation of construction equipment causes vibrations which spread through the ground, diminishing in strength with increasing distance from the source. Construction activities can result in varying degrees of ground vibration, depending on the equipment used, the substrate and the construction methods employed.

Vibration is commonly measured by two scales, depending on the sensitive receptor considered. Vibration that could damage structures is measured by a scale that relates to the velocity with which the earth moves or shakes – the peak particle velocity (PPV), with the units of measurements being inches per second (ips). (Construction vibration generated by a project of this magnitude would rarely reach levels that could damage structures.) Vibration levels resulting in annoyance, or interference with vibration sensitive equipment, are measured in vibration decibels (VdB).

NYCDEP requires that the impacts of all construction activities be limited by specific vibration restrictions. One of the more frequently used thresholds for vibration to prevent structural damage, established by the United States Bureau of Mines, is a PPV of 2.0 ips at the closest structure. This level is a typical nominal structural damage criterion employed by construction projects. However, where the most stringent protection is required, NYCDEP specifies a PPV limit of 0.5 ips, which is 10 times more restrictive than 2.0 ips (on the logarithmic scale). A PPV limit of 0.5 ips is associated with protection of surrounding historic structures that are susceptible to cosmetic cracks in fragile plaster. This limit could be lowered to protect fragile and/or historic structures based on a detailed vibration assessment to be conducted by the construction contractor prior to construction, monitoring during structural conditions in the vicinity of the Proposed Action, and as modified by the New York City Landmarks Preservation Commission (NYCLPC).

To avoid the potential for adverse physical impacts to historic resources during construction from ground-borne vibrations, a Historic Resource Construction Protection Plan (HRCPP) would be developed in consultation with OPRHP and the New York City Landmarks Preservation Commission (LPC) prior to construction. The HRCPP would follow the requirements established in the NYCDOB Technical Policy and Procedure Notice (TPPN) #10/88, concerning procedures for the avoidance of damage to adjacent historic structures from nearby construction. It would also follow the guidelines set forth in Section 523 of the CEQR Technical Manual, including conforming to LPC's Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings.

Vibration generated as a result of the Proposed Project would be greatest during pavement breaking activities and installation of piles. Vibration levels at a receptor 100 feet from the location of this activity are expected to reach approximately 0.004 PPV, well below levels that would damage sensitive structures, and approximately 67 VdB, below the FTA vibration annoyance criteria of 72 VdB. Vibration levels generated during construction of the Proposed Project would not be expected to exceed regulatory thresholds.

13.4.7 CONTAMINATED MATERIALS

Contaminated materials, namely lead and asbestos, may be encountered during construction of the Proposed Action. Lead-based paint chips and asbestos are considered regulated wastes, and if identified during pre-construction surveys, would be removed and disposed of in accordance with all federal and state regulations, and MTA NYCT policies. It is also possible that petroleum product or other contamination would be encountered in groundwater. If contaminants are identified in groundwater at levels requiring action according to NYCDEP guidelines, appropriate measures such as treatment and disposal would be taken to prevent contaminant release.

Construction activities would require the use and storage of potentially hazardous materials (e.g., solvents, fuel oil and lubricants). It is anticipated that a temporary and secure staging area would be designated for the storage of such materials. Removal of these materials from this area would be by authorized personnel only, and removals would be recorded by a designated Site Safety Officer. All storage areas for liquid-state hazardous materials would have secondary containment systems in place to reduce potential contamination in the event of accidental spillage. The storage of hazardous materials on site would be minimized or avoided where practicable (e.g., fuel for equipment operation would be transported to the site by fuel trucks and transferred in an area equipped with spill containment). Details on the staging and management of contaminated materials would be provided by the contractor in their work plans. No significant adverse impacts from hazardous materials during construction activity are anticipated.

13.4.8 NATURAL RESOURCES

13.4.8.1 Geology

The amount of bedrock and soil that would be removed during the excavation processes during all construction phases would be insubstantial. The underlying geology of Manhattan would not be altered and no adverse impacts would occur.

