10. Archaeological Resources

10.1 INTRODUCTION

This chapter presents information on the known potential for archaeological resources and assesses whether the Proposed Project has any potential to affect archaeological resources that may be present in areas of proposed new ground disturbance, as based on conceptual engineering for the Proposed Project.

10.1.1 Regulatory Framework

As described in Chapter 9, "Historic Resources," the National Historic Preservation Act (NHPA) defines historic properties and cultural resources as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register of Historic Places (NRHP). Further, Section 106 of the NHPA includes archaeological sites that may be located aboveground, underground or underwater, and have significance in the history, prehistory, or culture of the nation, the state, or local or tribal communities. Significant archaeological sites include the following:

- Sites already listed on the NRHP/State Register of Historic Places (SRHP)
- Sites designated by New York State Historic Preservation Office (SHPO) as eligible for listing on the NRHP/SRHP
- Archaeological sites not yet identified by one of the programs or agencies listed above but meet their eligibility requirements.

Only those cultural resources determined to be potentially significant under NHPA and New York State Historic Preservation Act (NYSHPA) are subject to consideration of and potential mitigation for adverse impacts resulting from an undertaking.[1]

As mandated by the above-cited regulations governing the cultural resources assessment, MTA prepared the archaeological resource methodology and analysis in consultation with SHPO.[2]

10.1.2 Context and Key Issues

Determining the impact of the Proposed Project on any archaeological resources is based on the Proposed Project's Area of Potential Effect (APE). The archaeological APE is defined in 36 CFR 800.16(d) as

> "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 effect is influenced by the scale and nature of the undertaking and may be different for different kinds of effects cause[d] by the undertaking."

[1] New York State Historic Preservation Office. 2005. *State Historic Preservation Office Phase I Archaeological Report Format Requirements.* Standards, Waterford: New York State Office of Parks, Recreation, and Historic Preservation.

[2] The New York Archaeological Council. 1994. *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State.* Guide, Albany: The New York Archaeological Council.

Generally included within the APE for cultural resources are all locations where an undertaking may result in disturbance of the ground, from which elements of the undertaking may be visible, and where the activity may result in changes in traffic patterns, land use, public access, etc. This definition often results in different APEs for archaeological versus historic architectural resources, because impacts to archaeological resources are usually only direct, not indirect. Therefore, the archaeological APE is confined to areas where new ground disturbance would occur where there has been no known prior disturbance.

MTA established new ground-disturbance locations for each proposed station site, and completed Phase IA Archaeological Studies for each station. The MTA's research to date has established that past construction activities related to the transportation use of the corridor have disturbed sections of the Hell Gate Line (HGL) Corridor, greatly affecting the preservation of potentially intact archaeological resources. Because rail construction has previously disturbed some locations that likely lack archaeological potential, MTA anticipates that the Proposed Project would cause no effect to archaeological resources in those locations. However, there may be sensitivity for archaeological resources where impacts would occur beneath 22 inches of ballast. If MTA identifies sensitive locations, the Proposed Project could have a potential effect. As design progresses, MTA will coordinate archaeological reviews with the SHPO for locations where new subsurface disturbance are expected.

10.2 KEY CONCLUSIONS

MTA has determined that the Proposed Project could affect potential archaeological resources in some areas. However, the Draft Programmatic Agreement (Appendix G, "Historic, Archaeological, and Cultural Resources") outlines how MTA would avoid these impacts through further investigation and, if necessary, mitigation prior to construction. Key conclusions from this analysis include the following:

- Phase IA studies completed in 2002 and 2013 found that the proposed Hunts Point and the Parkchester-Van Nest Station areas were highly modified/disturbed by prior construction, and any potential resources that may have once existed at either site have since been removed, thus eliminating their archaeological potential.
- Phase IA studies completed in 2002 and 2013 found that the proposed Co-op City and the Morris Park Station sites were potentially sensitive for precontact resources beneath approximately 22 inches of ballast that had been laid beneath the tracks for bedding, and possibly beneath deeper levels of added fill. Further geotechnical studies of these two sites clarified subsurface conditions and archaeological potential. The Co-op City Station site has moderate archaeological sensitivity and the Morris Park Station site has low archaeological sensitivity. In a letter dated April 14, 2020, SHPO concurred with the soil boring analysis. The design-builder would, once a design is finalized, compare the potential depth of disturbance with the depth of potential sensitivity. Should design indicate that the identified archaeologically sensitive deposits may be disturbed by the Proposed Project, MTA would develop Phase IB testing work plans and submit to SHPO for review and comment. MTA would avoid any impacts to potential resources through further investigation and, if necessary, mitigation prior to construction.
- The Proposed Project could have an impact on potential archaeological resources in the HGL Corridor below 22 inches of ballast. As design progresses, MTA will coordinate archaeological reviews with SHPO in parallel with geotechnical studies for locations where the Proposed Project requires new subsurface disturbance.

