

**A. INTRODUCTION AND METHODOLOGY**

This chapter assesses the potential effects to historic structures as a result of construction and operation of the project alternatives.<sup>1</sup> It was prepared in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as implemented by federal regulations appearing at 36 Code of Federal Regulations (CFR) Part 800. It was also prepared in accordance with the New York State Historic Preservation Act of 1980 (SHPA), as set forth in Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. These laws require that federal and state agencies, respectively, 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) and that they afford the federal Advisory Council on Historic Preservation the opportunity to comment. On the state or federal action, Section 110 of the NHPA also requires federal agencies to undertake planning and actions to minimize harm to properties designated as National Historic Landmarks. These laws also require the opportunity for public comment on the project's effects on historic resources. The project's public outreach program was developed to comply with the National Environmental Policy Act (NEPA), the NHPA, and the SHPA with regard to public participation and is described in Chapter 4 ("Public Outreach and Review Process"). A description of the applicable laws and regulations is provided in Appendix G, along with additional information on the historic resources identified in this chapter.

In addition, historic properties are also protected from adverse effects by Section 4(f) of the Department of Transportation Act of 1966, which prohibits actions by the Secretary of Transportation that require the "use" of a historic property that is listed in or eligible for inclusion in the S/NR, unless a determination is made that there is no feasible and prudent alternative to such use, and all possible planning has been undertaken to minimize harm to the 4(f) property. Section 4(f) also requires public outreach (discussed in Chapter 4) when use of a historic property is proposed. A Section 4(f) Evaluation for the Second Avenue Subway is included at the end of the main volume of the FEIS.

**METHODOLOGY**

In general, potential effects on historic or architectural resources can include both direct physical effects—demolition, alteration, or damage from construction on nearby sites—and indirect effects such as the isolation of a property from its surrounding environment, or the introduction of visual, audible, or atmospheric (e.g., pollutants) elements that are out of character with a property or that alter its historic setting and context (e.g., contextual effects). Significant adverse effects can occur if a project would cause a change in the quality of a property that qualifies it for inclusion in the S/NR. The Second Avenue Subway—including new tunnels, stations, shaft sites/staging areas, and rehabilitation/creation of storage yards—may affect historic structures.

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<sup>1</sup> Archaeological resources are discussed in Chapter 10, "Archaeological Resources."

(The No Build Alternative would not be considered an “undertaking,” since under this alternative, the Second Avenue Subway would not be built. Therefore, the No Build Alternative would not result in any significant adverse effects to historic resources, and it does not require analysis or definition of an Area of Potential Effect.)

To assess the potential effects of the Second Avenue Subway, an inventory of historic and architectural resources in areas that could be affected by the project was compiled. This chapter discusses the methodology used to prepare the inventory, presents a brief background history of the area, identifies the historic resources and properties (both previously known resources and those for which SHPO and the New York City Landmarks Preservation Commission [LPC] made determinations of eligibility specifically for the project), and assesses potential project effects. This work was prepared in accordance with NHPA, SHPA, and NEPA. The proposed methodology for the study of historic resources was submitted to SHPO for its review in correspondence dated November 27, 2001, and was also discussed at a meeting with SHPO representatives on December 17, 2001.

### *DEFINITION OF THE AREA OF POTENTIAL EFFECT*

To develop a comprehensive historic resources assessment, and to account for the lack of definition and/or potential for change of some project elements, Areas of Potential Effects (APEs) for historic resources were defined along the full alignment of the Second Avenue Subway. APEs include locations that may potentially be affected by construction or that may be affected once construction is completed and the new system is operational.

For most project areas, the APE for the Second Avenue Subway alignment is the area within 50 feet of the proposed new subway starting from the building line on either side of the alignment, as well as 50 feet beyond the north and south limits of the alignment. An APE of 50 feet is also used for potential shaft sites and staging areas. For the portions of the project that would operate in the existing Broadway Line tunnels (N R Q W Lines), the APE for historic resources has been defined as within 50 feet of the proposed new stairs to be built at the existing Lexington Avenue/63rd Street Station at Third Avenue and 63rd Street. These stairs are the only new construction that would be required on the Broadway Line. (The APEs are shown in Figures 9-1 through 9-9 presented later in this chapter.)

In areas where proposed work is not anticipated to have physical or contextual (e.g., visual) effects outside the limits of the proposed work, the APE is the area within the confines of proposed work. This includes work to reconfigure and rehabilitate existing train storage yards within their current boundaries, which is proposed at the 207th Street Yard in Manhattan, the 36th-38th Street Yard in Sunset Park in Brooklyn, and the Concourse Yard in the Bronx.

### *IDENTIFICATION OF HISTORIC PROPERTIES/STRUCTURES WITHIN THE APES*

Once the APEs were determined, a list of officially recognized historic resources within the APEs was compiled. This includes properties or districts listed on the S/NR or determined eligible for such listing; National Historic Landmarks (NHL), which are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States; New York City Landmarks and Historic Districts (NYCL); and properties that have been considered for designation (“heard”) by LPC at a public hearing or calendared for consideration at such a hearing (these are “pending” NYCLs).

In addition to identifying the historic resources already officially recognized in the APE, MTA New York City Transit (NYCT) compiled a list of other buildings that could warrant recognition as historic resources (i.e., could be eligible for listing on the S/NR and/or designation as NYCLs), and submitted this list to the SHPO and LPC for review. The list included properties in the Second Avenue Subway's APEs that appear to meet one or more of the National Register criteria (described below) and that were identified as potential historic resources based on field surveys of all the APEs and by using historical sources, such as the New York City Department of Buildings archives, the Municipal Archives, and historical documents at Columbia University's Avery Library and the New York Public Library. Historic Resource Inventory Forms ("Blue Forms") were then submitted to the SHPO for evaluation and eligibility determination. LPC has also identified resources that may warrant designation as NYCLs. Table 9-1 below, under "Existing Conditions," presents a list of all known historic or eligible resources within the Second Avenue Subway's APEs. Copies of all findings, as well as a list of properties considered, but not found eligible, are included in Appendix G.

Criteria for listing on the National Register are found in the 36 CFR Part 63. Following these criteria, districts, sites, buildings, structures, and objects are eligible for the National Register if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and: 1) Are associated with historic events (Criterion A); 2) Are associated with significant people (Criterion B); 3) Embody distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value, or are otherwise distinguished (Criterion C); or 4) May yield information important in prehistory or history (Criterion D). Properties that have achieved significance within the last 50 years are ordinarily not eligible. Determinations of eligibility are made by the SHPO.