13.4.8.2 Flora and Fauna

Given the disturbed, urban environment of the project site, no significant adverse impacts to vegetation and wildlife habitats would occur. The number of plant and animal species found at the station are limited and these species would likely be tolerant of any increased disturbance created by the project. No loss of habitat is anticipated. While construction of the project would

result in the removal of two mature street trees, this would not create a significant adverse impact on natural resources because the number of trees that would be removed represents a small fraction of New York City's urban forest. In addition, as described in Chapter 3: Social Conditions, the trees removed from parks would be replaced in coordination with the New York City Department of Parks and Recreation. Construction activity would not occur in any state-listed endangered peregrine falcon nesting locations. Moreover, in May 2002, NYSDEC further determined that construction of similar projects (i.e., Second Avenue Subway) would not adversely affect peregrine falcons because they are accustomed to the intensive street level activity that already occurs throughout this area.

13.4.8.3 Floodplains, Navigable Waters, Coastal Zone and Wetlands

The 68th Street/Hunter College Station is not located within the 100-year flood zone and is not within the coastal zone. The nearest wetlands are approximately 0.5 mile northwest of the project site and the nearest navigable waters are the East River, approximately 0.6 mile east of the project site. Construction activities would not increase impervious surfaces and would not exacerbate flooding in other areas. No construction-related impacts to flood zones, navigable waters, wetlands or the coastal zone are anticipated.

13.4.8.4 Groundwater

Groundwater resources in Manhattan are not used as potable water, and would not be adversely affected by construction of the Proposed Project. The station design includes provisions to maintain current groundwater flow and elevation. During construction, design requirements would limit the amount of dewatering allowed as one aspect of such protection measures. Groundwater levels would be continuously monitored relative to pre-construction conditions to minimize changes in water levels. After construction is complete, no dewatering is anticipated.

Excavation to the depth required for the platform elevator pits may reach the water table. If groundwater is encountered, it would be removed via dewatering during construction. The water would be pumped into a settling tank to remove sediment and then deposited to the city's sewer system, as permitted in the State Pollutant Discharge Elimination System (SPDES) permit. As described in Chapter 9: Contaminated Materials and Section 13.4.7, above, if the groundwater contains contaminants and if these are present in levels that exceed the sewer use limitations set by the New York City Department of Environmental Protection (NYCDEP), the water would be treated using readily available technologies and retested prior to its disposal.

13.4.8.5 Surface Water

Because no surface water bodies are in the vicinity of the Proposed Project, construction of the project would not affect surface water. No construction impacts to surface water are anticipated.

13.4.8.6 Stormwater Management, Erosion and Dewatering

All operations necessary for the management of stormwater, stormwater runoff, dewatering, erosion, and sediment control would comply with the applicable federal, state, and local laws and regulations, and MTA NYCT policies, including the latest editions of the New York State Standards and Specifications for Erosion and Sediment Control, and the New York State Stormwater Management Design Manual in effect at the time the work is being performed.

If required, a SPDES permit from NYSDEC would be secured and would contain appropriate requirements for erosion and sedimentation controls to be used during construction. Approval from NYCDEP would also be secured in order to discharge water from the required dewatering activities into the sewer system. Even if not required by state regulations, MTA NYCT requires

that the contractor develop and submit to MTA NYCT for approval a Stormwater Pollution Prevention Plan (SWPPP) a minimum of 15 business days prior to soil/ground disturbance activities. The SWPPP would:

- include provisions to prevent litter, work site chemicals, and work site debris exposed to stormwater from becoming a pollutant source;
- provide a description of work site and waste materials expected to be stored on-site with updates as appropriate, and a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response;
- identify plans to stabilize work site entrance(s)/exit(s);
- identify dust control measures; and
- identify measures to prevent work site vehicles from tracking soil/sediment outside the site.

With these measures in place, erosion and stormwater pollution would be minimized or eliminated. No construction-related impacts are anticipated.

13.4.9 ENERGY

Energy would be consumed by equipment required for constructing the Proposed Project, including fuel energy consumed by vehicles transporting workers, equipment, and excavated materials generated during the construction process, and fuel or electric energy used to operate machinery and equipment. Due to the relatively small scale of the project, energy requirements needed to construct the project are not expected to cause a shortage of fuel or electric energy.

