

# PHASE IA ARCHAEOLOGICAL SURVEY



## LAGUARDIA AIRPORT ACCESS IMPROVEMENT PROJECT

Borough of Queens, City of New York, New York

Project Review No. 18PR05235

### PREPARED FOR:

Ricondo & Associates, Inc.  
20 N Clark Street, Suite 1500  
Chicago, Illinois 60602

DRAFT July 2019; Revised September 2019



RICHARD  
GRUBB &  
ASSOCIATES

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**Prepared For:**

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20 N Clark Street, Suite 1500  
Chicago, Illinois 60602

**On Behalf Of:**

US Department of Transportation  
Federal Aviation Administration  
New York Airports District Office  
159-30 Rockaway Blvd, Suite 111  
Jamaica, New York 11434

**For Submittal to:**

New York State Historic Preservation Office  
New York State Office of Parks, Recreation, and Historic Preservation  
Historic Preservation Field Services Bureau  
Peebles Island Resource Center, PO Box 189  
Waterford, New York 12188-0189

**Prepared By:**

Richard Grubb & Associates, Inc.  
259 Prospect Plans Road, Building D  
Cranbury, New Jersey 08512

**Authored By:**

Ilene Grossman-Bailey, Ph.D., R.P.A., Senior Archaeologist  
Laura D. Cushman, Archaeologist  
Chelsea Troppauer, Historian

**Date:**

July 25, 2019 (revised October 10, 2019)

## **MANAGEMENT SUMMARY**

SHPO Project Review Number: 18PR05235

Involved State or Federal Agencies: Federal Aviation Administration

Phase of Survey: IA

Location Information

**Location:** LaGuardia Airport  
**Minor Civil Division:** Borough of Queens  
**County:** Queens

Approximate Survey Area (Metric and English)

**Length:** 3.7 kilometers (2.3 miles) alignment for linear portions of the project with other non-linear elements  
**Width:** Variable  
**Number of Acres Surveyed:** 92.9 acres (37.60 hectares)

U.S.G.S. 7.5 Minute Quadrangle Maps: Flushing, NY, Jamaica, NY, Brooklyn, NY, and Central Park, NY

### **Cultural Resources Survey Overview**

Pedestrian reconnaissance was conducted to examine the current conditions of the direct Area of Potential Effects (APE-Archaeology).

**Number and Size of Units:** Not Applicable  
**Width of Plowed Strips:** Not Applicable

### **Results of Phase IA Archaeological Survey**

**Number and Name of Prehistoric Sites Identified:** None  
**Number and Name of Historic Sites Identified:** None

### **Conclusions and Recommendations**

The APE-Archaeology is assessed with low prehistoric and historic archaeological sensitivity. No further archaeological survey is recommended.

**Report Authors:** Ilene Grossman-Bailey, Ph.D., R.P.A., Chelsea Troppauer, and Laura D. Cushman

**Date of Report:** July 25, 2019; Revised October 10, 2019

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## **1.0 INTRODUCTION**

The Port Authority of New York and New Jersey (Port Authority), as the operator of LaGuardia Airport (LGA or Airport), in the Borough of Queens, Queens County, New York is proposing to improve access to LGA through the construction and operation of a new automated people mover (APM) AirTrain system (the Project) to provide a time-certain transportation option for air passenger and employee access to LGA (Figures 1.1-1.3). The Port Authority's proposal would also ensure adequate parking for Airport employees.

Because the Project includes federal involvement, the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations, *Protection of Historic Properties* at 36 Code of Federal Regulations [CFR] § 800. Section 106 requires that agencies with jurisdiction over a proposed project take into account the effect of the undertaking on cultural resources listed in, or eligible for listing in the National Register of Historic Places (NRHP), and afford the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. In New York, the Commissioner of the New York State Office of Parks, Recreation, and Historic Preservation serves as the SHPO.

The US Department of Transportation's Federal Aviation Administration (FAA), as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106, as well as the preparation of an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.). The EIS is being prepared in accordance with Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508) and the procedures described in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. Additionally, pursuant to Executive Order 13807, Establishing Discipline and Accountability in the Environmental and Permitting Process for Infrastructure, the EIS will be used by all federal approving and permitting agencies. Accordingly, it will comply with any requirements of these cooperating and participating agencies. By letter dated June 17, 2019, the FAA notified both the SHPO and the Advisory Council on Historic Preservation (ACHP) that it will use the NEPA/EIS process to comply with Section 106, as outlined in 36 CFR § 800.8 (c). (Appendix A).

Richard Grubb & Associates, Inc. (RGA), cultural resources subconsultants working on behalf of Ricondo & Associates, Inc. (Ricondo), the prime environmental consultant for the FAA's EIS document, completed this Phase IA Archaeological Survey in support of the FAA's Section 106/EIS obligations and other permitting and licensing applications. RGA has prepared a concurrent Historic Architecture Reconnaissance Survey under separate cover. RGA's Senior Archaeologist Ilene Grossman-Bailey, Ph.D., R.P.A., served as Principal Investigator under the direction of RGA's Principal Senior Archaeologist, Mary Lynne Rainey M.A., R.P.A. (Appendix B). Dr. Grossman-Bailey meets the National Park Service standards of 36 CFR 61. Dr. Grossman-Bailey, architectural historian Chelsea Troppauer, and archaeologist Laura D. Cushman drafted this report and completed background research. Archaeological reconnaissance was conducted by Dr. Grossman-Bailey and Ms. Cushman with additional photographs taken by Ms. Troppauer and historian Lauren Szeber. Geographic Information Systems (GIS) analysts and drafters David Strohmeier, Patricia McEachen, and Laura Hundesmarck provided essential GIS support and prepared the survey mapping and report figures. Mary Lynne Rainey and Catherine Smyrski edited the report, and Ms. Smyrski formatted the report. All project documents are stored at RGA headquarters in Cranbury, New Jersey.

The goals of this Phase IA Archaeological Survey were to initially define a direct Area of Potential Effects (APE-Archaeology) to include all portions of the Project that involve construction-related impacts and to assess the prehistoric and historic archaeological sensitivity of the APE-Archaeology. The survey complies with the Phase I Archaeological Report Format Requirements (2005) of the SHPO and the Standards for Cultural Resource Investigations devised by the New York Archaeological Council (1994).



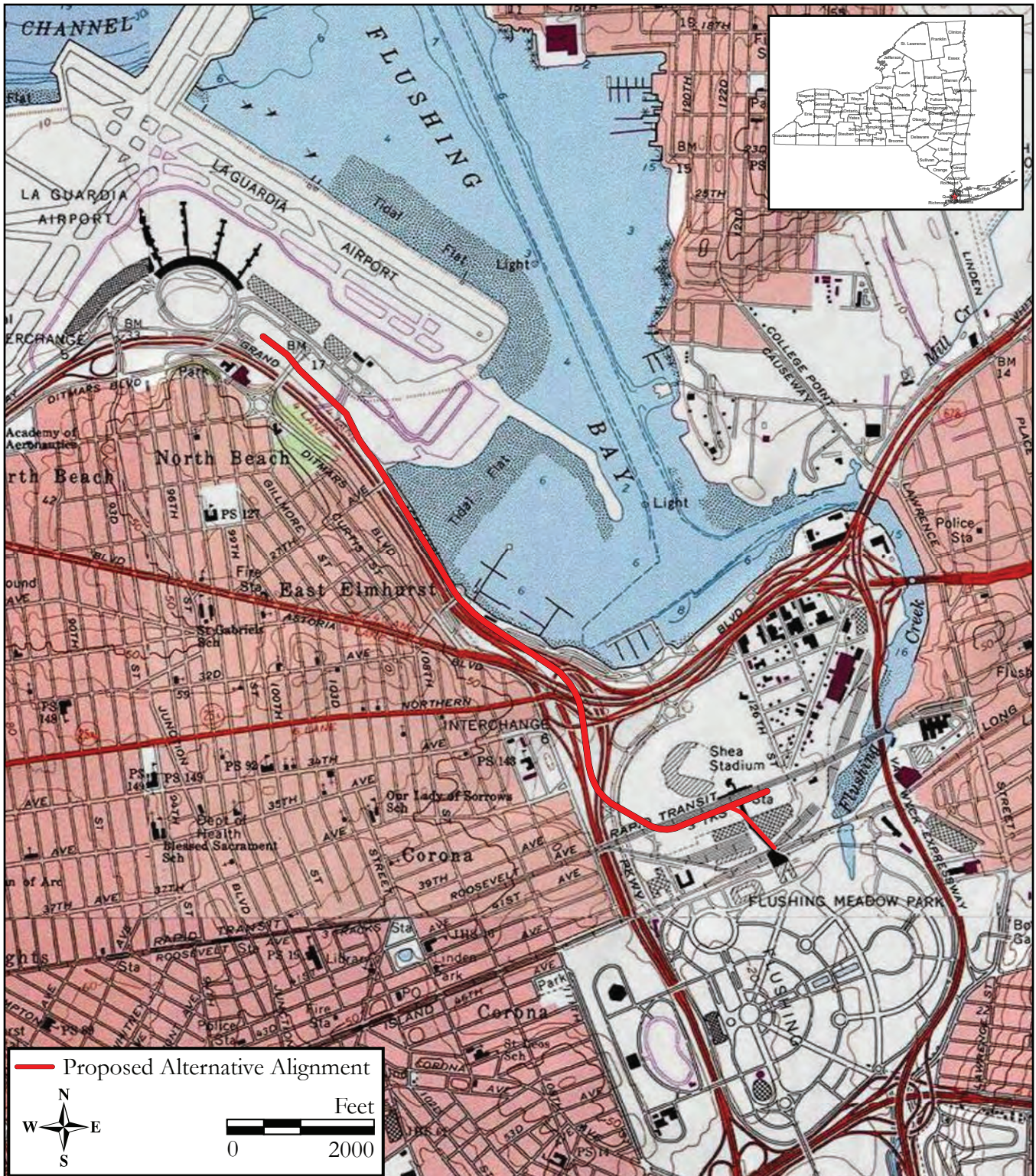


Figure 1.1: U.S.G.S. Map  
(from U.S.G.S. 7.5' Quadrangles: 1995 Flushing, NY; 1994 Jamaica, NY; 1995 Brooklyn, NY; and 1995 Central Park, NY).





Figure 1.2: County Map  
(World Street Map, ESRI 2019a).





## **2.0 PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS**

The Phase IA Archaeological Survey examined one Project alternative identified by the FAA during its alternatives screening process: the Port Authority's Proposed Alternative (the Proposed Alternative). The Project is described below (Figures 2.1a – 2.1f; FAA 2019). Figures 2.1a-2.1f depict the approximate Limits of Disturbance for the Project.

### **2.1 Project Description**

#### Port Authority's Proposed Alternative

The Port Authority's Proposed Alternative encompasses the following Project components:

- Construction of an elevated dual-lane fixed guideway APM system approximately 2.3 miles in length that extends from the LGA Central Hall (Terminal B) Building (currently under unrelated construction), along LaGuardia Road, the northern edge of the Grand Central Parkway (GCP), and the west and south sides of Citi Field parking facilities, to the Metropolitan Transit Authority (MTA) Long Island Rail Road (LIRR) Mets-Willets Point Station and the New York City Transit (NYCT) 7 Line Mets-Willets Point Station;
- Construction of two on-Airport APM stations (Central Hall [Terminal B] APM Station; East [Terminal C and East Garage] APM Station);
- Construction of one off-Airport (Willets Point) APM station at Mets-Willets Point that provides connections to the Mets-Willets Point LIRR and NYCT 7 Line stations;
- Construction of a multi-level above ground APM operations, maintenance, and storage facility (OMSF) with integrated garage for 1,000 parking spaces to accommodate APM employees (50 spaces) and others that would be affected by the Port Authority's Proposed Alternative. This includes Airport employees (approximately 500 replacement spaces relocated from Parking Lot P10), MTA employees (approximately 250 spaces), and Mets replacement parking (approximately 200 spaces);
- Construction of passenger walkway systems compliant with the Americans with Disabilities Act to connect the APM stations to the Airport passenger terminals, ground transportation facilities; and parking facilities at the OMSF;
- Construction of three traction power substations (TPSS) to provide power to the APM guideway: TPSS #1 would be an approximately 2,100 square foot facility located on the guideway near the East APM Station. TPSS #2 would be an approximately 2,800 square foot facility located at-grade adjacent to Roosevelt Avenue in the vicinity where the AirTrain guideway crosses over the NYCT 7 Line. TPSS #3 would be an approximately 3,100 square foot facility located on the guideway level of the OMSF;
- Construction of a 27kV main substation located within the OMSF structure on MTA property; and
- Construction of utilities infrastructure, both new and modified, as needed, to support the proposed Project.

The elevated fixed guideway, APM stations, and OMSF would vary in height, depending on conditions and required clearances. The guideway would be supported on circular columns at intervals of approximately 120 feet on average and constructed using typical common deep pile foundation systems, including drilled shafts and tapertube piles. Overall, the guideway would range in height approximately 45 to 85 feet above sea level, corresponding to approximately 30 to 75 feet above current grade. The standard width of the dual-lane guideway would measure 35 feet and diverge at the APM stations to accommodate station platforms. The tops of the on-Airport APM station facilities would measure approximately 102 feet in height. The tops of the Willets Point APM Station and OMSF facility would stand approximately 106 feet in height.

The Proposed Alternative also includes various enabling projects and connected actions. These consist principally of: utility relocation and demolition of certain existing facilities; utilization of existing temporary parking at the Ingraham's Mountain Site for construction personnel; construction of new temporary parking facilities; and alteration, demolition, reconstruction and/or relocation of the previously identified NRHP-eligible Passerelle Bridge (USN 08101.012570), the Pavilion on the Passerelle Bridge over the LIRR (USN 08101.012612), the Main Gate Entrance (USN 08101.012586), and the Passerelle Buildings at Main Entrance (USN 08101.012608), all contributing elements to the NRHP-eligible Flushing Meadows-Corona Park Historic District (USN 08101.012611).



With respect to the Passerelle Bridge and its appurtenances, Project plans call for removing the existing steel and wood pedestrian bridge structure between the Mets-Willets Point Subway Station and the Mets-Willets Point LIRR Station and replacing it with a new structure on a largely new alignment to the east of the existing structure. Related work would either rehabilitate or replace the two canopy structures located above the LIRR and at the entrance to Flushing Meadows-Corona Park (Pavilion on the Passerelle Bridge over the LIRR [USN 08101.012612] and Main Gate Entrance [USN 08101.012586]). It would also modify the existing south ramp descending from the bridge to the park grade at the main entrance to meet ADA standards. Finally, plans call for repairing the roof and structure of the two buildings (Passerelle Buildings at Main Entrance [USN 08101.012608]) flanking the ramp with possible modifications to the roof deck area to accommodate pedestrian use.

Additional connected actions would impact the Mets-Willets Point LIRR Station and the World's Fair Marina (Marina) facilities. Planned improvements to the station include service changes on the LIRR Port Washington Line to provide for Airport-bound ridership; increased platform space; track bypass capabilities; signal modifications; and buildings to accommodate support services and ticketing. Changes to the Marina include relocation of the 2,000 square foot Marina and Boat Operations Office and demolition/relocation of the Marine Travelift Finger Piers and connected timber floating dock and boat lift that extend 100 feet into Flushing Bay, the Operations Shed, and relocation of parking and boatyard storage. Replacement facilities would be constructed at a site approximately 1,600 feet to the southeast of the current location.

## **2.2 Area of Potential Effects (APE)**

Under Section 106, the APE is defined in 36 CFR § 800.16(d) as follows: “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” Historic properties are defined as cultural resources listed in or eligible for listing in the NRHP.

For this investigation, the APE for archaeological resources (APE-Archaeology) has been developed to assess the direct effects of the Port Authority's Proposed Alternative. The Project Limits of Disturbances as indicated on Figures 2.1a-2.1f are also defined as the APE-Archaeology. The APE may change in the future as the FAA further refines the project. The APE-Archaeology is based on the proposed work activities associated with the Port Authority's Proposed Alternative and its potential to affect cultural resources, including potential direct and indirect visual effects caused by the construction and operation of the proposed Project. Direct effects may include physical damage or destruction of a resource or its setting. Indirect effects may include the introduction of visual, audible, or atmospheric elements that alter the characteristics of a historic property that qualify it for inclusion in the NRHP. An APE for architectural resources and the built environment has been developed and is reported on separately (Richard Grubb & Associates, Inc. 2019).

The APE-Archaeology comprises the locations where the Proposed Alternative may result in potential direct effects caused by the construction and operation of the proposed Project as described above. This includes the AirTrain/APM tracks and guideway, three APM stations, Mets-Willets Point LIRR station improvements, World's Fair Marina Relocation sites, demolition/replacement of the Passerelle Bridge, the OMSF, and areas proposed for parking and temporary storage or staging (see Figures 1.1-1.3 and 2.1a-2.1f).

The FAA, in consultation with RGA, prepared an initial APE-Archaeology pursuant to 36 CFR § 800.4(1) based on the Port Authority's Proposed Alternative and submitted the same to the SHPO for concurrence via its Cultural Resources Information System (CRIS) on June 17, 2019. SHPO concurred with the initial APE-Archaeology in correspondence dated July 15, 2019 (Appendix A). The APE-Archaeology depicted in the current report has been changed from the original SHPO submission to address refinements in the Proposed Alternative (see Figures 2.1a-2.1f).





Figure 2.1a: Key map showing the Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricardo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Figure 2.1b: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Figure 2.1c: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Figure 2.1d: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).



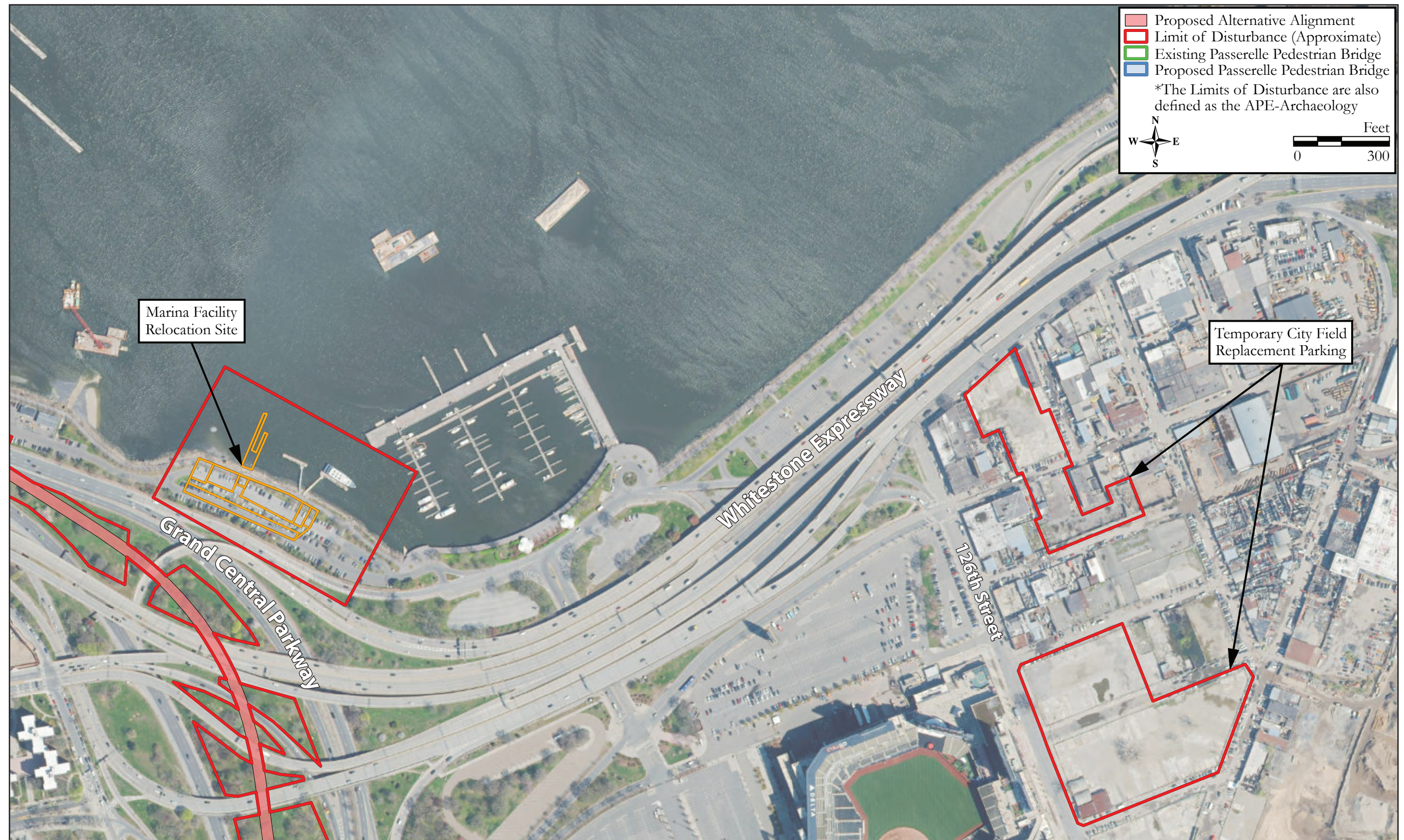


Figure 2.1c: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).



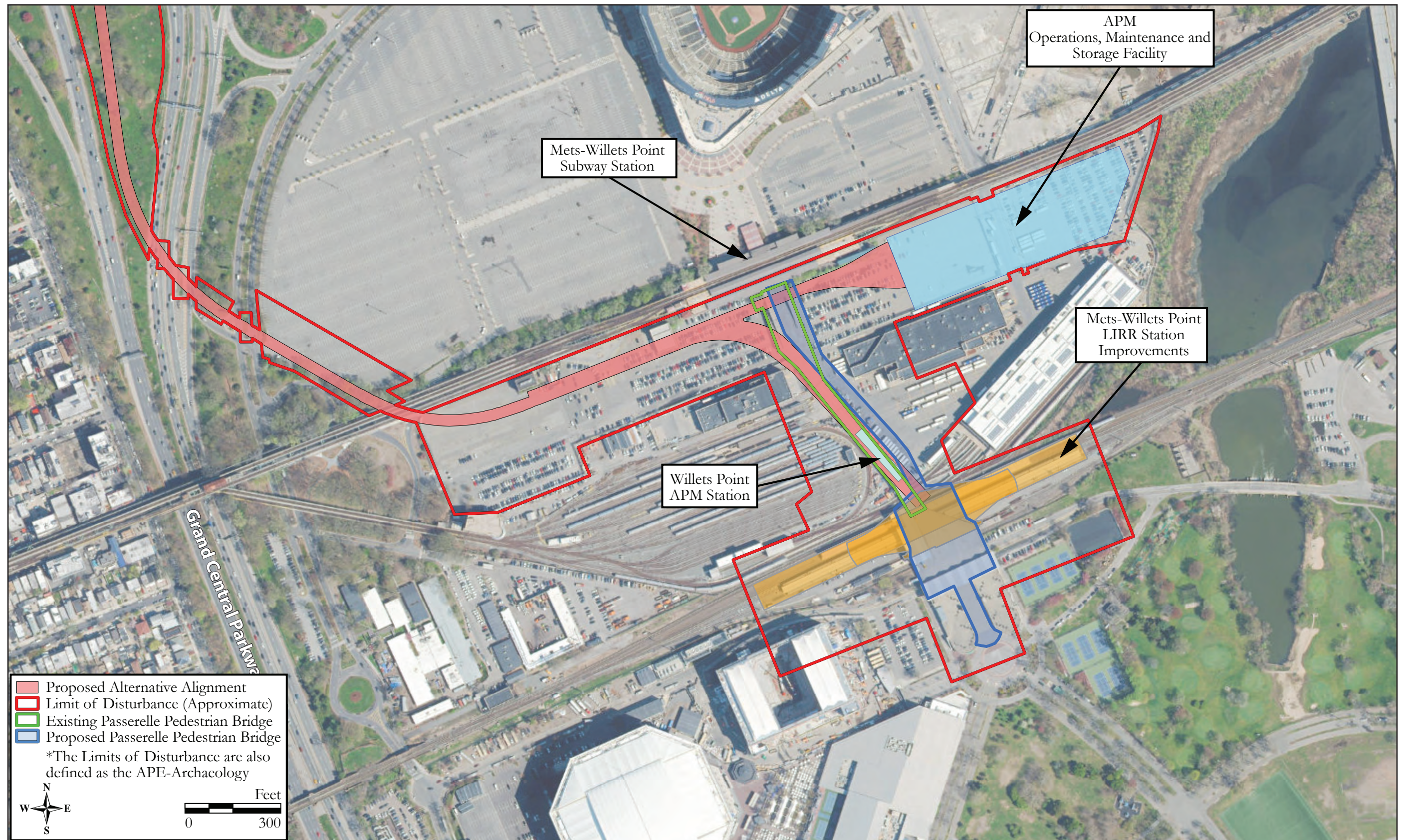


Figure 2.1f: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).



## **3.0 CONSULTATION AND PUBLIC INVOLVEMENT**

### **3.1 SHPO Coordination**

As noted above, the FAA initiated formal Section 106 consultation with the SHPO by letter dated June 17, 2019. Prior informal coordination addressed various topics concerning cultural resources compliance. On August 18, 2018, the FAA initiated Project review (Project No. 18PR05235) utilizing the SHPO Cultural Resource Information System (CRIS). In electronic correspondence between R. Daniel Mackay of the SHPO and Andrew Brooks of the FAA dated August 29, 2018, the SHPO outlined the need for both archaeological and historic architectural surveys. Additional correspondence between Beth Cumming (SHPO) and Marie Jenet (FAA) on December 27, 2018, addressed SHPO review periods and previously recorded historic resources within the vicinity of the Port Authority's proposed Project, including LGA Terminals C, D, and B (Central Terminal); Flushing Meadows-Corona Park; and the contributing Passerelle Bridge, pavilions, and related buildings. The above information was reiterated in additional electronic correspondence dated March 8, 2019, between Beth Cumming and Stephen Culberson of Ricondo.

With FAA approval, RGA held an informal conference call with SHPO project reviewers Nancy Herter (archaeology) and Kathy Howe (historic architecture) on April 9, 2019, to discuss the Port Authority's Proposed Alternative, to review SHPO survey and reporting requirements, and discuss likely approaches for cultural resources studies for the Project. With respect to this Phase IA Archaeological Survey, the discussion touched on the following general topics:

- Previously completed cultural resources investigations carried out in the vicinity of the proposed Project;
- SHPO general observations regarding prehistoric and historic archaeological sensitivity;
- SHPO survey digital photography preferences; and
- SHPO reporting preferences utilizing brief historic contexts; focused discussions on existing resources, figures, tables.

The FAA, in consultation with RGA, prepared an initial APE-Archaeology for this investigation pursuant to 36 CFR § 800.4(1) and submitted the same to the SHPO for concurrence via its Cultural Resources Information System (CRIS) on June 17, 2019. The SHPO concurred with the initial APE-Archaeology in correspondence dated July 15, 2019 (Appendix A).

### **3.2 Consulting Parties and the Public**

In addition to the FAA, the Port Authority, and the SHPO, other consulting parties under Section 106 include the ACHP, local governments, federally recognized Indian tribes, and invited individuals and organizations with a demonstrated interest in the undertaking. The FAA initiated formal consultation with the SHPO and the ACHP on June 17, 2019 and provided a list of identified regular consulting parties and entities with a demonstrated interest in historic preservation for possible invitation to participate as consulting parties. In its response to the FAA's consultation, the SHPO, by letter dated July 15, 2019, requested the FAA consider adding the Alliance for Flushing Meadows Corona Park to the list of potential Consulting Parties. The ACHP provided procedural guidance by letter dated August 7, 2019 and formally agreed to participate in consultation by letter dated August 12, 2019.

On July 18, 2019, the FAA also initiated consultation by letter with 13 Indian tribes, including the Cayuga Nation, Delaware Tribe, Delaware Nation, Oneida Indian Nation, Onondaga Nation, Seneca-Cayuga Nation of Oklahoma, Seneca Nation of Indians, Shinnecock Indian Nation, Stockbridge-Munsee Community of Mohican Indians of Wisconsin, St. Regis Mohawk Tribe, Tonawanda Seneca Nation, Tuscarora Nation, and Unkechaug Nation. Tribes identified with traditional interests in Queens include the Delaware Tribe, the Delaware Nation, the Shinnecock Indian Nation, and the Stockbridge-Munsee Community of Mohican Indians of Wisconsin. Invitations to other potential consulting parties were distributed on August 21, 2019. Coordination with all consulting parties will take place during future meetings.

The FAA's public involvement responsibilities under Section 106 are being conducted as part of its public outreach efforts under the concurrent NEPA/EIS process. During the EIS scoping comment period, the FAA received several public comments regarding above-ground cultural resources in relation to the Port Authority's Proposed Alternative. The Mayor's Office of Environmental Coordination (EO00003, June 17, 2019) requested coordination with New York City's parallel environmental review process. Referenced cultural resources of particular interest included Flushing Meadows-Corona Park (USN 08101.012611) and the Passerelle Bridge (USN 08101.012570) and its appurtenances. Other resources referenced in the communication included service stations and pedestrian bridge crossings associated with the GCP. An accompanying Environmental Review memorandum from the New York Landmarks Preservation Commission (LPC) dated June 12, 2019, noted that there are no LPC designated properties along the preferred alternative. The nearest LPC designated properties are the Marine Air Terminal (USN 08101.006415; interior and exterior designations), the Louis

Armstrong House at 34-55 107th Street (USN 08101.006403), and the Unisphere and reflecting pool (USN 08101.007212) located in Flushing Meadows Corona Park. The Waterfront Alliance (LO00010, June 6, 2019) expressed concern over access to parks and marina facilities with specific references to the World's Fair Marina, Flushing Meadows Corona Park, and pedestrian bridges over the GCP. Two additional comments received from interested citizens (PC00267, June 17, 2019 and PC00294, June 17, 2019) focused on ecological and park concerns. One (PC00267) described the Flushing Bay Promenade as a "unique and historical waterfront park." Copies of the public scoping comments received related to historic or cultural resources are included in Appendix A.