In addition, LPC designates historically significant properties in New York City as New York City Landmarks and/or Historic Districts, following the criteria provided in the *Local Laws of the City of New York, New York City Charter, Administrative Code, Title 25, Chapter 3*. Buildings, properties, or objects are eligible for landmark status when a part is at least 30 years old. Landmarks have a special character or special historical or aesthetic interest or value as part of the development, heritage, or cultural characteristics of the city, state, or nation. There are four types of landmarks: individual landmark, interior landmark, historic district, and scenic landmark.

The Metropolitan Transportation Authority's transportation facilities, including those of NYCT, are exempt from local laws and ordinances pursuant to Public Authorities Law Section 1266, Subdivision 8. NYCT nevertheless intends to continue to seek the advice and counsel of the LPC as it goes forward in the same manner as it has in the past for proposed work on LPC individually designated landmarks or in historic districts. As NYCT's plans develop, NYCT anticipates that it will submit to LPC information regarding the project, and would expect that LPC, if it so chooses, will review and comment on NYCT's plans.

#### *EVALUATION OF POTENTIAL EFFECTS ON HISTORIC RESOURCES*

Once the historic resources in the APEs were identified, the effects of the project on those resources were assessed. As described above, project effects on historic resources may include both physical effects and indirect effects. Direct effects could include physical destruction, demolition, damage, or alteration of a historic resource. In addition, visual effects, such as changes in the appearance of a historic resource or in its setting—including introduction of incompatible

visual, audible, or atmospheric elements to a resource's setting, or elimination of publicly accessible views to the resource—are also considered.

### **B. EXISTING CONDITIONS**

#### **KNOWN HISTORIC RESOURCES**

Known historic resources are those officially recognized (properties listed or found eligible for listing on the S/NR, NHLs, NYCLs, or properties that have been considered for NYCL designation) and those identified by LPC as potentially warranting designation as NYCLs. The inventory conducted for the Second Avenue Subway APEs identified 87 such “known” historic resources: 14 within the East Harlem APE, 9 within the Upper East Side APE, 10 within the East Midtown APE, 17 within the Gramercy Park/Union Square APE, 24 within the East Village/Lower East Side/Chinatown APE, 7 within the Lower Manhattan APE, and 6 within the storage yards APE. Of these 87 resources, 80 are individually designated structures/sites, including three NHLs—the Chrysler Building, the Daily News Building, and the Brooklyn Bridge. The remaining 7 resources are historic districts. Several proposed storage and/or maintenance yards—the 207th Street Yard and the Midline Storage Tracks extending between approximately 21st and 9th Streets in Manhattan, Concourse Yard in the Bronx, the 36th-38th Yard in Brooklyn—contain structures within the APEs that have been determined eligible for listing on the S/NR.

Of the 87 known resources, 42 were previously known historic resources, and 43 were determined by the SHPO in April and December 2002 and July 2003 to meet eligibility criteria for listing on the S/NR as part of the Section 106 review conducted for the Second Avenue Subway. Of these 43, LPC identified 22 as appearing to be eligible for NYCL designation. LPC further identified two additional resources, not identified by SHPO as S/NR-eligible, as appearing to be eligible for NYCL designation.

The known historic resources include properties identified in APEs for new project elements not identified in the SDEIS because they are a result of ongoing engineering. These project elements are described below in greater detail under “Potential Historic Resources.”

The known historic resources in the Second Avenue Subway APE are listed in Table 9-1 and illustrated on Figures 9-1 through 9-9, provided later in this chapter.

#### **POTENTIAL HISTORIC RESOURCES**

Subsequent to the SDEIS, new project elements that have the potential to affect historic resources have been identified outside the APEs originally assessed in the SDEIS. These include a refinement to the curve at 125th Street, new underground tracks for train storage on 125th Street extending approximately 525 feet west of Fifth Avenue, a subterranean pedestrian connection on 42nd Street between Third and Lexington Avenues to connect to the 7 train, new underground storage tracks on Second Avenue south of 21st Street to approximately 9th Street, and a refinement to the tunnel alignment near Canal Street. In addition, proposed construction of station entrances and ancillary facilities (such as ventilation structures and cooling towers) outside the APEs originally assessed in the SDEIS also have the potential to affect historic resources.

**Table 9-1  
Known Historic Resources Within the Second Avenue Subway APes  
and Potential Project Effects**

Ref. No. <sup>1</sup>	Name	Address	Block/Lot	NHL	S/NR	S/NR Eligible	NYCL	Pending NYCL/ NYCL-Eligible	Potential Effect (See Notes)
<b>East Harlem (Harlem River to 96th Street, 125th Street from Sixth (Lenox) to Second Avenue)</b>									
1	Mount Morris Park Historic District Extension (one building)	2014 Fifth Ave	1722/38		X				A
2 <sup>2</sup>	Residential building	4-12 East 125th St	1749/66			X			A
3 <sup>2</sup>	Residential building	28-30 East 125th St/1944 Madison Ave	1749/56			X			A
4	Mount Morris Bank Building	81-85 East 125th St	1750/34		X		X		A, C
5	Park Avenue Viaduct	Park Avenue at 125th St	N/A			X			A, C
6 <sup>2</sup>	MTA Metro-North Harlem-125th St Station and Comfort Station <sup>3</sup>	Park Avenue at 125th St	N/A			X			A, C
7	Engine Co. 36 firehouse	120 East 125th St	1773/62			X	X		A, C
8 <sup>2</sup>	Apple Bank for Savings	124 East 125th St	1773/58		<u>X</u>			X	A, C
9	Twelfth Ward Savings Bank	145-147 East 125th St	1774/20			X			A, C
10 <sup>2</sup>	NY Public Library, 125th St Branch	224 East 125th Street	1789/37			X		X	A
11	Triborough Bridge	125th Street at Second Ave	N/A			X			A
12 <sup>2</sup>	Tenement	207 East 124th St	1789/10			X			A, B
13 <sup>2</sup>	Fischer & Co. Building	2291 Second Ave	1667/24					X	A, C
14 <sup>2</sup>	<u>Two tenements<sup>4</sup></u>	<u>231 and 233 East 96th St.</u>	<u>1646/19, 20</u>			<u>X</u>		<u>X</u>	<u>C</u>
<b>Upper East Side (96th Street to 59th Street)</b>									
1 <sup>2</sup>	Six residential buildings	1817-1829 Second Ave	1540/22-28			X			A
2 <sup>2</sup>	Row of eight residential buildings	1725-1739 Second Ave	1535/21-28			X			
3 <sup>2</sup>	Two residential buildings	1716-1722 Second Ave	1552/1			X		X	
4	The Manhattan (Apartments)	1649-1657 Second Ave, aka 244 East 86th St	1531/28			X			A, C
5 <sup>2</sup>	Two tenements	1614 and 1616 Second Ave	1546/49-50			X			A, C