13.4.10 UTILITIES

This section describes the effects construction of the Proposed Project would have on utilities and other subsurface structures. It concludes that temporary disruptions to some utility service could be required to allow the relocations required for project construction, but overall, construction of the project would not result in significant adverse impacts on utilities infrastructure.

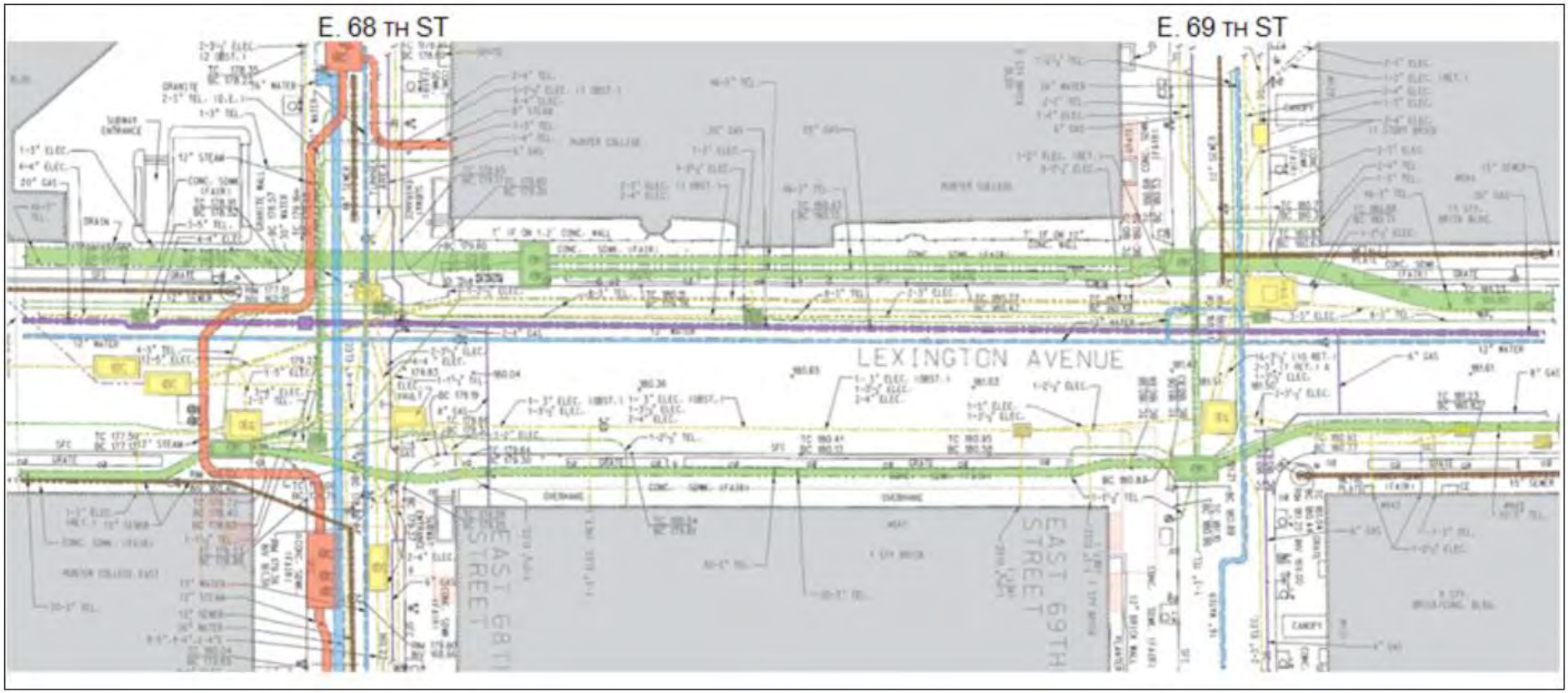
Utility transmission infrastructure for water, gas, steam, sewer, electrical, telephone and digital data, and cable services that provide service to the immediate area and the surrounding community are buried beneath the streets and sidewalks in the project area (Figure 13-3). Most of these utilities are located from 3 to 10 feet below the surface.

