9.1 INTRODUCTION

This chapter assesses the potential effects to archaeological resources as a result of the construction and operation of the station entrance alternatives for the 72nd Street and 86th Street Stations. The potential effects of the station entrance alternatives on historic (architectural) resources are described in Chapter 8 of this Supplemental Environmental Assessment (EA), "Historic Resources."

The Final Environmental Impact Statement (FEIS) prepared for the Second Avenue Subway analyzed the project's impacts on archaeological resources 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). NHPA also requires that federal agencies afford the federal Advisory Council on Historic Preservation the opportunity to comment on federal action and that federal agencies undertake planning and actions to minimize harm to properties designated as National Historic Landmarks. NHPA also requires the opportunity for public comment on the project's effects on archaeological resources.

In addition, the Second Avenue Subway project's Programmatic Agreement (PA) among the Federal Transit Administration (FTA), Metropolitan Transportation Authority (MTA) New York City Transit, and the New York State Historic Preservation Officer (SHPO), executed April 8, 2004, sets forth the steps to be followed for "any changes to the project that introduce new project elements that would involve subsurface construction and for which the effects of such construction have not yet been analyzed." For these areas, archaeological investigation should be conducted in consultation with the SHPO and the New York City Landmarks Preservation Commission (LPC).

Some of the station entrance alternatives for the 72nd Street and 86th Street Stations would involve excavation in areas that were not analyzed in the FEIS. Therefore, consistent with the procedures set forth in the PA, the new Areas of Potential Effect (APEs) were evaluated by professional archaeologists to determine their potential to contain archaeological resources.

9.2 FEIS FINDINGS

The FEIS evaluates the Second Avenue Subway's possible effect on archaeological resources in Chapter 10, "Archaeological Resources." Based on documentary research, the FEIS did not identify areas of archaeological sensitivity in the vicinity of the north end of the 72nd Street Station or the north end of the 86th Street Station. The FEIS indicates (see page 10-19) that, in accordance with the Second Avenue Subway project's PA, MTA New York City Transit will continue to coordinate with SHPO and LPC regarding the potential disturbance of archaeological resources through preliminary engineering and final design.

9.3 POTENTIAL IMPACTS OF THE 72ND STREET STATION ENTRANCE ALTERNATIVES

9.3.1 EXISTING CONDITIONS: POTENTIAL ARCHAEOLOGICAL SENSITIVITY

9.3.1.1 DEFINITION OF THE AREA OF POTENTIAL EFFECT (APE)

All of the 72nd Street entrance alternatives evaluated in this EA would result in subsurface disturbance in areas that were not evaluated in the archaeological studies conducted for the FEIS. The area to be disturbed would consist of two types of areas: 1) areas currently occupied by buildings with basements; and 2) other areas, where excavation could affect soils that may not have not previously been excavated. The property at 305 East 72nd Street is fully occupied by a building with a basement, and therefore is unlikely to contain buried archaeological resources from past activities on the site. The other areas where below-grade disturbance would occur for the 72nd Street Station entrance alternatives are the Areas of Potential Effect for the alternatives. These are as follows:

- ***No Action Alternative:*** Includes areas of sidewalk and roadway just east of Second Avenue. This APE is essentially the same as evaluated for the FEIS.
- ***Alternative 1 (Preferred Alternative):*** The full property where the new entrance building would be located at 300 East 72nd Street.
- ***Alternative 3:*** The full property where the new entrance building would be located at 300 East 72nd Street and the excavation area for the escalator entrances, which extends farther down 72nd Street than excavation with the No Action Alternative.
- ***Alternative 4:*** The full property where the new entrance building would be located at 300 East 72nd Street and the excavation area for the escalator entrance on 72nd Street, which extends farther down 72nd Street than excavation with the No Action Alternative. The escalator entrance on Second Avenue in this alternative is within an area already evaluated in the FEIS.

The archaeological resources APEs for the 72nd Street Station entrance alternatives are shown in **Figures 9-1 through 9-3**.