**Table 9-1 (cont'd)**  
**Known Historic Resources Within the Second Avenue Subway APEs**  
**and Potential Project Effects**

Ref. No. <sup>1</sup>	Name	Address	Block/Lot	NHL	S/NR	S/NR Eligible	NYCL	Pending NYCL/NYCL-Eligible	Potential Effect (See Notes)
<b>East Harlem (Harlem River to 96th Street, 125th Street from Sixth (Lenox) to Second Avenue) (cont'd)</b>									
6 <sup>2</sup>	Beekman Theater blockfront	1242-1258 Second Ave	1440/1,3,49			X		X	A
7 <sup>2</sup>	Manhattan House	200 East 66th St	1420/1			X		X	A
8 <sup>2</sup>	Day & Meyer, Murray & Young Corp. Warehouse	1166 Second Ave	1436/3			X			
9	Queensboro Bridge	Second Ave, 59th-60th St	1434/1		X		X		
<b>East Midtown (59th Street to 34th Street)</b>									
1 <sup>2</sup>	Two residential buildings	237 and 241 East 53rd Street	1327/16, 17			X			A
2 <sup>2</sup>	Three 5-story residential buildings	229-235 East 53rd Street	1327/13, 14, 15			X			A
3 <sup>2</sup>	Tenement	225-227 East 53rd Street	1327/11			X			A
<u>4</u>	<u>312 East 53rd Street House</u> <sup>4</sup>	<u>312 East 53rd Street</u>	<u>1345/47</u>				<u>X</u>		<u>C</u>
<u>5</u>	<u>Beaux Arts Apartments</u> <sup>4</sup>	<u>307 East 44th Street</u>	<u>1337/6</u>				<u>X</u>		<u>C</u>
6	Daily News Building	220 East 42nd St aka 767-773 Second Ave	1315/ 24	X	X		X		A, B, C
7	Socony-Mobil Building	150 East 42nd Street	1296/46			X	<u>X</u>		A
<u>8</u>	<u>Chrysler Building</u> <sup>4</sup>	<u>405 Lexington Avenue</u>	<u>1297/23</u>	<u>X</u>	<u>X</u>		<u>X</u>		<u>A</u>
<u>9</u>	<u>Tudor City Historic District (Two buildings: Haddon Hall and Hardwicke Hall)</u> <sup>4</sup>	<u>304-308 and 314 East 41st Street</u>	<u>1333/42</u>			<u>X</u>	<u>X</u>		<u>C</u>
10	Civic club	243 East 34th Street	915/26			<u>X</u>	<u>X</u>		<u>C</u>
<b>Gramercy Park/Union Square (34th Street to 10th Street)</b>									
1 <sup>2</sup>	Church of the Sacred Hearts of Jesus and Mary Parish House	307 East 33rd St	939/8			X			A
2 <sup>2</sup>	Church of the Sacred Hearts of Jesus and Mary	309-315 East 33rd St	939/9			X		X	A
3 <sup>2</sup>	Child Grade School and Legacy High School	317 East 33rd St	939/9			X			A
<u>4</u>	<u>NY Public Library, Epiphany Branch</u> <sup>4</sup>	<u>228 East 23rd St</u>	<u>903/46</u>			<u>X</u>			
5 <sup>2</sup>	Row house	321 Second Ave	899/29			X			
6	Society for the Lying-in Hospital	305 Second Ave	898/110 1-1162		X				

**Table 9-1 (cont'd)**  
**Known Historic Resources Within the Second Avenue Subway APes  
and Potential Project Effects**

Ref. No. <sup>1</sup>	Name	Address	Block/Lot	NHL	S/NR	S/NR Eligible	NYCL	Pending NYCL/ NYCL-Eligible	Potential Effect (See Notes)
<b>Gramercy Park/Union Square (34th Street to 10th Street) (cont'd)</b>									
7	Stuyvesant Square Historic District	Second and Third Aves, generally between 18th and 15th Sts	various		X		X		A, C
<u>8</u>	<u>St. George's Protestant Episcopal Church<sup>4</sup></u>	<u>211-225 East 16th St</u>	<u>897/53</u>		<u>X</u>		<u>X</u>		
<u>9</u>	<u>Friends Meeting House &amp; Seminary<sup>4</sup></u>	<u>226 East 16th St</u>	<u>897/16</u>		<u>X</u>		<u>X</u>		
10	Former Hebrew Technical School for Girls	240 Second Ave	921/64			X			A, C
11 <sup>2</sup>	Two residential buildings	231 and 235 Second Ave	896/24-23			X			A, C
12 <sup>2</sup>	Former Italian Labor Center	231 East 14th Street	896/15			X			
13 <sup>2</sup>	<u>Former Mechanics and Metals Bank<sup>4</sup></u>	230 Second Ave	<u>921/1</u>			X		X	A, C
14 <sup>2</sup>	New York Eye and Ear Infirmary	218 Second Ave	455/1			X		X	A, <u>B</u> , C
15	Louis N. Jaffe Art Theater (Yiddish Art Theater)	189 Second Ave	467/31		X		X		A, C
16	St. Mark's Historic District	Second and Third Aves, between 11th and 9th Sts	various		X		X		
17	St. Mark's in the Bowery Church	131 East 10th St	<u>466/26</u>		X		X		
<b>East Village/Lower East Side/Chinatown (10th Street to the Brooklyn Bridge)</b>									
1	Deutsches (German) Dispensary	137 Second Ave	466/26		X		X		
2	New York Free Circulating Library, Ottendorfer Branch	135 Second Ave	464/37		X		X		
3 <sup>2</sup>	Commercial building	107-113 Second Ave	462/25			X		X	A
4 <sup>2</sup>	Middle Collegiate Church	112-114 Second Ave	448/5			X		X	
5	Isaac T. Hopper House	110 Second Ave	448/4		X				
6 <sup>2</sup>	Former Industrial National Bank	72 Second Ave	446/1			X		X	A, C
7	New York Marble Cemetery	Between Second Ave, Bowery, 2nd and 3rd Sts	458/30		X		X		A, C
8 <sup>2</sup>	Group of five row houses	30-38 East 3rd St	458/22-26			X		X	A, C

**Table 9-1 (cont'd)**  
**Known Historic Resources Within the Second Avenue Subway APEs**  
**and Potential Project Effects**