Installation of the stairs at the north end of the station would affect utility infrastructure at the intersection of East 69th Street and Lexington Avenue, requiring the installation of new catch basins, the relocation of the existing sewer manhole and construction of a new sewer ejector system, and the in-place supporting of the existing communications manhole. Utility infrastructure not to be relocated or rebuilt would be supported in place such that excavation and construction could occur below. After construction, the area above the new subway entrances would be backfilled around the utility transmission infrastructure, thus maintaining its original position.

Construction at the intersection of Lexington Avenue and East 68th Street would require the relocation of the Con Edison steam vault, relocation of the 30-inch and 12-inch water mains, construction of a new sewer manhole, and construction of new catch basins.

Sewer and water infrastructure relocation or replacement would be performed in coordination with NYCDEP. Steam vault relocation would be performed in coordination with Con Edison and would occur during the warmer months, when steam heat is not needed. Before the steam vault is

relocated, any asbestos-containing material would be removed in accordance with applicable laws. As such, asbestos would not be a significant issue for utility relocation work.



Not to Scale

NORTH

Existing Project Area Utilities
Figure 13-3

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14.1 POTENTIAL INDIRECT IMPACTS

Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 CFR § 1508.8).

The Proposed Project would not involve a new transit service, a change in the frequency of existing transit service or the provision of a new station that would have the potential to change accessibility to the surrounding land uses. The Proposed Project would improve passenger circulation within the existing 68th Street/Hunter College subway station, pedestrian circulation on the existing sidewalks above the station, and would bring the station into substantial compliance with ADA. Therefore, the project does not have the potential to create pressure for induced growth in the area.

Potential indirect effects of construction related to social conditions (including visual resources and community character), historic resources, and traffic were evaluated in conjunction with the analyses of direct effects in Chapter 3, Chapter 4, and Chapter 5 of the EA, respectively.

14.2 POTENTIALLY CUMULATIVE IMPACTS

CEQ regulations for implementing NEPA define a cumulative effect (40 C.F.R. 1508.7) as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of agency (federal or non-federal) or person undertaking such other actions” (CEQ, 1978).

Cumulative impact analysis is resource specific and generally performed for the environmental resources directly impacted by a federal action under study, such as a transportation project. However, not all of the resources directly impacted by a project will require a cumulative impact analysis. The resources subject to a cumulative impact assessment should be determined on a case-by-case basis, depending on which resources are impacted by the Proposed Project.

A cumulative impact may result when the incremental effect of a project, considered together with the effects of other actions—past, present or in the reasonably foreseeable future—produces an effect greater than that expected by each project individually. Cumulative impacts may occur from actions that are minor individually, but collectively significant over time.

The preceding EA analyses indicates that the 68th Street/Hunter College Subway Station Improvement Project would generate short-term temporary impacts to historic resources and visual characteristics to the neighborhood as a result of the presence of construction equipment and construction activity.

Additionally, the Proposed Project would generate short-term impacts to passenger circulation within the station during construction and vehicular and pedestrian circulation on the streets and sidewalks above the station where traffic lanes and portions of the sidewalk would be closed during part of the construction period. Maintenance and Protection of Traffic plans would be developed and approved by NYCDOT prior to construction of the project to mitigate the effects of construction on traffic and pedestrian circulation in the vicinity of the project.

The area surrounding the Proposed Project is a long-established residential and commercial neighborhood. Because the area has no vacant development lots and no large-scale construction projects were identified in the project area, any construction projects that could occur in the same period as the Proposed Project likely would be interior renovations and would not result in major transportation impacts.

An inventory of other reasonably foreseeable projects was conducted for the transportation analysis (see Appendix C: Transportation Analysis). A cumulative transportation impact analysis was conducted in the Transportation Analysis by evaluating the effects of transportation projects, including MTA NYCT's Second Avenue Subway and other projects, including hospital development in the area in addition to background population growth. No significant cumulative transportation impacts were identified.

Based on the distance between hospital development (more than 0.5 mile to the east on York Avenue) and the construction schedule (Phase I of the Second Avenue Subway is expected to be complete prior to construction of the 68th Street/Hunter College Subway Station Improvement Project), no cumulative construction impacts are anticipated.