9.3.1.2 EVALUATION OF POTENTIAL SENSITIVITY FOR APE

For the APE discussed above in section 9.3.1.1, an assessment was conducted of the potential for archaeological resources to be located in this area. This assessment was made using information about the geological profile of the immediate area that was provided in the 2003 *Phase 1A Archaeological Assessment* prepared for the Second Avenue Subway by Historical Perspectives, Inc.; historic maps from the 17th through the 20th centuries; and soil boring logs and information on previously identified archaeological sites from the files of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), the New York State Museum (NYSM), and LPC. The analysis concluded that the APEs for the 72nd Street Station entrance alternatives are unlikely to contain archaeological resources. As set forth in the Second Avenue Subway project's PA, FTA and MTA New York City Transit consulted with the SHPO and LPC regarding this assessment of an area not previously evaluated. In a letter dated February 4, 2008, the SHPO concurred that there are no archaeological concerns in the expanded 72nd Street archaeological APEs. Additional information was provided to SHPO and LPC regarding the

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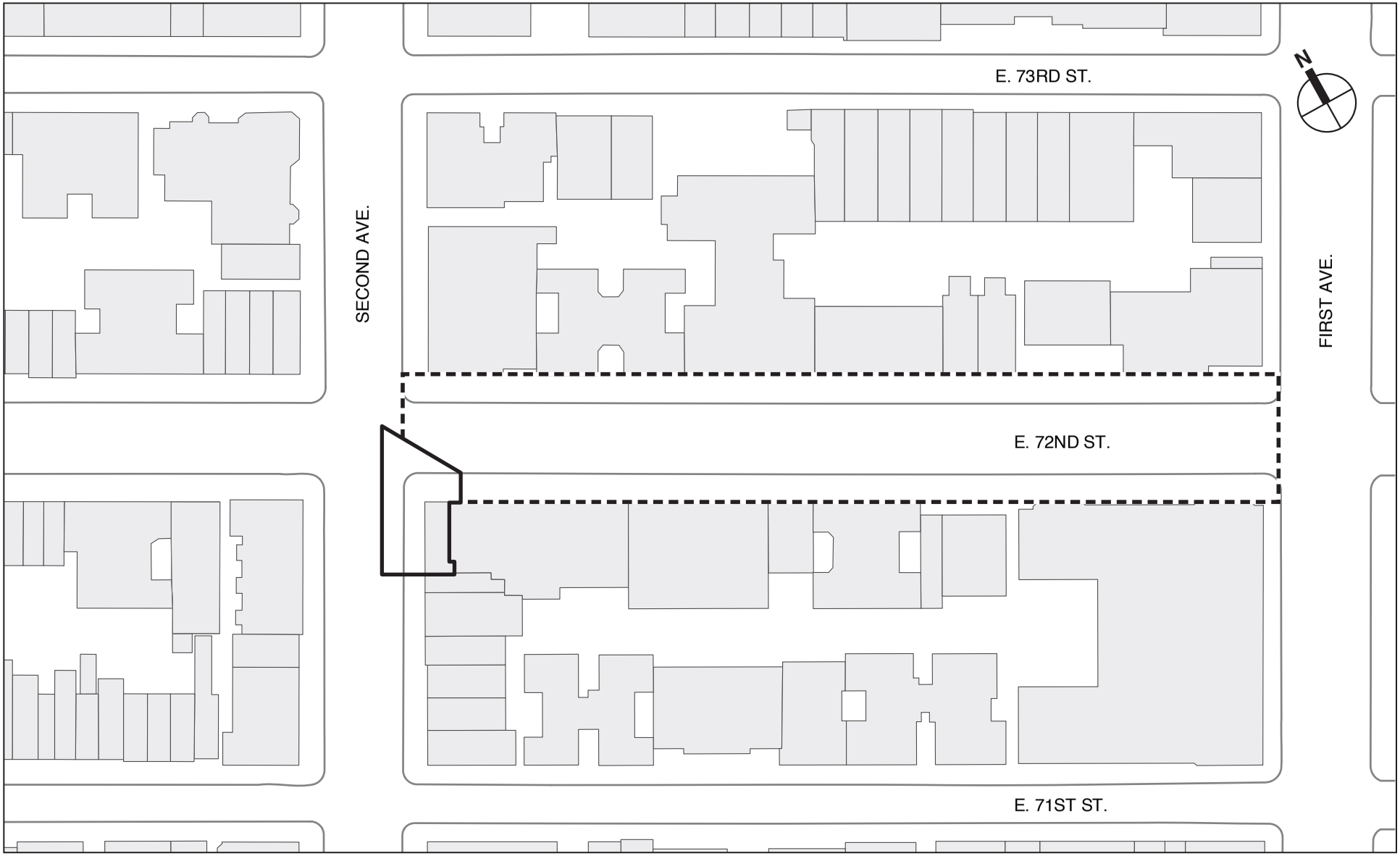