Ref. No. <sup>1</sup>	Name	Address	Block/Lot	NHL	S/NR	S/NR Eligible	NYCL	Pending NYCL/ NYCL-Eligible	Potential Effect (See Notes)
<b>East Village/Lower East Side/Chinatown (10th Street to the Brooklyn Bridge) (cont'd)</b>									
9 <sup>2</sup>	Former Third Magistrates Court	32-34 Second Ave	443/8			X		X	A, C
10 <sup>2</sup>	Residential building (Former P.S. 79)	38 East 1st St	443/56			X		X	A
11	P.S. 91	198 Forsyth St	422/72			X			
12 <sup>2</sup>	Former P.S. 20	158 Forsyth St	420/47					X	
13 <sup>2</sup>	Seventh-Day Adventist Church of Union Square	128-130 Forsyth St	419/49			X		X	
14 <sup>2</sup>	Tenement	110 Forsyth St	419/40			X			
15 <sup>2</sup>	Tenement	104 Forsyth St	418/34			X			
16 <sup>2</sup>	Two tenements	100-102 Forsyth St	418/33 and 32			X			
17 <sup>2</sup>	Row house	82 Forsyth St	306/11			X			
18 <sup>2</sup>	Synagogue	80 Forsyth St	306/10			X			
19	Manhattan Bridge Arch and Colonnade	Bowery, Canal, and Chrystie Sts	289/50		X		X		
20	Edward Mooney House	18 Bowery	162/53		X		X		
21	<u>Two Bridges Historic District<sup>4</sup></u>	<u>Bounded roughly by East Broadway, Market, Cherry, Catherine and Madison Streets, and St. James Place</u>	<u>Various</u>		<u>X</u>				<u>A, C</u>
22 <sup>2</sup>	St. Margaret's House	2 Oliver St	279/68			X		X	A, C
23	Shearith Israel Graveyard	55-57 St. James Place	279/17		X		X		A, C
24 <sup>2</sup>	St. James Catholic Elementary School	37 St. James Place	116/49			X			A, C
<b>Lower Manhattan (Brooklyn Bridge to Whitehall)</b>									
1	Brooklyn Bridge	From East River to City Hall Park	various	X	X		X		A, B
2	South Street Seaport Historic District <sup>5</sup>	Bounded roughly by Fletcher, Front, Water, Pearl, South Sts, East River, and Brooklyn Bridge	various		X		X		A, C, <u>D</u>
3 <sup>2</sup>	Office building	118 Water St	39/1			X		X	A, C
4 <sup>2</sup>	Residential and commercial building	90 Water St	31/34			X			A, C
5	(Former) First Precinct Police Station	100 Old Slip			X		X		A, C
6	Fraunces Tavern Block Historic District	Block btwn Pearl, Water, Broad Sts, Coenties Slip	various		X		X		A, C
7	James Watson House	7 State St	9/7		X		X		



**Table 9-1 (cont'd)**  
**Known Historic Resources Within the Second Avenue Subway APEs  
and Potential Project Effects**

Ref. No. <sup>1</sup>	Name	Address	Block/Lot	NHL	S/NR	S/NR Eligible	NYCL	Pending NYCL/ NYCL-Eligible	Potential Effect (See Notes)
<b>Storage Yards</b>									
1	207th Street Signal Service Building	207th Street Yard, Manhattan	2189/1			X			
2	Concourse Yard East Portal	West 205th St, the Bronx	3251/101			X			
3	Concourse Yard West Portal	West 205th St, the Bronx	3251/150			X			
4	Concourse Yard Substation	Jerome Ave, the Bronx	3251/150			X			
5 <sup>6</sup>	9th Avenue Subway Station	38th St and 9th Ave, Brooklyn	B. 908 & 5582			X			
6 <sup>6</sup>	Greenwood Cemetery	Between 37th and 20th Sts; 5th and 6th Aves; and Fort Hamilton Pkwy, Brooklyn			X			X	
<p><b>Notes:</b></p> <p>1 Corresponds to Figures 9-1 through 9-9.</p> <p>2 S/NR eligibility determinations made by the SHPO April and December 2002 and July 2003, and/or NYCL eligibility determinations made by LPC July 2002, based on Historic Resource Inventory Forms prepared for potential historic resources for the Second Avenue Subway. <u>The Apple Bank for Savings (East Harlem APE, No. 10) was subsequently nominated to the S/NR in June 2003.</u></p> <p>3 The MTA Metro-North Harlem-125th Street Station, built in 1896-97, contains a subterranean level that incorporates the station platforms and other elements of the former 1873-74 Harlem Station of the New York Central and Hudson River Railroad. This former station was built within a cut on Park Avenue, with the present MTA Metro-North Harlem-125th Street Station built above it and incorporating the former station structure in its foundations and basements.</p> <p>4 <u>Resource has been added since issuance of the SDEIS.</u></p> <p>5 <u>A station entrance is proposed in the sidewalk bordering the block that contains the Titanic Memorial (220 Water Street). Station ancillary facilities are also proposed for 250 Water Street, which is currently a parking lot and within the South Street Seaport Historic District.</u></p> <p>6 Directly adjacent to the 36th-38th Street Yard.</p> <p>NHL: National Historic Landmark.  SR: New York State Register of Historic Places.  NR: National Register of Historic Places.  S/NR Eligible: Site has been found eligible for listing on the New York State and National Registers of Historic Places.  NYCL: New York City Landmark.  Pending NYCL: Site has been calendared for a public hearing or heard for designation by the New York City Landmarks Preservation Commission  NYCL Eligible: LPC has determined that the site appears eligible for NYCL designation.</p> <p>Potential Effects:  A: Location near <u>possible</u> cut-and-cover activities.  B: Potential for building underpinning, <u>other protective measures</u>, or ground improvement.  C: Location near potential station entrances and <u>ancillary</u> facilities.  D: <u>Potential location of station entrances and ancillary facilities.</u></p>									

A total of 69 potential historic resources have been identified in the APEs for the proposed train storage tracks planned to extend along the eastern and western sides of Second Avenue between 21st and 9th Streets, and the locations currently under consideration as station entrances and ancillary facilities. As described in greater detail in Appendix G, potential resources are those

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properties that may be eligible for listing on the S/NR and/or designation as NYCLs. These properties were identified based on field surveys and a review of historical sources conducted during the summer of 2003. The potential historic resources are listed in Table 9-2.