## 4.0 ENVIRONMENTAL/PHYSICAL SETTING

The Port Authority's Proposed Alternative includes a linear corridor that extends along the northern shore of western Long Island in the Borough of Queens, adjacent to the Flushing Bay and East River, and extends southeast into Flushing Meadows-Corona Park, as well as discontinuous marina, parking, and staging locations (see Figures 1.1-1.3 and 2.1a-2.1f). A proposed marina relocation area is along Flushing Bay (see Figure 2.1e). Proposed temporary parking areas include the existing parking/storage area in the Ingraham's Mountain site located on Bowery Bay west of LGA, Parking Lot P10 on the west side of LGA, and two large L-shaped areas east of Citi Field proposed for Temporary Citi Field Replacement parking (see Figures 2.1b and 2.1e) and construction staging and parking areas are located throughout the Project (see Figures 2.1b-2.1f). Land use, shoreline filling, and urban development over the last century have significantly altered the natural environment within the APE-Archaeology. Historically, portions of the APE-Archaeology were located within open water or salt marshes on the fringes of upland terrain associated with the Flushing Bay. Flushing Bay empties into the Rikers Island Channel of the East River at College Point. The East River flows into the Long Island Sound at Willets Point and Throgs Point approximately six kilometers (3.7 miles) northeast of the APE-Archaeology. Currently, the APE-Archaeology and vicinity is heavily urbanized, characterized by the twentieth-century development and construction of LaGuardia Airport, marina facilities, the GCP and other roads, Corona Park, and urban neighborhoods of the Borough of Queens. Much of the local built environment falls within soil series mapped by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) as urban fill (USDA Natural Resources Conservation Service [NRCS] 2019). As a result, topography within the APE-Archaeology is relatively flat, with elevations ranging between 10 to 20 feet above mean sea level. Historic maps discussed below indicate that small streams or tributary creeks once bisected eastern portions of the APE-Archaeology near Flushing Creek prior to extensive shoreline landfilling episodes during the early part of the twentieth century.

The APE-Archaeology lies within the Manhattan Prong portion of the Atlantic Coastal Plain Province, which is comprised of Cretaceous and Tertiary sediments underlain by metamorphic rocks of the Early Paleozoic period (Isachsen, et al. 2000: 46). Specific geologic deposits within the APE-Archaeology are mapped as glacial till and alluvium (Cadwell 1989; Fisher et al. 1970). The APE-Archaeology is situated on made land that has been graded and filled throughout the twentieth century.

Seven soil types and water are found within the APE-Archaeology, including LaGuardia urban soils, and other urban soil types or soil complexes (NRCS 2019; Table 4.1; Figure 4.1). LaGuardia soils are generally very deep, well-drained soils formed as a result of anthropogenic processes (i.e. filling). The soil horizons are formed in a thick mantle of construction debris intermingled and mixed with human transported soil materials on modified landscapes in and near major urbanized areas, primarily in the Northeast Region of the United States (USDA 2013).

Table 4.1: Mapped soil types within the APE-Archaeology.

Name/Symbol	Typical Profile	Slope	Drainage	Landform
Ebbets-LaGuardia-Urban land complex, 0 to 3 percent slopes (ELUA)	A - 0 to 7 inches: sandy loam Bwu - 7 to 27 inches: gravelly-artifactual sandy loam 2Cu - 27 to 72 inches: very gravelly-artifactual loamy coarse sand	0-3%	Well drained	Summit, shoulder, backslope, footslope, toeslope
LaGuardia-Urban land complex, 3 to 8 percent slopes (LUB)	Au - 0 to 8 inches: cobbly-artifactual coarse sandy loam BCu - 8 to 26 inches: very cobbly-artifactual coarse sandy loam Cu - 26 to 79 inches: very cobbly-artifactual coarse sandy loam	3-8%	Well drained	Backslope, footslope, toeslope, summit, shoulder
LaGuardia-Urban land complex, 8 to 15 percent slopes (LUC)	Au - 0 to 8 inches: cobbly-artifactual coarse sandy loam BCu - 8 to 26 inches: very cobbly-artifactual coarse sandy loam Cu - 26 to 79 inches: very cobbly-artifactual coarse sandy loam	8-15%	Well drained	Summit, shoulder, backslope, footslope, toeslope
Urban land-LaGuardia complex, 0 to 3 percent slopes (ULA)	M - 0 to 15 inches: cemented material 2C - 15 to 79 inches: gravelly sandy loam	0-3%	Not stated	Summit
Urban land, tidal marsh substratum, 0 to 3 percent slopes (UMA)	M1 - 0 to 6 inches: cemented material M2 - 6 to 20 inches: cemented material 2^C - 20 to 79 inches: very gravelly sand	0-3%	Not stated	Summit
Urban land, outwash substratum, 0 to 3 percent slopes (UoA)	M1 - 0 to 6 inches: cemented material M2 - 6 to 20 inches: cemented material 2^C - 20 to 72 inches: gravelly sand	0-3%	Not stated	Summit
Urban land, reclaimed substratum, 0 to 3 percent slopes (UrA)	M - 0 to 15 inches: cemented material 2C - 15 to 79 inches: gravelly sandy loam	0-3%	Not stated	Summit





Figure 4.1: Soils Map  
(from 2019 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic [SSURGO]).



## 5.0 PREHISTORIC AND HISTORIC BACKGROUND

### 5.1 Archaeological Site Files and Prior Cultural Resources Surveys Review

#### Research Methods

Prior to the conduct of fieldwork, a review of SHPO's CRIS web site files was conducted to identify registered archaeological sites within the APE-Archaeology that are listed in or eligible for listing in the NRHP. A one-mile search radius was implemented to identify previously registered archaeological sites, as well as previously conducted cultural resources surveys. In addition, a review of historic atlases, maps, and aerial photographs was undertaken. The results of the background research are presented below.

#### Archaeological Site File Review

Background research on the SHPO's CRIS web site identified eight prehistoric archaeological sites and one historic archaeological site that have been registered within one mile of the APE-Archaeology (Table 5.1). No sites were previously identified in or adjacent to the APE-Archaeology.

The closest prehistoric site to the APE-Archaeology is NYSM Site # 4544 located 340 meters (m)/1,233 feet south of the APE-Archaeology, for which no additional information is available. The NY Hall of Science Prehistoric site (08101.01526) is located 654 m/2,121 feet south of the APE-Archaeology and is defined as a camp site with intact features. In addition to Parker Site # 9 (08101.000102) located southwest of the APE-Archaeology (see Table 5.1), Parker Site # 10 (not mapped on CRIS) is located along the southern shore of Flushing Bay (or close to Bowery Bay) near a portion of the APE-Archaeology (Parker 1922: Plate 208). Site # 10 is described as a shell midden in North Beach (Parker 1922: 672). These sites are among several prehistoric sites in the Flushing Bay area recorded early in the twentieth century (Parker 1922; Smith 1950). The John Bowne House site (08101.011590) located 1,545 m/5,123 feet northeast of the APE-Archaeology is associated with a seventeenth- to nineteenth-century NRHP-listed historic house and structural remains.

Table 5.1: Summary of archaeological sites within a one-mile radius of the APE-Archaeology.

<b>NYSM Site #</b>	<b>OPRHP Site #</b>	<b>Site Name</b>	<b>Distance and Direction from APE-Archaeology in meters (m)/feet (ft)</b>	<b>Time Period</b>	<b>Site Type</b>	<b>Additional Citations</b>
719	-	College Point	1,695 m/5,520 ft northeast	Unspecified Prehistoric	Unspecified	-
4544	-	No Information	340 m/1,233 ft south	Unspecified Prehistoric	Unspecified	-
4524	-	Linnaean Gardens/ Parker Queens # 1	1,105 m/3,622 ft southeast	Unspecified Prehistoric	Burials	Parker 1922: 672
-	08101.01526	NY Hall of Science Prehistoric site	654 m/2,121 ft south	Unspecified Prehistoric	Camp w/features	-
-	08101.011370	Flushing Friends Meeting House Prehistoric site	1,141 m/3,772 ft northeast	Middle /Late Woodland (Jack's Reef)	Camp	Boesch 2008
-	08101.000133	Grantville Site	1,136 m/3,790 ft northeast	Late Archaic, Late Woodland?	Multi-component coastal site	Smith 1950: 143-144
-	08101.000102	Parker # 9	1,855 m/6,100 ft west	Unspecified Prehistoric	Surface collection; possible burial	Parker 1922: 672
-	08101.000103	North Beach/ La Guardia Airport site	1,283 m/4,200 ft southwest	Early Woodland?	Shell Midden	Smith 1950: 186-187
-	08101.011590	John Bowne House	1,545 m/5,123 ft northeast	1661, 1680-1695, 1830	Structural remains and associated artifacts	Ceci 1985

NYSM - New York State Museum

OPRHP - New York Office of Parks, Recreation and Historic Preservation

APE – Area of Potential Effects



#### Prior Cultural Resources Surveys Review

The SHPO CRIS web site was consulted regarding cultural resources surveys previously conducted within one mile of the APE-Archaeology. Fifteen cultural resources surveys with archaeological components have been conducted within one mile of the APE-Archaeology (AECOM 2016; AKRF, Inc. 2010; Bergoffen 1999a, 1999b; Boesch 2008; Ceci 1985; Greenhouse Consultants Incorporated 1999; Historic Perspectives, Inc. 1985, 2000, 2001, 2005, 2012a, 2012b; Panamerican Consultants, Inc. 2003; Vanasse Hangen Brustlin, Inc. 2013).

Four surveys included portions of the current APE-Archaeology (AECOM 2016; Historic Perspectives, Inc. 1985, 2001; Panamerican Consultants, Inc. 2003). Of these, one survey intersects with the northwestern portion of the APE-Archaeology within LGA (AECOM 2016). A second survey includes portions of the current APE-Archaeology within LGA, along Flushing Bay, and in portions of Flushing Meadows-Corona Park (Panamerican Consultants, Inc. 2003). Further to the southeast and east, two surveys were conducted adjacent to portions of the APE-Archaeology in advance of the construction of Citi Field and the redevelopment of Shea Stadium (Historic Perspectives, Inc. 1985, 2001).

#### *Previously Conducted Cultural Resources Surveys that Included Portions of the APE-Archaeology*

A Phase IA Archaeological Survey that includes a portion of the northwestern end of the APE-Archaeology in LGA was conducted in association with a proposed Delta Airlines Reconfiguration Project (AECOM 2016). The technical report notes that most of the LGA property is constructed on land reclaimed from the Flushing and Bowery bays where up to 30 feet of incinerated refuse and miscellaneous fill was placed over tidal mud flats. Geotechnical borings completed for the Delta Airlines project indicate that there is a minimum of eight feet of fill present in the vicinity of the original Flushing Bay shoreline, roughly adjacent to the section of the APE-Archaeology between Flushing Bay and the GCP. The borings indicate that the depths of fill generally increase moving towards the northeast corner of LGA, corresponding to the expected increase in depth of the Flushing and Bowery bays (AECOM 2016:7). The 2016 AECOM survey incorporates the results of two earlier Phase IA surveys (AECOM 2013a, 2013b) that identified four areas of archaeological sensitivity in the vicinity of LGA. One of these sensitivity areas (Area 4) intersects with the APE-Archaeology. Area 4 consists of a grass-covered median located between LaGuardia Access Road and LaGuardia Road. Area 4 was once part of the historic Flushing Bay shoreline where late nineteenth- and early twentieth-century structures stood. Ten to 16 feet of fill is present in Area 4 based on the results of the geotechnical borings. Area 4 was assessed with moderate to high historic sensitivity as well as moderate prehistoric sensitivity due to the former shoreline setting and presence of former structures (AECOM 2013a, 2013b, 2016). The other three areas of archaeological sensitivity areas are located between 300 and 2,000 feet from the northwestern end of the APE-Archaeology. Area 1 is approximately 300 feet northwest of the APE-Archaeology within and west of the footprint of a recently constructed parking garage for Terminal B; Area 2 is located approximately 2,000 feet southwest of the APE along the north side of GCP; and Area 3 is located approximately 900 feet northwest of the APE-Archaeology adjacent to Gates D2-D10 for Terminal B. The remainder of the Delta Airlines project location was assessed with low to no archaeological sensitivity (AECOM 2016).

Panamerican Consultants, Inc. (2003) conducted a Cultural Resources Baseline Study for the Flushing Bay Ecosystem Restoration Project, which examined eleven proposed ecosystem restoration areas within the Flushing Bay watershed. Areas 2, 6, and 11 include portions of the current APE-Archaeology but also include larger areas falling outside of the APE-Archaeology. Area 2, Upper Flushing Creek, is along Flushing Creek and within/adjacent to the southeastern end of the APE-Archaeology for the APM track and guideway areas. Area 6, Inner Flushing Bay, is along the southeast edge of LGA and includes a portion of the shoreline within/adjacent to the APE-Archaeology for the OMSF. Area 11, Flushing Bay Channel, includes the southern shoreline of Flushing Bay and portions of the APE-Archaeology for World's Fair Marina relocation. Two other areas (Area 1: Lower Flushing Creek, and Area 3: Flushing Creek at Meadows Corona Park) are located 1,000 feet or less from the current APE-Archaeology. The Lower Flushing Creek area is approximately 200 feet northeast of the southeastern end of the APE-Archaeology and Flushing Creek at Meadows Corona Park is approximately 1,000 feet southeast of the southeastern end of the APE-Archaeology. The study identified existing archaeological resources and provided an archaeological sensitivity assessment for the areas proposed for restoration (Panamerican Consultants, Inc. 2003).

Prehistoric sensitivity was assessed as very low to low to moderate for subsurface prehistoric archaeological resources for the three areas within/adjacent and the two areas that are near the APE-Archaeology. Areas of moderate potential were noted largely outside of the current APE-Archaeology on uplands proximate to Flushing Creek or Flushing Bay. Yonker's Island (St. Ronan's Well), a natural upland that falls in or near the northern Temporary Citi Field Replacement Parking area was leveled and affected by prior construction but was assessed with moderate subsurface archaeological potential (Panamerican Consultants, Inc. 2003: 3-15, Table 3.1).

Historic sensitivity was assessed as low to high for the restoration areas, portions of which fall in or adjacent to the APE-Archaeology. Area 2, Upper Flushing Creek, which is within/adjacent to the APE was assessed with high historic archaeological potential due to the presence of two historic structures: an embankment covering a culvert pipe that replaced a post-1951 trestle crossing for the Long Island Rail Road; and the Porpoise Bridge, a 1937 reinforced concrete bridge. The Porpoise Bridge was considered potentially NRHP-eligible. No further work was recommended for the embankment associated with the Long Island Rail Road. Neither of these resources is within the APE-Archaeology. Panamerican Consultants, Inc. (2003) concluded that portions of Flushing Meadows-Corona Park have potential for historic archaeological resources such as foundation remains, fill or surface deposits from the 1939 World's Fair. A 1939 map of the World's Fair indicates that the current APE-Archaeology falls in the very northern portion of the Flushing

Meadows-Corona Park (Panamerican Consultants, Inc. 2003: 3-97, Figure 49). This area contained such features as the gate, plaza, landscaping, the Passerelle Bridge, and Home Building. After the World's Fair concluded, structures were removed to a depth of four feet (Panamerican Consultants, Inc. 2003: 3-61). No historic resources were identified in Area 6, the Inner Flushing Bay area, which is within/adjacent to the LGA portion of the APE-Archaeology; the area was assessed with low historic archaeological sensitivity (Panamerican Consultants, Inc. 2003:4-2-4-3).

Area 11, Flushing Bay Channel, extends north through the center of Flushing Bay for two miles from the southeastern shore to College Point (Panamerican Consultants, Inc. 2003: 1-3). The channel bisects a portion of the World's Fair Marina relocation of the current APE-Archaeology. Regular dredging of the shallow lower bay including the current APE-Archaeology began by 1833 and may have included a navigational channel (Panamerican Consultants, Inc. 2003: 3-49). In 1844, bathymetric soundings of the lower bay resulted in shallow drafts of up to 3.5 feet but later in the nineteenth century, coastal survey maps dated to the 1850s and 1860s indicate deeper drafts of up to six feet (Panamerican Consultants, Inc. 2003: 3-50). After passage of an 1878 law, the Flushing Bay Channel that includes portions of the current APE-Archaeology was extended north from Main Street/Broadway/Northern Boulevard to the East River through the center of the bay and dredged to a depth of six feet. By 1925 it was deepened to 12 feet and by 1962 to 15 feet (Panamerican Consultants, Inc. 2003: 3-50). Dredging in the location of the current World's Fair Marina and the southwestern portion of Flushing Bay was undertaken in the 1930s to the depth of 8 to 12 feet and in 1963 and 1964 to a depth of 6 to 12 feet (Panamerican Consultants, Inc. 2003: 3-50).

In approximately 1880, a 4,663-foot long dike was constructed adjacent and parallel to the west side of the Flushing Bay Channel. Rock and timber piles were placed at the north and south ends of the dike, each with a small lighthouse originally with a kerosene lantern (Panamerican Consultants, Inc. 2003: 3-50). The dike was slated for demolition in 1937 and abandoned in 1962 but pilings associated with it may still be present (Panamerican Consultants, Inc. 2003: 3-52, Figure 127). The dike location does not appear to fall within the current APE-Archaeology (see Panamerican Consultants, Inc. 2003: Figures 80 and 126).

Area 11 was assessed with low prehistoric sensitivity but high historic archaeological potential due to the presence of a nineteenth-century dike and numerous shipwrecks. Most of the shipwrecked vessels are not named but shipping and water transportation in this area began in the seventeenth century and continues into the present day. Based on their described locations, most shipwrecks did not fall in or near the current APE-Archaeology. The 1969 *Ocean Queen* sank off the Queens shore; other wrecks are described as being in Flushing and presumably are closer to the Flushing Creek or shoreline northeast of the APE-Archaeology. A review of the U.S. Coast Survey's Automated Wreck and Obstruction Information System (AWOIS) does not indicate that any shipwrecks are located within the APE-Archaeology although some are north of LGA (NOAA 2019).

Area 1, the Lower Flushing Creek area, included 10 historic resources dating from the nineteenth through twentieth century. The area was assessed with high historic archaeological sensitivity. Historic resources include two vehicular bridges, five railroad bridges, and three other historic structures and former or extant resources associated with the 1939 and 1964 World's Fairs within the Flushing Meadows-Corona Park area (Panamerican Consultants, Inc. 2003: 3-54, Table 3.2). None of these historic resources are within or adjacent to the APE-Archaeology. Area 3, Flushing Creek at Meadows-Corona Park, was assessed with high historic archaeological sensitivity. This area included numerous former 1939 and 1964 World's Fair structures (Panamerican Consultants, Inc. 2003: 3-56, Table 3.2). None of these historic resources are within or adjacent to the current APE-Archaeology.

In 1985, a Phase I-A archaeological survey was completed for the Sportsplex Project, a sports complex proposed south of Flushing Bay and east of the former Shea Stadium/current Citi Field. The project was never completed. The 1985 project included the proposed Temporary Citi Field Replacement parking areas within the current APE-Archaeology (Historical Perspectives, Inc. 1985). The survey included background research and a surficial examination of existing conditions within the project area (Historical Perspectives, Inc. 1985: 2). Prehistoric artifacts were collected on the shoreline near Shea Stadium although no sites were recorded within the project area (Historical Perspectives, Inc. 1985: 11). Most of the project area contained marsh during historic times with the exception of an upland knoll in the northern portion of the Sportsplex Project called Yonker's Island/St. Ronan's Well (Historical Perspectives, Inc. 1985: 12). During the twentieth century, the marshlands were filled in by deposition of ashes and waste, which raised the land surface level by 10 to 15 feet (Historical Perspectives, Inc. 1985: 22). Former uplands in the northern portion of the project area were considered to have potential archaeological sensitivity if natural land surfaces were present, and as a result, soil borings in these areas were recommended.

A Stage IA assessment was completed for the redevelopment of Shea Stadium including a portion of the current APE-Archaeology along 126th Street and southwest of Citi Field near Roosevelt Avenue (Historical Perspectives, Inc. 2001). The assessment included background research and a surficial examination of existing conditions within the project area (Historical Perspectives, Inc. 2001). A review of previous soil boring records indicated that the project site was once a glacial lake during the early Holocene Epoch. In historic times, the project area was marshland, filled in with ashes and waste and called Corona Dumps, raising the land surface level by up to 11 feet (Historical Perspectives, Inc. 2001: 16). In 1916, the project was then covered by layers of alluvial deposits from Flushing Bay and Flushing Creek (Historical Perspectives, Inc. 2001: 16). The project area was graded for use as a parking lot for the 1939 World's Fair (Historical

Perspectives, Inc. 2001: 16). The project area was assessed with low archaeological sensitivity based on the results of former soil borings and the former marshland setting (Historical Perspectives, Inc. 2001: 17). No further archaeological survey was recommended.

*Previously Conducted Cultural Resources Surveys within One Mile of the APE-Archaeology*

A Phase IA survey was conducted within and near LGA in association with proposed runway safety improvements (Vanasse Hangen Brustlin, Inc. 2013). The impact areas associated with the project were located between 0.5 to 1.0 miles to the southwest, northwest, and west of the APE-Archaeology and included: an existing paved parking lot within the airport (Parking Lot 10E), part of which was proposed for use as a staging area; the location of a proposed restricted vehicle service road within the right-of-way of an existing road (Runway Drive) adjacent to the GCP; the locations of two runway safety areas (RSAs) proposed for enhancement at the ends of Runway 4-22 and Runway 13-31; and the location of Ingraham's Mountain, a partially man-made topographic feature west of the airport, proposed as an additional parking area and part of the current APE-Archaeology. While the survey notes that parts of the project lie within an area of archaeological sensitivity by the SHPO, the areas where impacts were proposed were all either restricted to man-made landforms or the proposed depths of impacts would not extend deep enough to impact intact, natural soil strata underlying fill deposits. Therefore, all impact areas were assessed with low archaeological sensitivity and no further work was recommended (Vanasse Hangen Brustlin, Inc. 2013).

Six prior surveys conducted within one mile of the APE-Archaeology were for the New York City School Construction Authority in association with the proposed construction of public schools and/or early childhood centers (AKRF 2010; Bergoffen 1999a, 1999b; Greenhouse Consultants Incorporated 1999; Historical Perspectives, Inc. 2000, 2005). A Phase IB survey was conducted approximately 0.23 miles southwest of the APE-Archaeology for the proposed construction of a public school at 110-02 Northern Boulevard (AKRF 2010). In a 2009 disturbance assessment memorandum and preliminary archaeological assessment, a portion of the proposed school site was assessed with moderate prehistoric sensitivity and Phase IB archaeological testing was recommended. The SHPO concurred with the recommendation and Phase IB testing was conducted in 2010. Phase IB archaeological testing consisted of the excavation of STPs and test units (TUs) within three mechanically excavated backhoe trenches. The stratigraphy consisted of asphalt over several fill layers on top of natural topsoil and subsoil. A small assemblage of mixed, highly fragmented historic and modern artifacts, which were not considered significant, were recovered from the excavations. No prehistoric artifacts or features were identified and no further archaeological survey was recommended (AKRF 2010:11, 14).

Historic Perspectives, Inc. (2000) conducted preliminary historical and archaeological research (Phase IA) for a proposed early childhood center site located along 111th Street and 47th and 48th Avenues, approximately 0.47 miles southwest of the APE-Archaeology. Although largely undisturbed, the project site was assessed with low prehistoric sensitivity based on the environmental setting within a hollow between two hills, with no source of fresh water (Historic Perspectives, Inc. 2000). Historic sensitivity was also assessed as low since the project site was developed in the early twentieth century, and it was documented that at least one of the residences had indoor plumbing, negating the possibility of shaft features associated with privies and wells. A circa 1900 greenhouse wing associated with the F. Humerjohann florist business once extended into the project site and was removed by 1915. Although the greenhouse operations fell within a boom period in floriculture (1890-1929) and the florist was likely growing flowers for the New York City Market, it was concluded that further archaeological survey was unlikely to yield significant results that could not be found in written records (Historic Perspectives, Inc. 2000). Therefore, no further archaeological survey was recommended.

A Phase IB archaeological survey was conducted for the proposed Public School 260-Q, located approximately 0.75 miles southwest of the APE-Archaeology along Roosevelt Avenue (Historical Perspectives, Inc. 2005). Prior to the Phase IB survey, two areas within the proposed school parcel were assessed with limited prehistoric sensitivity based partly on a lack of documented disturbance (Historical Perspectives, Inc. 2003). Two test trenches were excavated during the Phase IB survey and seven STPs were excavated within the trenches. The excavations resulted in the recovery of a small amount of twentieth-century artifacts and the stratigraphy consisted of disturbed fill deposits overlying subsoil. No prehistoric artifacts or features were identified and no further archaeological survey was recommended (Historical Perspectives, Inc. 2005).

In 1999, a Phase IA archaeological assessment was completed for the proposed Public School 242 located approximately 0.82 miles northeast of the current APE-Archaeology at the intersection of 31st Road and 137th Street (Bergoffen 1999b). The project area contained seven to eight feet of nineteenth-century fill but was assessed with a "higher than average" sensitivity for prehistoric resources based on its environmental setting. However, based on the limited depth of the proposed construction and depth of the fill, it was not expected that any potential prehistoric remains would be impacted by the proposed project (Bergoffen 1999b:13). The project area was also assessed with historic sensitivity associated with a two-story dwelling that stood on the property between 1874 and 1891. Since this dwelling did not appear to have access to public sewer or water lines, it was recommended that selected areas of the project area be tested to determine if historic privies or cisterns associated with the dwelling were present (Bergoffen 1999b:21-22).

A Phase IA Archaeological Survey and a subsequent Stage IB archaeological survey were conducted approximately 0.85 miles southwest of the APE-Archaeology in Jackson Heights for the proposed construction of a 300-student early childhood center known as Public School 228 (Bergoffen 1999a; Greenhouse Consultants Incorporated 1999). During the Phase IA Archaeological Survey, prehistoric sensitivity was assessed as high based on the proximity to known sites, the



environmental setting, and the general lack of disturbance; archaeological testing was recommended (Bergoffen 1999a). Subsequent soil borings conducted between the Phase IA and Stage IB surveys documented four to eight feet of fill on the property. The Stage IB archaeological survey consisted of mechanical excavation of three backhoe trenches to remove the overlying fill (Greenhouse Consultants Incorporated 1999). The stratigraphy consisted of asphalt overlying two fill strata and natural subsoil. No buried topsoil stratum was identified. No prehistoric artifacts were recovered and no further work was recommended (Greenhouse Consultants Incorporated 1999).

Of the four remaining surveys, one was conducted in association with reconstruction of a porch at a historic Quaker Meeting House approximately 0.74 miles east of the APE-Archaeology (Boesch 2008), the second involved testing along a property boundary of a historic burial ground, also approximately 0.74 miles east of the APE-Archaeology (Historical Perspectives, Inc. 2012a), and two involved archaeological testing at the historic John Bowne House, approximately one mile northeast of the APE-Archaeology (Ceci 1985; Historical Perspectives, Inc. 2012b). The purpose of the survey at the Quaker Meeting House was to identify any archaeological resources in the vicinity of the porch slated for reconstruction, to document the stratigraphy, and to determine if there were unrecorded burial trenches present associated with a nearby Quaker cemetery or other features. Seven STPs and seven, two-foot square TUs were excavated. The survey identified several stones possibly associated with an earlier porch, a buried former ground surface containing late eighteenth-through early nineteenth-century artifacts, and several prehistoric artifacts including two Jack's Reef Pentagonal-type projectile points and a rose quartz possible graving tool (Boesch 2008). The prehistoric and historic artifacts recovered from the buried ground surface were determined to represent an archaeological resource potentially eligible for listing on the New York State Register and/or NRHP. No further work was necessary for the reconstruction of the porch; however, archaeological investigations were recommended for any future work in this area (Boesch 2008).

No potentially significant archaeological resources were identified during the historic burial ground property boundary survey (Historical Perspectives, Inc. 2012a). The purpose of the survey was to determine if internments related to the Religious Society of Friends historic burial ground had been disturbed by construction activities on an adjacent lot. Eleven hand-excavated TUs were excavated along the property boundary. No human remains were recovered during the survey, although some mid- to late-nineteenth-century artifacts were recovered that were not considered significant. It was recommended that a ground-penetrating radar (GPR) survey be conducted along the property boundary and extending 20-25 feet into the Religious Society of Friends property to identify potential locations of grave shafts for future planning purposes (Historical Perspectives, Inc. 2012a).

The 1985 survey at the historic John Bowne House was conducted as a field school directed by Lynn Ceci of Queens College and was associated with the installation of a proposed gas line running between the Bowne House and a garage located to the southeast (Ceci 1985). An approximately 50-foot long trench was excavated in a garden area east of the Bowne House to a depth of two feet. The trench was divided into 10 excavation units (EUs) of varying lengths. Portions of the proposed gas line running south along an existing driveway to the garage were not tested due to prior disturbance. The results of the EUs indicated that the excavated area had been heavily disturbed, most likely in the mid-1950s (Ceci 1985:33). Although dense artifact deposits were encountered, these were not found in situ, and no evidence was found for significant cultural resources in the excavated area. Ceci felt that there could still be intact, potentially significant historic deposits nearby and recommended that archaeological monitoring be carried out for any future projects in the area (Ceci 1985:35). The second survey at the Bowne House was conducted in advance of proposed restoration activities and the construction of a new visitor's center (Historical Perspectives, Inc. 2012b). Shovel test units measuring 50 centimeters square and/or shovel test trenches measuring 1.5 by 0.5 meters were excavated in three areas surrounding the Bowne House: the southeast yard, the northeast yard, and in the north yard adjacent to the house foundation. A previously identified cobble surface was exposed in the southeast yard in 28 out of 38 excavated TUs. The cobble surface was underlain by a stratum containing late eighteenth- through early nineteenth-century artifacts and was interpreted as having been laid out to provide access to an outbuilding that stood in the area by 1841. It was requested that the cobble surface be preserved for potential incorporation into plans for the proposed visitor center. No features or artifact concentrations were identified in the northeast yard or in the north yard adjacent to the house foundation and areas of disturbance were identified within all three of the areas tested (Historical Perspectives, Inc. 2012b). It was recommended that archaeological protocols be established for any areas of future construction falling within several specified undisturbed areas.

## 5.2 Prehistoric Context

The cultural history of the Pre-Contact period Native inhabitants in New York City is divided into three broad time periods: Paleo-Indian 10,000-6000 B.C., Archaic 6000-1000 B.C., and Woodland 1000 B.C.-A.D. 1600 (Ritchie 1969; Cantwell and Wall 2001). Studies of Native American habitation in New York date from the mid-nineteenth century to the present (Squier 1849; Beauchamp 1900; Bolton 1922; Parker 1922; Ritchie 1932, 1944, 1969; Smith 1950; Ritchie and Funk 1973; Granger 1978; Funk 1988; Hasenstab 1990; Engelbrecht 1995; Abel and Fuerst 1999; Abel 2002). A summary of major traits for each time period is provided in Table 5.2.