Potential Area of Excavation or Blasting Related to Entrance Alternative 1 (Preferred Alternative)

Potential Area of Utility Relocation

0 100 FEET
SCALE

Area of Potential Effect for Archaeological Resources
72nd Street Station Entrance Alternative 1
Figure 9-1

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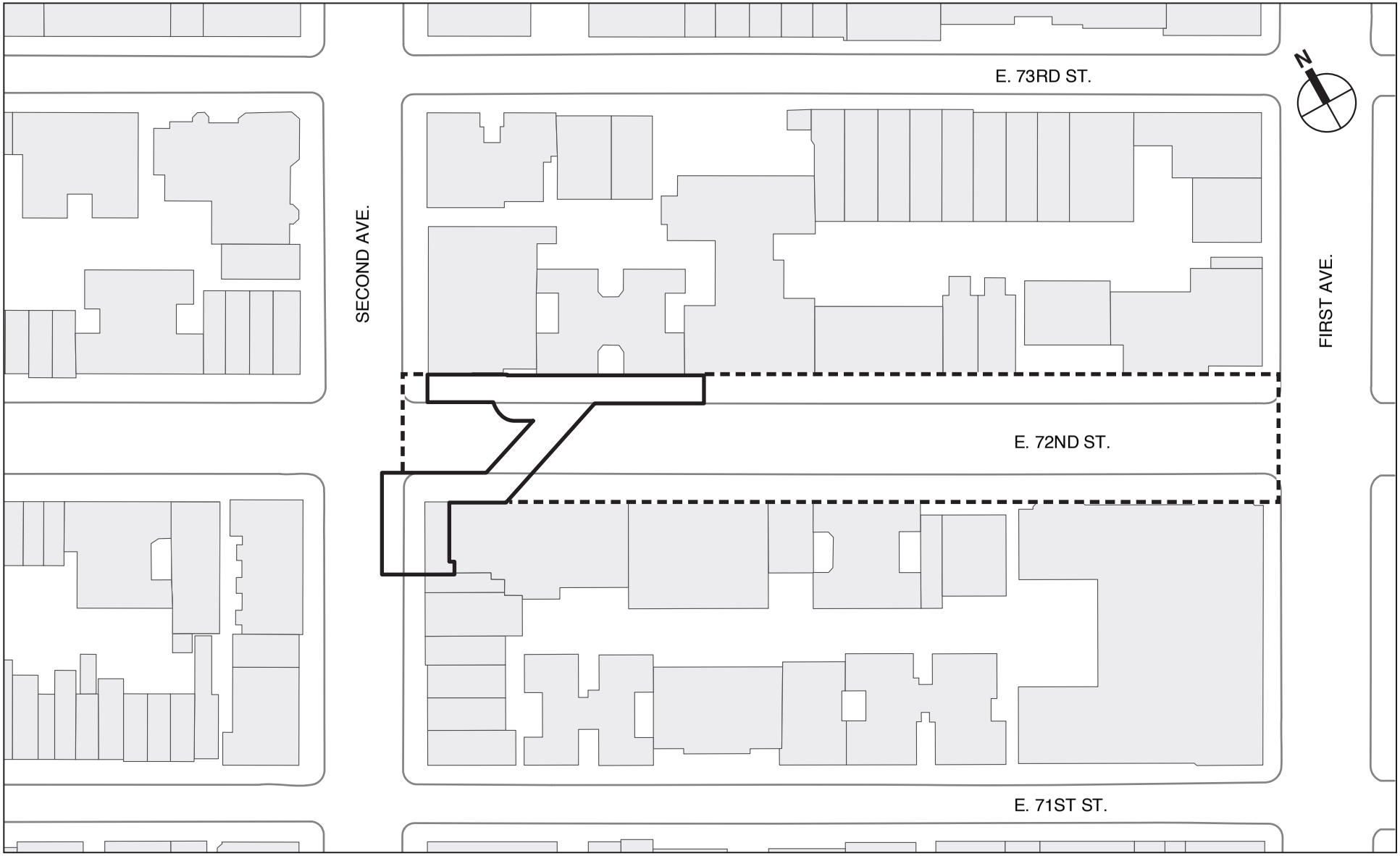