**Table 9-2  
Potential Historic Resources Within the Second Avenue Subway APEs  
and Potential Project Effects<sup>1</sup>**

Name	Address	Block/Lot	Potential Effect <sup>2</sup>
<b>East Harlem (Harlem River to 96th Street, 125th Street from Sixth (Lenox) to Second Avenue)</b>			
5-story tenement	306 East 119th St	1795/50	116th Street Station
4-story brownstone	306 East 116th St	1687/47	116th Street Station
<b>Upper East Side (96th Street to 59th Street)</b>			
Three 5-story apartments	303-307 East 94th St	1557/5,6,7	96th Street Station
5-story tenement	304 East 93rd St	1555/48	96th Street Station
5-story tenement	304 East 86th St	1548/148	86th Street Station
5-story tenement	306 East 86th St	1548/48	86th Street Station
Three 4-story rowhouses	308-312 East 86th St	1548/47, 146, 46	86th Street Station
5-story tenement	307 East 85th St	1548/5	86th Street Station
20-story apartments	241-251 East 72nd St	1427/18	72nd Street Station
17-story apartments	307-313 East 72nd St	1447/5	72nd Street Station
16-story apartments	242 East 72nd St	1426/29	72nd Street Station
Catholic Church of St. John the Martyr	252 East 72nd St	1426/27	72nd Street Station
<b>East Midtown (59th Street to 34th Street)</b>			
3-story commercial building	303 East 44th St	1337/105	42nd Street Station
4-story tenement	305 East 44th St	1337/5	42nd Street Station
<b>Gramercy Park/Union Square (34th Street to 10th Street)</b>			
4-story rowhouse	247 East 31st St	912/26	34th Street Station
Two 4-story rowhouses	249-251 East 31st St	912/26	34th Street Station
12-story apartments <sup>5</sup>	304-310 East 23rd St	928/7502	23rd Street Station
Two 3-story rowhouses <sup>3</sup>	303-305 East 12th St	454/1, 68	14th Street Station
<b>East Village/Lower East Side/Chinatown (10th Street to the Brooklyn Bridge)</b>			
3-story rowhouse	45 East 3rd St	445/64	Houston Street Station
5-story tenement	35 East 1st St	442/13	Houston Street Station
5-story rowhouse	11 Pell St	162/51	Chatham Square Station
<b>Lower Manhattan (Brooklyn Bridge to Whitehall)</b>			
6-story commercial building	160 Pearl St	39/6	Hanover Square Station
Former Pacific Development Building	78-80 Wall St	39/4	Hanover Square Station
<b>Midline Storage Tracks (21st Street to 9th Street)</b>			
6-story tenement	240 East 25th St.	905/38	Midline Storage Tracks
5-story tenement	237 East 24th St.	905/22	Midline Storage Tracks
Two 5-story tenements	239-241 East 24th St.	905/23, 24	Midline Storage Tracks
12-story apartments	304-310 East 23rd St.	928/7502	Midline Storage Tracks
10-story apartments	312-316 East 23rd St.	928/7502	Midline Storage Tracks
Epiphany School	236 East 22nd St.	902/31	Midline Storage Tracks
6-story tenement	229 East 21st St.	902/20	Midline Storage Tracks
6-story apartments	233-235 East 21st St.	902/22	Midline Storage Tracks
Church of the Epiphany Rectory	237-239 East 21st St.	902/24	Midline Storage Tracks
6-story apartments	240-242 East 21st St.	901/38	Midline Storage Tracks
6-story tenement	244-246 East 21st St.	901/36	Midline Storage Tracks
6-story tenement	305-309 East 21st St.	927/6	Midline Storage Tracks
8-story apartments	302-308 East 20th St.	925/1, 60	Midline Storage Tracks
P.S. 40	310-330 East 20th St.	925/12	Midline Storage Tracks
3-story rowhouse	234 East 19th St.	899/39	Midline Storage Tracks
Two 3-story rowhouses	236-238 East 19th St.	899/37, 38	Midline Storage Tracks
6-story tenements	310-312 East 19th St.	924/60	Midline Storage Tracks
Five 3-story rowhouses	314-322 East 19th St.	924/54, 55, 56, 57, 58	Midline Storage Tracks
Three 3-story rowhouses	233-237 East 18th St.	899/19, 20, 21	Midline Storage Tracks

**Table 9-2 (cont'd)**  
**Potential Historic Resources Within the Second Avenue Subway APEs**  
**and Potential Project Effects<sup>1</sup>**

Name	Address	Block/Lot	Potential Effect <sup>2</sup>
Two 3-story rowhouses	303-305 East 18th St.	924/6, 7	Midline Storage Tracks
3-story rowhouse	304 East 18th St.	923/61	Midline Storage Tracks
Three 4-story rowhouses	306-310 East 18th St.	923/58, 59, 60	Midline Storage Tracks
5-story tenement	307 East 18th St.	924/8	Midline Storage Tracks
5-story tenement	309 East 18th St.	924/9	Midline Storage Tracks
4-story rowhouse	311 East 18th St.	924/10	Midline Storage Tracks
4-story rowhouse	312-314 East 18th St.	923/56, 57	Midline Storage Tracks
3-story rowhouse	313 East 18th St.	924/11	Midline Storage Tracks
3-story rowhouse	315 East 18th St.	924/12	Midline Storage Tracks
3-story rowhouse	316 East 18th St.	923/55	Midline Storage Tracks
6-story tenement	317-319 East 18th St.	924/13	Midline Storage Tracks
3-story rowhouse	318 East 18th St.	923/54	Midline Storage Tracks
3-story rowhouse	320 East 18th St.	923/53	Midline Storage Tracks
3-story rowhouse	322 East 18th St.	923/52	Midline Storage Tracks
3-story rowhouse	323 East 18th St.	924/16	Midline Storage Tracks
Three 4-story rowhouses	321-325 East 17th St.	923/15, 16, 17	Midline Storage Tracks
Two 4-story rowhouses	307-309 East 14th St.	921/6, 7	Midline Storage Tracks
4-story rowhouse	325 East 14th St.	921/15	Midline Storage Tracks
6-story tenement	236-244 East 13th St.	468/27	Midline Storage Tracks
6-story apartments	243-247 East 13th St.	469/40, 42	Midline Storage Tracks
3-story rowhouse/2-story building	249-249½ East 13th St.	469/39	Midline Storage Tracks
5-story tenement	302 East 12th St.	453/10	Midline Storage Tracks
Two 3-story rowhouses	303-305 East 12th St.	454/1, 68	Midline Storage Tracks
5-story residential building	307 East 12th St.	454/66	Midline Storage Tracks
3-story rowhouse	311 East 12th St.	454/65	Midline Storage Tracks
6-story tenement	323-325 East 12th St.	454/59	Midline Storage Tracks
Two 4-story rowhouses	228-230 East 11th St.	466/23, 24	Midline Storage Tracks
Two 5-story tenement	304-306 East 11th St.	452/9, 11	Midline Storage Tracks
5-story tenement	314 East 11th St.	452/15	Midline Storage Tracks
6-story tenement	205-207 East 10th St.	452/54	Midline Storage Tracks
6-story tenement	206 East 10th St.	451/14	Midline Storage Tracks
5-story tenement	209 East 10th St.	452/53	Midline Storage Tracks
6-story tenement	211 East 10th St.	452/52	Midline Storage Tracks
5- and 6-story tenements	213-215 East 10th St.	452/50, 51	Midline Storage Tracks
6-story tenement	214 East 10th St.	451/18	Midline Storage Tracks
6-story tenement	216-218 East 10th St.	451/19	Midline Storage Tracks
5-story tenement	217 East 10th St.	452/49	Midline Storage Tracks
6-story residential building	34-36 Stuyvesant St.	465/39	Midline Storage Tracks
6-story apartments	38-40 Stuyvesant St.	465/41	Midline Storage Tracks
6-story tenement	225-227 East 9th St.	465/60	Midline Storage Tracks
Two 3- and 4-story tenements	230-232 East 9th St.	464/25, 26	Midline Storage Tracks
6-story tenement	233 East 9th St.	465/57	Midline Storage Tracks
5-story tenement	309 East 9th St.	451/57	Midline Storage Tracks
4-story rowhouse	310 East 9th St.	450/10	Midline Storage Tracks
4-story rowhouse	311 East 9th St.	451/56	Midline Storage Tracks
Three 6-story tenements	312-318 East 9th St.	450/11, 12, 14	Midline Storage Tracks
5-story tenement	313 East 9th St.	451/55	Midline Storage Tracks
6-story tenement	315 East 9th St.	451/54	Midline Storage Tracks
5-story tenement	317 East 9th St.	451/53	Midline Storage Tracks
6-story tenement	324-326 East 9th St.	450/16	Midline Storage Tracks
<b>Notes:</b>			
<sup>1</sup>	This entire table is new for the FEIS and all potential resources listed in this table have been added since the SDEIS.		
<sup>2</sup>	Cut-and-cover construction would be required to build station entrances and ancillary facilities including ventilating structures for stations and/or tunnels, and cooling towers. Cut-and-cover construction to build ancillary structures for the new storage yard between 21st and 9th Streets would also be required.		
<sup>3</sup>	Also included in the APE for the midline storage tracks between 21st and 9th Streets.		