Prehistoric occupation of Queens and the vicinity of the APE-Archaeology began at the end of the Pleistocene when New York City became habitable (Cantwell and Wall 2001: 37; Ritchie 1980). Native American inhabitants would have likely exploited the vast natural resources, including abundant marine resources, along the East River, Atlantic Ocean, and

Table 5.2: New York Prehistory.

Time Frame	Period	Characteristics
1000-1600 A.D.	Late Woodland	<ul style="list-style-type: none"> <li>- Occupation of unfortified hamlets, camps</li> <li>- Long houses and wigwams</li> <li>- Foraging with limited agriculture</li> <li>- Flexed burials</li> <li>- Collarless, cord-decorated ceramic vessels</li> <li>- Triangular projectile points</li> </ul>
1000 B.C.-1000 A.D.	Early/Middle Woodland	<ul style="list-style-type: none"> <li>- Hunter-gatherers, spring/summer congregation and fall/winter dispersal</li> <li>- Large and small camps</li> <li>- Band-level society with first evidence of community identity</li> <li>- Mortuary ceremonialism</li> <li>- Extensive trade networks for exotic raw materials</li> <li>- Shellfish exploitation</li> </ul>
1000-7000 B.C.	Archaic	<ul style="list-style-type: none"> <li>- Hunter-gatherers</li> <li>- Large and small camps</li> <li>- Band level society</li> <li>- Mortuary ceremonialism</li> <li>- Extensive trade networks for exotic raw materials</li> <li>- First use of ceramic vessels</li> </ul>
7000-9000 B.C.	Paleo-Indian	<ul style="list-style-type: none"> <li>- First human occupation of New York</li> <li>- Hunters of caribou and now-extinct Pleistocene mammals</li> <li>- Fluted projectile points</li> <li>- Small camps</li> <li>- Band level society</li> </ul>

Long Island Sound coastlines, and coastal bays like Flushing Bay. Once estuarine settings stabilized circa 5000 B.P., habitats for shellfish were created and these were important during the Late Archaic to Late Woodland periods. Habitats for *Crassostrea virginica* (oyster) existed in the brackish waters of the East River and Flushing Bay and *Mercenaria mercenaria* (hard shell clam or quahog) in the greater salinity of the Long Island Sound and Raritan Bay. Prehistoric sites that contain shell-bearing features are found along the coastal plain of the Lower Hudson Valley, particularly after the Middle Archaic period (Smith 1950; Ritchie 1969; Cantwell and Wall 2001). Given the record of early Contact and seventeenth-century settlement in this area, Contact period sites would be expected in the vicinity of the APE-Archaeology but none have been documented (see Table 5.1).

### 5.3 Historic Context

#### Seventeenth-century Development

The APE-Archaeology encompasses multiple neighborhoods in the New York City Borough of Queens, including East Elmhurst, North Corona, Corona, and Willets Point. European settlements were established in the general vicinity of the APE-Archaeology including the Dutch and English Vlissengen (Flushing or Flushing Bay) to the east of the APE-Archaeology by the early seventeenth century, a time when the area was inhabited by Native American groups. At the time of European colonization of the New World, the land around western Long Island was occupied by the Matinecock and other related groups (Grumet 1995). The Matinecock controlled lands east of Newtown to Smithtown (Historical Perspectives Inc. 1988, 2001). Northern Boulevard, an early road that traverses portions of the APE-Archaeology, follows the route of an Indian Trail connecting Flushing with nearby villages and camps east and west of the APE-Archaeology (Historic Perspectives Inc. 1988: Figures 5 and 6). Armed conflict between Europeans and Native Americans, coupled with the spread of diseases resulted in significant disruption to Native American culture, removal of Native Americans from their ancestral lands, and European land capture and settlement (Institute for Long Island Archaeology 2005).

The Dutch were the first European settlers to occupy the region, establishing one of their first major settlements (New Amsterdam) on the island of Manhattan in 1625 (Cantwell and Wall 2001: 153). Dutch Director-General William Keift purchased the majority of the area from local Native Americans in 1639 (AKRF 2019: 2-2). In the same year, the Dutch began awarding land grants to settlers, the first located in the vicinity of Long Island City west of the APE-Archaeology (Queens Historical Society 2019). Soon thereafter, smaller Dutch outposts were established throughout the region including, New Amersfoort (Flatlands), Vlissengen (Flushing or Flushing Bay), Medwoud (Flatbush), Breuckelen (Brooklyn), and Rustdorp (Jamaica). Gravensande (Gravesend) was also settled during this time by English settlers from the Massachusetts Colony (John Milner Associates 1978; Hazelton 1925; Ross 1902). English immigrants quickly outnumbered the Dutch

population within Queens and the larger colony of New Netherland (later renamed New York) and gained firm control of the colony by the late seventeenth century. In 1664, the Dutch Director-General, Peter Stuyvesant, surrendered to British troops and New Amsterdam was renamed New York.

Seventeenth-century Dutch and English settlement was known for the vicinity of the APE-Archaeology. The Bowne House in Flushing, located approximately one mile from the APE-Archaeology, is a saltbox house built in 1661 by English settlers John Bowne and his wife, who were former residents of Massachusetts Colony (Ceci 1985). During British control, Queens experienced significant expansion. In 1683, the New York Colony was divided into 10 counties; Queens was one of the original 10 and included all of present-day Queens and Nassau counties (Queens Historical Society 2019). Queens was further divided into five townships: Flushing, Newtown, Jamaica, Hempstead and Oyster Bay (AKRF 2019: 2-2). Although Jamaica served as the seat of Queens County, Newtown became more populated due to its close proximity to Manhattan. In contrast, the township east of Newtown, known as Flushing, remained a relatively rural community in large part due to its inaccessibility. In the seventeenth and eighteenth centuries, Flushing Creek was a broad body of water fed by several tributary streams that meandered through a wide area surrounded by wetlands with uplands to the west and south of Flushing Bay and the East River, into which the creek flowed (Figure 5.1; Seyfried 1986: 1).

#### Eighteenth-century Development

The prosperity of this rural economy lasted throughout much of the eighteenth century; however, it was disrupted by the onslaught of the American Revolution. After retreating from Boston, Massachusetts in March of 1776, British troops regrouped in Halifax, Nova Scotia. Many believed, including General George Washington, that New York City would be the next theater of war due to its strategic importance. On June 29, 1776, a British fleet of 45 ships arrived within the Lower Hudson Bay, followed a week later by 130 additional British ships. By August of that year, 400 British vessels were positioned off Staten Island where 32,000 British troops were encamped (Millett and Maslowski 1994: 68).

In defense of the city, General Washington placed 20,000 of his soldiers under the command of General Israel Putnam at Brooklyn Heights on Long Island. On August 22, 1776, the British moved their forces to Long Island and disembarked at Gravesend Bay south of the APE-Archaeology. For the next five days, little fighting took place as the British established camps at Flatbush and Flatlands. Upon learning that one of the roads leading west (Jamaica Pass) was lightly defended by Loyalists, the British commander, General Howe, marched troops on August 26, under the cover of darkness through the pass. The entrenched soldiers at Brooklyn Heights were out-flanked. Despite the Americans' best efforts, the battle of Long Island was over quickly which began a period of American retreats that eventually forced them over the Delaware River prior to the first battle of Trenton in December of 1776 (Millett and Maslowski 1994: 68-69).

During the Revolutionary War, early British military success in New York resulted in military occupation of Queens throughout the war's duration. No documented activities related to Revolutionary War skirmishes took place within or proximate to the APE-Archaeology, although many of the farmsteads along the bay were occupied by the British, who also plundered livestock and other supplies (John Milner Associates 1978). The Lent Farmhouse was reportedly used as a headquarters for the British 37th Regiment during the British occupation of the area (The City of New York 2019). British ships anchored off the coast of Bowery Bay and Flushing Bay guarded the entrances to New York City (Welles 1888: 9).

Following the British surrender in 1783, the local economy gradually rebounded and included maritime trade and agriculture. After the Revolutionary War, the overall region consisted of farmsteads surrounding the various aforementioned villages.

#### Nineteenth-century Development

In 1801, the Flushing and Newtown Turnpike and Bridge Company was incorporated and established a toll road (now 37th Avenue) that connected the two towns via a bridge over Flushing Creek (Seyfried 1986:6). By the mid-nineteenth century, APE-Archaeology was still considered part of Newtown. Portions of the western part of the APE-Archaeology fell on areas of open water while eastern and southern portions contained wetlands as well as large tracts of farmland and country estates (Figures 5.2 and 5.3). These farmsteads were linked by roads, including portions of present-day Northern Boulevard, Astoria Boulevard, and 37th Avenue. The areas in the eastern portion of the APE-Archaeology, now known as Flushing Meadows and Willets Point, remained marshland until the early-twentieth century. Early nineteenth-century farmhouses near the APE-Archaeology included those of J.K. Herrick, Charles Backus, J. Rapleye, Mrs. James Strong, Peter Meserole, M. Williams, D. Lent, and C. Hendrickson (see Figures 5.2 and 5.3). The farm of D. Lent may have been the one occupied by the British during the American Revolution.

The expansion of railroad networks throughout Queens during the second half of the nineteenth century facilitated the development of smaller villages and communities within Newtown, such as West Flushing (later renamed Corona). In 1854, the Flushing Railroad (FRR) opened from Flushing across Newtown to the East River through an unsettled area known as Hunter's Point (Seyfried 1963: 12). In anticipation of the railroad, a group of New York real estate speculators established the West Flushing Land Company, purchased multiple farm tracts west of the APE-Archaeology and laid out building lots and graded streets (Seyfried 1963: 12). In the same year that the FRR opened through the area, the West Flushing Land Company erected two stations in Corona, one to serve villagers and the other to accommodate a newly opened race course erected between 97 and 105th Streets and 34th Avenue and 37th Avenue (Seyfried 1986).

In 1859, the FRR was reincorporated as the New York & Flushing Railroad Company (NY&FRR). The NY&FRR established a subsidiary known as the "North Shore Railroad" to extend its service from Flushing to Great Neck (Seyfried 1963: 21). In 1864, the Woodside and Flushing Railroad (F&WRR) formed as a rival route to the NY&FRR, with a route



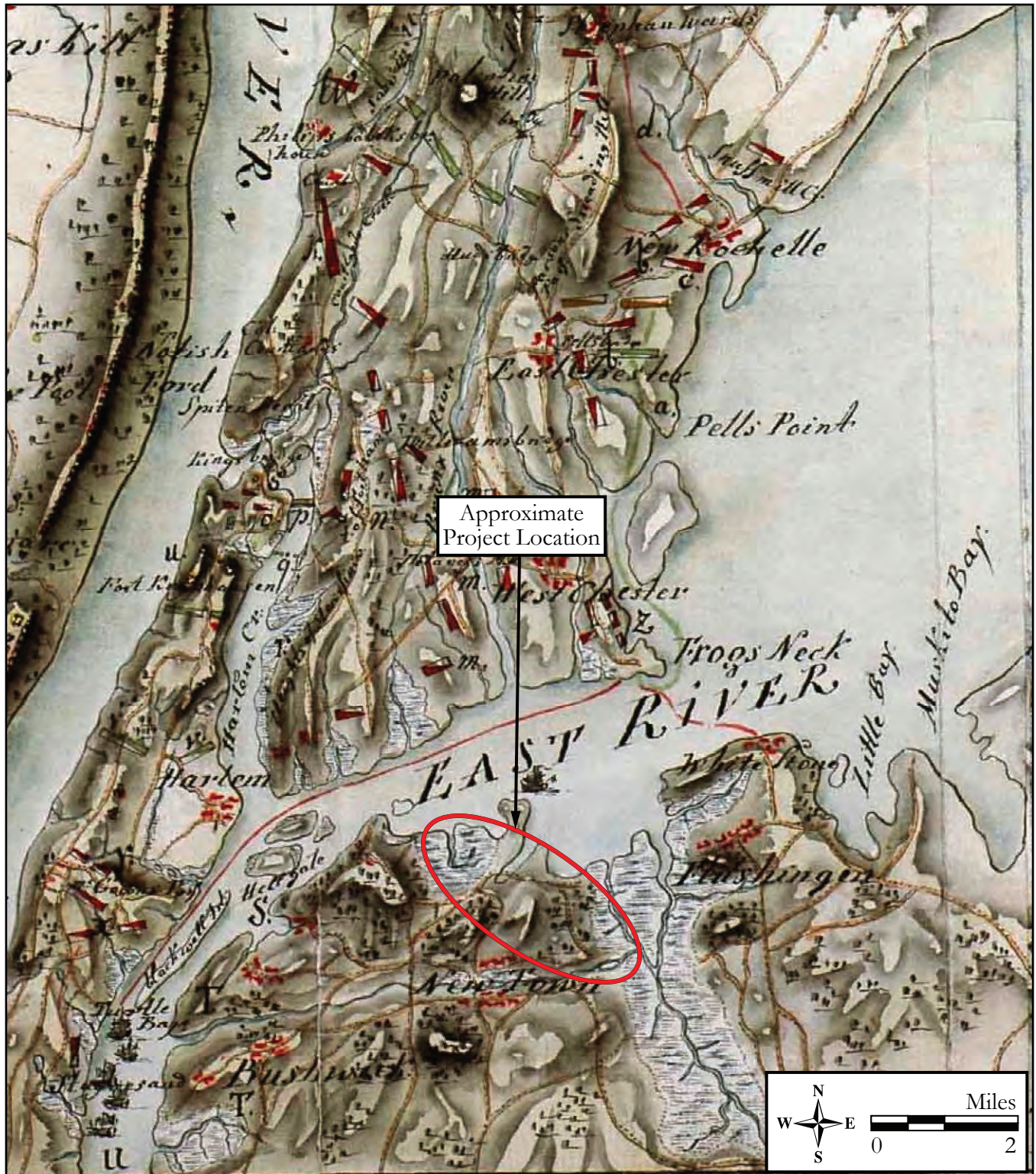


Figure 5.1: 1779 Capitaine Martin, *Plan General des Operations de L'Armée Britannique Contre les Rebelles dans L'Amerique depuis L'Arrivée des Troupes Hessoises.*



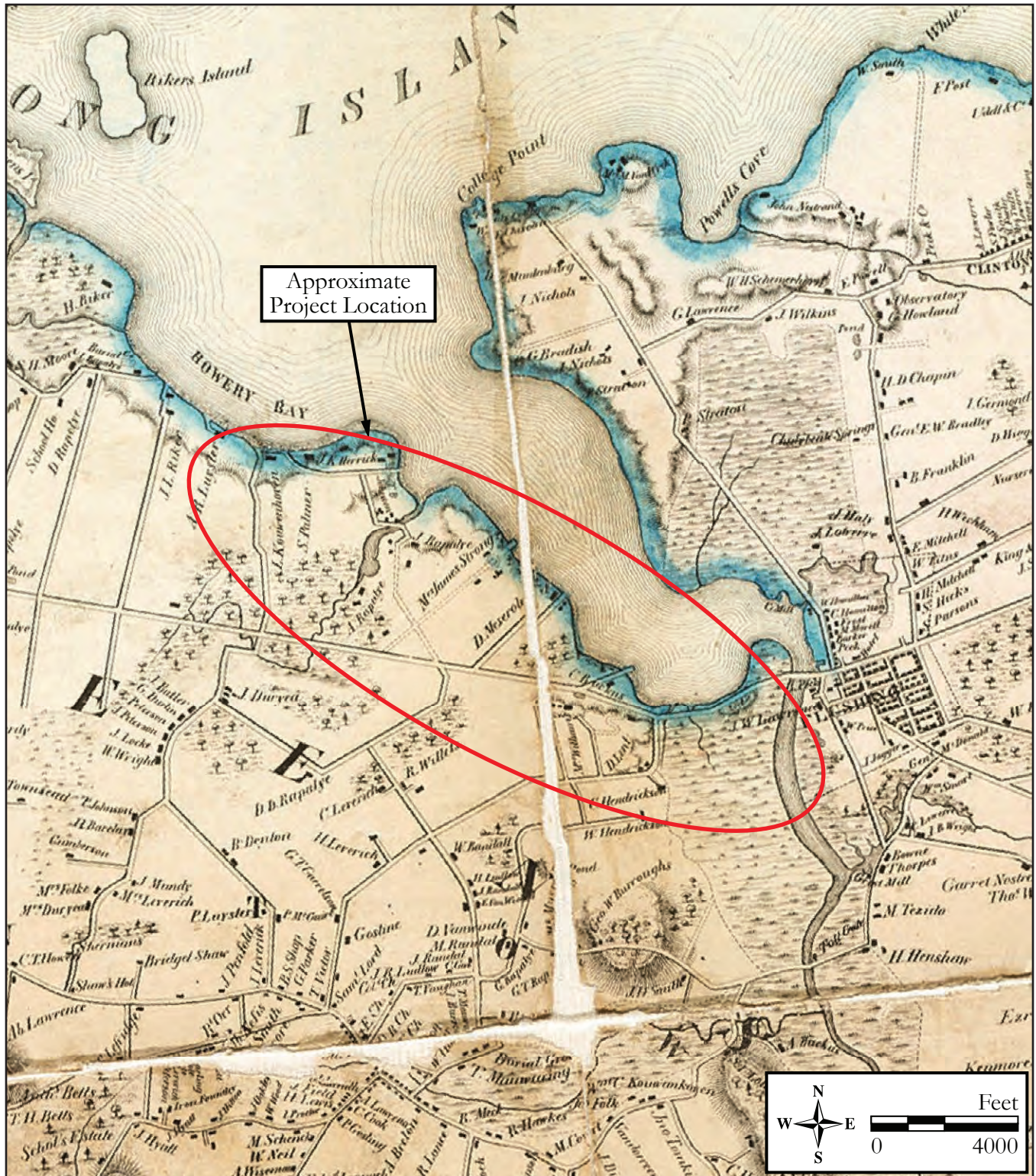


Figure 5.2: 1849 J.C. Sidney, *Sidney's Map of Twelve Miles Around New-York* (J.C. Sidney, New York, New York).



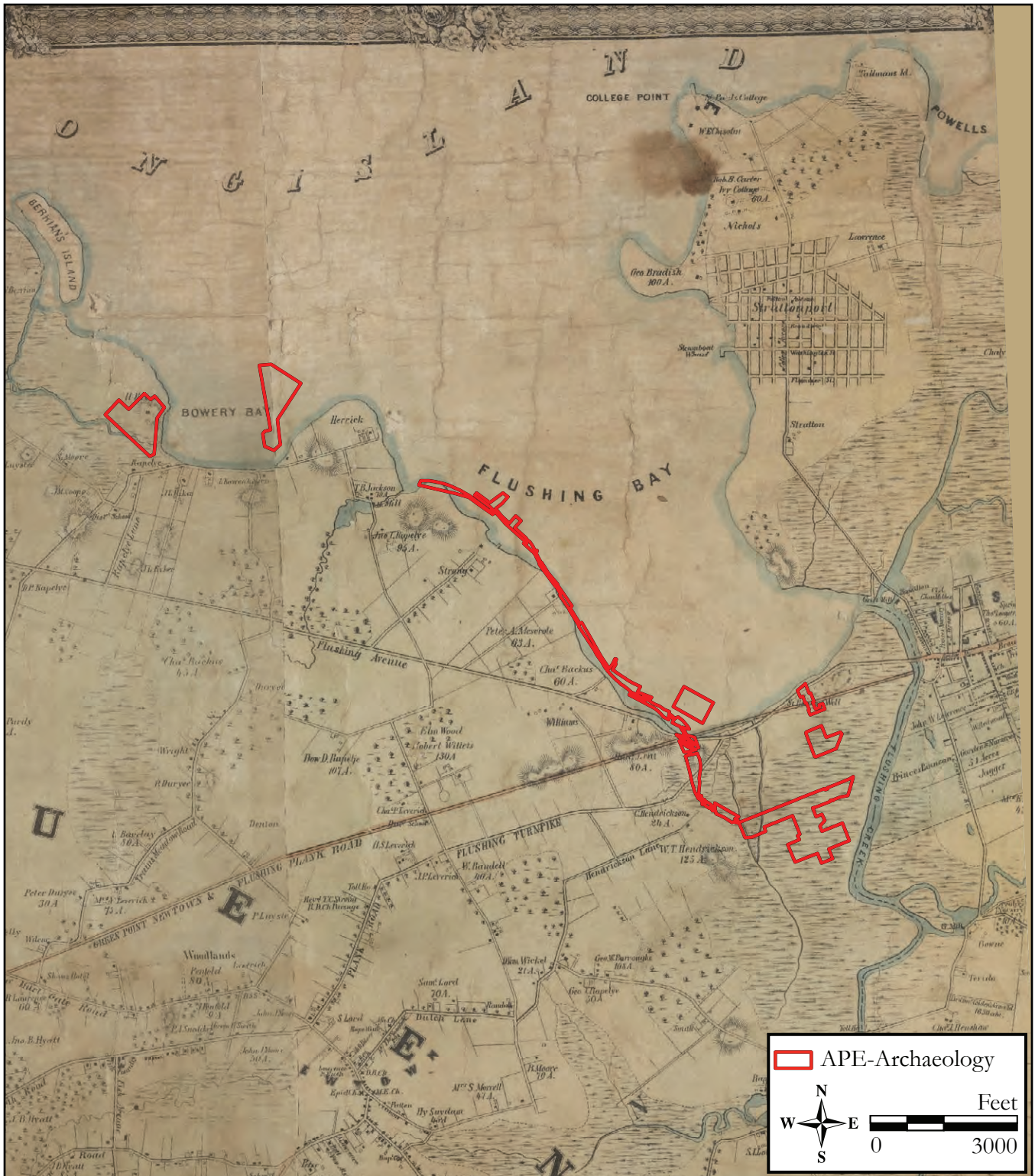


Figure 5.3: 1852 M. Dripps, *Map of Kings and part of Queens Counties, Long Island N.Y.*



extending from the Long Island Rail Road (LIRR) Woodside Station through Corona to Flushing (Seyfried 1986: 20). Legal, financial, and political problems postponed the opening of the F&WRR. By the early 1870s, the F&WRR tracks had been laid parallel to the NY&FRR route, including a portion through the old race track oval (Figure 5.4). Eventually, the F&WRR and NY&FRR merged to form the Flushing & North Side Railroad (F&NSRR) (Panamerican Consultants Inc. 2003: 3-19). In 1874, the F&NSRR consolidated with other lines to form the Flushing, North Shore & Central Railroad (FNS&CRR). Two years later in 1876, the FNS&CRR and other competing rail lines on Long Island joined the LIRR system. During a reorganization of the LIRR system in the late 1870s, service on the former F&WRR was terminated and its tracks were removed sometime during the 1880s (Seyfried 1986:146; (Seyfried 1986:146; see Figure 5.4).

During the last quarter of the nineteenth century, Corona had become a well-established village growing from approximately 600 people in 1873 to 2,500 residents in 1898 (Seyfried 1986: 31, 50). Its population primarily consisted of white, middle-class residents with English/Anglo-Saxon, German, Irish, Italian, and Jewish backgrounds (Seyfried 1986: 44, 52). While the sections of Corona west of the APE-Archaeology continued to develop as a residential village, the areas north of present-day Northern Boulevard and east of present-day 114th Street (now known as the East Elmhurst, Flushing Meadow and Willets Point neighborhoods) generally remained undeveloped and part of larger landholdings into the early-twentieth century (Figures 5.5 and 5.6).

#### Early Twentieth-century Development

During the first half of the twentieth century, the APE-Archaeology and vicinity experienced exponential growth and development spurred on by transportation improvements and the 1930s establishment of the New York World's Fair site in Flushing Meadows (Figure 5.7a and 5.7b). In 1912, the Interborough Rapid Transit Company (IRT), operators of Manhattan's elevated roads and the Lexington Avenue and 7th Avenue subways, entered into a Dual Contract with the Brooklyn Rapid Transit Company. This dual contract included provisions to allow the extension of Manhattan's rapid transit system into Queens via Astoria and Corona (Seyfried 1986:63). The IRT line between Grand Central in Manhattan and Corona at 104th Street (west of the APE-Archaeology) opened between 1915 and 1917.

By the 1910s, multiple neighborhoods or sub-villages, including Loudna Park and North Corona, formed within the larger area designated as Corona (Seyfried 1986:50). The northwest section of the APE-Archaeology above present-day Northern Boulevard became known as East Elmhurst. Development in East Elmhurst started sometime during the 1900s (see Figures 5.6-5.7a and b). By 1924, residential development was firmly established on Northern Boulevard (Figure 5.8). In contrast, the northern portion of the East Elmhurst neighborhood near present-day LGA comprised large, undeveloped tracts in 1924.

During the late 1920s, the IRT extended its line through the APE-Archaeology from the 104th Street Station to Main Street in Flushing. The Willets Point Station opened in 1927 on the extended IRT line at Willets Point Boulevard, east of the present-day Mets-Willets Point Subway Station (New York City Transit Authority 1994a). The Corona Yard opened the following year, in 1928, between the present day Mets-Willets Point Subway Station and the Mets-Willets Point LIRR Station. The yard was one of the 15 yards built under the Dual Contracts agreement (New York City Transit Authority 1994b).

#### *LaGuardia Airport*

The opening of Corona Yard in 1928 coincided with the expansion of another transportation option for the New York Metropolitan area. That year, the Newark Metropolitan Airport (now the Newark Liberty International Airport [EWR]) opened in New Jersey to provide an alternative way to access the greater New York City area. In 1931, New York City opened its first municipal airport in Brooklyn known as Floyd Bennett Field. This airfield was a commercial failure due to its long distance from Manhattan and lack of direct rail transportation and highway access. As a result, EWR continued to dominate air travel in the metropolitan area through the 1930s (Gordon 2008).

New York's lack of a sufficient municipal airport did not go unnoticed by its mayor, Fiorello LaGuardia. Following an outburst over the arrival of his flight in Newark, not New York, LaGuardia aimed to establish an airport that was easily accessible to Manhattan and a rival to EWR. The site selected was the privately owned Glenn Curtis Airport in an area at the northern tip of the APE-Architecture known as North Beach. Prior to its 1928 development as an aviation field, North Beach was the site of the popular Gala Amusement Park (Stoff 2008:18).

The location chosen for the future LGA offered multiple transportation options to Manhattan via the Triborough Bridge (now Robert F. Kennedy Bridge) and the GCP. Constructed between 1931 and 1936, the GCP was originally designed as one component of New York City Parks Commissioner Robert Moses' park and parkway plan for the New York metropolitan area (Hitt 2017). The six-lane section of the GCP built through the APE-Architecture was part of the northern extension of the parkway completed in 1936 to connect Kew Gardens to the Triborough Bridge. In addition to highway accessibility, the nearby subway lines and waterfront location for seaplanes offered additional transportation options (Gordon 2008; Stoff 2008).

Construction of the new airport commenced in 1937, utilizing funds from the city and the federal government's Works Progress Administration (WPA). The \$40 million airport was the single largest project undertaken by the WPA up to that time (Stoff 2008:7). Construction of the new airport required an enormous landfill project and enlarged the existing field from 105 to 605 acres (Stoff 2008:7). The New York based architectural firm of Delano & Aldrich designed the

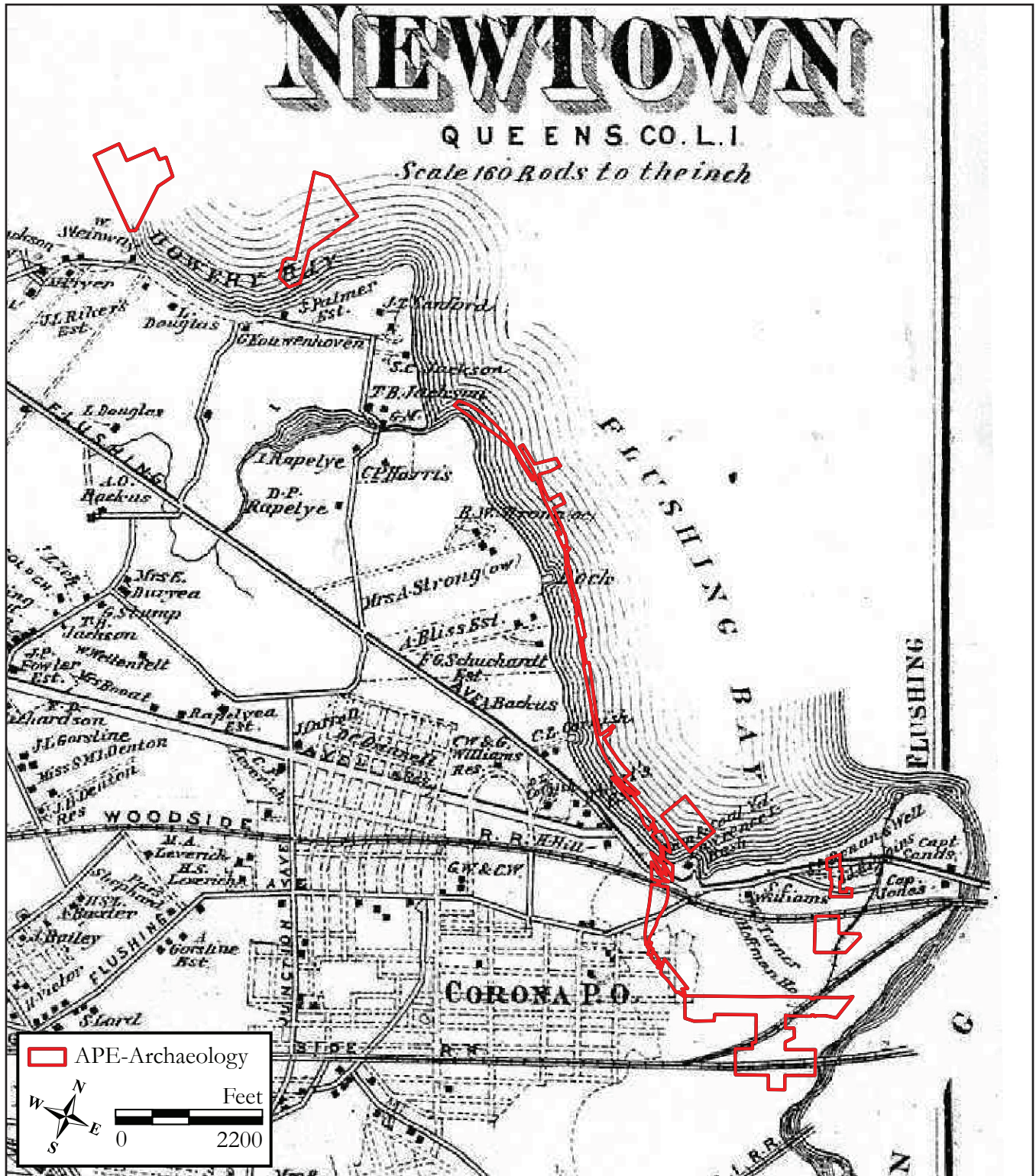


Figure 5.4: 1873 F.W. Beers *Atlas of Long Island, New York* (Beers, Comstock and Cline, New York).