Potential Area of Excavation or Blasting Related to Entrance Alternative 3

Potential Area of Utility Relocation

0 100 FEET
SCALE

Area of Potential Effect for Archaeological Resources
72nd Street Station Entrance Alternative 3
Figure 9-2

SECOND AVENUE **SUBWAY**

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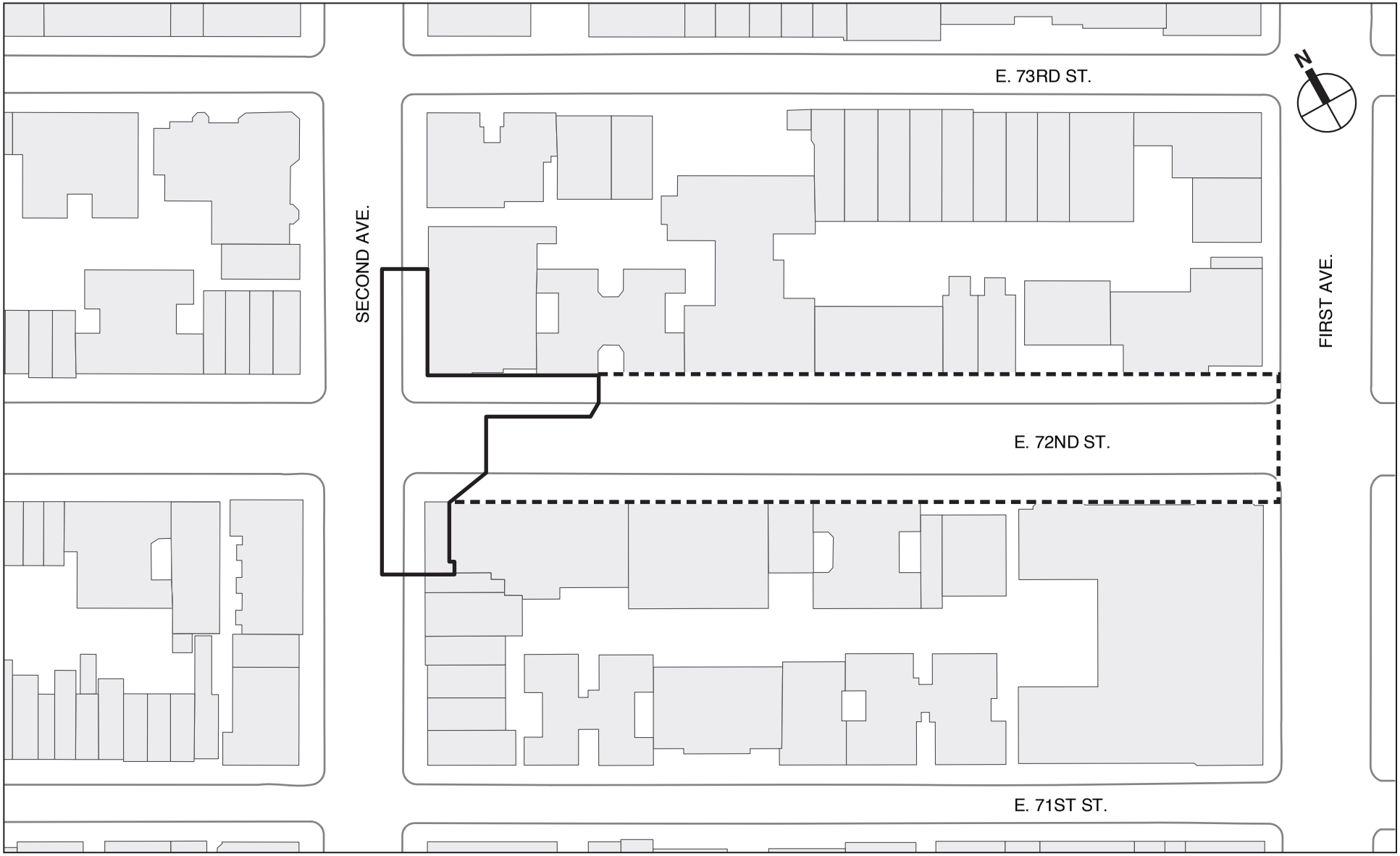

Potential Area of Excavation or Blasting Related to Entrance Alternative 4

Potential Area of Utility Relocation

0 100 FEET
SCALE

Area of Potential Effect for Archaeological Resources
72nd Street Station Entrance Alternative 4
Figure 9-3

72nd Street entrance alternatives on February 12, 2009. The SHPO has concluded that the alternatives would result in no adverse effect to historic properties in a letter dated March 12, 2009, and the NYCLPC also concluded that no adverse effect would occur to archaeological resources in a letter dated February 18, 2009. The documentation provided and related correspondence from the SHPO and LPC are provided in Appendix C.