## C. FUTURE CONDITIONS COMMON TO ALL ALTERNATIVES

In the future, the status of historic resources may change. S/NR-eligible historic resources may be listed on the Registers, and properties pending designation as NYCLs may be designated. It is also possible, given the project's completion year of 2020, that additional sites will be identified as historic resources and/or potential historic resources in this time frame.

Changes to the historic resources identified above or to their settings may occur irrespective of the proposed project. Future projects may also affect the settings of historic resources. It is possible that some historic resources in the APEs may deteriorate, while others may be restored.

Historic resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection under Section 106 of the NHPA from the effects of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the Registers are similarly protected against effects resulting from projects sponsored, assisted, or approved by state agencies under the SHPA. However, private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their properties without such a review process. Privately owned properties that are New York City Landmarks, in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur. Publicly owned resources are also subject to review by LPC before the start of a project; however, LPC's role in projects sponsored by other city or state agencies generally is advisory only.

## D. CONSTRUCTION IMPACTS OF THE PROJECT ALTERNATIVES

### NO BUILD ALTERNATIVE

Under the No Build Alternative, the Second Avenue Subway would not be built. Thus, there would be no construction effects to historic resources.

### SECOND AVENUE SUBWAY

Table 9-1 lists all known historic resources in the APEs for the project, and the possible effects of the project on those resources, if any. (As described in Chapter 2, the Shallow Chrystie and Forsyth Street Options are no longer under consideration. However, an assessment of potential project effects that would have occurred under these options is presented in Appendix G.) Figures 9-1 through 9-9 illustrate the locations of all the known historic resources.

Table 9-2 lists potential historic resources in the APEs identified for the project. It also presents the potential effects of the project on those structures if any of them were to be determined as resources in the future pending review by the SHPO and/or LPC.

As described in Chapter 3, "Description of Construction Methods and Activities," since completion of the SDEIS, a phasing plan has now been identified that would allow the new Second Avenue Subway to be built incrementally, in four phases. As with the other impact analyses provided in this FEIS, for historic resources, the only time at which adverse effects could occur is during construction of the particular phase in which a given resource is located.

*NATIONAL HISTORIC LANDMARKS*

Section 110 of the National Historic Preservation Act of 1966, as implemented by federal regulations appearing at 36 CFR Part 800, requires federal agencies to undertake planning and actions to minimize harm to properties designated as National Historic Landmarks. For the Second Avenue Subway project, an assessment was conducted of the project's effects on historic resources, in coordination with the environmental analyses being conducted under NEPA. Three National Historic Landmarks are located within the Area of Potential Effect for the Second Avenue Subway: the Chrysler Building, located at the northeast corner of Lexington Avenue and 42nd Street; the Daily News Building, located at the southwest corner of 42nd Street and Second Avenue; and the Brooklyn Bridge. The Chrysler Building was identified subsequent to the SDEIS during ongoing engineering work related to the 42nd Street pedestrian transfer.

At this time, the Second Avenue Subway project does not propose any physical alterations to the Chrysler Building and Daily News Building or any visible project elements in the immediate vicinity of these resources. However, in the future, it is possible that in order to best meet passenger demand, an entrance to the proposed new 42nd Street Station might need to be constructed in close proximity to the Daily News Building. If so, there is the potential for a new entrance either in the building's plaza, or in the building proper. An entrance in the plaza would result in a change to the setting of the building (an indirect effect), while an entrance in the building would require physical alteration to the landmark structure (a direct effect). In addition, whether or not an entrance to the subway is constructed near the Daily News Building, there is a potential for accidental damage to the building to occur during construction. There is also potential for inadvertent damage to occur to the Chrysler Building during construction of a possible subterranean pedestrian passageway on 42nd Street to connect to the 7 train.

With respect to the Brooklyn Bridge, while the Second Avenue Subway project does not propose to make any changes to this structure, the subway's proposed alignment passes beneath Pearl Street, which crosses beneath the Brooklyn Bridge. A portion of the alignment in this area would also pass beneath a bridge ramp constructed during the 1960's. During construction, all prudent precautions—including maintaining the existing water table to protect the underground wooden foundations of the bridge—will be taken to avoid damage to the Brooklyn Bridge. Although the potential exists for accidental damage to structures located above the alignment, NYCT will take all practicable measures to avoid impacting these structures.

For all three resources, in order to avoid inadvertent damage during construction, Construction Protection Plans would be developed and implemented as summarized below and as described in more detail in the Programmatic Agreement executed by FTA, MTA, and the SHPO. LPC is also a consulting party to the agreement. The project's Programmatic Agreement is included at the end of the main volume of this FEIS. It has undergone public review and comment as required by Section 106 through its inclusion in the SDEIS, and will govern the treatment of all historic properties—including any not yet identified—throughout the project's duration.