Figure 5.5: 1891 Chester Wolverton, *Atlas of Queens Co., Long Island, New York*, Plate 29 Town of Flushing and Plate 30 Newtown, Chester Wolverton, New York.





Figure 5.6: 1903 E. Belcher Hyde, *Atlas of the Borough of Queens, City of New York*, Volume 2, Plates 30, 16, 17, 18, and 28, New York (E. Belcher Hyde, Brooklyn, New York. Composite view).



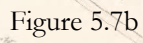


Figure 5.7a: 1909 George W. and Walter S. Bromley, *Atlas of the City of New York, Borough of Queens*, Plates 16, 17, and 19 (G.W. Bromley and Co., Philadelphia, Pennsylvania. Composite view).





Figure 5.7b: 1909 George W. and Walter S. Bromley, *Atlas of the City of New York, Borough of Queens*, Plates 16, 17, and 19 (G.W. Bromley and Co., Philadelphia, Pennsylvania. Composite view).





Figure 5.8: 1924 historic aerial photograph  
(City of New York Board of Estimate and Apportionment 1924).  
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airport, which featured two Art Deco-style terminals: the Marine Air Terminal and Central Terminal. Seven hangers were constructed to the east and west of the Terminals. The majority of the airport was completed in 1939 and was dedicated on October 15 of that year as the New York Municipal Airport. By the second anniversary of the New York Municipal Airport (later renamed LaGuardia Airport [LGA or Airport]), more than two million passengers arrived or departed from the airport annually (Halmos Jr. 1941).

#### *Flushing Meadows and the 1939 New York World's Fair*

As work commenced on LGA, plans were in development at the south end of the APE-Archaeology in Flushing Meadows. Bordering the neighborhoods of Corona and Flushing, Flushing Meadows served primarily as a salt marsh until the early twentieth century. In 1907, Michael Degnon, a contractor known for his work on the New York subway system and Williamsburg Bridge, purchased large tracts of marshland along Flushing Creek with the intention of creating land for development (Seyfried 1986:67). Degnon utilized a two-pronged approach to bring the meadows up to city grade, which included hydraulic pumping to dredge the floor of Flushing Bay and active infill through dumping of urban refuse (Borhanuddin et al. 2015: 5). Through the work of the Brooklyn Ash Company, daily shipments of coal ash, street sweepings and other debris from Brooklyn were deposited onto the marsh, which quickly transformed the area. The Brooklyn Ash Company continued to use the marsh as a dumping ground until 1934, when the city slowly began to acquire portions of land.

Parks Commissioner Robert Moses wanted to transform the “Corona Dump” into a world class park with recreational spaces and park facilities utilized by all five boroughs. Unable to secure public funding, Moses envisioned the World's Fair as a means to fund his park, and he successfully advocated for Flushing Meadows as the site of New York's first World's Fair in 1939. The World's Fair plan, developed by a team that included Moses, Gilmore D. Clarke, and William Lamb, created a monumental Beaux Art campus to the north and two large excavated artificial lakes to the south: Meadow (originally called Liberty) Lake and Willow Lake. The axial plan at the northern end of the park centered on the “Trylon and Perisphere,” a modernist structure that anchored a mall and lagoon. Exhibition avenues fanned from the central axis and were lined with architecturally modern buildings constructed out of temporary or inexpensive materials (Howe 2018). Most of these elements are south of the APE-Archaeology. The APE-Archaeology falls within a northern portion of the 1939 World's Fair, which includes a plaza, gate, portion of a “Home Building” and the Passerelle Bridge (Panamerican Consultants, Inc. 2003: 3-87, Figure 49). World's Fair buildings were removed after the fair to at least four feet below the ground surface and clean fill was placed on top (Panamerican Consultants, Inc. 2003: 3-56, Table 3.2).

At the northern end of the park, the IRT relocated its Willets Point Station westward from Willets Point Boulevard to its present location and rebuilt the station with larger ramps and entrances for the fair (New York City Transit Authority 1994a). Although streets had been laid out in Willets Point, neighborhood still remained largely undeveloped at this time (Sanborn Map Company 1931). Following the closure of the fair in late 1940, Moses intended to convert the grounds into a new city park. Moses retained elements of the fair layout, including major promenades, landscaping and subsurface utilities, as well as certain fair structures for the new park. When the first portion of the new park opened in 1941, it included additional recreational features, such as playgrounds, baseball diamonds, parking areas, and a public pool (Borhanuddin et al. 2015:12). The 1940s development of the area can be seen on Figure 5.9. Due to lack of funding and ongoing maintenance issues, the park deteriorated through the 1950s.

After World War II, Queens saw an influx of population growth and new housing. By the early 1950s, the portions of the APE-Archaeology containing the East Elmhurst, North Corona, and Corona neighborhoods had been further urbanized and developed with residential housing (Figure 5.10). Willets Point, the neighborhood northeast of the World's Fair site, witnessed commercial development.

A 1951 historic aerial photograph of the area illustrates the early-twentieth century transportation improvements made within the APE, including the IRT Flushing Line, LGA, and the GCP (see Figure 5.10). As a result of the construction of LGA and the GCP, a portion of Flushing Bay within and adjacent to the APE-Archaeology was filled. Improvements to these transportation networks continued throughout the mid-twentieth century. During the late 1950s, LGA underwent a redevelopment program that resulted in the demolition of the original terminal (AECOM 2016:15). In 1959, the GCP underwent a \$40 million dollar reconstruction (Hitt 2017). These changes included an expansion of lanes from six to eight, removal of pedestrian pathways as part of the addition of two travel lanes, and improvements and widening of medians and shoulders in and adjacent to portions of the APE-Archaeology.

#### *1964 New York World's Fair*

In 1959, plans began for a second World's Fair in New York. The fair was planned to open in 1964 to coincide with the 25th anniversary of the 1939 World's Fair and the 300th anniversary of the city's naming (Borhanuddin et al. 2015: 13). As president of the New York World's Fair Corporation, Robert Moses proposed to reuse the original Beaux-Arts plan. The focal point of the 1939 World's Fair, the Trylon and Perisphere, was removed and replaced with a new symbol and centerpiece for the 1964 fair, the Unisphere. Unlike its predecessor, the 1964 World's Fair lacked any overarching design guidelines, so architects could design their buildings based on their preferences. The architectural variety of the new buildings coupled with the reuse of a few existing structures gave this Fair a more diverse appearance, tied together only by a spatial plan.



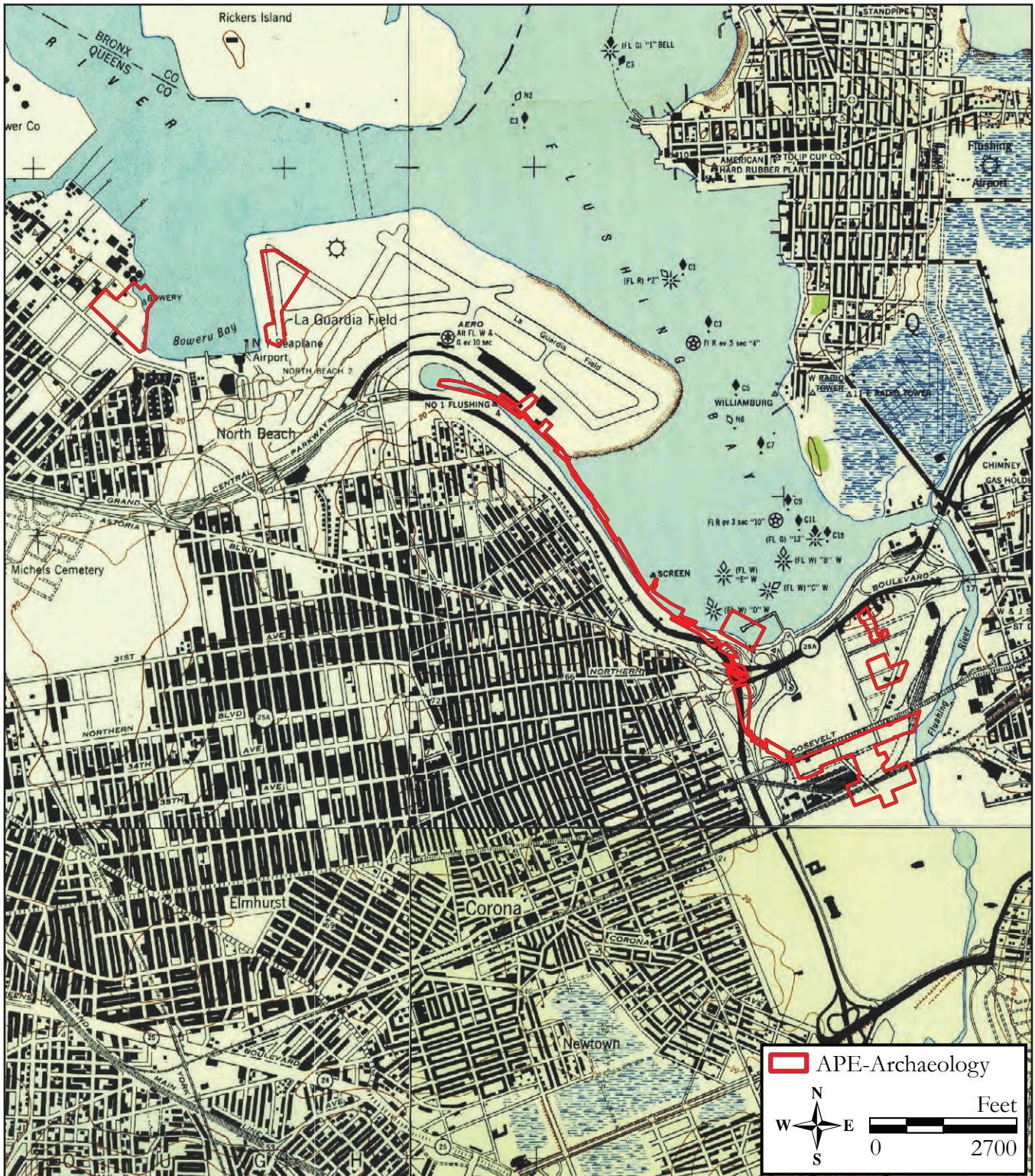


Figure 5.9: 1947 U.S.G.S. 7.5' Quadrangles: Flushing, NY; Jamaica, NY; Brooklyn, NY; and Central Park, NY.





Figure 5.10: 1951 historic aerial photograph  
(NETR 1951).  
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In preparation for the 1964 World's Fair, improvements were made to the main entrance at the northern portion of the park, including to the Mets-Willets Point Subway Station. The Passerelle Pedestrian Bridge, originally built for the 1939 World's Fair to convey visitors across Corona Yard from the subway and adjacent parking areas, was reconstructed during the early 1960s. The project involved the complete replacement of the superstructure and construction of the Passerelle Building (now the NYC Parks Administration Building) to the south of the bridge. To the north of the bridge and subway station, construction began on a new multi-purpose stadium for the New York Mets and the New York Jets sports teams (Figure 5.11). Dedicated in 1964, Shea Stadium served as the home park for the Mets until 2009, and the Jets played there until the early 1980s. A 1964 souvenir map of the World's Fair grounds provides an image of the elements falling within the APE-Archaeology (Figure 5.12). These included the extant Passerelle Bridge, plaza, entrance gate, and parking areas, and non-extant Singer Bowl and "House of Good Taste."

At the conclusion of the fair, some of the buildings and structures were retained as permanent fixtures in the park. In the vicinity of the APE-Archaeology, these resources include the Passerelle Pedestrian Bridge, Passerelle Bridge Pavilion, Main Gate Entrance, Passerelle Buildings, Porpoise Bridge, concrete arches, the former U.S. Post Office building, and two maintenance related building located near the northeast corner of the Park. In 1967, Flushing Meadows was returned to the city as a public park, renamed Flushing Meadows-Corona Park (Borhanuddin et al. 2015: 5). As with the 1939 World's Fair, 1964 World's Fair buildings were removed after the fair to at least four feet below the ground surface and clean fill placed on top (Panamerican Consultants, Inc. 2003: 3-56, Table 3.2).

Since the 1970s, the APE-Archaeology and vicinity have undergone changes to the built environment. Alterations within LGA include the construction of an existing parking garage and road network, Terminals C and D (now Terminal C), a new air traffic control center, and a pedestrian bridge (AECOM 2016:16). The Flushing Bay Promenade was built in the 1980s to enhance the Flushing Meadows-Corona Park and included grading and landscaping, fountains, benches, granite pavers and graphic panels (The City of New York 2019). At the south end of the APE-Archaeology in Flushing Meadows, the 1964 World's Fair's Singer Bowl was converted into two venues for the United States Tennis Association (USTA) in 1978. The two venues later underwent major renovations between 1995 and 1997, including the construction of a new stadium (AKRF 2019: 2-9). Today this complex is known as the USTA Billie Jean King National Tennis Center. In 2009, Shea Stadium was demolished and Citi Field, the current Mets baseball stadium, was constructed. The former location of Shea Stadium is currently used as a parking lot for Citi Field.

## 5.4 Historic Map Review

In the eighteenth century, the approximate location of the APE-Archaeology included portions that fall in the East River, Flushing Bay, Bowery Bay, wetlands associated with the river and bays, and uplands. Few roads were present and settlement was limited. Settlement can be seen in the villages of Newtown to the south and Flushing and Whitestone to the east as well as other upland locations; no development is documented in the APE-Archaeology at this time (see Figure 5.1; Martin 1779). An early road depicted on Martin's 1779 plan may be a portion of present-day Northern Boulevard or Flushing Avenue; this plan shows fortifications across the East River near Westchester and ships in the river guarding Manhattan (see Figure 5.1; Martin 1779).

Mid-nineteenth-century maps (see Figures 5.2 and 5.3; Sidney 1849; Dripps 1852) indicate that much of the APE-Archaeology falls within Flushing Bay at that time. On the western side of Bowery Bay, the Ingraham's Mountain site is on a low hill containing the residence of H. Riker. Parking Lot P10 fell in Bowery Bay until the twentieth century. The western linear terminus of the APE-Archaeology is characterized by low knolls or hills east of an unnamed tributary with a grist mill, near the residence of James T. Rapelye/Rappelye (see Figures 5.2 and 5.3). Another portion of the APE-Archaeology skirted the shoreline close to the mid-nineteenth-century residence of Peter A. Messerole (see Figures 5.2 and 5.3). To the east, the APE-Archaeology includes former uplands and intersects roads labeled on both maps as Flushing Avenue, Green Point Newtown & Flushing Plank Road, and Flushing Turnpike. The Sidney (1849) and Dripps (1852) maps show no structures in the vicinity of the georeferenced location of the APE-Archaeology. These maps show the D. Lent farm on uplands between Flushing Avenue and Green Point Newtown & Flushing Plank Road southwest of the APE-Archaeology. This farm property may have been the one occupied by the British during the American Revolution. To the east, the APE-Archaeology was comprised of wetlands associated with Flushing Creek.

Late nineteenth-century maps and atlases indicate that much of the APE-Archaeology intersects areas that were still inundated as part of Flushing Bay (see Figures 5.4 and 5.5; Beers 1873; Wolverton 1891). By 1873, the southeastern portion of the APE-Archaeology extends onto uplands near a coal yard of Lawrence Hesh, crossed Flushing Avenue, portions of Northern Boulevard, and the Woodside Railroad. On the Beers map, the APE-Archaeology for the northern Temporary Citi Field Replacement parking area falls on the existing Northern Boulevard and appears close to an upland knoll labeled St. Ronan's Well, also known as Yonker's Island (Panamerican Consultants, Inc. 2003: 3-64, Figure 15; Historical Perspectives, Inc. 1985: 12). In addition, a structure labeled J. Higgins stood adjacent to this portion of the APE-Archaeology by 1873. The APE-Archaeology for the southern Temporary Citi Field Replacement parking area to the east falls on a portion of the former Woodside Railroad while a southeastern portion of the APE-Archaeology comprising a portion of the proposed OMSF and parking areas falls on a portion of Flushing & North Side Railroad (see Figure 5.4; Beers 1873). The southernmost portion of the APE-Archaeology, which includes the proposed APM tracks and guideway and staging areas, skirted the residential community of Corona (see Figure 5.4). The 1891 Wolverton atlas (see Figure 5.5)





Figure 5.11: 1966 historic aerial photograph  
(NETR 1966).  
5-22



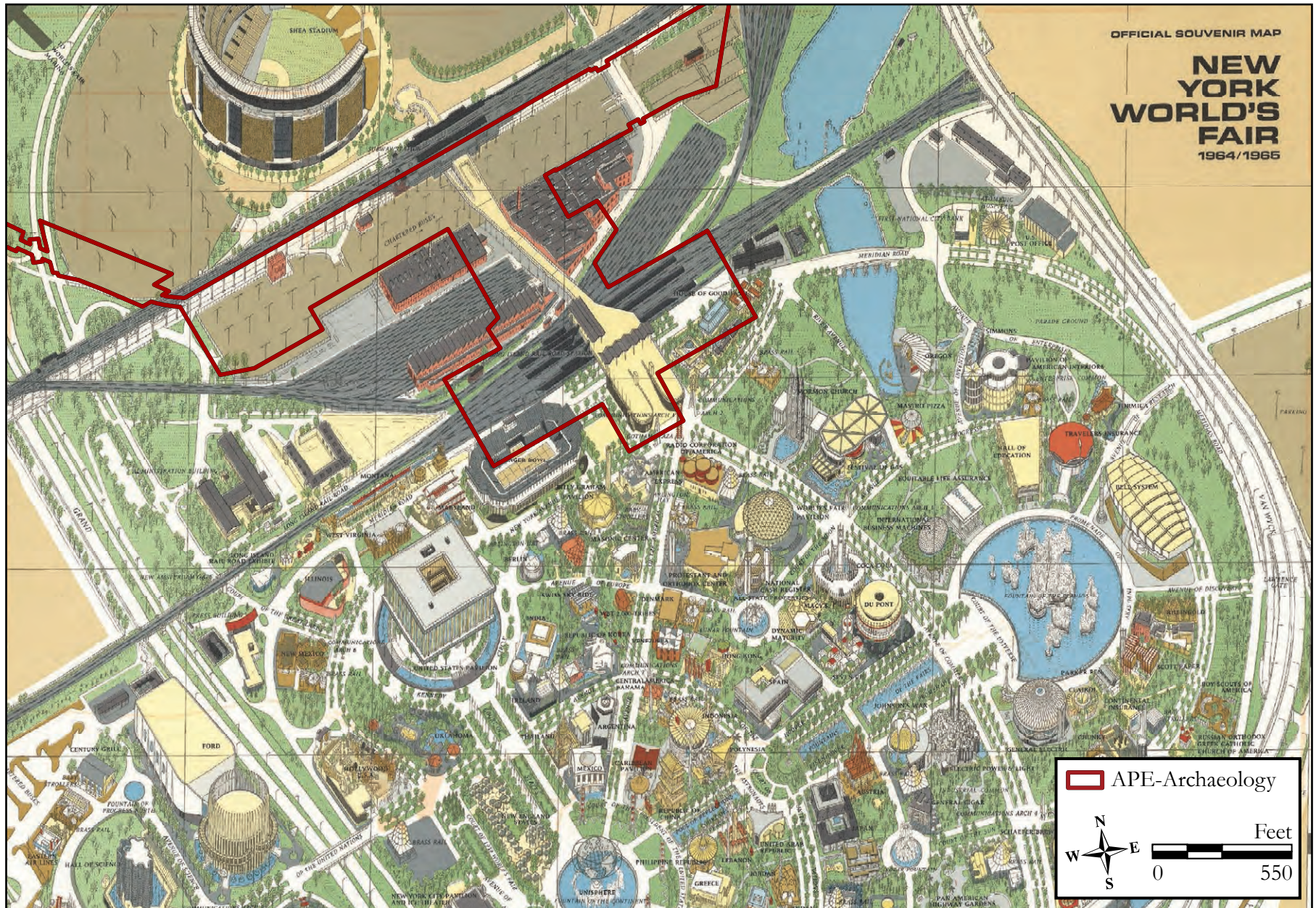


Figure 5.12: Official souvenir map of the 1964 New York World's Fair (Bollmann 1964).



depicts a similar layout. A portion of the APE-Archaeology for the proposed World's Fair Marina Relocation included a former hotel that stood on Astoria and Flushing Road along Flushing Bay. Historic shoreline reconstruction for the vicinity of LGA including western portions of the APE-Archaeology undertaken by AECOM (2016: 9, 13) suggests that much of the landform occupied by LGA did not exist until the early to mid-twentieth century and the approximate mid- to late nineteenth-century shoreline falls in the approximate location of the northern shoulder of the GCP.

Early twentieth-century atlases show a similar level of development to that of the late nineteenth century (see Figures 5.6 and 5.7a and b; Hyde 1903; Bromley and Bromley 1909). Both early twentieth-century atlases show the western portions of the APE-Archaeology largely within Flushing Bay. As on earlier maps, the western portion of the linear portion of the APE-Archaeology skirts uplands that are now part of LGA.

The 1903 atlas (see Figure 5.6) indicates that a portion of the APE-Archaeology containing the proposed APM tracks and guideway and staging areas (see Figures 2.1d and 2.1e) now includes existing shoreline, crossing laid out but unoccupied lots along the shoreline, and Flushing and Astoria, Jackson, and Park Avenues. Between Jackson and Park Avenues, the APE-Archaeology falls adjacent to a large building west of Coddington Place labeled Dr. Combs Sanitarium. The New York & Queens County Railway Company (labeled NY & Queens CO. RY. CO.) railroad ran along Jackson Avenue in 1903 (see Figure 5.6). The APE-Archaeology including the APM tracks and guideway and staging areas intersects the Flushing and Newtown Turnpike and Plank Road as they appear on this map, and skirts along the edge of Corona and Loudna Park crossing Meadow and Norfolk Streets and Grand and Evergreen Avenues. At Evergreen Avenue, undeveloped lots owned in 1903 by G. L. Elliot, Elizabeth J. Warren, Thomas Barroughs, Marie W. Galoupoean, M. Ritchie, and M. Ritcher falls within the APE-Archaeology. A residence and estate of George L. Elliot west of Summit Avenue is located west of this portion of the APE-Archaeology. Histories of the area indicate that summer residences or estates were present in the uplands along Flushing Bay by the late nineteenth century (e.g., Welles 1888). In this area, the APE-Archaeology, including the APM tracks and guideway, Passerelle Bridge, and parking areas, intersected another portion of the 1903 NY & Queens CO. RY. CO. railroad corridor and the North Division and Whitestone Branch of the Long Island Railroad (LIRR) corridor, as well as unnamed tributaries of the Flushing Creek and Flushing Bay. The APE-Archaeology for the northern Temporary Citi Field Replacement parking area falls on the Jackson Avenue Causeway (and railroad) and the undeveloped lands of Reynolds, Van Winkle, and E.C. Becker. The APE-Archaeology for the southern Temporary Citi Field Replacement parking area falls on an abandoned railroad, the former Woodside Railroad. The 1909 atlas is similar but not all of the property owners are named (see Figures 5.7a and b). Norfolk Street is renamed Apple Street and more structures and residences can be seen on streets near the APE-Archaeology although none fall in the APE-Archaeology. The NY & Queens CO. RY. CO. railroad appears on the 1909 atlas as the New York and Queens County Electric Railway (see Figures 5.7a and b).

A 1924 aerial photograph shows additional development, land filling, and clearing that had taken place since 1909 (see Figure 5.8; City of New York Board of Estimate and Apportionment 1924). West of Bowery Bay, two structures appear on a low hill that existed in the Ingraham's Mountain site, while the rest of Ingraham's Mountain had not been filled in and falls on low-lying farms or wetlands. The airport or airfield that preceded LGA is not present in 1924, but several piers extend into the Flushing Bay by that time. Most of the western portion of the APE-Archaeology is inundated and the southeastern portion crosses developed shoreline area, Jackson Avenue and previously described railroads. The southeastern portion of the APE-Archaeology still appears to contain wetlands bordering the LIRR branches to the east of Corona. The two Temporary Citi Field Replacement parking areas to the east were undeveloped save for the Jackson Causeway/railroad in the northern Temporary Citi Field Replacement parking area.

The site of the existing LGA was preceded by the Glenn H. Curtiss Airport/North Beach Airport originally constructed in 1929. The airport was expanded in 1937 by filling in more land, and was renamed the New York Municipal Airport. In 1947, it was renamed for the popular New York City Mayor Fiorello LaGuardia (AECOM 2016: 13). Historic 1935 and 1946 aerial photographs of the North Beach Airport show the evolution of the airport property and GCP, which was constructed in 1933, during this period (AECOM 2016: 13-14).

Mid-twentieth-century maps and aerial photographs indicate urban expansion occurring in and around the APE-Archaeology and a greater expansion of LGA and development of the former marshlands to the southeast. In 1947, a topographic quadrangle map shows the western limit of the APE-Archaeology including the AirTrain and staging areas that fall on dry land by then or the edge of the existing shoreline (see Figure 5.9; U.S.G.S. 1947). A structure and a driveway are located in the Ingraham's Mountain site on the west side of Bowery Bay. The landform containing Parking Lot P10 was added by 1947 (see Figure 5.9). An extensive road system existed by the mid-twentieth century and included the GCP, Astoria Boulevard, and Northern Boulevard (Route 25A) as well as Roosevelt Boulevard. Rail transport included the MTA and LIRR but the earlier New York and Queens and Jackson Avenue Railroad lines are no longer present by this time. The APE-Archaeology for the northern and southern Temporary Citi Field Replacement parking areas intersect existing streets with one to two large structures mapped within each of the parking areas. The built up shoreline in 1947 included the World's Fair Marina and a pier in the marina area. Although the first World's Fair was held in 1939 in Corona Park, the 1947 topographic quadrangle does not call it out as such. However, the World's Fair Marina is shown on the 1947 quadrangle map. A 1951 aerial image shows a similar level of development although a greater portion of the APE-Archaeology by then included reclaimed and built land (see Figure 5.10). The Temporary Citi Field Replacement and other parking areas, as well as the MTA, LIRR and World's Fair park areas appear more developed than in 1947. By 1966, the Ingraham's Mountain site appears to have been leveled and filled; unimproved driveways extend into the area. Adjacent to the Ingraham's



Mountain site, the bridge to Rikers Island was built by 1966 (see Figure 5.11). Former open water along LGA was filled in and the land form containing LGA is expanded (see Figures 5.10 and 5.11). More marina development including new boat slips were built along Flushing Bay. The highway network in the APE-Archaeology and to the east expanded by 1966 and included the construction of Interstate 678 and the Van Wyck Expressway. One notable development in the vicinity of the APE-Archaeology was the construction of Shea Stadium in 1964. The 1964 World's Fair development within the APE-Archaeology and the location of Shea Stadium and parking lots are shown on Figure 5.12.

The LaGuardia Airport Dike, a dike or breakwater approximately 2,800 feet long extending into the bay from the eastern end of LGA, was constructed in 1964. The LaGuardia Airport Dike was not considered to represent a NRHP-eligible historic resource and was slated for removal as part of the Flushing Bay Restoration project (Panamerican Consultants, Inc. 2003: 4-3). The upper surfaces of the dike were removed but it appears as extant in some aerial photographs and maps suggesting it is at the surface and remains visible at lower tidal conditions (NETR 1966, 1974, 1980, 1994, 2004, 2006, 2008, 2011, 2015; Google 2019; see Figures 1.1 and 1.2; Panamerican Consultants, Inc. 2003). An earlier circa 1880 4,663-foot-long dike was built on the west side of the Flushing Bay Navigational Channel (United States Army Corps of Engineers [USACE] 1897). The dike was not successful in preventing siltation and filling of the channel and was modified in 1888 to make it shorter (USACE 1897; Panamerican Consultants, Inc. 2003: 4-50). The USACE indicated that the Flushing Bay Channel was maintained by regular dredging to maintain its six-foot mean low water depth (USACE 1897: 1106). The dike was abandoned by the USACE in 1962 but work by Panamerican Consultants, Inc. (2003: Figure 80) indicates that portions of the 1880 dike may still exist north of the APE-Archaeology (Panamerican Consultants, Inc. 2003: Figures 87, 124, 125, 126, 127).

Shipwrecks are noted on historic navigational mapping presented by Panamerican Consultants, Inc. (2003: Figures 87, 124, 125, 126, 127). An examination of current NOAA shipwreck and obstruction mapping (NOAA 2019) did not show any wrecks in the lower Flushing Bay including the World's Fair Marina relocation site. Obstructions shown on the NOAA mapping include breakwaters near existing docking facilities, submerged ruins and a submerged pile close to the shoreline west of the World's Fair Marina and a pile ease of the World's Fair Marina (NOAA 2019). The depths range from one and two feet near the shoreline to six feet in the bay and channel (NOAA 2019).

Historic aerial photographs dating to the late twentieth century and twenty-first century indicate that much of the infrastructure and transportation system in the vicinity of the APE-Archaeology was built by 1980; the surrounding metropolitan area continued to evolve including the expansion of and changes to LGA, widening and expansion of Interstates 278 and 495 and GCP, and demolition of Shea Stadium and construction of Citi Field (NETR 1980, 1994, 2004, 2006, 2008, 2011, 2013, 2015; see Figure 1.3). The location of Parking Lot P10 was used as a runway until 1995 with partial parking shown by 1974 (NETR 1974, 1995). A parking lot was installed on the Ingraham's Mountain site in 2015 (NETR 2013, 2015). Between 2008 and 2015, there were numerous changes within LGA including the expansion of LGA runways and grounds into portions of Flushing Bay, changes to the main terminal building, removal of buildings, reconfiguration of roadways and parking areas (NETR 2008, 2011, 2013, 2015). The demolition of Shea Stadium and construction of Citi Field were underway by 2008 (NETR 2008).