9.3.2 CONSTRUCTION AND PERMANENT IMPACTS OF THE 72ND STREET STATION ENTRANCE ALTERNATIVES

9.3.2.1 72ND STREET NO ACTION ENTRANCE ALTERNATIVE

Consistent with the FEIS and Technical Memorandum No. 1, the No Action Alternative would not result in subsurface disturbance in areas of potential archaeological sensitivity. Therefore, the No Action Alternative for the 72nd Street Station would result in no significant adverse effect on archaeological resources.

9.3.2.2 72ND STREET STATION ENTRANCE ALTERNATIVE 1 (ELEVATORS AT THE SOUTHEAST CORNER AT 300 EAST 72ND STREET)—PREFERRED ALTERNATIVE

The area where subsurface disturbance would occur for Alternative 1 has been determined to not have potential archaeological concerns. Therefore, like the No Action Alternative, Alternative 1 would not result in result in no significant adverse effect on archaeological resources.

9.3.2.3 72ND STREET STATION ENTRANCE ALTERNATIVE 3 (ESCALATORS ON THE NORTH SIDE OF 72ND STREET EAST OF SECOND AVENUE)

The area where subsurface disturbance would occur for Alternative 3 has been determined to not have potential archaeological concerns. Therefore, like the No Action Alternative, Alternative 3 would result in no significant adverse effect on archaeological resources.

9.3.2.4 72ND STREET STATION ENTRANCE ALTERNATIVE 4 (ESCALATORS ON THE EAST SIDE OF SECOND AVENUE NORTH OF 72ND STREET AND NORTH SIDE OF 72ND STREET EAST OF SECOND AVENUE)

The area where subsurface disturbance would occur for Alternative 4 has been determined to not have potential archaeological concerns. Therefore, like the No Action Alternative, Alternative 4 would result in no significant adverse effect on archaeological resources.

9.3.2.5 SUMMARY:THE 72ND STREET STATION ENTRANCE ALTERNATIVES

Consistent with the procedures established by the Second Avenue Subway project's PA, the 72nd Street Station entrance alternatives were evaluated by professional archaeologists to identify whether they have the potential to contain archaeological resources. All three Build entrance alternatives for the 72nd Street Station, like the No Action Alternative, would involve subsurface disturbance in areas that have been determined to not have potential archaeological concerns. Therefore, all alternatives would result in no significant adverse effect on archaeological resources.

The SHPO has concluded that the alternatives would result in no adverse effect to historic properties in a letter dated March 12, 2009, and the LPC also concluded that no adverse effect

would occur to archaeological resources in a letter dated February 18, 2009. This correspondence is provided in Appendix C.

9.4 POTENTIAL IMPACTS OF THE 86TH STREET STATION ENTRANCE ALTERNATIVES

9.4.1 EXISTING CONDITIONS: POTENTIAL ARCHAEOLOGICAL SENSITIVITY

9.4.1.1 DEFINITION OF THE AREA OF POTENTIAL EFFECT (APE)

All of the 86th Street entrance alternatives evaluated in this EA would result in subsurface disturbance in areas that were not evaluated in the archaeological studies conducted for the FEIS. The area to be disturbed would consist of two types of areas: 1) areas currently occupied by buildings with basements; and 2) other areas, where excavation could affect soils that may not have not previously been excavated. The property at 305 East 86th Street is fully occupied by a building with a basement, and therefore is unlikely to contain buried archaeological resources from past activities on the site. The other areas where below-grade disturbance would occur for the 86th Street Station entrance alternatives are the Areas of Potential Effect for the alternatives. These are as follows:

- ***No Action Alternative:*** Includes areas of sidewalk and roadway just east of Second Avenue. This APE is essentially the same as evaluated for the FEIS.
- ***Alternative 2:*** The area where excavation would occur for the escalator entrances, which extends farther down 86th Street than excavation with the No Action Alternative.
- ***Alternative 5:*** The full property where the new entrance building would be located at the southeast corner of Second Avenue and 86th Street.
- ***Alternative 7 (Preferred Alternative):*** The area where excavation would occur for the escalator entrances, which extends farther down 86th Street than excavation with the No Action Alternative.