No significant adverse indirect and cumulative impacts are anticipated as a result of the construction and operation of the 68th Street/Hunter College Subway Station Improvement Project.

15.1 INTRODUCTION

Federally funded mass transportation projects are required to be developed in accordance with federal legislation, as well as with FTA implementing regulations. Such policies include procedures governing the role of the public in the planning of and decision making for federal transportation projects. This section describes the efforts that have been undertaken and the ongoing efforts with respect to public outreach in the planning of the 68th Street/Hunter College Subway Station Improvement Project. This section also describes the ongoing coordination with local, state, regional, and federal agencies involved in the planning of the project.

MTA NYCT has been in contact with Community Board 8 and has established relationships with civic organizations, the management of residential buildings, officials at Hunter College and with businesses within the project area of Lexington Avenue between East 68th and East 69th Streets. The following applies to the Proposed Project and the Proposed Project with Option E1 unless otherwise indicated

15.2 REGULATORY CONTEXT

This EA has been prepared pursuant to the National Environmental Policy Act (NEPA) of 1969 (as amended) and in accordance with CEQ regulations implementing NEPA (40 C.F.R. §§ 1500 through 1508) and FTA's Environmental Impact and Related Procedures (23 C.F.R. § 771).

This EA has been prepared by FTA and MTA NYCT. FTA is a funding entity for the project and is the Lead Agency for the NEPA environmental review process. NEPA requires that federal agencies evaluate the environmental consequences of proposed actions and their alternatives, identify measures to mitigate any significant adverse impacts, and conduct the entire process in coordination with other agencies and the general public. In order for FTA to approve and fund the construction of the 68th Street/Hunter College Subway Station Improvement Project, the project must comply with the public and agency coordination requirements of NEPA.

In addition to NEPA, Section 106 of the National Historic Preservation Act of 1966 also contains provisions and requirements for public outreach activities. Executive Order 12898 also references effective public outreach as an important component of federal decision-making related to environmental justice. In accordance with federal guidelines, the public outreach program for this project included early, proactive, ongoing, and customized outreach and participation activities.

CEQ regulations require public involvement for Findings of No Significant Impact (FONSI) to include, at a minimum, reasonable public notice of availability of the EA and FONSI. Formal public scoping is not required for EAs as it is for an Environmental Impact Statements (EIS). As the federal local agency, the FTA would issue the FONSI, if deemed appropriate.

15.3 APPROVALS, PERMITS AND COORDINATION

The various permits and approvals that would be required to implement the Proposed Project are identified in Table 15-1.

Table 15-1:
Approvals, Permits, and Coordination Required

Approval/Permit/ Coordination	Resource Agency	Description
Parks Memorandum of Understanding (MOU)	New York City Department of Parks and Recreation (NYCDPR)	Agreement between NYCDPR and MTA NYCT regarding temporary impacts to street trees and replacement thereof.
Section 4(f) Evaluation	USDOT/FTA	Finding that there is no prudent and feas ble alternative to use of Section 4(f) resources and that MTA NYCT has considered all reasonable avoidance alternatives to minimize harm to Section 4(f) resources or a determination of a *de minimis* impact.
Coordination	New York City Department of Transportation (NYCDOT)	Agreement necessary for coordination and assumption by MTA NYCT of utilities relocation, and for street work.
Water Discharge (Construction)	New York City Department of Environmental Protection (NYCDEP)	During construction, this permit would allow Contractor to discharge the water from his activities after appropriate treatment, including dewatering of excavation, wheel washing.
Water Discharge (Operation) modification	NYCDEP	During operation, this permit would allow MTA NYCT to discharge water from the station and tunnel.
Maintenance and Protection of Traffic (MPT) Plans	NYCDOT	Approvals for use of sidewalks and street lanes during construction of the project.
Construction Protection Plan	NYSOPRHP	Section 106 of the National Historic Preservation Act of 1966.
Historic Resource Construction Protection Plan	NYCDOB	Protection of historic resources within 90 feet of construction activity.

15.4 AGENCY COORDINATION

Substantial public agency coordination has occurred for the 68th Street/Hunter College Subway Station Improvement Project. These efforts will continue as the project is developed in greater detail during final design. The following sections describe the primary components of these coordination efforts.