## **6.0 ARCHAEOLOGICAL SURVEY**

### **6.1 Archaeological Survey Methods**

Fieldwork consisted of a pedestrian reconnaissance conducted by the Principal Investigator, Ilene Grossman-Bailey, and archaeologist Laura Cushman on June 20 and June 26, 2019 with additional overviews and photographs taken by Chelsea Troppauer and Lauren Szeber on June 14 and August 20, 2019 used to examine existing conditions within the APE-Archaeology and to aid in an assessment of archaeological sensitivity. The pedestrian reconnaissance included a visual examination of accessible portions of the APE-Archaeology. Representative portions of the APE-Archaeology were documented via photography and brief field notes. All survey notes and a complete set of digital photographs are on file and available at RGA's Cranbury, New Jersey office.

### **6.2 Pedestrian Reconnaissance**

The APE-Archaeology includes all locations where the Port Authority's Proposed Alternative direct impacts are proposed for the AirTrain/APM tracks and guideway, three APM stations, Mets-Willets Point LIRR station improvements, World's Fair Marina Relocation sites, demolition/replacement of the Passerelle Bridge, the OMSF, and areas proposed for parking and temporary storage or staging (Figure 6.1a-6.1f; see Section 2.1; see Figures 1.1-1.3 and 2.1a-2.1f). Topography within the APE-Archaeology and immediate vicinity is relatively flat with the exception of higher ground in the Ingraham's Mountain site parking area west of Bowery Bay. The following discussion proceeds from northwest to southeast and east within the APE-Archaeology.

The westernmost portion of the APE-Archaeology is the Ingraham's Mountain site west of Bowery Bay and adjacent to the bridge to present-day Rikers Island (Plates 6.1-6.6; see Figure 6.1b). This area is proposed for contractor parking. This area falls on a natural knoll or low hill on the west side of Bowery Bay that historic maps indicate contained the nineteenth-century H. Riker residence surrounded by wetlands (see Figure 5.2 and 5.3). During the twentieth century, this location appears to have been used for filling and deposition and was surfaced for parking in 2015 (NETR 2013, 2015). The Ingraham's Mountain site is gently to steeply sloped and is covered in woods and manicured grass (see Plates 6.1-6.6) with a long curved asphalt driveway extending from street level (see Plate 6.1 and 6.3) to a level asphalt-covered area atop the approximately 30-foot tall hill (see Plate 6.1). The Ingraham's Mountain site is currently in use for airport employee parking and construction storage and staging areas (see Plates 6.4-6.6). Along the driveway and along the steep hillslope, large rocks and boulders and other fill are present. The original knoll or hill landform had previously been altered by filling, leveling, and resurfacing; no evidence of the nineteenth-century landscape or H. Riker's residence shown on early nineteenth-century maps (see Figures 5.2 and 5.3) was noted.

Existing Parking Lot P10 is an elongated triangle 16.25 acres in size that is located on the eastern side of Bowery Bay on the west side of LGA. The parking lot currently provides 1,500 parking spaces to LGA employees (FAA 2019; see Figure 6.1b). This area is proposed for possible maintenance and storage facilities. This area fell in the waters of Bowery Bay on nineteenth and early twentieth century historic maps (see Figures 5.2-5.8). By 1947, the landform containing LGA had expanded to include the location of Lot P10 (see Figure 5.9). During the twentieth century, this location appears to have been used as an airport runway with part used for parking by 1974 and repurposed as a parking lot by 1995 (NETR 1966, 1974, 1980, 1995; see Figures 5.9-5.11). Parking Lot P10 is level and asphalt-covered and surrounded by fencing.

The portion of the APE-Archaeology that includes the limits of disturbance for the APM tracks and guideways, the Central Hall and East APM stations, and staging and parking areas extends from the Airport to the western end of the Flushing Bay Promenade. This portion of the APE-Archaeology begins along the south side of LGA along LaGuardia Road and entrance ramps to the airport north of the GCP. This portion of the APE-Archaeology extends approximately 3,600 feet within the LGA property (Plates 6.7-6.14; see Figure 6.1c). Extensive LGA construction activities were underway at the time of the pedestrian reconnaissance as part of unrelated LGA expansion and improvement projects and there was limited accessibility (see Plates 6.7-6.13). The western boundary of the APE-Archaeology within LGA includes the western terminus of the APM and the Central Hall APM Station as well as staging and parking areas (see Figure 6.1c). The Central Hall APM Station is proposed in the mapped location of a former parking area that was recently altered considerably due to current LGA improvement construction activities based on current aerial imagery (Google 2019). The APM route continues through LGA along existing roads and ramps and includes the East APM Station approximately 1,200 feet east of the Central Hall APM Station and a TPSS facility (see Plate 6.13). The western staging area once fell on natural uplands (see Figures 5.2-5.8; see Plate 6.7) and most of the LGA portion of the Project fell in the open waters of Flushing Bay until the mid-twentieth century when filling created the landform on which most of the Airport is situated (see Figures 5.8-5.11). However, in prior surveys conducted by AECOM (2013a, 2013b, 2016), Area 4, on the southeastern portion of the Airport (see Plate 6.14) that includes a portion of the APE-Archaeology, was considered part of the historic nineteenth-century shoreline and was assessed with moderate to high historic and moderate prehistoric archaeological sensitivity (AECOM 2013a, 2013b, 2016). Results of geotechnical borings referenced by AECOM (2016) indicate that 10 to 16 feet of fill is present in Area 4. It seems likely that construction efforts in LGA since 2016 have further impacted this landform (see Plate 6.14).





Figure 6.1a: Key map of Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Figure 6.1b: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph with photograph locations and angles (Ricondo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Figure 6.1c: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph with photograph locations and angles (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Figure 6.1d: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph with photograph locations and angles (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).



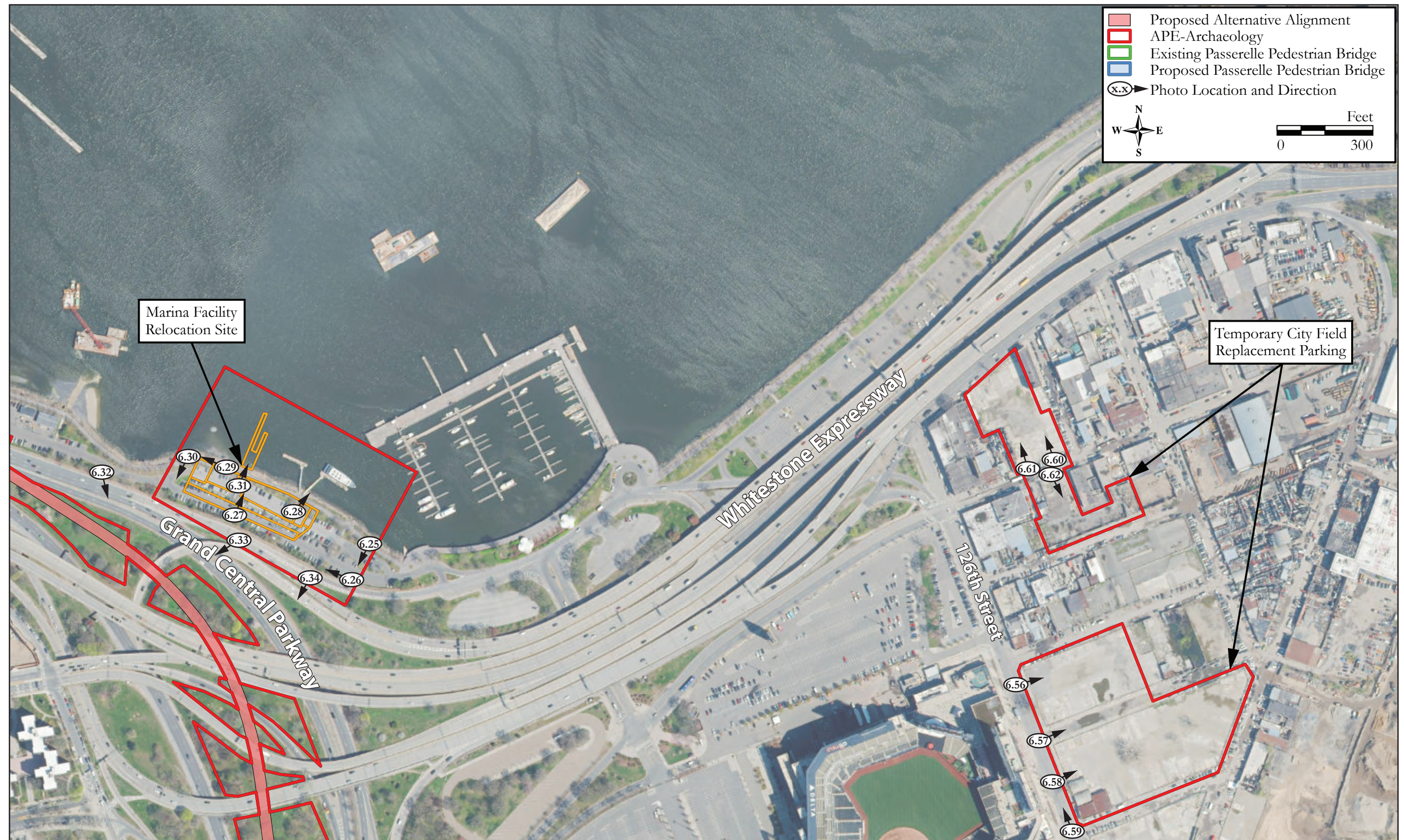


Figure 6.1e: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph with photograph locations and angles (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).



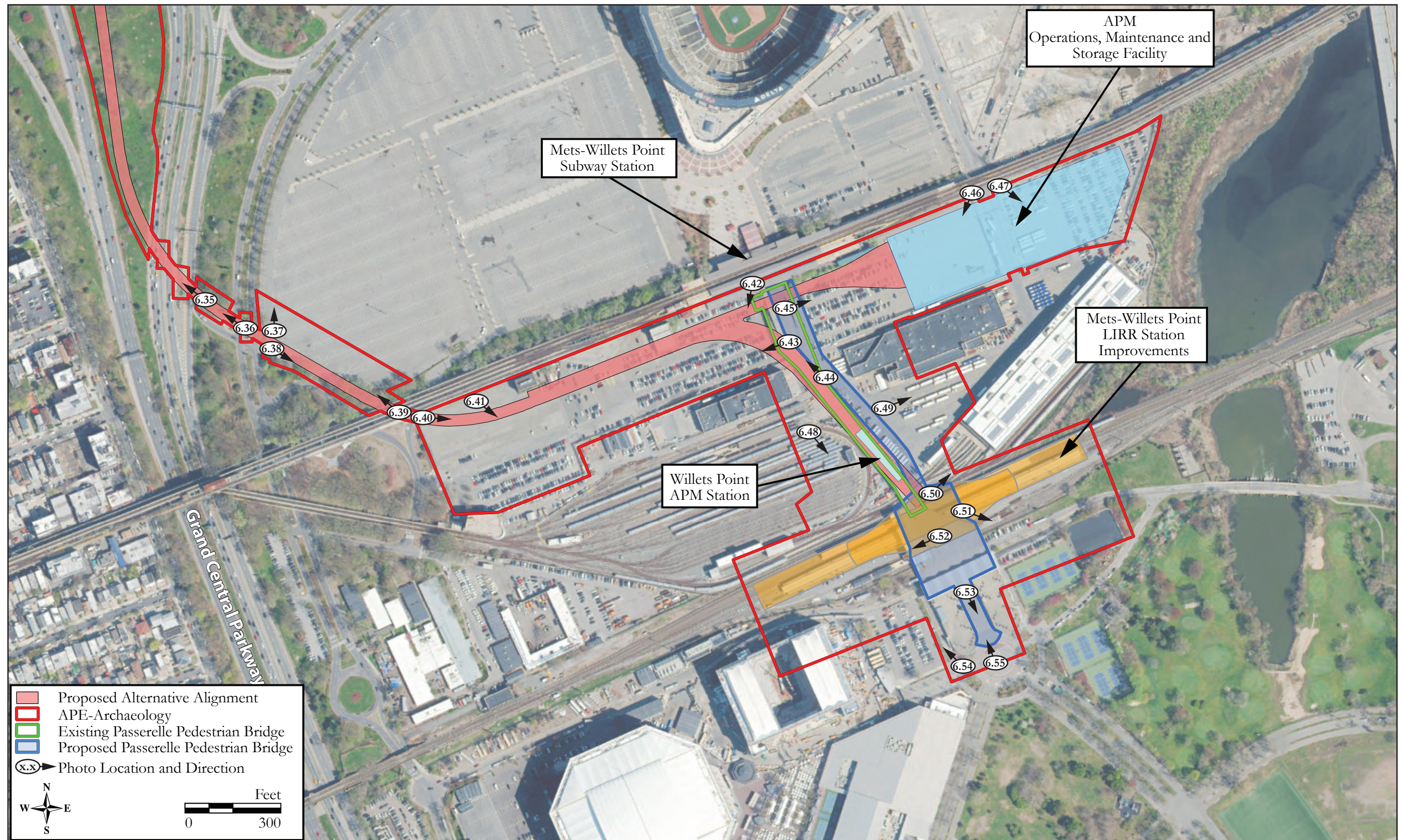


Figure 6.1f: Proposed Alternative direct project impacts (APE-Archaeology) overlaid on an aerial photograph with photograph locations and angles (Ricordo & Associates, Inc. 2019; World Imagery, ESRI 2019b).





Photo 6.1: Overview of the Ingraham's Mountain Site from Berrian Boulevard.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.2: Overview of the Ingraham's Mountain Site from 19th Avenue facing the bridge to Rikers Island.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.3: Ingraham's Mountain Site driveway.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.4: Ingraham's Mountain Site storage, staging, and parking areas.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.5: Ingraham's Mountain Site parking areas.

Photo view: Northeast

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.6: Ingraham's Mountain Site storage, staging, and parking areas.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.7: Overview of the western linear portion of the APE-Archaeology in LGA.

Photo view: East

Photographer: Laura D. Cushman

Date: June 26, 2019



Photo 6.8: Overview of the western linear portion of the APE-Archaeology in LGA.

Photo view: East

Photographer: Laura D. Cushman

Date: June 26, 2019





Photo 6.9: Overview of the proposed staging area in LGA.

Photo view: West

Photographer: Laura D. Cushman

Date: June 26, 2019



Photo 6.10: Overview of the proposed staging area in LGA.

Photo view: South

Photographer: Laura D. Cushman

Date: June 26, 2019





Photo 6.11: View of the western linear portion of the APE-Archaeology and the proposed staging area in LGA.

Photo view: West

Photographer: Laura D. Cushman

Date: June 26, 2019



Photo 6.12: View of the western linear portion of the APE-Archaeology and the proposed staging area in LGA.

Photo view: Northwest

Photographer: Laura D. Cushman

Date: June 26, 2019





Photo 6.13: View of a linear portion of the APE-Archaeology in LGA.

Photo view: Southeast

Photographer: Laura D. Cushman

Date: June 26, 2019



Photo 6.14: View of the eastern linear portion of the APE-Archaeology in LGA from a walkway over the GCP.

Photo view: Northwest

Photographer: Laura D. Cushman

Date: June 26, 2019





Photo 6.15: View of a linear portion of the APE-Archaeology at the western end of the Flushing Bay Promenade southeast of LGA.

Photo view: Southeast

Photographer: Laura D. Cushman

Date: June 26, 2019



Photo 6.16: View of a linear portion of the APE-Archaeology along the Flushing Bay Promenade.

Note, a service area is to the right.

Photo view: Southeast

Photographer: Laura D. Cushman

Date: June 26, 2019





Photo 6.17: View of a linear portion of the APE-Archaeology along the Flushing Bay Promenade.

Note, a service area is to the left.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019

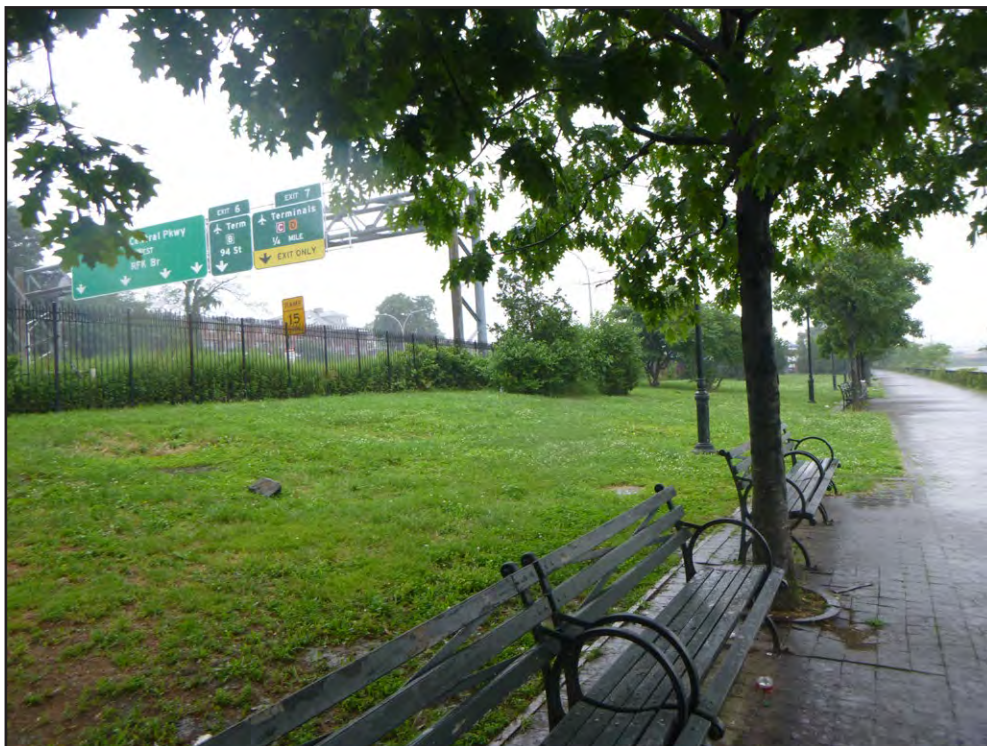


Photo 6.18: View of a linear portion of the APE-Archaeology along the Flushing Bay Promenade and GCP.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.19: View of a linear portion of the APE-Archaeology along the Flushing Bay Promenade facing a pedestrian bridge over the GCP.

Photo view: Southeast

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019

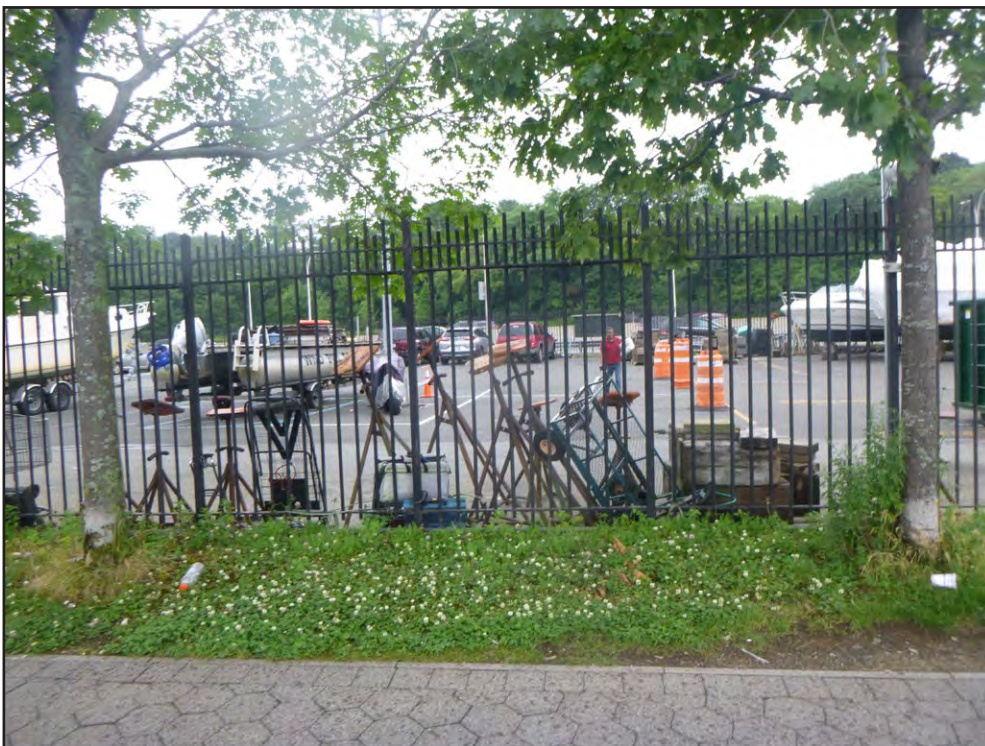


Photo 6.20: Portion of the World's Fair Marina boatyard.

Photo view: Southwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.21: Portion of the World's Fair Marina Restaurant along the Flushing Bay Promenade.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.22: Grounds of the World's Fair Marina Restaurant along the Flushing Bay Promenade.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.23: Portion of a boat dock along the Flushing Bay Promenade.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.24: View of and the historic finger pier and boatlift along the Flushing Bay Promenade.

Photo view: Northwest

Photographer: Lauren Szeber

Date: August 20, 2019



East of LGA, the APE-Archaeology for the APM tracks and guideway continues to the east along the Flushing Bay Promenade and GCP for approximately 3,000 feet (Plates 6.15-6.24; see Figures 6.1c and 6.1d). Project impacts include the APM route and parking and staging areas (see Figures 6.1c and 6.1d). The project impacts in this area fall within several existing landscape features. Close to Flushing Bay, impacts fall on portions of the existing promenade paths (see Plates 6.14-6.21), pedestrian bridge approaches (see Plates 6.14, 6.15, and 6.19), and landscaped level or sloped park areas (see Plates 6.14-6.23). Closer to the GCP, impacts fall on a GCP service road and a service station (see Plates 6.16 and 6.17). The APE-Archaeology for the APM tracks and guideway, World's Fair Marina relocation, staging, and parking falls on the existing World's Fair Marina office and boatyard facility, boat lift, dock, storage and parking areas (see Plate 6.20) and the World's Fair Marina Restaurant and Banquet Hall grounds (see Plates 6.21 and 6.22). An existing pier shown on a 1924 aerial photograph and boat dock were located west of the existing World's Fair Marina storage and parking area (see Plates 6.23 and 6.24; see Figure 5.8). As with the portions of the APE-Archaeology through LGA, this portion of the APE-Archaeology appears to have included open waters of Flushing Bay until the mid-twentieth century when it was filled in (see Figures 5.2-5.10). Background research indicated that the Flushing Bay Promenade with decorative elements such as tiles and plaques, granite blocks, benches, fountains, and railings was constructed in the 1980s as a complement to the Flushing Meadows-Corona Park (see Figure 5.11; The City of New York 2019; NETR 1980).

The APE-Archaeology for the proposed World's Fair Marina Relocation is approximately 1,600 feet southeast of the existing facility and includes a proposed World's Fair Marina office and boatyard facility, boat lift, dock, storage and parking areas in an area approximately 700 feet by 400 feet in area (6.4 acres) including onshore and offshore elements (Plates 6.25-6.31; see Figures 6.1d and 6.1e). The project impacts fall within portions of the existing promenade paths and landscaping (see Plates 6.26-6.27 and 6.29), and parking areas (see Plate 6.25-6.29 and 6.30), as well as an existing pier (see Plate 6.28). The terrestrial portion of the area is level and graded for a highway ramp located on the southern side along the GCP. Along the Flushing Bay Promenade, the shore line is currently stabilized with large boulders, rocks, and rip rap (see Plate 6.31). This portion of the APE-Archaeology also largely appears on historic maps and aerial photographs within Flushing Bay until the mid-twentieth century (see Figure 5.9). The southeastern corner of the APE-Archaeology for the proposed World's Fair Marina Relocation area was adjacent to an upland point of land containing a coal yard in 1873 (see Figure 5.4) and a hotel in 1891 (see Figure 5.5). It is possible that a portion of the APE-Archaeology includes a former natural upland that has been considerably altered and graded by highway ramps and a portion of a parking lot (see Plates 6.25 and 6.26).

East of the existing World's Fair Marina area, the APE-Archaeology including the APM and staging areas turns to the southeast crossing an interchange of existing highways including the GCP and Northern Boulevard and landscaped wooded or grass medians for approximately 2,500 feet (Plates 6.32-6.36; see Figures 6.1d and 6.1e). Proposed Project impacts include the APM route and parking and staging areas (see Figures 6.1d and 6.1e). This area was largely inaccessible during the pedestrian survey due to safety concerns; representative photographs provide an overview of the existing conditions. The topographic setting is varied and includes landforms that are level and sloped for highway ramps, medians, and shoulders. Due to highway construction, the landforms were graded and are now crossed by multiple highway lanes. Historic maps indicate that at the location where the APM tracks and guideway turn to the southeast (see Figure 6.1e), the APE-Archaeology extends onto what were extant uplands in the nineteenth century. The Port Authority's Proposed Alternative for the APM tracks and guideway then intersects a series of transportation corridors that still exist in part but have been developed and considerably altered since the nineteenth century (see Figures 6.1e and 6.1f). These include Flushing Avenue, Green Point Newtown & Flushing Plank Road, Flushing Turnpike and the Woodside Railroad (see Figures 5.2-5.4). Later in the nineteenth century and into the twentieth century, additional roads were built and the Proposed Alternative includes the eastern portions of Prospect and Cedar Streets that were mapped in 1891. It is possible that these roads had not yet been constructed by 1891 and existed only on maps (see Figure 5.5). In the early twentieth century, Prospect and Cedar Streets are referred to as Meadow and Norfolk/Apple Streets on historic maps. This portion of the Proposed Alternative does not include any mapped nineteenth-century structures (see Figures 5.2-5.5). By the twentieth century, the northern part of this portion of the APE-Archaeology appears on maps adjacent to and east of Dr. Combs Sanitarium between Park and Jackson Avenues in a portion of Corona and Loudna Park (see Figures 5.6, 5.7a, and 5.7b).

Continuing southeast and east of the GCP, the Proposed Alternative for the APM tracks and guideway and staging areas crosses 500 feet of the southwest corner of the current Citi Field parking area. It then turns east to bisect Roosevelt Avenue and MTA elevated tracks. After that the Proposed Alternative for the APM tracks and guideway and staging areas extends through existing parking areas south of Roosevelt Avenue for approximately 1,100 feet to the location of the existing Passerelle Bridge (Plates 6.37-6.43; see Figure 6.1f). The Project APM route branches to the east and southeast at this point (see Figure 6.1f). Project impacts within the Proposed Alternative include the APM route for which ground disturbance consists of intermittent 120-foot interval piers and parking and staging areas (see Figures 6.1f). The area is level and largely covered by asphalt in existing parking lots serving Citi Field (see Plates 6.37-6.39) and transportation stations (see Plates 6.40-6.42). Historic maps indicate that this portion of the Proposed Alternative extends through an area that was mapped as wetlands during the eighteenth and nineteenth centuries but which appears to have been filled or partly filled during the late nineteenth and early twentieth centuries. During that latter time period, the Proposed Alternative crossed the eastern end of Norfolk/Apple Street and Grand Avenue by 1891 and the NY & Queens Co. RY. Co. by 1903. However, this portion of the APE-Archaeology, as depicted on the 1924 aerial photograph, does not include historic map-documented structures (see Figures 5.2-5.8). By 1966, it included level parking areas for Shea Stadium and the World's Fair (see Figures 5.11 and 5.12).





Photo 6.25: View of the World's Fair Marina Relocation Area in a current parking lot.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.26: Southeastern corner of the World's Fair Marina Relocation Area in a current parking lot facing the GCP.

Photo view: West

Photographer: Laura D. Cushman

Date: June 26, 2019





Photo 6.27: View of the World's Fair Marina Relocation Area in a current parking lot.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.28: View of the World's Fair Marina Relocation Area facing existing piers.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.29: View of the western side of the World's Fair Marina Relocation Area along the Flushing Bay Promenade.

Photo view: West

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.30: View of the western side of the World's Fair Marina Relocation Area in a current parking lot.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.31: View of shoreline stabilization materials along the Flushing Bay in the World's Fair Marina Relocation Area.

Photo view: Northeast

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.32: Overview of a linear portion of the APE-Archaeology crossing Whitestone Expressway and the GCP.

Photo view: South

Photographer: Laura D. Cushman

Date: June 20, 2019





Photo 6.33: Overview of a linear portion of the APE-Archaeology crossing Whitestone Expressway and the GCP.

Photo view: Southwest

Photographer: Laura D. Cushman

Date: June 20, 2019



Photo 6.34: Overview of a linear portion of the APE-Archaeology crossing Whitestone Expressway, GCP, and Northern Boulevard.

Note, graded landscapes can be seen in the background under the overpass.

Photo view: Southwest

Photographer: Laura D. Cushman

Date: June 20, 2019





Photo 6.35: Overview of a linear portion of the APE-Archaeology crossing a GCP ramp.

Photo view: West

Photographer: Laura D. Cushman

Date: June 20, 2019



Photo 6.36: Overview of a linear portion of the APE-Archaeology crossing a GCP ramp.

Photo view: West

Photographer: Laura D. Cushman

Date: June 20, 2019





Photo 6.37: Overview of a linear portion of the APE-Archaeology crossing through the current Citi Field parking lot.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.38: Overview of a linear portion of the APE-Archaeology crossing through the current Citi Field parking lot.

Photo view: Northeast

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.39: Overview of a linear portion of the APE-Archaeology crossing through the current Citi Field parking lot.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.40: Overview of a linear portion of the APE-Archaeology crossing Roosevelt Avenue under the IRT line into a parking lot.

Photo view: Southeast

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.41: Overview of a linear portion of the APE-Archaeology running through a parking lot from Roosevelt Avenue/IRT line.

Photo view: East

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.42: Overview of a linear portion of APE-Archaeology running through a parking lot adjacent to the Mets-Willets Point Subway Station 7 west of the Passerelle Bridge.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.43: View of a linear portion of the APE-Archaeology through a parking lot west of the Passerelle Bridge.

Photo view: West

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.44: View of a linear portion of the APE-Archaeology bisecting the Passerelle Bridge at the entrance to the Mets-Willets Point Subway Station 7.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.45: View of a linear portion of the APE-Archaeology through a parking lot east of the Passerelle Bridge.