The archaeological resources APEs for the 86th Street Station entrance alternatives are shown in **Figures 9-4 through 9-6**.

9.4.1.2 EVALUATION OF POTENTIAL SENSITIVITY FOR APE

For the APE discussed above in section 9.4.1.1, an assessment was conducted of the potential for archaeological resources to be located in this area. This assessment was made using information about the geological profile of the immediate area that was provided in the 2003 *Phase 1A Archaeological Assessment* prepared for the Second Avenue Subway by Historical Perspectives, Inc.; historic maps from the 17th through the 20th centuries; and soil boring logs and information on previously identified archaeological sites from the files of OPRHP, NYSM, and LPC. The analysis concluded that the APEs for the 86th Street Station entrance alternatives are unlikely to contain archaeological resources. As set forth in the Second Avenue Subway project's PA, FTA and MTA New York City Transit consulted with the SHPO and LPC regarding this assessment of an area not previously evaluated. Following preparation of this preliminary assessment of archaeological resources, additional information on soil and bedrock characteristics in this APE was provided at SHPO's request. In a letter dated June 20, 2008, SHPO concurred that there are no archaeological concerns in the expanded 86th Street

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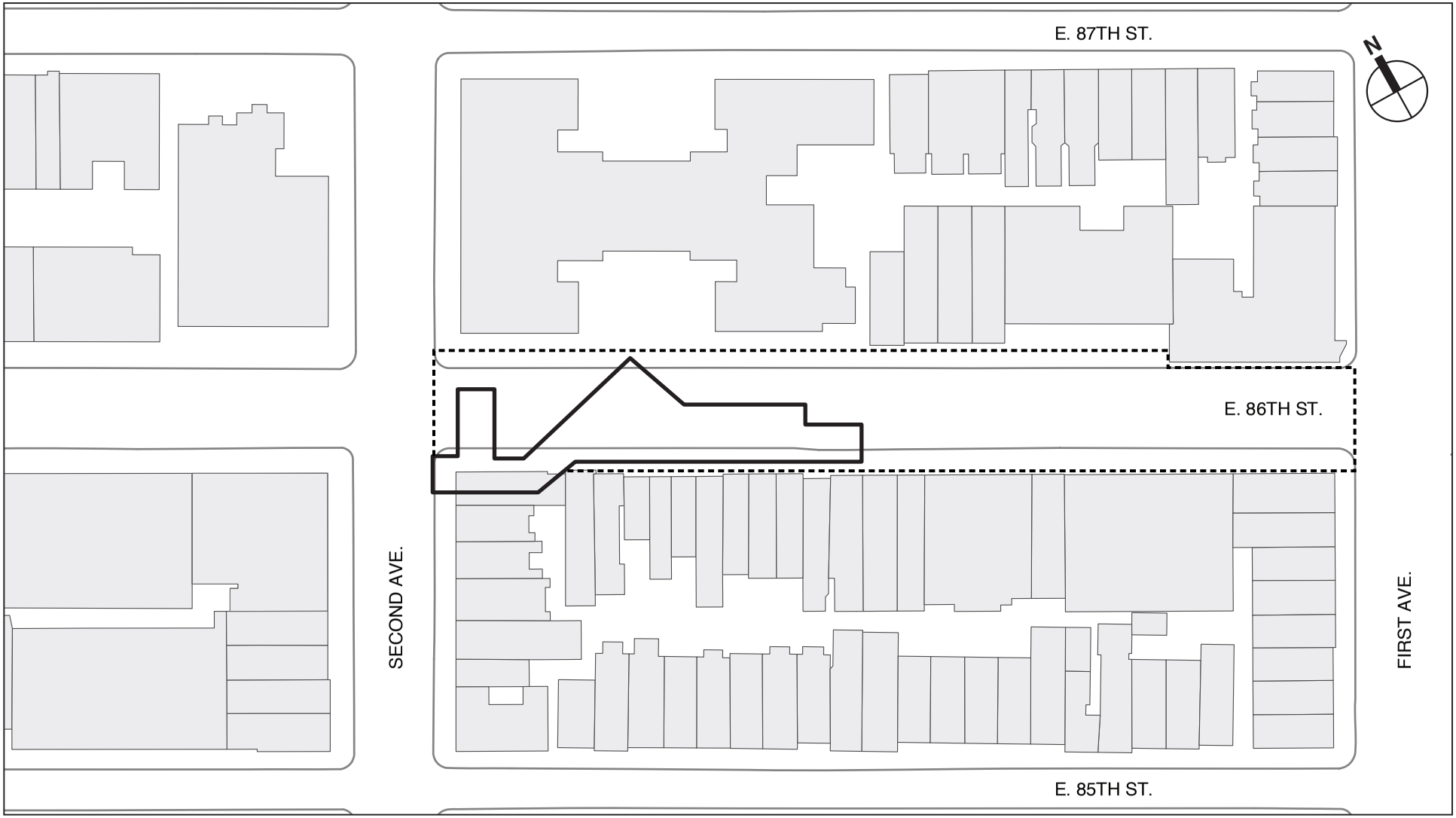