15.4.1 NEW YORK CITY DEPARTMENT OF TRANSPORTATION

As indicated above, the 68th Street/Hunter College Subway Station Improvement Project would require the approvals for the use of sidewalks and street lanes for the construction of the project. As such, MTA NYCT has been an active participant in several coordination meetings with NYCDOT to ensure the Proposed Project is being developed in accordance with NYCDOT policy. To date, coordination meetings with NYCDOT include those held on:

- May 12, 2011
- June 9, 2011

MTA NYCT will continue to coordinate with NYCDOT in the development of Maintenance and Protection of Traffic Plans to be completed during final design and implemented during construction of the Proposed Project.

15.4.2 NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Development of the Proposed Project will require the replacement and/or rerouting of City utilities, including sanitary sewer lines and domestic water supply lines. MTA NYCT has coordinated with NYCDEP regarding the Proposed Project and will continue such coordination throughout development and construction of the project. The initial coordination meeting was held on July 30, 2012. Additional coordination between MTA NYCT and NYCDEP would be required and conducted in the construction phases of the Proposed Project.

15.4.3 NEW YORK CITY DEPARTMENT OF PARKS AND RECREATION

Because two trees will need to be relocated prior to the commencement of construction activities, MTA NYCT conducted a meeting with NYCDPR on August 4, 2011. MTA NYCT will continue coordination with NYCDPR regarding the Proposed Project and the replacement of affected street trees.

15.4.4 NEW YORK STATE OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION

The Proposed Project will be constructed adjacent to the Upper East Side Historic District and adjacent to a contributing element of that historic district – Thomas Hunter Hall on the Hunter College campus. As such, coordination with NYSOPRHP has been conducted to determine if impacts to historic resources would occur because of the Proposed Project. OPRHP determined that the Proposed Project would have “no adverse effect” to the historic resource, provided a construction protection plan is put in place for all historic buildings within 90 feet of the proposed construction activities. This coordination was taken into consideration by FTA in its Section 4(f) determination (in accordance with 36 C.F.R. § 800) that either no historic property is affected by the Proposed Project or that the Proposed Project will have "no adverse effect" on the historic properties. Correspondence between MTA NYCT and OPRHP is provided in Appendix B.

15.4.5 NEW YORK CITY LANDMARKS PRESERVATION COMMISSION

New York City Landmarks Preservation Commission (Landmarks) was consulted regarding preliminary subsurface testing in the area of the Proposed Project and will continue to be engaged throughout the environmental review process. Copies of communications between MTA NYCT and Landmarks are provided in Appendix B.

15.5 PUBLIC OUTREACH

MTA NYCT has conducted outreach to the general public and held stakeholder meetings with specific interest groups to provide information to them about the 68th Street/Hunter College Subway Station Improvement Project, including the environmental review process, the existing congestion at the station, the scope of the Proposed Project, the construction duration and the cost, and the street stair options identified in this EA. A list of these meetings is provided below.

- March 10, 2011, Con Edison of New York
- June 30, 2011, Hunter College
- October 7, 2011, Community Board 8
- October 12, 2011, Hunter College Community Advisory briefing
- January 4, 2012, Community Board 8 Transportation Committee meeting
- April 16, 2012, Con Edison of New York

In addition, between November 2012 and November 2013 (see below for dates), MTA NYCT met with the 69th Street Tenants Corporation to describe the environmental review process, existing congestion at the station, the scope of the Proposed Project, anticipated construction duration and the cost, and the street stair options identified in this EA. At some of these meetings, the 69th Street Tenants Corporation suggested options for a street stair to serve the northbound platform at the north end of the station; options that would not involve a street stair on south sidewalk of East 69th Street east of Lexington Avenue. For each suggested option, MTA NYCT analyzed the alternative presented, and with respect to the initial alternatives presented, determined that they were either not feasible or did not meet the project goals and objectives, or purpose and need.