*OTHER HISTORIC RESOURCES*

Construction of the Second Avenue Subway has the potential to result in physical alterations to a known historic resource, the MTA Metro-North Harlem-125th Street Station.<sup>1</sup> Potential cut-and-

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<sup>1</sup> The SDEIS identified that the project also had the potential to physically alter the entrance and exit ramps of the Triborough Bridge. Due to project refinements as a result of ongoing engineering, physical alterations to the Triborough Bridge would no longer occur.

cover and below-grade construction to build the new subway station at 125th Street from Madison to Lexington Avenue, including connecting the new subway to the MTA Metro-North Harlem-125th Street station, would directly affect the subterranean portion of the Metro-North station. Specifically, construction might require the removal of potentially significant architectural or historical features from the subterranean storage area at the station that was part of the earlier 125th Street Station located on the site. Construction of the station might also require the removal and/or alteration of any buried retaining walls of the 1874 railroad cut on Park Avenue. In addition, new above-grade entrance structures could affect the context of the Metro-North station building and nearby Comfort Station building. Final plans for this station are not yet available so the precise effects of this construction cannot yet be determined. MTA New York City Transit would consult with the SHPO and FTA as the design proceeds in an effort to preserve and avoid, to the extent practicable, adverse effects to the significant historic station features. The Programmatic Agreement will govern this process.

In addition to this resource, physical alteration to other historic resources might be required for station entrances or vent structures. For example, an entrance to the new Seaport Station is currently planned within the South Street Seaport Historic District, which abuts the east side of Water Street alongside the proposed station site. Vent structures are also contemplated in this historic district. Additional vents or other ancillary facilities could also be located near other historic properties. The final locations of and designs for such entrances and vent structures have not yet been determined, so specific alterations are not yet known. Again, the Programmatic Agreement would govern the process to be used for all historic structures.

### *CONSTRUCTION PROTECTION PLAN*

Other than the resources described immediately above, no physical changes are proposed to historic resources during construction. However, the Second Avenue Subway's construction activities have, as previously noted, the potential to result in accidental damage to historic resources in the APEs due to the proximity of the resources to proposed construction activities. MTA New York City Transit would consequently take standard protection measures to avoid adverse effects on historic resources. In addition, ongoing consultation will be undertaken among the MTA, FTA, and SHPO as project designs progress, to avoid or minimize the potential for adverse effects to historic resources. As part of this consultation, detailed Construction Protection Plans would be developed for each major project construction segment once engineering is further advanced. The plans would set forth the specific measures to be used, and specifications that would be applied, to protect each of the historic resources that could be affected during the construction period. Typical protective measures that will be included in construction protection plans for the project are presented in Exhibit E of the Programmatic Agreement. Also, as described in Chapter 12, "Noise and Vibration," NYCT will voluntarily refer to, as guidance, the special measures set forth by LPC to protect historic resources from increased vibration levels associated with construction activities. Please see Chapter 12 for more detailed information.

The Construction Protection Plans would be developed in consultation with the SHPO and implemented, as set forth by the Programmatic Agreement, before commencement of any excavation or construction. The Construction Protection Plans would consist of overall plans of protection and avoidance of damage to historic resources for all the potentially affected historic resources, as well as specific protection measures to be developed for each historic resource based on resource type (e.g. structures of a similar type, bridges and associated roadways) and potential construction effects (e.g., underpinning, damage from heavy machinery, and ground-

borne vibration). Once developed, those plans would be implemented to minimize the potential for adverse effects to historic resources during construction.

Construction activities that could affect nearby historic resources (although appropriate care will be taken) include the following:

- Cut-and-cover construction activities, including work required to build the subway tunnel, stations, shaft sites, and associated staging areas. At excavation sites, possible effects could include accidental damage by construction equipment and possible structural damage as a result of settlement or other changes to foundation conditions.
- The underpinning or other methods of providing structural support for buildings, including those on 125th and 124th Streets. The possible effects in these locations could also include accidental damage by construction equipment and possible structural damage as a result of changes to foundation conditions.
- Construction of station entrances and ventilating plants, which may require the alteration of existing buildings or construction of new structures near historic structures. Depending on the locations selected for new off-street entrance locations, it is possible that station entrances could also be constructed within historic structures—for example, within the South Street Seaport Historic District as identified above.
- Ground improvement techniques at various locations, including near 47th and 34th Streets. At these locations, the potential effects would be similar to those for underpinning.
- Possible vibration effects during construction, such as those from controlled drilling and blasting (more information on the vibration analysis and conclusions is provided in Chapter 12, “Noise and Vibration”), that could result in damage either to the structures or to their architectural features.

No construction effects would occur to historic resources within the storage yard APEs. The historic resources in the storage yards APEs are either located at too great a distance from the proposed work to be physically affected by construction activities, or the proposed construction is minimal, and, therefore, the work does not have the potential to adversely affect historic resources. For example, track installation and replacement would not result in significant ground-borne construction period vibration to affect historic resources.

It is possible that temporary adverse effects to the context or setting of some historic resources could also result during construction. Cut-and-cover work and other construction activities that are visible from street level could result in temporary visual obstructions created by machinery and other construction equipment required to build the project, and temporary loss of context for the historic resources nearby. However, any such effects would only last as long as the project construction in any given location and would not result in permanent significant adverse effects on historic resources.

In addition to the resources identified above, as design progresses additional historic resources may be identified that may also be affected by the project. The location of some project elements, including vent shafts and subway station entrances and exits, have not yet been determined, and it is possible that additional potential effects to those described may occur. Analysis of such project elements would be conducted in accordance with the project’s Programmatic Agreement, and a Section 4(f) Evaluation would be prepared in the future if project elements were to be formally proposed at either of these locations, or in areas that would affect any other historic resources. In addition, it is possible that structures along the alignment may need to be

demolished or altered to construct subway entrances or ancillary facilities, also resulting in additional potential effects that are not yet determined. The Programmatic Agreement developed for the project in consultation with the SHPO sets forth future steps to be taken to protect any historic resources that could be affected by the project.

## **E. PERMANENT IMPACTS OF THE PROJECT ALTERNATIVES**

### **NO BUILD ALTERNATIVE**

Under the No Build Alternative, no new project would be constructed, so there would be no effects to historic resources.

### **SECOND AVENUE SUBWAY**

Permanent effects to historic resources could occur if any of the Second Avenue Subway's above-ground elements, such as signs, stairways, vents, ventilating structures, and other ancillary facilities for the new subway were to change the setting or context of nearby historic resources. Permanent effects would also occur if any of these elements were constructed within existing historic structures.