Potential Area of Excavation or Blasting Related to Entrance Alternative 2

Potential Area of Utility Relocation

0 100 FEET
SCALE

Area of Potential Effect for Archaeological Resources
86th Street Station Entrance Alternative 2
Figure 9-4

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Potential Area of Excavation or Blasting Related to Entrance Alternative 5

Potential Area of Utility Relocation

0 100 FEET
SCALE

Area of Potential Effect for Archaeological Resources
86th Street Station Entrance Alternative 5
Figure 9-5

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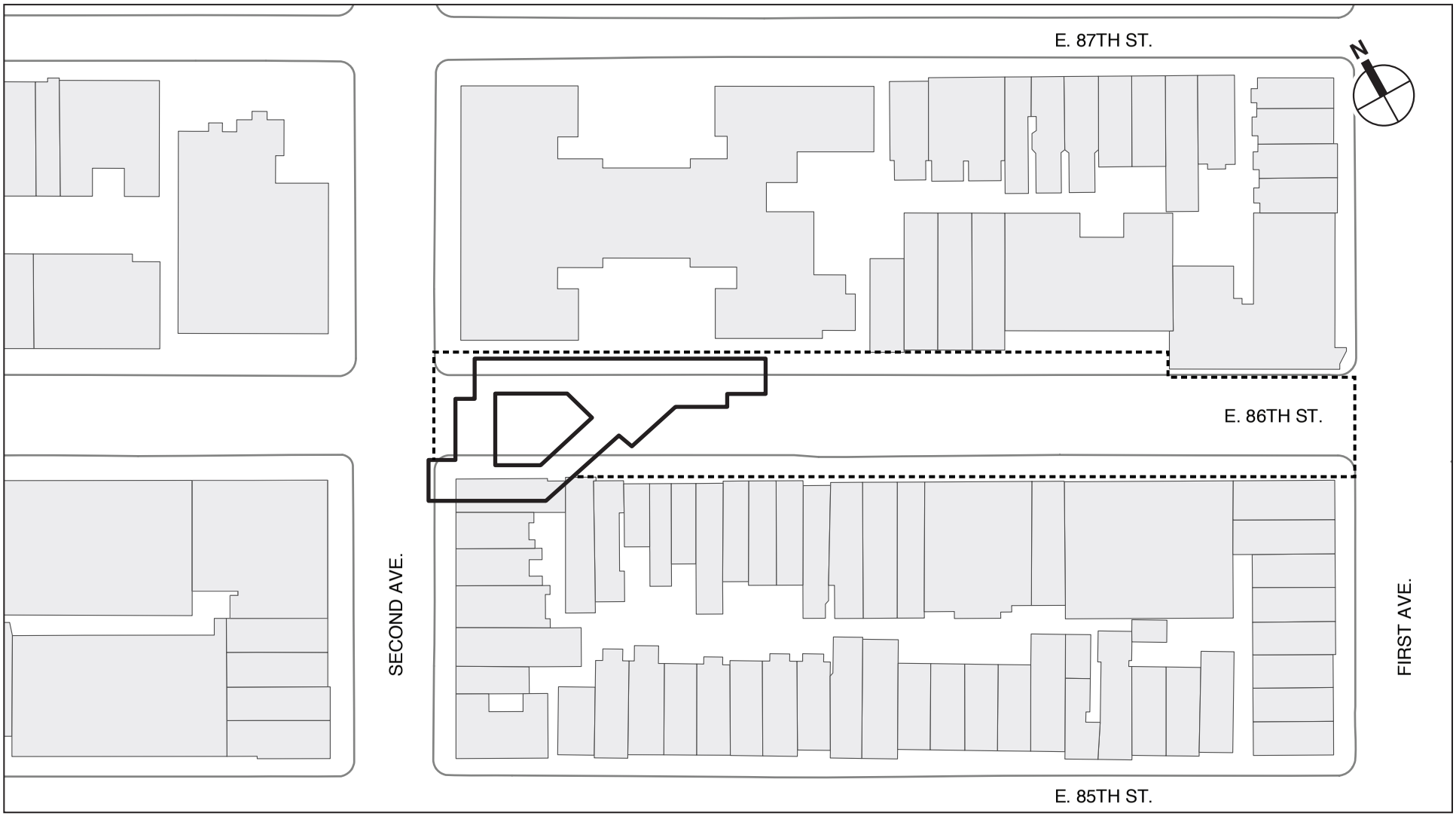