Photo view: East

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019

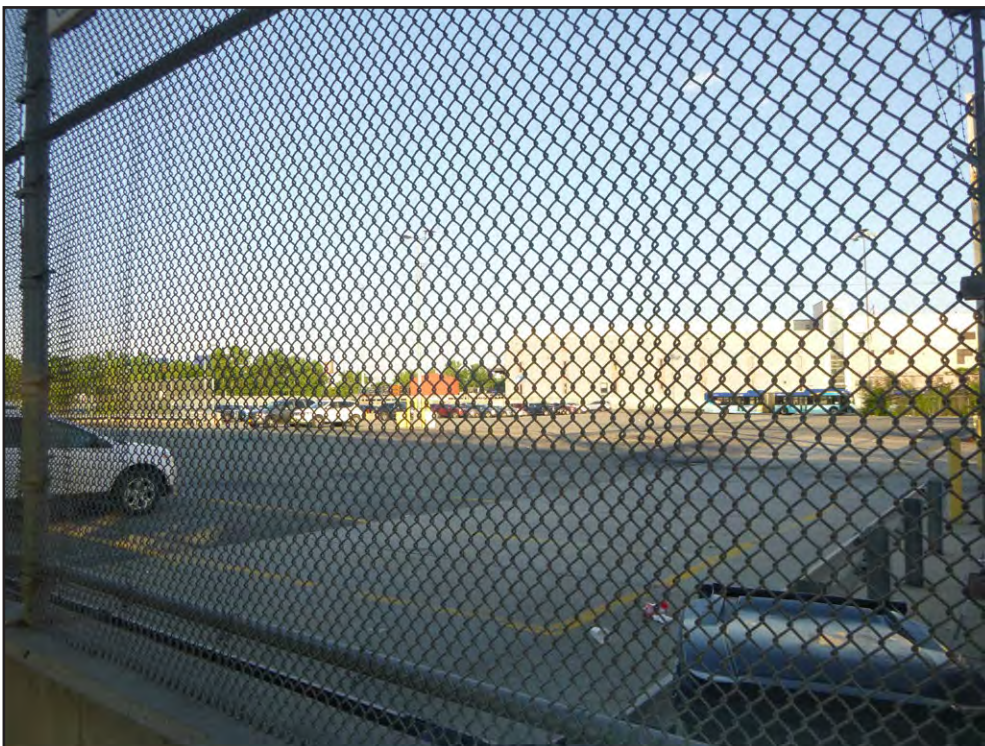


Photo 6.46: Location of the proposed OMSF in a parking lot.

Photo view: Southeast

Photographer: Laura D. Cushman

Date: June 26, 2019



Continuing to the east, the Port Authority's Proposed Alternative for the APM tracks and guideway and OMSF extends approximately 1,400 feet through existing parking areas south of Roosevelt Avenue, across the existing Passerelle Bridge, and terminating approximately 1,200 feet east of the Passerelle Bridge in the area of the proposed OMSF (Plates 6.44-6.47; see Figure 6.1f). Project impacts include the APM route, parking and staging areas, TPSS facilities, and the OMSF south of the intersection of Roosevelt Avenue and 126th Street (see Figure 6.1f). The area contains the NYCT MTA Subway Station and the existing wooden Passerelle Bridge (see Plate 6.44) but is otherwise level and largely covered by asphalt (Plates 6.45-6.47). Historic maps depict this portion of the APE-Archaeology as wetlands during the eighteenth and nineteenth centuries that were filled or partly filled in the late nineteenth and early twentieth centuries. This portion of the APE-Archaeology appears to have remained undeveloped in 1924 (see Figures 5.2-5.8). Roosevelt Avenue and the elevated tracks are shown on the U.S.G.S. 1947 topographic quadrangle (see Figure 5.9). The Passerelle Bridge was originally built in 1937 for the 1939 World's Fair and was rehabilitated in 1962 for the 1964 World's Fair (see Figures 5.10-5.12).

Continuing to the southeast, the APE-Archaeology for the APM guideway, Willets Point APM Station, Mets-Willets Point LIRR station improvements, and parking and staging extends approximately 1,200 feet southeast alongside and west of the Passerelle Bridge through existing parking areas, railroad yards, crossing the existing LIRR station and track, and terminating in Flushing Meadows-Corona Park (Plates 6.48-6.55; see Figure 6.1f). Project impacts include the APM route, parking and staging areas, replacement of the Passerelle Bridge, Willets Point APM Station, and improvements to the Mets-Willets Point LIRR station (see Figure 6.1f). The area includes the existing wooden Passerelle Bridge (see Plates 6.44, 6.48, and 6.49), parking lots, and the LIRR train station (see Plates 6.49, 6.50, and 6.52). At the southern end of the APE-Archaeology for parking and staging areas, Flushing Meadows-Corona Park features include pedestrian access ramps to the Passerelle Bridge (see Plates 6.53-6.55), public facilities (see Plates 6.53-6.55), and tennis courts (see Plate 6.51). Historic maps depict this portion of the APE-Archaeology as comprised of wetlands during the eighteenth and nineteenth centuries and was filled or partly filled in the late nineteenth and early twentieth centuries (see Figures 5.1-5.5). By 1873, the Flushing and North Side Railroad and a railroad branch bisected the APE-Archaeology (see Figures 5.4 and 5.5). The rail lines were later known as the North Side Division of the LIRR and the Whitestone Branch of the LIRR, respectively. Except for the rail lines, this portion of the APE-Archaeology was undeveloped in 1924 (see Figures 5.2-5.8). The Passerelle Bridge and other elements of the 1939/1964 World's Fairs remain extant at the southern terminus of the APE-Archaeology (see Figures 5.10-5.12).

Two large L-shaped parking areas proposed for Temporary Citi Field Replacement parking comprise the easternmost portion of the APE-Archaeology (Plates 6.56-6.62; see Figure 6.1e). These two areas are level and asphalt-covered with weedy vegetation. Both were recently cleared of prior twentieth-century commercial structures whose footprints appear on aerial photographs (see Figure 6.1e).

The southernmost Temporary Citi Field Replacement parking area (5.98 acres in area) is approximately 600 feet north of the proposed OMSF location and across 126th Street from Citi Field (see Plates 6.56-6.59). It is level with areas of flooding, deteriorating weed-filled asphalt, and concrete. It is bounded by 38th Avenue, Willets Point Boulevard, and 36th Avenue. Historic maps and atlases indicate that the southern parking area was comprised of wetlands during the eighteenth and nineteenth centuries (see Figures 5.1-5.4). By 1873, the northern boundary of the APE-Archaeology for this parking area (36th Avenue) included a portion of the Woodside Railroad. By 1891, the railroad was not mapped, and it is depicted as abandoned in 1903 and 1909 (see Figures 5.4, 5.5, 5.6, 5.7a, and 5.7b). This portion of the APE-Archaeology appears undeveloped in 1924 (see Figure 5.8). The bordering streets and two structures were present in 1947 (see Figure 5.9) and developed with urban structures in the later twentieth century (see Figures 5.10 and 5.11).

The northern Temporary Citi Field Replacement parking area (2.65 acres in area) is 250 feet further north extending from 35th Avenue to Northern Boulevard. It is bounded on one side by 126th Place and bisected by 34th Avenue/Shea Road (see Plates 6.60-6.62). The asphalt and concrete in this area is in poor condition. The northern parking area is on made land that was comprised of wetlands during the eighteenth and nineteenth centuries (see Figures 5.1-5.4). An 1852 map indicates that it was bisected by Green Point Newtown & Flushing Plank Road and was bordered by Flushing Avenue to the north at that time (see Figure 5.3). It was close to an upland knoll labeled St. Ronan's Well on the 1852 map, and adjacent to a structure labeled J. Higgins on the 1873 map (see Figure 5.4 and 5.5). A prior archaeological survey report concluded that the former uplands in the St. Ronan's Well area have potential archaeological sensitivity if natural land surfaces were present and soil borings in these areas were recommended (Historical Perspectives, Inc. 1985: 22). However, surface reconnaissance for the current Project indicates that any upland knoll or hill is no longer present due to filling or leveling, urban development, and the construction of the Whitestone Expressway (see Plate 6.60). Flushing Avenue is labeled as Astoria and Flushing Road by 1891, and then as Jackson Causeway in 1903 and 1909 (see Figures 5.5, 5.6, 5.7a, and 5.7b). This portion of the APE-Archaeology still appears undeveloped in 1924 except for the causeway (see Figure 5.8). Jackson Causeway was renamed Northern Boulevard by 1947, and 35th Avenue, 34th Avenue, and surrounding streets were in existence as that time (see Figure 5.9). Several large structures are shown on the U.S.G.S. 1947 quadrangle along North Boulevard, three of which stood within the APE-Archaeology for this temporary parking area. The bordering streets and two structures were present in 1947 (see Figure 5.9) and the lot was developed with urban structures later in the twentieth century (see Figures 5.10 and 5.11). The Whitestone Expressway was built between 1951 and 1966 (see Figures 5.10 and 5.11).

#### Disturbance

The APE-Archaeology lies within areas that have historically undergone extensive construction and land reclamation, shoreline construction, highway construction, and filling and grading as discussed above.





Photo 6.47: Location of the proposed OMSF in a parking lot.

Photo view: South

Photographer: Laura D. Cushman

Date: June 26, 2019

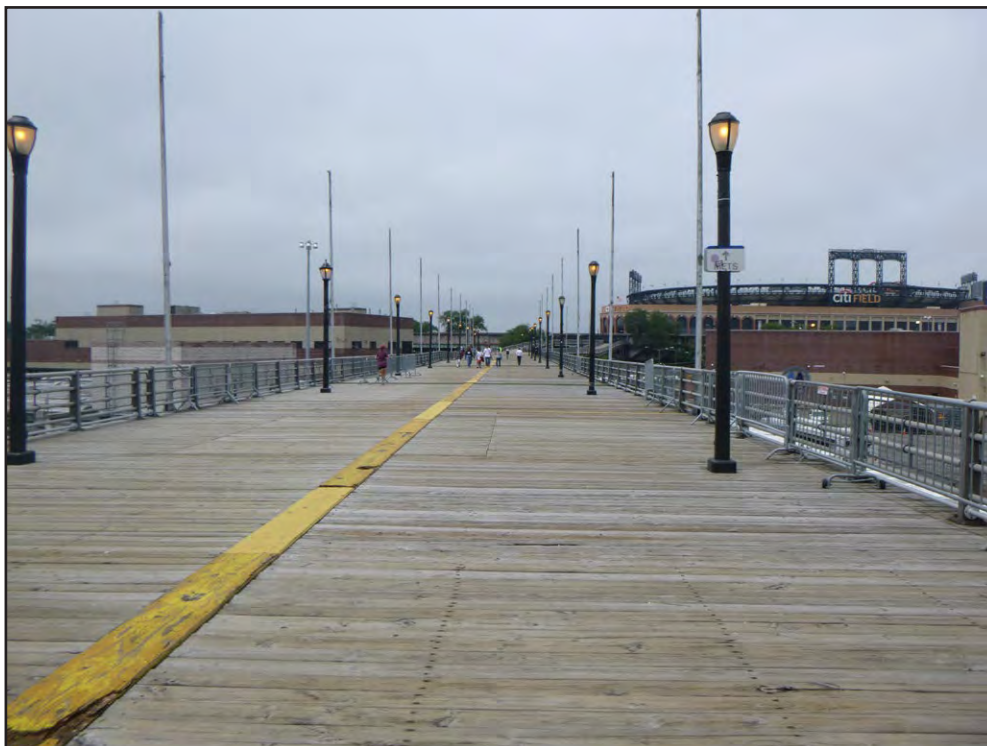


Photo 6.48: View of the location of the Passerelle Bridge proposed for replacement.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.49: View of a linear portion of the APE-Archaeology in a bus parking lot and LIRR terminal.

Photo view: East

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.50: Portion of the APE-Archaeology in a parking lot and LIRR terminal.

Photo view: East

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.51: Portion of the APE-Archaeology including tennis courts that are part of Flushing Meadows-Corona Park.

Photo view: Southeast

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.52: View of the LIRR station on the Passerelle Bridge.

Photo view: West

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.53: Portion of the APE-Archaeology in Flushing Meadows-Corona Park.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.54: Portion of the APE-Archaeology in Flushing Meadows-Corona Park.

Photo view: Southwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.55: Portion of the APE-Archaeology in Flushing Meadows-Corona Park.

Photo view: Northwest

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.56: Southern Temporary Citi Field Replacement parking area.

Photo view: East

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.57: Southern  
Temporary Citi Field  
Replacement parking area.

Photo view: East

Photographer: Ilene  
Grossman-Bailey

Date: June 20, 2019



Photo 6.58: Southern  
Temporary Citi Field  
Replacement parking area.

Photo view: East

Photographer: Ilene  
Grossman-Bailey

Date: June 20, 2019





Photo 6.59: View along 126th Street across from Citi Field.

Note, a southern Temporary Citi Field Replacement parking area is to the right.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.60: View of the Northern Temporary Citi Field Replacement parking area to the right.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019





Photo 6.61: View of the Northern Temporary Citi Field Replacement parking area to the right.

Photo view: North

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



Photo 6.62: View of the Northern Temporary Citi Field Replacement parking area to the right.

Photo view: South

Photographer: Ilene Grossman-Bailey

Date: June 20, 2019



### 6.3 Prehistoric and Historic Archaeological Sensitivity

The assessment of archaeological sensitivity considers the environmental setting, background research, and prior disturbances within the APE-Archaeology to identify locations likely to contain prehistoric and historic archaeological sites.

#### Sensitivity Assessment

An evaluation of archaeological potential is based upon environmental factors (topography and hydrology), the presence of recorded cultural resources in the files at the New York State Museum and the SHPO, a review of historic maps, and a site visit.

#### Prehistoric Resources Archaeological Sensitivity

There are eight previously recorded prehistoric archaeological resources within one mile of the APE-Archaeology (see Table 5.1). Historic documentary research indicated that this region, particularly the area surrounding Flushing Creek, East River and Flushing Bay, would have been attractive to prehistoric groups. Historically, the APE-Archaeology was located within open waters of the bay, low-lying salt marsh associated with Flushing Creek and Flushing Bay, as well as locations of natural uplands. Low-lying open water and wetlands/marshland portions of the APE-Archaeology and its vicinity have been significantly altered due to the land reclamation and filling activities associated with the construction and expansion of LGA; other transportation construction including roads, highways, and railroads; and the deposition and in-filling of the “Corona Dumps,” as well as urban development.

Natural uplands were noted in discrete portions of the APE-Archaeology based on historic maps and atlases and prior surveys that included soil boring data (see Figures 5.1-5.11). From west to east these include the natural upland or knoll now known as the Ingraham’s Mountain site where temporary parking is proposed (see Figure 6.1b), the western portion of the APE-Archaeology within LGA (see Figure 6.1c), a southeastern portion of LGA (AECOM’s [2016] Areas 4) (see Figure 6.1c), a southeastern portion of the proposed World’s Fair Marina Relocation (see Figures 6.1d and 6.1e), the historic shoreline directly south of the World’s Fair Marina where the proposed APM turns to the southeast and the northern portion of the northern Temporary Citi Field Replacement parking area (see Figure 6.1e). However, the results of the pedestrian reconnaissance suggest that these areas have been comprehensively disturbed by prior filling, in-filling, demolition, grading, landscaping, and construction. The Ingraham’s Mountain site was a natural hill or knoll adjacent to wetlands that appears to have been built up with fill, graded, and leveled. No ground disturbance is proposed for the Ingraham’s Mountain site, which will be used for staging and parking, its current use. The western and southeastern portions of the APE-Archaeology within LGA may have once been along or near a natural shoreline but due to extensive earthmoving construction activities and building noted during the pedestrian reconnaissance, these areas are considered unlikely to retain sensitivity for prehistoric archaeological resources. An examination of soil borings undertaken by AECOM (2016) in or adjacent to the APE-Archaeology noted eight to 30 feet of fill overlaying tidal mudflats along the shoreline. The historic upland in or adjacent to the southeastern portion of the proposed World’s Fair Marina Relocation has been altered and graded during GCP and other highway construction episodes. Similarly, portions of the APE-Archaeology to the south that may have fallen on historic shorelines are today the locations of major highways and transportation infrastructure (piers, access roads, signage, lighting, etc.). The northern portion of the northern Temporary Citi Field Replacement parking area fall on a landform historically mapped as Yonker’s Island/St. Ronan’s Well, a natural upland adjacent to wetlands. This area was assessed with moderate subsurface archaeological sensitivity by Panamerican Consultants, Inc. (2003: 3-14, Table 3.1). Grading, filling, urban development, and the construction of highways have reduced the prehistoric archaeological sensitivity of this area. No ground disturbance is proposed for the northern Temporary Citi Field Replacement parking area, which will be used for replacement parking. Although the prehistoric natural environment of this part of Queens would have been conducive to Native American settlement, all portions of the APE-Archaeology that were not formerly inundated are assessed with low sensitivity for intact prehistoric archaeological resources.

#### Historic Resources Archaeological Sensitivity

One previously recorded historic archaeological resource is within one mile of the APE-Archaeology. The John Bowne House (08101.011590) is a seventeenth- through nineteenth-century house of early English settlers (see Table 5.1). As mentioned above, the majority of the APE-Archaeology falls in the open waters of Flushing Bay and in portions of wetlands associated with Flushing Creek and its tributaries prior to the twentieth century. Based on the historic map review, background research, and a site file search, upland areas with documented structures present in or adjacent to the APE-Archaeology are limited and include the H. Riker residence formerly located on the Ingraham’s Mountain site (see Figures 5.2 and 5.3), the southeastern portion of the proposed World’s Fair Marina Relocation where a hotel, coal yard, and other structures were present (see Figures 5.4 and 5.5), and the Dr. Combs Sanitarium on an upland in 1903 where the APE-Archaeology turns to the southeast (Figures 5.6 and 5.7a and b). In the Northern Temporary Citi Field Replacement parking area, a structure labeled Higgins is map-documented as lying adjacent to the APE-Archaeology in 1873 (see Figure 5.4). The Northern Temporary Citi Field Replacement parking area fell on the natural upland Yonker’s Island/St. Ronan’s Well in the nineteenth century (see Figures 5.3-5.4). The APE-Archaeology also bisects early roads such as Flushing Avenue, Green Point Newtown & Flushing Plank Road, and Flushing Turnpike (see Figures 5.3-5.4) and railroads including the Woodside and North Side railroads (see Figures 5.4 and 5.5). The Woodside Railroad is depicted as abandoned on an 1891 map (see Figure 5.5).



In addition, the southeastern portion of the APE-Archaeology falls in a portion of the Flushing Meadows-Corona Park, which coincides with the northern portion of the 1939/1964 World's Fair grounds. Most of the portions of the APE-Archaeology in this area fall in locations of 1964 parking lots, including the location of the proposed OMSF (see Figure 5.12). This area was assessed with high historic sensitivity by Panamerican Consultants, Inc. (2003) due to the potential for resources related to the World's Fair. Subsequent to the two fairs, the buildings were removed to four feet below grade and covered with fill as part of the area's development as a park. Few 1939 or 1964 buildings existed in the APE-Archaeology (see Figure 5.12; Panamerican Consultants, Inc. 2003: 3-97, Figure 49). Some of the World's Fair structures such as the entrance gate and Passerelle Bridge remain extant. Other buildings such as the 1939 Home Building and the 1964 Singer Bowl and House of Good Taste are no longer extant. The Singer Bowl was converted into venues for the USTA that underwent major renovations between 1995 and 1997 (AKRF 2019: 2-9). However, proposed Project impacts in this area including parking, staging areas, replacement of the Passerelle Bridge and LIRR station renovations do not include below-ground disturbance within the former World's Fair grounds.

Offshore portions of the APE-Archaeology proposed for the World's Fair Marina relocation area were also part of an area assessed with high historic archaeological sensitivity by Panamerican Consultants, Inc. (2003) due to the presence of numerous shipwrecks and a circa 1880 dike. However, most of the shipwrecks are known for other portions of Flushing Bay; an examination of shipwreck and obstruction mapping maintained by NOAA (2019) does not indicate any shipwrecks or obstructions in the location of the offshore portions of the World's Fair Marina relocation area. The World's Fair Marina relocation area falls in a portion of the Flushing Bay Channel, which was maintained by regular dredging by the USACE to a depth of six feet beginning in the nineteenth century. The south shore of Flushing Bay was dredged to a depth of 6-12 feet in the 1930s and 1963/1964. The offshore portion of the World's Fair Marina relocation area contains current piers and boat docks and the shoreline is lined with large boulders and rip-rap. It is unlikely that any shipwrecks or archaeological remains are present.

As discussed above in the section on prehistoric archaeological sensitivity, prior impacts have lessened the archaeological sensitivity throughout the upland portions of the APE-Archaeology. Given that the Ingraham's Mountain site was filled, graded, and leveled, it is unlikely to retain sensitivity for historic resources related to the Riker house or occupation. The historic upland in the southeastern portion of the proposed World's Fair Marina relocation area that contained a hotel and coal yard has been altered and graded for GCP highway construction. The northern portion of the northern Temporary Citi Field Replacement parking area fell adjacent to the Higgins residence on the upland Yonker's Island/St. Ronan's Well but alteration due to grading, filling, urban development, and the construction of highways that has lessened the historic sensitivity of this area. Therefore, the APE-Archaeology is assessed with low sensitivity for intact historic archaeological resources.



## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

Richard Grubb & Associates, Inc., cultural resources subconsultants working on behalf of Ricondo & Associates, Inc. and the Federal Aviation Administration, completed a Phase IA Archaeological Survey to assist the FAA in compliance with Section 106 of the National Historic Preservation Act, as amended. The Phase IA Archaeological Survey assessed the prehistoric and historic archaeological sensitivity in the Area of Potential Effects for Archaeology (APE-Archaeology) for the Port Authority's Proposed Alternative.

The Phase IA Archaeological Survey methods consisted of background research, a site visit, a sensitivity assessment, and report writing. Based upon the available background information, historic mapping, environmental setting, and a site visit, it was concluded that the natural setting of the APE-Archaeology has been heavily altered and exhibits disturbance due to urban development from the mid-twentieth century to early twenty-first century. The disturbance includes filling, grading, demolition of older buildings and facilities, and construction for the LGA, highways, buried utilities, signage and infrastructure, Citi Field, and other urban development. The likelihood of extant significant archaeological resources within the APE-Archaeology is considered low. Based upon the results of the Phase IA Archaeological Survey, no further archaeological work is recommended.

The report and associated Geographic Information Systems shapefiles will be uploaded into the Cultural Resource Information System according to New York State Historic Preservation Office guidelines.



## **8.0 REFERENCES**

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# **APPENDIX A: SHPO CONSULTATION AND PUBLIC SCOPING COMMENTS**





## Parks, Recreation, and Historic Preservation

**ANDREW M. CUOMO**  
Governor

**ROSE HARVEY**  
Commissioner

December 27, 2018

Ms. Marie Jenet  
Environmental Specialist  
Federal Aviation Administration  
New York Airports District Office  
159-30 Rockaway Blvd, Suite 111  
Jamaica, NY 11434

Re:     **FAA**  
          **LaGuardia Air-Train**  
          **18PR05235**

Dear Ms. Jenet:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We have reviewed the EIS permitting timetable for the LGA AirTrain project. Our office's review should be completed under the provisions of Section 106 of the National Historic Preservation Act of 1966. Under this law, Federal Agencies are required to consult with our office regarding potential impacts to historic resources prior to undertaking a project, activity or program either funded, permitted, licensed or approved by their Agency. This review process should be considered as the permitting timetable is developed. Based upon review of the Preferred Alternative proposed by The Port Authority of New York & New Jersey and provided with the recent submission, we offer the following comments:

1. LaGuardia Terminals, C, D and Central Terminal have been determined to not be eligible for listing in the Federal Register of Historic Places. As such, our office will have no concerns with nearby construction.
2. Flushing Meadows-Corona Park has been determined eligible for listing in the National Register of Historic Places (see attached Resource Evaluation). This evaluation resulted from our federally funded Superstorm Sandy Disaster Relief grant to survey historic resources in selected communities on Long Island and New York City.
3. Please note that all components of the "Passerelle" including the pedestrian bridge that connects the park to the subway station and the LIRR, the zig-zag-roof pavilions, and the pair of brick buildings are considered contributing features of the eligible park. Functioning as both a transportation node and the formal entrance to the park, the Passerelle was designed by Andrews & Clark, an engineering firm, and Clarke &

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### Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • [www.nysparks.com](http://www.nysparks.com)

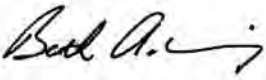


Rapuano, landscape architects, and is one of the few structures still remaining from the 1964 World's Fair. Attached is a historic image of the Passerelle showing the role of the structure as a vibrant pedestrian hub during the 1964 fair.

4. Our Archeology Unit continues to recommend a Phase 1A Archeological Survey in areas where ground disturbance is proposed.

If you have any questions, I can be reached at 518-268-2181.

Sincerely,



Beth A. Cumming  
Senior Historic Site Restoration Coordinator  
e-mail: [beth.cumming@parks.ny.gov](mailto:beth.cumming@parks.ny.gov)

via e-mail only

enc: Resource Evaluation  
Historic Image of the Passerelle

cc: D. Mackey





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Eastern Region, Airports Division

1 Aviation Plaza, Room 516  
Jamaica, NY 11434-4809

T: (718) 553-3330  
F: (718) 995-5615

June 17, 2019

Beth Cumming  
Senior Historic Site Restoration Coordinator  
Division for Historic Preservation  
New York State Office of Parks, Recreation & Historic Preservation  
Peebles Island State Park  
P.O. Box 189  
Waterford, NY 12188-0189

**VIA: OPRHP Cultural Resources Information System (CRIS) Upload**

**RE: Section 106 Initiation of Consultation, Area of Potential Effects, Consulting Parties,  
and  
Survey Methodology  
Phase IA Archaeological Survey and Historic Architectural Reconnaissance Survey  
LaGuardia Airport Access Improvement Project  
Borough of Queens, City of New York, New York  
OPRHP Project No. 18PR05235**

Dear Ms. Cumming,

The Port Authority of New York and New Jersey (Port Authority), as the operator of LaGuardia Airport (LGA or Airport), is proposing to improve access to LGA through the construction and operation of a new automated people mover (APM) AirTrain system (the proposed Project) to provide a time-certain transportation option for air passenger and employee access to LGA (Exhibit 1). The Port Authority's proposal would also ensure adequate parking for Airport employees through the construction of additional parking facilities.

Because the Project includes federal involvement, the undertaking is subject to Section 106 of the National Historic Preservation Act (NHPA), as amended and re-codified (54 United States Code [U.S.C.] § 306108), and its implementing regulations at 36 Code of Federal Regulations [CFR] § 800. The US Department of Transportation's Federal Aviation Administration (FAA), as lead federal agency for the undertaking, is responsible for ensuring compliance with Section 106, as well as the preparation of an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. § 4321 et seq.), and Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500-1508).



The purpose of this letter is to initiate formal Section 106 consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), which in New York serves as the office of the State Historic Preservation Officer (SHPO); delineate the proposed Project's Area of Potential Effects (APE); identify consulting and interested parties; and present proposed survey methodologies for a Phase IA Archaeological Survey and Reconnaissance-level Historic Architectural Survey in support of Section 106 compliance. Pursuant to 36 CFR § 800.2(a)(3), Richard Grubb & Associates, Inc. (RGA), cultural resources subconsultants working on behalf of Ricondo & Associates, Inc. (Ricondo), the prime environmental consultant for the FAA's EIS document, will conduct the required surveys.

Additionally, the FAA is using this letter to formally notify the SHPO that it intends to use the NEPA process for compliance with Section 106, as established by 36 CFR § 800.8(c). The FAA's intent to use this process was first established in the Notice of Intent for the EIS published in the Federal register on May 3, 2019 (84 Fed. Reg. 19151).

### **Project Description**

The Port Authority has identified a proposed alternative for the Project, which the FAA will assess along with other possible alternatives during the alternatives screening process. The Port Authority's preferred alternative encompasses the following Project components:

- construction of an elevated dual-lane fixed guideway APM system approximately 2.3 miles in length that extends from the LGA Central Hall (Terminal B) Building (currently under unrelated construction) to the Metropolitan Transit Authority (MTA) Long Island Railroad (LIRR) Mets-Willets Point Station and the New York City Transit (NYCT) 7 Line Mets-Willets Point Station;
- construction of two on-Airport APM stations (Central Hall [Terminal B] APM Station; East [Terminal C and East Garage] APM Station);
- construction of one off-Airport (Willets Point) APM station at Mets-Willets Point that provides connections to the Mets-Willets Point LIRR and NYCT 7 Line stations;
- construction of a multi-level above ground APM operations, maintenance, and storage facility (OMSF) with integrated garage for 500 Airport employee parking spaces and replacement parking for Citi Field parking spaces that would be affected by the Proposed Action
- construction of passenger walkway systems compliant with the Americans with Disabilities Act to connect the APM stations to the Airport passenger terminals, ground transportation facilities; and parking facilities at the OMSF;
- construction of three traction power substations to provide power to the APM guideway: one located at the on-Airport East APM Station, another at the Willets Point APM Station, and the third at the OMSF;
- construction of a 27kV main substation located adjacent to the OMSF structure on MTA property; and



- construction of utilities infrastructure, both new and modified, as needed, to support the proposed Project.

The proposed Project also includes various enabling projects and connected actions, consisting principally of: utility relocation and demolition of certain existing facilities; construction of temporary parking facilities; demolition, reconstruction and/or relocation of the previously identified National Register of Historic Places (NRHP)-eligible Passerelle Bridge (USN 08101.012570), a contributing element to the NRHP-eligible Flushing Meadows-Corona Park (USN 08101.012611); modifications to the MTA LIRR Mets/Willets Point Station, including service changes on the LIRR Port Washington Line; and the relocation of several Flushing Bay Marina facilities, including a boat lift, Marina office, and boat storage.

The elevated fixed guideway, APM stations, and OMSF would vary in height, depending on conditions and required clearances. The guideway would be supported on circular columns at intervals of approximately 120 feet on average and constructed using typical common deep pile foundation systems, including drilled shafts and tapertube piles. Overall, the guideway would range in height approximately 45 to 85 feet above sea level, corresponding to approximately 30 to 75 feet above grade. The standard width of the dual-lane guideway would measure 35 feet and diverge at the APM stations to accommodate station platforms. The tops of the on-Airport APM station facilities would measure approximately 102 feet in height. The tops of the Willets Point APM Station and OMSF facility would stand approximately 106 feet in height.