The 69th Street Tenants Corporation subsequently proposed the possibility of placing the street entrance for the northbound platform in a commercial space at 931 Lexington Avenue, approximately mid-block between East 68th Street and East 69th Street. MTA NYCT analyses found that option to be viable, and proceeded to pursue this possibility, which ultimately became Alternative E10 (the Proposed Project). At the time of preparation of this document, the owner of the building identified for locating Option E10 could not yet state with certainty that the commercial space at 931 Lexington Avenue (Option E10) would be available. Pending confirmation of availability of the space at 931 Lexington Avenue, MTA NYCT therefore retained the option for a street stair at the south sidewalk of East 69th Street east of Lexington Avenue (Option E1) as an optional entrance location to the northbound platform.

An overview of the proposals submitted by the 69th Street Tenants Corporation and the meetings with MTA NYCT to discuss the proposals is presented below.

- November 2012: The 69th Street Tenants Corporation submitted to MTA NYCT a report that outlined an alternative to MTA NYCT's plans for street stairs on East 69th Street.
- December 6, 2012: MTA NYCT's project team met with representatives of the 69th Street Tenants Corporation and informed them that the plan did not propose a feasible alternative to MTA NYCT's preferred plan because, although the submission included two additional "emergency egress" hatches, the proposal did not alleviate station platform congestion.
- March 2013: The 69th Street Tenants Corporation submitted a second report to MTA NYCT outlining a new proposed alternative to MTA NYCT's preferred plan involving street stairs on either East 67th Street or East 70th Street.
- April 16, 2013: MTA NYCT's project team met with the 69th Street Tenants Corporation to discuss MTA NYCT's response to the new proposal submitted in March 2013. At that meeting, MTA NYCT's team explained that the new proposal did not represent an acceptable alternative to MTA NYCT's preferred plan because the proposal did not meet the project goals and objectives, specifically, passenger circulation deficiencies during construction, construction phasing problems, and construction schedule and cost impacts.
- August 2013: The 69th Street Tenants Corporation submitted another alternative proposal. This third iteration involved MTA NYCT acquiring commercial retail space from the Imperial House, (931 Lexington Avenue) located mid-block along between East 68th and East 69th Streets.
- November 22, 2013: MTA NYCT and the 69th Street Tenants Corporation met to discuss the general framework for MTA NYCT acquisition of the retail space at 931 Lexington Avenue owned by the Imperial House.

The following agencies were contacted regarding the Proposed Project.

United States Department of the Interior
U.S. Fish and Wildlife Service
David A. Stilwell
Field Supervisor
3817 Luker Road
Cortland, NY 13045

NY State Office of Parks Recreation and Historic Preservation
Bureau of Historic Preservation
Ms. Beth Cumming
Historic Preservation Specialist, Technical Services Unit
Peebles Island State Park PO Box 189
Waterford, NY 12188

New York State Department of Environmental Conservation
Natural Heritage Program
Information Services
Jean Pietrusiak
625 Broadway, 5th Floor
New York, NY 12233-4757

Traffic Planning Office of Project Analysis/CEQR
New York City Department of Transportation
Naim Rasheed
55 Water Street, 6th Floor
New York, NY 10041

New York City Department of City Planning
Edith Hsu-Chen, Director
Manhattan Borough Office
22 Reade Street, 6th Floor West
New York, NY 10007-1216

New York City Department of Housing Preservation and Development
John Gearrity
Director of Environmental Planning
100 Gold Street, Room 5G-1
New York, New York 10038

Empire State Development Corporation
Ms. Rachel Shatz
633 Third Avenue - 31st Floor
New York, NY 10017

Dormitory Authority of the State of New York
Jack Homkow, Director of Environmental Affairs
One Penn Plaza
New York, NY 10021

Community Board 8
Nicholas D. Viest, Chairman
505 Park Avenue, Suite #620
New York, NY 10022

NYC Landmarks Preservation Commission
John Weiss, Deputy Counsel
One Centre Street
9th Floor, North
New York, NY 10007

Note (1): Some of these agencies are typically involved with development projects in New York City, such as housing, educational facilities, hospitals, mixed use and other development projects. These agencies were contacted to obtain information on potential future land use changes in the study area as a result of their projects, if any, in the project study area and that could be affected by or could affect the project. This information was thus used to establish the future no-build condition for impact analysis purposes.

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