Potential Area of Excavation or Blasting Related to Entrance Alternative 7 (Preferred Alternative)

Potential Area of Utility Relocation

0 100 FEET
SCALE

Area of Potential Effect for Archaeological Resources
86th Street Station Entrance Alternative 7
Figure 9-6

archaeological APEs. Additional information was provided to SHPO and LPC regarding the 86th Street entrance alternatives on February 12, 2009. The SHPO has concluded that the alternatives would result in no adverse effect to historic properties in a letter dated March 12, 2009, and LPC also concluded that no adverse effect would occur to archaeological resources in a letter dated February 18, 2009. The documentation provided and related correspondence from the SHPO and LPC are provided in Appendix C.

9.4.2 CONSTRUCTION AND PERMANENT IMPACTS OF THE 86TH STREET STATION ENTRANCE ALTERNATIVES

9.4.2.1 86TH STREET NO ACTION ENTRANCE ALTERNATIVE

Consistent with the FEIS and Technical Memorandum No. 1, the No Action Alternative would not result in subsurface disturbance in areas of potential archaeological sensitivity. Therefore, the No Action Alternative for the 86th Street Station would result in no significant adverse effect on archaeological resources.

9.4.2.2 86TH STREET STATION ENTRANCE ALTERNATIVE 2 (TWO ESCALATOR BANKS ON THE SOUTH SIDE OF 86TH STREET EAST OF SECOND AVENUE)

The area where subsurface disturbance would occur for Alternative 2 has been determined to not have potential archaeological concerns. Therefore, like the No Action Alternative, Alternative 2 would not result in result in no significant adverse effect on archaeological resources.

9.4.2.3 86TH STREET STATION ENTRANCE ALTERNATIVE 5 (ELEVATORS AT SOUTHEAST CORNER)

The area where subsurface disturbance would occur for Alternative 5 has been determined to not have potential archaeological concerns. Therefore, like the No Action Alternative, Alternative 5 would not result in result in no significant adverse effect on archaeological resources.

9.4.2.4 86TH STREET STATION ENTRANCE ALTERNATIVE 7 (ESCALATORS ON THE NORTH SIDE OF 86TH STREET EAST OF SECOND AVENUE)—PREFERRED ALTERNATIVE

The area where subsurface disturbance would occur for Alternative 1 has been determined to not have potential archaeological concerns. Therefore, like the No Action Alternative, Alternative 7 would not result in result in no significant adverse effect on archaeological resources.

9.4.2.5 SUMMARY: THE 86TH STREET STATION ENTRANCE ALTERNATIVES

Consistent with the procedures established by the Second Avenue Subway project's PA, the 86th Street Station entrance alternatives were evaluated by professional archaeologists to identify whether they have the potential to contain archaeological resources. All three Build entrance alternatives for the 86th Street Station, like the No Action Alternative, would involve subsurface disturbance in areas that have been determined to not have potential archaeological concerns. Therefore, all alternatives would result in no significant adverse effect on archaeological resources.

The SHPO has concluded that the alternatives would result in no adverse effect to historic properties in a letter dated March 12, 2009, and LPC also concluded that no adverse effect would occur to archaeological resources in a letter dated February 18, 2009. This correspondence is provided in Appendix C. ✷