### **Previous OPRHP Coordination**

On August 18, 2018, the FAA initiated project review for the LGA Access Project (Project No. 18PR05235) utilizing the OPRHP's online Cultural Resources Information System (CRIS). In electronic correspondence between R. Daniel Mackay of the OPRHP and myself dated August 29, 2018, the OPRHP outlined the need for both archaeological and historic architectural surveys. Additional correspondence between Beth Cumming (OPRHP) and Marie Jenet (FAA) on December 27, 2018, addressed OPRHP review periods and previously recorded historic resources within the vicinity of the Port Authority's proposed Project, including LGA Terminals B (Central Terminal) and C and D (Delta Terminal); Flushing Meadows-Corona Park; and the contributing Passerelle Bridge, pavilions, and related buildings. The above information was reiterated in additional electronic correspondence dated March 8, 2019, between Beth Cumming and Stephen Culberson of Ricondo. With FAA approval, RGA held an informal conference call on April 9, 2019, with OPRHP project reviewers Nancy Herter (archaeology) and Kathy Howe (historic architecture) to discuss the Port Authority's proposed Project, to review OPRHP survey and reporting requirements, and discuss likely approaches for cultural resources studies for the Project. This discussion touched on the following general topics:

- previously completed cultural resources investigations carried out in the vicinity of the proposed Project;
- shoreline disturbance and the potential for the presence of pre-contact or historic archaeological buried or submerged deposits;
- previously recorded National Register of Historic Places (NRHP)-listed and/or eligible historic properties, previously recorded unevaluated resources, and previously recorded resources determined not eligible for listing in the NRHP;



- OPRHP resource identification preferences permitting professionally qualified architectural historians to choose which resources to record and evaluate based on their potential to meet the NRHP integrity criteria;
- OPRHP survey preferences utilizing three digital photographs; and
- OPRHP reporting preferences utilizing brief historic contexts; focused discussions on existing resources, figures, tables; and preliminary recommendations for further work and NRHP eligibility.

### **Area of Potential Effects**

Under Section 106, the APE is defined in 36 CFR § 800.16(d) as follows: “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” Historic properties are defined as cultural resources listed in or eligible for listing in the NRHP.

The initial APE has been developed to assess the Port Authority’s identified proposed alternative for the Project. The APE may change as the FAA progresses through the alternatives screening process and considers alternatives to carry forward for analysis. The initial APE is based on the proposed work activities and their potential to affect cultural resources, including potential direct and indirect visual effects caused by the construction and operation of the proposed project. Direct effects may include physical damage or destruction of a resource or its setting. Indirect effects may include the introduction of visual, audible, or atmospheric elements that alter the characteristics of a historic property that qualify it for inclusion in the NRHP.

### *APE-Archaeology*

The initial proposed APE for Archaeological Resources (APE-Archaeology) currently comprises the area that would be directly affected by ground disturbances from construction of the Port Authority’s proposed Project. It includes the expected limits of disturbance for the proposed APM stations, guideway, OMSF, access roads, traction power substations, Flushing Bay Marina facilities relocations, temporary and permanent parking areas, and construction staging and laydown areas. Because project plans remain in the early stages of development, and areas of direct physical disturbance have not been fully identified, the APE-Archaeology is likely to change. The APE-Archaeology appears in Exhibit 2.

### *APE-Architecture*

The initial proposed APE for Architectural Resources (APE-Architecture) includes the area in which the proposed Project may directly or indirectly cause changes in the character or use of historic properties. The portion of the APE-Architecture in which the proposed Project may cause direct physical impacts includes all locations subject to ground-disturbing activities (consisting of the APE-Archaeology). To account for potential indirect visual or contextual effects, the APE-Architecture extends beyond the actual construction limits to include those properties that may be impacted by visual changes, patterns of use, or may experience a change in historic character associated with the construction of the proposed Project.



The Port Authority's proposed Project would extend along the edge of the Grand Central Parkway (GCP) and Flushing Bay. The GCP in this location runs approximately at sea level. A high bluff rises immediately to the west, which is densely developed with primarily twentieth-century residential properties, mainly along the east side of Ditmars Boulevard. Moving to the west side of Ditmars Boulevard, the density of the development, intervening construction, and existing vegetation limits visibility of the proposed guideway, except for certain areas along several cross streets. Accordingly, the proposed APE-Architecture has been delineated to account for potential indirect visual effects along the east side of Ditmars Boulevard, portions of several cross streets, and various open areas with possible views of the guideway.

As the alignment rises to cross the interchange of the GCP and Northern Boulevard and the 7 Line, the proposed APE-Architecture expands outward to account for potential increased visibility further afield. Again, development density, intervening construction, building heights, vegetation, and the optical effects of distance and diminishing perspective, serve to limit the proposed APE Architecture in this area to properties fronting on the GCP, several cross streets, and miscellaneous open areas with possible views of the guideway.

Generally, resources not likely to fall within the direct line of sight of the proposed guideway are excluded from the APE-Architecture, subject to verification in the field. Resources located partially within the viewshed or adjoining a line-of-sight boundary are generally included in the APE out of an abundance of caution.

Regarding the previously identified NRHP-eligible Flushing Meadow-Corona Park (USN 08101.012611), the size of this historic property is such that including the entire park property within the proposed APE-Architecture would extend the survey boundaries well beyond the limits of the proposed Project's potential indirect visual effects. Accordingly, the APE-Architecture boundary line has been drawn to provide a substantial buffer around the proposed Project elements, including the nearest previously identified contributing elements, but does not embrace the entire park property. Because a large portion of the park is included inside the proposed APE-Architecture, any impacts to the park as a whole would be addressed as part of the overall architectural survey effort.

With respect to temporary parking facilities proposed to be located to the east of Citi Field, these areas are currently undergoing unrelated demolition and construction. Because the expected impacts are temporary and limited to parking, with little potential for indirect effects, the APE-Architecture has been delineated to include a buffer extending one lot out from the proposed parking area. A discontinuous parking area, called the Ingraham's Mountain site, currently functions as a parking lot. Here, the APE-Architecture is defined as the parking area only.

Finally, the proposed Project includes plans to relocate an existing boat launch and related marina facilities to a new location along the Flushing Bay shoreline. The elevated portions of the adjoining Northern Boulevard/Whitestone Expressway (I-Route 678) create a strong physical and visual buffer from neighboring areas to the south and therefore provides reasonable and justifiable boundaries for the APE-Architecture near the proposed marina area. The APE-Architecture appears in Exhibit 3.



### **Consultation and Public Involvement**

In addition to the FAA, the Port Authority, and the OPRHP, other consulting parties include local governments, federally recognized Indian tribes, and invited individuals and organizations with a demonstrated interest in the undertaking. The FAA has identified entities that may be invited to participate in the Section 106 process for the undertaking as consulting parties. In accordance with 36 C.F.R. § 800.3, FAA is providing the attached preliminary list of invited consulting parties for your review (see Attachment). The FAA will coordinate with other consulting parties once it completes its alternatives screening process and finalizes its APE for all selected alternatives. The FAA's public involvement responsibilities under Section 106 will be conducted as part of its public outreach efforts under the concurrent NEPA EIS process.

### **Phase IA Archaeological Survey Approach**

The purpose of the Phase IA Archaeological Survey is to assess the potential for the presence of archaeological sensitivity within the APE-Archaeology for the Port Authority's proposed alternative and any additional alternatives advanced for analysis.

RGA will coordinate common tasks associated with the Phase IA Archaeological Survey and Reconnaissance-level Historic Architectural Survey to maximize efficiency and avoid duplication of effort. Examples of tasks to be completed in support of both surveys include:

- Review of previous cultural resources investigations inside the APEs, including survey reports and survey records contained in CRIS;
- Background research using primary and secondary resources, including, but not limited to, the CRIS database, regional and local libraries, museums, historical societies, local informants, online sources, and other pertinent sources to develop an appropriate historic context commensurate with the undertaking and emphasizing existing resource types; and
- GIS mapping, graphics production, and technical editing.

To complete the Phase IA Archaeological Survey, RGA will complete the above, as well as consultation with local, regional, and state level archaeological and historic preservation groups and organizations; a review of historic atlases and maps; a review of existing environmental conditions and landscape modifications which could affect the preservation of historic and prehistoric archaeological resources; a site visit and visual inspection to document existing conditions; an assessment of the potential for prehistoric and historic archaeological resources; and preparation of recommendations regarding the need for a further archaeological survey (i.e. Phase IB archaeological survey) or no further survey.

### **Reconnaissance-level Historic Architectural Survey Approach**

The purpose of the Reconnaissance-level Historic Architectural Survey is to identify all resources over 45 years of age (according to FAA practice), within the APE-Architecture for the Port Authority's proposed alternative and any additional alternatives advanced for analysis, and to provide preliminary evaluations of the same for eligibility for listing in the NRHP.

The architectural survey includes a revisit of all previously identified NRHP-listed and eligible historic properties and all previously identified but unevaluated resources to assess or reassess NRHP eligibility based on existing conditions. It also identifies and documents all previously unrecorded above ground architectural resources 45 years of age or older and evaluates their eligibility for listing in the NRHP.



In order to locate previously recorded historic resources, RGA will conduct a desktop analysis within the APE-Architecture utilizing the OPRHP's CRIS and NRHP online databases. Previously identified resources listed in the CRIS system but determined not eligible will be identified as part of the survey due diligence but will not be re-examined as part of this investigation.

Preparatory to fieldwork, RGA will compare historic aerial photographs, 1960s-1970s-era USGS maps, and modern aerial photographs to accurately predict and pre-map the locations of resources over 45 years of age (pre-1974) requiring survey. Building ages will be confirmed or corrected in the field based on a combination of visual observations, stylistic evidence, construction materials, historic photographs, personal communications with property owners, and the City of New York tax assessor's records.

Each resource will be documented via digital photography and brief field notes to record forms, styles, current conditions, and locations. In cases of potential historic districts, the reconnaissance survey will record all potential contributing elements within justifiable district boundaries. If the identified boundaries of a potential historic district extend outside the APE-Architecture, the architectural survey will identify an overall district boundary, but will limit survey efforts only to resources located inside the APE-Architecture.

Ordinarily, the OPRHP allows qualified architectural historians to make informed decisions in the field about which newly identified resources warrant recording and evaluation. For this Project, however, RGA will locate, photograph, and tabulate all resources over 45 years in order to demonstrate full survey coverage of the APE-Architecture. A table of newly identified resources will serve as the survey base line and form an appendix in the survey report. From this table, RGA will then identify specific resources for NRHP evaluation based on their potential significance and level of integrity. Only those resources selected for detailed analysis will be plotted and uploaded separately into CRIS and evaluated for eligibility. All surveyed resources will be presented in tables accompanying the finished report.

If you concur with the recommended initial boundaries for both the APE-Archaeology and APE-Architecture, the list of potential consulting and interested parties, and the proposed survey approaches, kindly indicate your acceptance at your earliest convenience. If you have any questions or need additional information about this undertaking, please do not hesitate to contact me by email at [andrew.brooks@faa.gov](mailto:andrew.brooks@faa.gov) or by phone at 718-553-2511.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andrew Brooks", with a stylized flourish at the end.

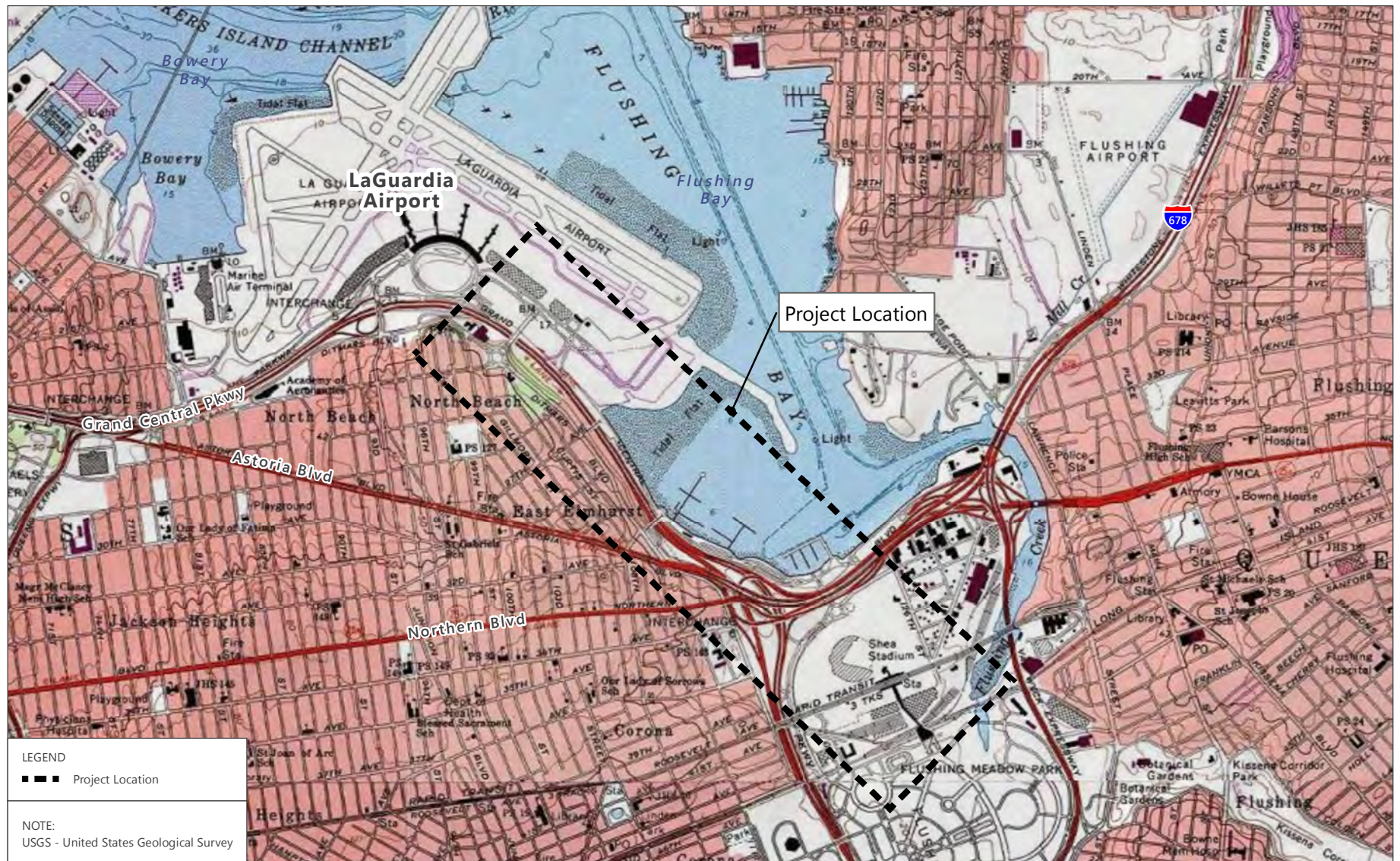
Andrew Brooks  
Environmental Program Manager



Attachments: Exhibit 1: Project Location (Uploaded separately via CRIS)  
Exhibit 2: APE-Archaeology (Uploaded separately via CRIS)  
Exhibit 3: APE-Architecture (Uploaded separately via CRIS)  
List of Consulting Parties

cc: Marie Jenet, FAA  
S. Stokely, ACHP





SOURCES: Port Authority of New York & New Jersey, LGA Access Improvement Project Purpose and Objectives and Analysis of Alternatives Report, October 2018; USGS Topographic Map, ESRI, National Geographic Society, i-cubed, 2019 (basemap); Ricondo & Associates, Inc., June 2019.

**EXHIBIT 1**

PROJECT LOCATION USGS TOPOGRAPHIC MAP

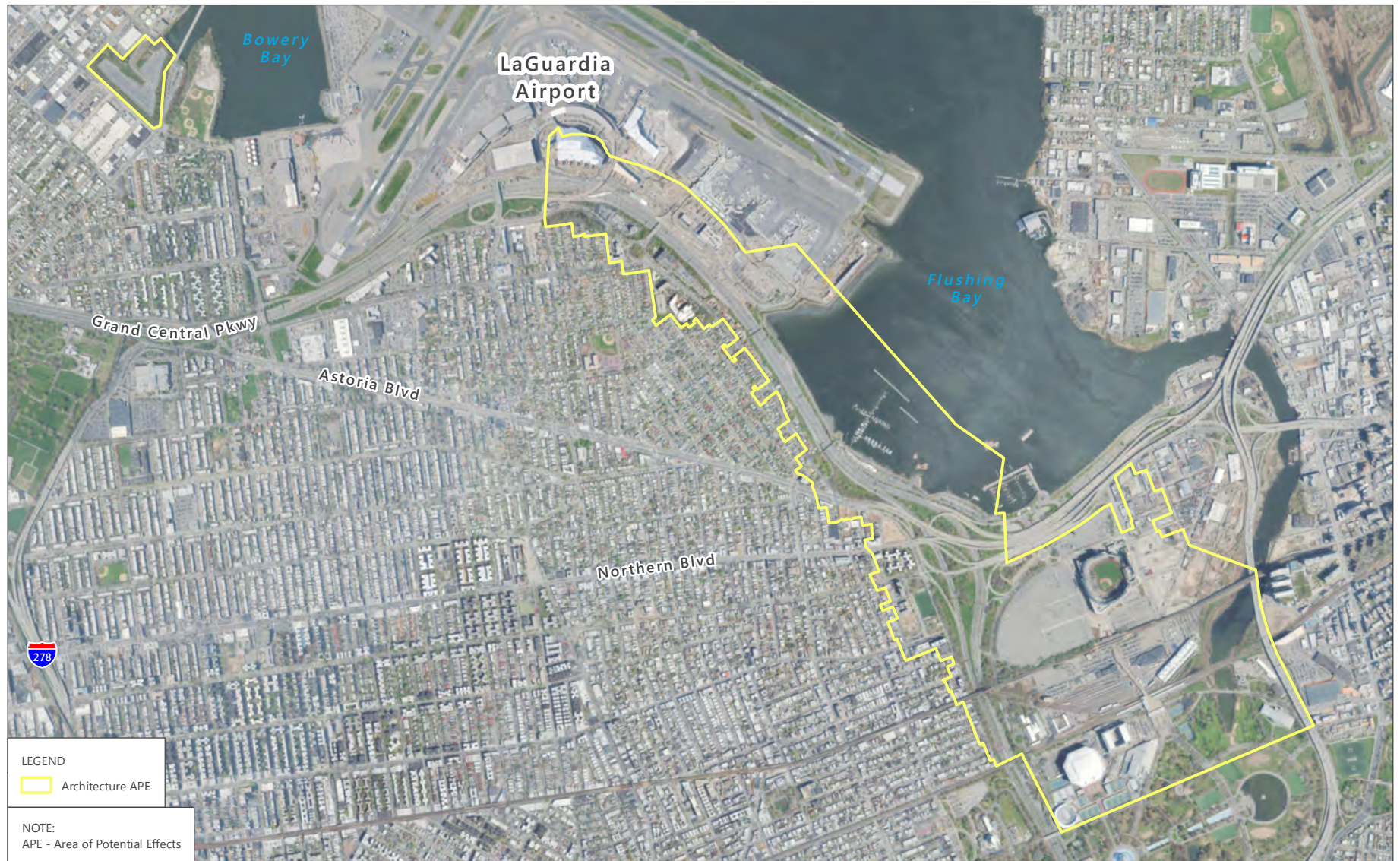




SOURCES: Port Authority of New York & New Jersey, LGA Access Improvement Project Purpose and Objectives and Analysis of Alternatives Report, October 2018; USGS Topographic Map, ESRI, National Geographic Society, i-cubed, 2019 (basemap); Ricondo & Associates, Inc., June 2019.

**EXHIBIT 2****AREA OF POTENTIAL EFFECTS - ARCHAEOLOGY**



**EXHIBIT 3****AREA OF POTENTIAL EFFECTS - ARCHITECTURE**



**LaGuardia Airport Access Improvement Project  
Section 106 Prospective Consulting Parties List**

**AGENCIES AND APPLICANT**

Federal Aviation Administration (Designated Lead Federal Agency)

Advisory Council on Historic Preservation

New York State Historic Preservation Officer

Port Authority of New York and New Jersey

**REPRESENTATIVES OF LOCAL GOVERNMENTS**

Office of the Mayor, New York City

Queens Borough President

Queens Community Board 3

Queens Community Board 4

New York City Landmarks Preservation Commission

**FEDERALLY RECOGNIZED NATIVE AMERICAN TRIBES**

(<https://parks.ny.gov/shpo/environmental-review/documents/IndianNationAreasofInterest.pdf>)

Delaware Nation

Delaware Tribe

Shinnecock Indian Nation

Stockbridge-Munsee Community of Mohican Indians of Wisconsin

**PROPERTY OWNERS**

METS

Metropolitan Transportation Authority

New York City Department of Transportation

New York State Department of Transportation

New York City Department of Parks and Recreation



USTA Billie Jean King National Tennis Center  
Flushing Meadow - Corona Park  
Flushing, NY 11368

**OTHER IDENTIFIED INDIVIDUALS AND ORGANIZATIONS WITH A DEMONSTRATED INTEREST**

Corona-East Elmhurst Historic Preservation Society  
P.O. Box 690304  
East Elmhurst, NY 11369-0304

DOCOMOMO  
US New York/Tri-State  
PO Box 250532  
New York, NY 10025

Historic Districts Council  
232 East 11th Street  
New York, NY 10003

The Municipal Art Society of New York  
488 Madison Ave, Suite 1900  
New York, NY 10022

National Trust for Historic Preservation  
2600 Virginia Avenue NW  
Suite 1100  
Washington, DC 20037

New York Buildings Congress  
1040 Avenue of the Americas, 21st Fl  
New York, NY 10018

The New York Landmarks Conservancy  
One Whitehall Street  
New York, NY 10004

Partnership for New York City  
One Battery Park Plaza, 5th Floor  
New York, NY 10004

Professional Archaeologists of New York City (PANYC)  
c/o S. Spritzer  
P.O. Box 1503  
Murray Hill Station  
New York, NY 10156-1503



Queens Historical Society  
143-35 37th Avenue  
Flushing, NY 11354

Queens Museum  
New York City Building  
Flushing Meadows Corona Park  
Queens, NY 11368





**Parks, Recreation,  
and Historic Preservation**

**ANDREW M. CUOMO**  
Governor

**ERIK KULLESEID**  
Commissioner

July 15, 2019

Ms. Marie Jenet  
Environmental Specialist  
Federal Aviation Administration  
New York Airports District Office  
159-30 Rockaway Blvd, Suite 111  
Jamaica, NY 11434

Re: FAA  
LaGuardia Air-Train  
18PR05235

Dear Ms. Jenet:

Thank you for continuing to consult with the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project.

We have reviewed your Section 106 consultation initiation letter dated June 17<sup>th</sup>, 2019 and the supporting documentation that was provided to our office on June 19<sup>th</sup>, 2019. Based upon our review, we offer the following comments:

1. Because we are consulting under federal law, please refer to our office as the State Historic Preservation Office, not OPRHP, which is our agency's designation under state law.
2. SHPO concurs with the Archaeological Area of Potential Effect (APE) as depicted in Exhibit 2 and with the Phase IA Archaeological Survey Approach outlined on page 6.
3. SHPO concurs with the initial proposed APE for architectural resources and the proposed approach to the reconnaissance level historic architectural survey.
4. SHPO recommends adding the Alliance for Flushing Meadows Corona Park to the list of potential Consulting Parties (<http://allianceformcp.org/>).

If additional information or correspondence is required regarding this project it should be provided via our Cultural Resource Information System (CRIS) at <https://cris.parks.ny.gov/>. Once on the CRIS site, you can log in as a guest and choose "submit" at the very top menu. Next choose "submit new information for an existing project". You will need this project number and your e-mail address. If you have any questions, I can be reached at (518) 268-2182.

Sincerely,

Olivia Brazee  
Historic Site Restoration Coordinator  
[olivia.brazee@parks.ny.gov](mailto:olivia.brazee@parks.ny.gov)

via e-mail only





LGA Comments <comments@lgaaccessseis.com>

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## NYC Comments on LaGuardia Airport Access Project Scoping Document

1 message

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**Semel, Hilary** <HSemel@cityhall.nyc.gov>

Mon, Jun 17, 2019 at 4:44 PM

To: "Comments@lgaaccessseis.com" <Comments@lgaaccessseis.com>

Please see attached comments on the LGA Airport Access Project EIS Scoping. Thank you for the opportunity to work with the FAA and PANYNJ on this important project.

**HILARY SEMEL** | Director and General Counsel

**Mayor's Office of Environmental Coordination**

253 Broadway, 14th Floor | New York, NY 10007

Direct: 212-676-3273 | Main: 212-676-3290

hsemel@cityhall.nyc.gov | www.nyc.gov/oec



**20190617 LGA\_Airtrain\_Scoping\_NYC\_Comments\_FINAL.pdf**  
260K





THE CITY OF NEW YORK  
OFFICE OF THE MAYOR  
NEW YORK, NY 10007

**MEMORANDUM**

TO: Andrew Brooks, Federal Aviation Administration  
Matt DiScenna, Port Authority of New York and New Jersey

FROM: Tim Gallagher, Mayor's Office of Environmental Coordination

DATE: June 17, 2019

SUBJECT: **LaGuardia Access Improvement Project Environmental Impact Statement -  
Scoping  
New York City Comments  
CEQR Number 19FAA001Q**

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Thank you for the opportunity to submit comments on the Scoping of the LaGuardia Access Improvement Project Environmental Impact Statement (EIS). The City of New York endorses the purpose and need of the LaGuardia Access Improvement Project (the "Project") and looks forward to its implementation. The comments that follow are intended to assist the lead agencies in developing a robust and comprehensive scope of environmental review that will fully identify, disclose, and evaluate potential significant impacts on the City of New York.

Below are the City of New York's specific comments about the project's scope.

**Environmental Review Efficiency**

1. We request that the Federal Aviation Administration (FAA) and the Port Authority of New York and New Jersey (PANYNJ) conduct its NEPA environmental review of the Project pursuant to the technical guidance methodologies set forth in the 2014 New York City Environmental Quality Review (CEQR) Technical Manual. The expert guidance provided in the CEQR Technical Manual provides lead agencies with a consistent and thorough approach in conducting environmental reviews for proposed projects in the City and allows for better coordination among City agencies. We believe that such an approach would also benefit the Project's environmental review. In addition to the intrinsic benefits of incorporating CEQR Technical Manual methodologies, a NEPA EIS that is consistent with the CEQR Technical Manual could provide the City with a streamlined approach to satisfying its CEQR obligations if it is determined at a later date that the Project would require any New York City agency discretionary approvals. An EIS conducted pursuant to NEPA and CEQR, and in coordination



with the New York City Mayor's Office of Environmental Coordination (OEC), which would coordinate with the affected City agencies, would help City agencies rely on the EIS to make any required findings rather than preparing additional analyses before doing so.

2. Consistent with the immediately preceding comment, we request that the EIS incorporates the following CEQR analysis areas:
  - a. Shadows
  - b. Transportation
  - c. Air Quality
  - d. Noise
  - e. Public Health
  - f. Neighborhood Character
  - g. Construction
3. Please include OEC in the list of Lead, Cooperating, and Participating Agencies. The proposed project has potential for local impacts, the review, disclosure, and mitigation of which would be coordinated by OEC. Please note that at a minimum, the following New York City Agencies will be participate due to their purview over the Manhattan areas affected by the proposed project: New York City Department of City Planning (DCP), New York City Department of Environmental Protection (DEP), New York City Department of Transportation (DOT), New York City Department of Parks and Recreation (Parks), the Mayor's Office of Resiliency (MOR), New York City Department of Small Business Services (SBS), New York City Police Department (NYPD), Fire Department of the City of New York (FDNY), New York City Emergency Management (NYCEM), New York City Landmarks Preservation Commission (LPC), and the Mayor's Office of Capital Projects Development.

SBS should be included as a participating agency. The City of New York is the owner of LaGuardia Airport and SBS leases the airport to PANYNJ.

## **Construction**

4. Please ensure that any significant adverse construction-related impacts are fully disclosed and mitigated to the maximum extent practicable. This includes impacts, if any, related to project staging, truck access/egress, excavation and debris removal activity, etc. Depending on the alternative selected, the construction work and associated vibration of the proposed project may have an effect on sensitive sites such as the Flushing Bay waterfront, portions of the Grand Central Parkway, and Flushing Meadows Corona Park, and the public visitation thereof. We suggest that these are identified, disclosed, and fully considered in the Open Space Resources, Noise and Vibration, and/or 4(f) evaluation chapters, as warranted.
5. A number of residences, businesses, and hotels are located in the East Elmhurst neighborhood of Queens, and are sensitive to the noise and vibrations that often comes with construction and trucking activities. Accordingly, we ask that they be considered as sensitive receptors to potential significant impacts from traffic-related air quality, noise and vibration impacts



resulting from any construction and trucking activities carried out in New York City during construction of the project, as appropriate based on their proximity to trucking routes.

6. Please provide a fuller description of potential visible construction impacts that could occur. Mitigation measures (such as sound barriers, silt fences, etc.) should be identified and a commitment made to their implementation in the EIS.
7. The Scoping Document should provide consideration of the timing of construction activities in the area, including the proposed project and non-project related construction, including the overall expansion plan for LaGuardia Airport, so as to fully disclose potential cumulative construction impacts and mitigation measures and to avoid any construction delays.

### **Infrastructure**

8. DEP would like to reiterate its concerns voiced at the Agency Scoping Meeting on June 5, 2019 that critical infrastructure, namely the 72-inch water main in the alignment of the maintenance and storage building, needs to be avoided or protected.
9. Environmental infrastructure such as sewers and sewer outfalls are located along or crossing the proposed AirTrain alignment. A critical 72" steel water main transitioning to a concrete water main is present in the parking area next to LIRR property near Willets Point. The alignment would cross this critical water main as it approaches the maintenance facility.
10. It would be necessary to design to account for any impacts to such infrastructure. A construction permit and associated review would also be needed if impacting this infrastructure.
11. If ridership increases in the Willets Point area, there may be a need to upgrade the subway station and to identify associated impacts on the infrastructure.
12. There are also other service permits that may be needed such as water line and site connection permits for the AirTrain maintenance and operations facility, and the Willets Point subway station (existing subway station is on septic system). The Project will need to be coordinated with the New York City Economic Development Corporation (EDC)'s planned Willets Point development.
13. There are large combined sewer outfalls in the area and there is a large scale project to begin design for CSO storage (underground tunnel from Astoria Boulevard around area of the interchange to the Bowery Bay treatment plant). It would be necessary for this project to evaluate any potential impacts to this infrastructure. (Note: 25 million gallon storage tunnel and dewatering pump to capture overflows from two CSO Outfalls that discharge into the Flushing Bay. Details here - [https://www.dec.ny.gov/docs/water\\_pdf/csflushingbayaprltr.pdf](https://www.dec.ny.gov/docs/water_pdf/csflushingbayaprltr.pdf).)