Given the densely developed and highly urbanized context of the historic resources and the history of the use of Second Avenue for transportation, it is highly unlikely that any significant adverse contextual effects would occur to any historic resources as a result of the construction of the visible subway elements. As noted earlier, the location of these components of the Second Avenue Subway have not been determined. In cases where entrances would occur within or adjacent to historic structures, or where ventilating structures and other ancillary facilities are planned contiguous to or in close proximity to historic structures, consultation with the SHPO, as mandated by Section 106, would be undertaken to avoid or minimize significant adverse contextual effects to the nearby resources. To accomplish this goal, NYCT, in consultation with SHPO, will develop design specifications to ensure that any permanent and visible project elements that may be built within or near a historic resource are compatible with the historic and architectural characteristics of the affected resource(s). Guidelines for the preparation of such design specifications are included as Exhibit F of the Programmatic Agreement. In addition, as engineering proceeds for the project, proposed plans would be submitted to the SHPO for review during the ongoing consultation process for the Second Avenue Subway project. If necessary and feasible, project components would be relocated and/or redesigned to avoid contextual effects to historic resources.

The Second Avenue Subway would not result in contextual effects to the historic resources at any of the proposed storage or maintenance yards in the Bronx or Brooklyn. New structures or activities within the proposed 207th Street Yard and Concourse Yard are not expected to result in any permanent, or contextual effects, to historic resources. The changes proposed within the yards would not significantly change their visual appearance nor change their historic character as railroad yards. Therefore, the proposed changes within the yards, including track installation and replacement and new building construction, would not significantly alter the context of the historic resources within the yards.

At the 36th-38th Street Yard, where the 9th Avenue Station has historically existed in context with the adjacent yard, the possible changes within this yard to improve its operation as a rail yard would not result in any adverse contextual effects to this resource. The new activities in the



36th-38th Street Yard also would not adversely affect Greenwood Cemetery, since proposed activities within the 36th-38th Street Yard would be minimally visible from Greenwood Cemetery, and Greenwood Cemetery has also historically existed in context with the 36th-38th Street Yard across 37th Street.

With the exception of the above-ground project elements described above, the Second Avenue Subway, when completed, would be underground and therefore not visible at street level. The tunnels, subway stations, and other underground features (such as the proposed storage tracks in East Harlem) would have no permanent effects on historic resources, with the exception of the Metro-North Harlem-125th Street Station discussed below.

Potential for permanent effects to historic resources would occur in East Harlem, where one of the historic resources identified, the Metro-North Harlem-125th Street Station, is underground. The analyses conducted for the FEIS indicate that the operating subway would not result in vibration levels that exceed the FTA’s impact criteria—even for sensitive buildings, such as historic resources—as described below.

#### *METRO-NORTH HARLEM-125TH STREET STATION*

Alterations to the basement level of the Metro-North Harlem-125th Street Station and new entrance structures close to the historic Metro-North station or associated Comfort Station could result in changes to the context or setting of the historic rail station. Changes within the basement level of the station, which is currently not accessible to the public, could make portions of that area visible to the public as part of pedestrian passageways. Plans for project elements that would affect the Metro-North Station would be submitted to the SHPO, in accordance with the conditions of the project’s Programmatic Agreement.

#### *POTENTIAL EFFECTS ASSOCIATED WITH VIBRATION FROM NEW SUBWAY SYSTEM*

The analysis conducted of the potential for project-related vibration effects during operation (described in detail in Chapter 12, “Noise and Vibration”) indicates that no significant adverse impacts from vibration would occur on any historic resources or other structures.<sup>1</sup> Though the proposed new storage tracks between approximately 21st and 9th Streets would be built beneath historic resources, no adverse effects from ground-borne noise or vibration are anticipated, as described in more detail in Chapter 12, “Noise and Vibration.” Additional vibration analyses will be conducted during Final Design to further ensure that historic structures (as well as other structures) are protected from damage. Protection measures will be developed in consultation with the SHPO, as set forth in the project’s Programmatic Agreement.

## **F. SUMMARY OF SIGNIFICANT ADVERSE IMPACTS AND MITIGATION MEASURES**

### **SIGNIFICANT ADVERSE EFFECTS**

- Potential physical alteration in Phase 2 of the project of architecturally significant portions of the Metro-North Harlem-125th Street Station resulting from cut-and-cover and below-grade construction to build the new subway station, and possible new subway entrances in or

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<sup>1</sup> As described in Chapter 12, the project has been refined as a result of ongoing engineering and will no longer result in operational vibration impacts at the Beekman Theater.

## Second Avenue Subway FEIS

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near the station. Since detailed plans for the new 125th Street Station have not yet been prepared nor coordinated with the SHPO pursuant to the procedures established in the Programmatic Agreement, it is assumed that a significant adverse effect could result on this resource.

- Potential for physical alteration to other resources not yet identified, for construction of station entrances and vent facilities.
- Possible accidental damage during construction to historic resources, because of proximity of the tunnel alignment to numerous historic structures.
- Possible temporary changes to the setting or context of historic resources during construction, because of construction activities nearby.
- Possible permanent changes to the setting or context of historic resources because of new project elements, not yet identified, constructed near or within historic structures.

### MITIGATION MEASURES

- As mandated by Section 106 of the NHPA of 1966, MTA and NYCT have participated in an ongoing consultation process with the SHPO at the New York State Office of Parks, Recreation and Historic Preservation and the Federal Advisory Council on Historic Preservation with respect to potential impacts on historic resources. As part of this consultation process, measures are being developed to avoid or minimize to the extent practicable any significant adverse impacts to historic resources, both in construction and operation. Development of these mitigation measures is set forth in a Programmatic Agreement, executed by the SHPO, the Federal Transit Administration, and the MTA. The Programmatic Agreement is included at the end of the main volume of this FEIS.
- The Programmatic Agreement lists the historic resources that may be affected by the project's construction or operation and also describes the continuing consultation process that will be conducted as project designs evolve; such process will identify any other historic resources that might be affected by project elements not yet designed. The Programmatic Agreement also describes the consultation and mitigation measures to be implemented during the project's design process, to avoid or minimize permanent adverse effects of the project on historic resources.
- NYCT will implement the various provisions of the Programmatic Agreement. These include: 1) Ongoing consultation with SHPO with respect to the design of project elements that would physically alter a historic resource or that could affect its context or setting; 2) implementation of the Construction Protection Plans for historic resources; and 3) continuing consultation as project designs evolve to identify any other historic resources that might be affected by project elements not yet designed. \*