## **Transportation**

14. Please use the 2014 CEQR Technical Manual in the assessment of traffic, pedestrian and parking impacts. The manual provides guidelines in the determination of peak hours and locations/ study area selected for analyses, data collection, analyses, impact thresholds, required materials needed for review, etc.
15. Prior to performing No-Action analyses, DOT recommends submitting a No-Action analysis memorandum identifying the soft-sites to be included in the No-Action analyses and their trip generation and assignments, background growth factor, improvement/mitigation measures to be implemented as part of other projects, etc., for review and approval.
16. Based on the information currently available, there are multiple alternatives, however DOT only received the construction and operational Travel Demand Factors (TDF) Memos for one alternative. If other alternatives screen in and could be selected, please submit a scope of work for DOT review and approval for these alternatives prior to performing additional data collection and analyses. Please note that the revised TDF Memos are under review.
17. Please note that we are currently reviewing the existing condition analyses submitted by PANYNJ. Please note the selection of analysis locations may change if other alternatives screen in.
18. Please confirm the future analysis years to be included in the EIS, and if they are different from what PANYNJ have identified in the construction and operational TDF memos. If they are different, please explain how the trip generation and assignments provided by PANYNJ will be modified.
19. Please provide all detailed scaled drawings for any proposed changes to the City street network proposed as part of the project or mitigation, including any proposed/modified curb cuts, parking regulation modifications, etc.
20. The description of the preferred alternative should clearly define the number of employee parking spaces that will be built and in what configuration and should discuss access routes for vehicles to and from the parking area/facility.
21. EDC has indicated there will be ongoing infrastructure work in the vicinity of the entrance at the intersection of Roosevelt Avenue and 126th Street, which may affect access to the LGA AirTrain parking and drop-off. Please coordinate with EDC to determine the appropriate assumptions.

## **Environmental Justice**

22. The Environmental Justice Coordination section of the Scoping Document should include New York City as an environmental justice community (NEPA).

## **Landmarks Preservation Commission Comments**

23. Please refer to attached Environmental Review Letter, dated June 12, 2019.

## **DOT Section 4(f)**

24. NYC Parks has jurisdiction over the Flushing Bay waterfront, portions of the Grand Central Parkway, and Flushing Meadows Corona Park - all areas that are within the project limits for the Project.
25. Within Flushing Meadows Corona Park the following facilities could be affected by the preferred alternative or other alternatives that may be analyzed in the EIS:
- a. Shea Road
  - b. Mets Parking adjacent to Citi Field that is parkland leased by the Mets
  - c. Flushing Bay Promenade that runs from LaGuardia Airport to Harper Street and is a greenway route with connections to the City's bicycle path network includes the following facilities:
    - i. Gas station/Dunkin Donuts concession
    - ii. World's Fair Marina Restaurant
    - iii. World's Fair Marina including a public boat launch
    - iv. Parking lots, in which some are part of the Mets lease with NYC
  - d. The Passerelle overpass structure:
    - i. Connects Roosevelt Ave and the NYCT #7 train to entrance of Flushing Meadows Corona Park also known as David Dinkins Circle
    - ii. Vital entrance point to the LIRR Willets Point station
    - iii. Part of structure is the roof of the Passerelle building that houses several NYC Parks' offices.
26. Parks requests the opportunity to review the draft Section 4F statement.
27. The EIS should assess both short term impacts during construction as well as long term impacts post construction to both parkland and park facilities.
- a. The EIS should assess short term (during construction) impacts, which may include:
    - i. Parking and Traffic
      - 1. Parking (commuter / event) impacted by construction, including location of contractor parking
    - ii. Recreational, Historical, Cultural, and Transportation resources– impact on and public access to/from:
      - 1. Passerelle Bridge – impact of new AirTrain installation



2. Passerelle Administration Building and offices – use of and access to and from
  3. Access to USTA facilities
  4. Access to MTA NYCT 7 Train
  5. LIRR train – construction site access, staging, traffic flow during construction
  6. Access to Citifield
  7. Flushing Bay Promenade – public access to/through the Promenade, and the overall park experience at the Promenade during construction
  8. Concessions (Gas Station / Dunkin Donuts / Marina Restaurant)
  9. Coordination with Parks' World's Fair Marina reconstruction
  10. Coordination with Parks' Candela Structures and crosswalk construction project
  11. Marina Operations, boat lift, and marina users/boat owners access and parking
  12. Mets seasonal parking lot subleases – circus, carnival, etc.
- iii. Noise:
1. Impact on fauna
  2. Impact on surrounding areas including: residential, NYC Parks offices, sports venues, cultural institutions
- iv. Ecology / landscape:
1. Impacts to air/fauna/birds/water quality/trees/vegetation
  2. Air – Air Quality Monitoring – dust, lead, asbestos, etc.
  3. Migratory Bird Treaty Act – protect nesting birds during construction: <https://www.fws.gov/migratorybirds/pdf/policies-and-regulations/Nestdestructionfaq.PDF>
  4. Trees: jurisdiction and permitting for work in the vicinity (within 50 feet) of NYC trees - <https://www.nycgovparks.org/services/forestry/tree-work-permit>
  5. Drainage, runoff during construction: Clean Water Act (CWA) – EPA – SWPPP (Stormwater Pollution Prevention Plan to receive the NPDES permit – National Pollutant Discharge Elimination System).
  6. NYS DEC Water pollution control: SPDES permit
  7. NYS DEC State Environmental Quality Review – SEQR
- b. The EIS should assess long term (post construction) impacts, which may include:
- i. Parking and Traffic:
    1. impacts of guideway on parking and maintenance access
    2. traffic flow along Roosevelt Avenue – AirTrain drop-off/pickup
    3. LIRR – maintenance vehicle access, traffic impacts (there could be an increase in vehicles using FMCP for LIRR drop off since it's becoming a full time stop)
    4. Traffic on Roosevelt Ave.
  - ii. Recreational, Historical, Cultural, and Public Transportation Resources:
    1. Location of Passerelle

2. Visual/viewscape impacts including from Dinkins Circle and FMCP looking north: northern end of Passerelle into park; looking east-west along Promenade, from GCP to Flushing Bay; pedestrian bridge over GCP.
  3. Marina Restaurant Operations (access to site, views, parking)
  4. Marina Operations, boat lift, and marina users/boat owners access and parking
- iii. Noise:
1. AirTrain Noise on Passerelle, Flushing Bay Promenade, Billie Jean King National Tennis Center, and Dinkins Circle/Flushing Meadows Corona Park
  2. Impact on fauna
  3. GCP Noise on Flushing Bay Promenade with reduction of landscaping
- iv. Ecology / Landscape:
1. Flora/Fauna – Impact on future habitat for flora/fauna – more fragmented habitat
  2. Trees – post construction health of existing trees or establishment of new trees
  3. GCP Landscape – restoration and/or preservation
  4. Shade on Passerelle, Promenade, GCP Landscape
  5. Sun glare from glass at stations
  6. Stormwater capture: Drainage, runoff
- v. Any operational impacts to open space resources from AirTrain maintenance and maintenance access

### **Miscellaneous Comments**

28. The EIS should clearly define the expected level of service that will be provided to the Willets Point Station on the LIRR line. This would include service headways for trains during weekdays and weekends and how many trains per hour would access both Penn Station and Grand Central and continue east to other City stations and Port Washington. A draft schedule should be included as part of the EIS. The role of the project sponsor in developing and funding this service, and the role of the MTA in the same, should be delineated.
29. The JFK AirTrain right-of-way was incorporated into the Airport Lease between SBS and PANYNJ. The state legislation authorizing the LGA project includes language that allows PANYNJ to incorporate the ROW into the Airport Lease with SBS as well. The EIS should address whether this action is anticipated. Further, it should assess whether the funding mechanism of using Passenger Facility Charge revenue for the project would require the improvements to be incorporated into the lease as airport property.



## **ENVIRONMENTAL REVIEW**

**Project number:** FEDERAL AVIATION AUTHORITY / 106-Q  
**Project:** LGA AIRPORT ACCESS IMPROVEMENT AIRTRAIN  
**Date Received:** 6/12/2019

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The LPC is in receipt of the draft proposed Port Authority's Preferred Alignment dated February, 2019, and the NYS SHPO comments of 12/27/18.

Regarding scoping of the undertaking, LPC defers to the SHPO regarding treatment of historic and cultural properties.

**Properties with Architectural significance:**

There are no LPC designated properties along the project route or in the study area. The nearest LPC designated properties are: the Marine Air Terminal (interior and exterior designations), the Louis Armstrong House, 34-55 107<sup>th</sup> St., and the Unisphere and reflecting pool, Flushing Meadows Corona Park.

**Properties with Archaeological significance:**

LPC concurs with the SHPO finding of potential archaeological significance.

LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century and Native American occupation on the project site. Accordingly, the Commission recommends that an archaeological documentary study be performed for this site to clarify these initial findings and provide the threshold for the next level of review, if such review is necessary (see CEQR Technical Manual 2014).

Cc: NYS SHPO



6/12/2019

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SIGNATURE  
Gina Santucci, Environmental Review Coordinator

DATE

**File Name:** 34125\_FSO\_GS\_06122019.docx



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## FORMAL COMMENT

1 message

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**Karen Imas** <kimas@waterfrontalliance.org>

Thu, Jun 13, 2019 at 2:08 PM

To: "comments@lgaaccesseis.com" <comments@lgaaccesseis.com>

Comment also attached in PDF.

Mr. Andrew Brooks

Environmental Program Manager – Airports Division

Federal Aviation Administration

Eastern Regional Office, AEA-610

1 Aviation Plaza

Jamaica, NY 11434

[comments@lgaaccesseis.com](mailto:comments@lgaaccesseis.com)

Re: LaGuardia Airport Access Improvement Project/Scoping Meeting Comments

Dear Mr. Brooks,

On behalf of the Waterfront Alliance, I submit these comments to the Federal Aviation Administration with recommendations for consideration as part of the environmental review process for the LaGuardia Airport Access Improvement Project.

Waterfront Alliance is a non-profit civic organization and coalition of more than 1,000 community and recreational groups, educational institutions, businesses, and other stakeholders. Our mission is to inspire and enable resilient, revitalized and accessible coastlines for all communities.

In recent years, New York City has seen remarkable progress with respect to water quality and waterfront recreation, as well as waterborne transit, reclaiming waterfronts that were historically actively used but became blighted through industrial use or cut off from communities through various infrastructure projects. Flushing Bay and Flushing Creek could benefit from the many improvements New York City's waterfronts have experienced in recent years but currently face barriers with respect to access, investment and environmental issues.

We offer the following comments for the FAA's review as the Agency undertakes drafting a project EIS:



**Potential Impacts on Open Space:** We are concerned by the impacts of the Port Authority's proposed action (the above ground fixed guideway) on the Flushing Bay Promenade and access to Flushing Bay. The promenade and the connected World's Fair Marina is an important open space asset to the community, and to the City, as part of Flushing Meadows Corona Park. Waterfronts and open space have known benefits for mental and physical health, and are critical for equitably supporting the growing communities of East Elmhurst, Jackson Heights, Corona, and Flushing. Flushing Bay also serves as a vital route for pleasure boats, ferries and other vessels heading to the East River. The promenade stretches 1.4 miles, from the base of the 27th Avenue overpass to the west to a new \$1.6 million boat ramp to the east.

However, the Grand Central Parkway to the South, LaGuardia airport to the West and Willets Point to the East already surround this waterfront open space. Inaccessible overpasses and dark underpasses make getting to the promenade difficult. The potential impacts on access caused by construction followed by the more permanent impacts from the 35 foot-wide guideway just 30 feet overhead should be analyzed in the EIS. Shading of natural park areas and safety around darkened areas caused by stanchions should be analyzed in the EIS.



Waterfront Alliance, in partnership with Riverkeeper, was part of a visioning process that looked at habitat restoration, climate resilience, and public recreation around Flushing Bay, beyond remediation. Using the Waterfront Edge Design Guidelines, the visioning process encouraged more resilient, accessible, and ecologically friendly decision-making at the water's edge. We encourage the EIS process to examine the results of the Visioning Plan that called for restoration of the World's Fair Marina, improved pedestrian bridges, a large-scale oyster reef and new educational and recreational facilities.

**Consideration of Alternatives:** The "30-minute" ride, widely publicized as the travel time from Midtown to LGA, merits much greater analysis as this timeframe does not appear realistic. It might apply if you take the LIRR, but Willets Point currently only gets LIRR service when Citi Field is holding events such as Mets games and the trains run approximately 30 minutes apart. The LIRR has not committed to a more robust schedule. Another major question is how many riders would opt for the LIRR in the first place when the 7 train at Willets Point is a more affordable alternative. The 7 train, however, takes about 33 minutes itself to get from Grand Central to Willets Point. Capacity on the 7 train raises significant concerns, especially for peak hour trains.

Waterfront Alliance believes other viable transportation options should be thoroughly evaluated and seriously considered. These options require a fraction of the infrastructure investment and offer a competitive travel time to and from Manhattan. Ferries are increasingly recognized as combatting traffic congestion and air pollution and apply 21st-century solutions to New York's mobility needs. They give the city's commuters and visitors more options for getting where they need to go.

- A combination of improved bus connections and dedicated bus lanes around existing ferry terminals at Astoria and Long Island City would improve travel time to LGA. NYC Ferry routes launched recently have seen much higher than expected ridership and the EIS should consider the existing routes and how they can connect to LGA.
- Increased ferry access at Marine Air Terminal offers a serious and real alternative. We recommend the EIS evaluate a new ferry landing directly at LGA and Express Bus connections to this terminal.

**Water Quality and Environmental Impacts:** In 2018, more than 89,000-cubic-yards of sediment packed with decaying organic material have been dredged from Flushing Bay as part of a \$200 million cleanup project to restore wetlands to its shore, and to upgrade the sewer system that has been overflowing into it for years. The shoreline is now being filled with switch grass, salt grass, seaside goldenrod, smooth cordgrass and other wetlands plants. Impacts on this vegetation, during and post-construction, merit analysis in an EIS. The EIS should also study construction impacts of debris on the estuarine area, sediment stability and sub-surface noise.

**Impacts to Flushing Creek:** To serve the maintenance needs of the proposed AirTrain, the overall construction is proposed to include building a new Operations, Maintenance, and Storage Facility (OMSF) on the bank of Flushing Creek. This same area is also proposed to turn an existing temporary/overflow parking lot into permanent LGA employee parking. Flushing Creek is under a New York State approved Long Term Control Plan to preserve its recreational uses, and potentially raise them to primary contact recreation. In addition, the US Army Corps of Engineers is currently studying wetland ecosystem restoration for the Creek in areas immediately alongside the proposed OMSF and permanent parking lot within the NYC Department of City Planning's Flushing Waterfront Revitalization Plan. Both construction and operations of the OMSF and employee parking lot would create significant additional polluted runoff into the adjacent Creek, carrying increased levels of contaminated silt and road salt into the water, adversely impacting the improvement of the Creek that is already underway. Finally, this part of the project, establishing an employee parking lot, does not serve the stated Project Purpose to "not contribute to roadway congestion."

We thank you for your review of this important project, and look forward to commenting the EIS. Please feel free to reach out to me directly at (212) 935-9831 x101 with any questions.

Sincerely,

Roland Lewis

President and CEO

Waterfront Alliance



2019-06-06\_FAA-LGAAirTrain-comments.pdf

296K



June 6, 2019

Mr. Andrew Brooks  
Environmental Program Manager – Airports Division  
Federal Aviation Administration  
Eastern Regional Office, AEA-610  
1 Aviation Plaza  
Jamaica, NY 11434  
[comments@lgaaccessseis.com](mailto:comments@lgaaccessseis.com)



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Roland Lewis,  
*President and CEO*



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Sincerely,

Roland Lewis

President and CEO  
Waterfront Alliance



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## Form Submission - Website Scoping Formal Comment

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**Squarespace** <no-reply@squarespace.info>

Mon, Jun 17, 2019 at 10:43 AM

Reply-To: korin.tangtrakul@gmail.com

To: comments@lgaaccessseis.com

**Name:** Korin Tangtrakul

**Email:** [korin.tangtrakul@gmail.com](mailto:korin.tangtrakul@gmail.com)

**Organization:**

**Address 1:** 2611 W Seybert St

**Address 2:**

**City:** Philadelphia

**State:** PA

**Zip:** 19121

**Comment Topic:** AirTrain over Flushing Bay is not a sensible solution

**Formal Comment:** Thank you for the opportunity to comment on the LGA AirTrain proposal. I work in NYC, use LGA often for travel, and am a frequent user of the Flushing Bay promenade. I believe that the AirTrain route over Flushing Bay or the Promenade should be avoided; it is an expensive and environmentally destructive alternative, when there are many other alternatives that make much more sense.

Improving bus service and creating ferry service are much more affordable and immediate improvements. I already take the bus to LGA when I travel, and if ferry service were an option, that would be my preferred route. If I had the option to take the 7 train to Willets Point and pay for a transfer to the AirTrain (I wouldn't take LIRR - too expensive), I would skip the AirTrain and continue to take the bus. It would be faster and more affordable than the AirTrain. The only heavy infrastructure option that I would opt for is an extension of the N/W line, as it is more direct and a one-seat ride from Brooklyn and Midtown.

Building an AirTrain on the waterfront simply does not make sense. With sea level rise and increasing storm intensity, heavy infrastructure should not be built on the waterfront. It's a poor investment that would destroy a resurgent ecosystem. Furthermore, it would alienate parkland from the already park-starved community of Jackson Heights. The Flushing Bay Promenade is a unique and historical waterfront park. Despite the lack of investment in the waterfront and no amenities, hundreds of people use the park daily, including the hundreds of dragon boaters that use the waters for practice. Why take more away from an already disinvested neighborhood? The rest of the city is investing in bringing people to the waterfront, like Brooklyn Bridge Park and Domino Park. It's northern Queen's turn for investment in improved parkland, not in building unnecessary expensive infrastructure that destroys the only park space the community has.

I urge the FAA to consider the following impacts:

1. What are the ecological disruptions of the proposal? Flushing Bay is home to NYC's largest oysters! How can Flushing Bay's ecology continue to thrive under this proposal?
2. How will the neighborhood be able to experience the Flushing Bay waterfront? What will waterfront access look like for the thousands of residents near the park?
3. How long will this infrastructure last with impending climate change conditions? We're already experiencing the worst of climatologists' predictions, so the most extreme future conditions should be seriously evaluated.
4. How do all these impacts compare to bus improvements and ferry service?

Thank you for taking my comments into consideration.

(Sent via [LGA Access Improvement Project EIS](#))





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## Form Submission - Website Scoping Formal Comment

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**Squarespace** <no-reply@squarespace.info>  
Reply-To: johnkellyiv@gmail.com  
To: comments@lgaaccessseis.com

Mon, Jun 17, 2019 at 3:31 PM

**Name:** John Kelly

**Email:** [johnkellyiv@gmail.com](mailto:johnkellyiv@gmail.com)

**Organization:** Eastern Queens Greenway

**Address 1:** [48-35 Bell Boulevard](#)

**Address 2:**

**City:** Bayside

**State:** ny

**Zip:** 11364

**Comment Topic:** Route

**Formal Comment:** As a founding member of the Eastern Queens Greenway, I believe that parkland is our most valuable resource. Flushing Meadows Park has been sold off for decades, shrinking the usable space so rich people to get richer without paying for the land their business sits on. It's disgusting to think anyone would take more land, this time from the historic marina, instead of putting the airtrain on top of an already existing highway or dug like a normal subway. I heard the reason it could not sit on the highway was because it would hurt the view of some neighbors . So instead destroy the marina depriving thousands more access to the waterfront?

Our neighborhood has been abused too long. It's time for us to push back against anyone trying to take our public land for their own personal goals. The corruption needs to end now. We will be there to help call it out.

(Sent via [LGA Access Improvement Project EIS](#))

## **APPENDIX B: QUALIFICATIONS OF THE INVESTIGATORS**





CULTURAL  
RESOURCE  
CONSULTANTS

## ILENE GROSSMAN-BAILEY SENIOR ARCHAEOLOGIST (36 CFR 61)

### YEARS OF EXPERIENCE:

With this firm:

2002-Present

With other firms: 8

### EDUCATION:

Ph.D. 2001

Temple University

Anthropology

MA 1998

Temple University

Anthropology

BA 1979

College of

New Jersey

English

### PROFESSIONAL

#### TRAINING:

40-Hour Health and  
Safety Training for  
Hazardous Waste  
Operations and  
Emergency Response  
(OSHA 29 CFR  
1910.120), February 2005;  
8-Hour HAZWOPER  
Refresher, March 2019

### PROFESSIONAL

#### REGISTRATION:

Register of Professional  
Archaeologists

### Professional Experience Summary:

Ilene Grossman-Bailey has served as a Principal Investigator on all phases of archaeological investigations, and specializes in prehistoric archaeology. Dr. Grossman-Bailey has extensive experience in applying Section 106 of the National Historic Preservation Act, as amended, and other relevant state and municipal laws. She exceeds the qualifications set forth in the Secretary of Interior's Standards for Archaeologists [36 CFR 61], as well as the State Historic Preservation Office's qualification standards in New Jersey, New York, Pennsylvania, Massachusetts, West Virginia, Maryland, Delaware, Puerto Rico, and Massachusetts.

### Representative Project Experience:

**Old Roosevelt Field Contaminated Groundwater Area Superfund Site Option 2, Village of Garden City, Nassau County, NY (Sponsor: USEPA)** Principal Investigator, Senior Archaeologist for the Phase IA/IB cultural resources survey conducted within the APE for a proposed 2,675 linear foot pipeline extending from a proposed extraction well to an existing treatment facility at the Old Roosevelt Field Contaminated Groundwater Area Superfund Site. No potentially significant historic or prehistoric cultural resources were identified.

**Newark Riverfront Park, Bridge Street to Madison Street, City of Newark, Essex County, NJ (Sponsor: City of Newark Community Economic Development Corporation)** Principal Investigator, Senior Archaeologist for a Phase IA archaeological survey performed in connection with a proposed 1.7-mile park along Newark's Passaic River waterfront in compliance with a Waterfront Development permit and Section 106 of the NHPA. NRHP-listed resources are located within or adjacent to portions of the project and archaeological monitoring was recommended for portions with high sensitivity

**Cortland Manor Wireless Telecommunications Facility, Town of Cortlandt Manor, Westchester County, NY (Sponsor: Sprint Spectrum)** Principal Investigator, Senior Archaeologist for Phase IA-level archaeological survey performed in connection with the Cortland Manor wireless telecommunications facility in Westchester County. It was determined that there was a low potential for prehistoric or historic archaeological resources within the Area of Potential Effects for archaeology and no additional survey was recommended.

**Tenaflly Nature Center, Borough of Tenaflly, Bergen County, NJ (Sponsor: Tenaflly Nature Center)** Principal Investigator, Senior Archaeologist for a Phase I archaeological survey improvements to the Tenaflly Nature Center. Purchase of the Tenaflly Nature Center lands, including Block 2702, Lot 1, was funded in part by a grant issued by the United States Forest Service, Land & Water Conservation Fund (LWCF). Since Federal funds were used to acquire the property, a Phase I survey was completed in accordance with the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended. The project was assessed with high sensitivity for prehistoric archaeological resources. No prehistoric or historic archaeological resources were identified.



CULTURAL  
RESOURCE  
CONSULTANTS

## CHELSEA TROPPAUER ARCHITECTURAL HISTORIAN (36 CFR 61)

### YEARS OF EXPERIENCE:

With this firm:

2014-Present

With other firms: 2

### EDUCATION:

MS 2013

University of  
Pennsylvania  
Historic Preservation

BS 2011

Franklin and Marshall  
College  
Art History

### PROFESSIONAL TRAINING:

Amtrak Safety Training

NJ Transit Safety  
Training

Norfolk Southern  
Contractor Safety  
Training

First Aid/ AED/ CPR  
Certified

### Professional Experience Summary:

Chelsea Troppauer's experience includes historical research and writing, architectural surveys, and architectural analysis. Ms. Troppauer has worked on cultural resources surveys completed in accordance with Section 106 of the National Historic Preservation Act and other municipal and state cultural resource regulations. Ms. Troppauer has experience using computer-aided mapping programs including ArcGIS, ArcView, and AutoCAD. She also has extensive experience in archival and non-profit management. Her educational and professional experience meet the qualifications set forth in the Secretary of Interior's Standards for an Architectural Historian [36 CFR 61].

### Representative Project Experience:

**Morris County Historic Sites Survey, Phase III, Boroughs of Chatham, Madison, and Mount Arlington, Chatham and Montville Townships and Town of Dover, Morris County NJ (Sponsor: Morris County Planning Department)** As Assistant Architectural Historian, assisting with intensive-level historic architectural surveys on selected properties for the ongoing Phase III of Morris County's historic sites survey update. The project includes an update of existing historic sites survey data on previously surveyed properties and expanding the database to include properties listed on or determined eligible for the National Register that were not previously surveyed. Resources include 85 Streetscapes, 30 Historic Districts, and 333 Individual buildings.

**Georgetown-to-Lewes Trail, Georgetown, Broadkill, Lewes and Rehoboth Hundreds, Sussex County, DE (Sponsor: DelDOT)** Prepared a National Register of Historic Places (NRHP) Eligibility Assessment of the 17.8-mile long Georgetown to Lewes Railroad Corridor (Junction & Breakwater Railroad [Sussex County, DE]). As a result of the survey, recommended the Junction & Breakwater Railroad Historic District, containing 21 contributing resources, eligible for listing on the NRHP. Determined that DelDOT Bridge No. 3-928R, a contributing resource to the District, was also individually eligible for listing in the NRHP under Criteria A and C, in the areas of Engineering and Transportation.

**Fort Lee Post Office, Borough of Fort Lee, Bergen County, NJ (Sponsor: Borough of Fort Lee)** As Principal Investigator, Architectural Historian, preparing the written historical and descriptive data of a Historic American Buildings Survey (HABS) of the Fort Lee Main Post Office. The project is being performed as mitigation prior to the selling of the property. The Fort Main Lee Post Office is a Colonial Revival style post office built in 1938-1939 under the auspices of the Public Works Administration using a set of standardized plans developed by Louis A. Simon of the Office of the Supervising Architect of the U.S. Treasury Department. The interior lobby space retains four murals designed by Henry Schankenberg, an artist employed by the Treasury Department, Section of Fine Arts. The building is historically and architecturally significant for its association with the Federal Government's New Deal era programs, enhanced by the presence of Schankenberg's commissioned murals. Research for the project includes an examination of New Deal post offices and the government's Section of Fine Arts program.





CULTURAL  
RESOURCE  
CONSULTANTS

## LAURA D. CUSHMAN ARCHAEOLOGIST

### YEARS OF EXPERIENCE:

With this firm:

1991-Present

With other firms: 0

### EDUCATION:

BA 1991

Muhlenberg College  
Social Science

### PROFESSIONAL

#### ORGANIZATIONS:

Archaeological Society of  
New Jersey

### Professional Experience Summary:

Laura D. Cushman has extensive experience in applying Section 106 of the National Historic Preservation Act, as amended, and other relevant state and municipal laws. Ms. Cushman has served as a Project Archaeologist on all phases of archaeological investigations on both prehistoric and historic sites. Ms. Cushman has extensive successful experience in archaeological projects, including work in New Jersey, Pennsylvania, and New York.

### Representative Project Experience:

**Dead River Road, Somerset County, NJ (Sponsor: EBI)** Project Archaeologist for an archaeological assessment of a proposed wireless telecommunications facility in Warren Township. Ms. Cushman conducted background research and a site visit. She concluded that the APE-Archaeology had a low sensitivity for prehistoric and historic cultural resources. She co-authored a report presenting the results of the assessment.

**Camden Lanning Square Elementary School, Camden County, NJ (Sponsor: Verona Board of Education)** Project Archaeologist for a cultural resources investigation of the Camden Lanning Square Elementary School in the City of Camden. Ms. Cushman conducted background research and a site visit for the initial assessment of the project site. The results of the assessment indicated a high sensitivity for pre-1860 historic cultural resources on the project site, and a Phase I survey was recommended. Ms. Cushman was the crew chief for the subsequent fieldwork and she co-authored a report presenting the results of the investigation.

**Evesham Township Board of Education Transportation Facility, Burlington County, NJ (Sponsor: Evesham Township)** Project Archaeologist for a proposed bus maintenance facility and associated parking lot in Evesham Township. Phase I and II Archaeological investigations resulted in the identification and evaluation of a portion of prehistoric site 28-Bu-106. The project did not proceed to mitigation level as no potentially significant prehistoric features were encountered. Ms. Cushman was the Crew Chief for both phases of the investigation. She co-authored a report presenting the results of the assessment.

**Wager's Farmstead Site, Montgomery Township, Montgomery County, PA (Sponsor: Montgomery Township)** Project Archaeologist for Phase I through Phase III archaeological investigations at the Wager's Farmstead Site (36-Mg-307) in Montgomery Township. The archaeological investigations resulted in the identification of numerous cultural features and artifact concentrations dating from the eighteenth through twentieth centuries. Ms. Cushman was a Research Assistant for all three phases of excavation at the site. She assisted in cataloging and performing a minimum vessel analysis on the material recovered, photographed artifacts, produced graphics, performed data entry, and co-authored a report presenting the results of the investigations.

## APPENDIX C: ANNOTATED BIBLIOGRAPHY

Authors:	Ilene Grossman-Bailey, Ph.D., RPA, Laura D. Cushman, and Chelsea Troppauer
Title:	Phase IA Archaeological Survey, LaGuardia Airport Access Improvement Project, Borough of Queens, City of New York, New York
Date:	July 2019 (Revised October 2019)
RGA Database Title:	FAA LaGuardia
RGA Project No:	2018-007NY
State:	New York
County:	Queens
Municipalities:	Queens
U.S.G.S. Quad:	Flushing, NY
Drainage Basin:	Flushing Bay, East River, Long Island Sound, Atlantic Ocean
Regulation:	Section 106 of the National Historic Preservation Act (NHPA), as amended
Project Type:	Transportation: Airport Improvements
Project Sponsor:	Federal Aviation Administration (FAA); Port Authority of New York and New Jersey
Client:	Ricondo & Associates, Inc.
Level of Survey:	Phase IA Archaeological Survey
Cultural Resources:	Flushing Meadows-Corona Park Historic District