- A Phase IA study completed in 2020 found that the APE for the proposed new two-span railroad bridge over the Bronx River was extensively disturbed, both vertically and horizontally, resulting in the site's lack of potential for both precontact and historic archaeological resources.
- A Phase IA study completed in 2020 found that the APE for the proposed New Rochelle Yard expansion was extensively disturbed, both vertically and horizontally; therefore, there is no potential for precontact or historic archaeological resources.
- As outlined in the Draft Programmatic Agreement, if the Proposed Project results in previously unidentified effects to archaeological resources located in the APEs, then additional Section 106 review will be conducted in coordination with the SHPO. This review would include delineating additional APEs if required; identifying potential archaeological resources; evaluating effects should any potential or eligible resources be identified; and, if necessary, mitigation prior to construction.

10.3 METHODOLOGY

This chapter summarizes the findings of the Phase IA research performed for each station site and evaluates the potential effects/impacts of the Proposed Project on archaeological resources. This chapter also addresses potential sensitivity of APEs for non-station project elements and the need for additional studies.

MTA completed a Phase IA study for each station location and the site of the new two-span bridge over the Bronx River to address the potential impacts of the Proposed Project.[3] These studies were prepared in accordance with the Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State[4] and to meet SHPO's Phase I Archaeological Report Format Requirements.[5] The Phase IA studies present the results of site file searches, documentary and cartographic analysis, site visits, and a review of previous surveys completed in and near the four station APEs. The reports also include precontact and historical overviews for the locations of each station, and an assessment of potential archaeological sensitivity. Professionals who meet the qualifications set forth in the Secretary of the Interior's Professional Qualification Standards (36 C.F.R. 61) conducted the Phase IA studies.

10.3.1 Agency Coordination

MTA held multiple conversations about the Proposed Project with the SHPO and the LPC before submitting Phase IA studies for three sites in 2002 (Hunts Point, Parkchester-Van Nest, and Co-op City) and after submitting an Archaeological Resources Project Initiation Letter (PIL) in 2013 (revised 2014) (Appendix G, "Historic, Archaeological, and Cultural Resources"). The SHPO concurred with the findings in the Phase IA studies for Hunts Point, Parkchester-Van Nest, and Co-op City (Mackey 12/06/02, Appendix G) in a letter dated December 6, 2002. Most recently, the SHPO issued an approval of the APE as defined in the

[3] Historical Perspectives, Inc. 2002. NYSOPRHP #99PR03265
Phase IA Archaeological Documentary Study MTA Metro-North Penn Station Access Hunts Point Station Site Bronx County New York
Phase IA Archaeological Documentary Study MTA Metro-North Penn Station Access Morris Park Station Site Bronx County New York
Phase IA Archaeological Documentary Study MTA Metro-North Penn Station Access Co-op City Station Site Bronx County New York
Historical Perspectives, Inc. 2013. NYSOPRHP No. #99PR03265.
Phase IA Archaeological Documentary Study MTA Metro-North Penn Station Access Parkchester Station Site Bronx County New York
Historical Perspectives, Inc. 2020. NYSOPRHP No. #13PR03777.
Phase IA Archaeological Documentary Study MTA Penn Station Access New Bridge Over Bronx River Bronx County, New York

[4] The New York Archaeological Council. 1994.

[5] New York State Historic Preservation Office. 2005.

Archaeological PIL in a letter dated May 5, 2020 (previous approval was issued on September 20, 2013); the SHPO suggested that the Stockbridge-Munsee Community Band of Mohican Indians, a federally recognized tribe, be added to the list of consulting parties (Cumming 09/20/13, Appendix G). The SHPO reiterated their concurrence with the three Phase IA studies in letters dated January 23, 2019.

MTA submitted the Phase IA study for Morris Park (06/2013, Appendix G) to SHPO on January 16, 2019 and by letter dated January 23, 2019. The SHPO concurred with the findings of the Phase IA for Morris Park (Perazio 1/23/19, Appendix G).

The SHPO also reviewed the Section 106 Effects Assessment and accepted its findings, as well as reiterated their concurrence with the conclusions laid out in the four Phase IA studies submitted to SHPO in January 2019 (Brazee 6/4/2019, Appendix G). In addition, SHPO concurred with the findings of the Phase IA for the new bridge over the Bronx River (Perazio 5/4/20, Appendix G) and the soil boring analysis for Morris Park Station and Co-op City Station (Perazio 4/14/20, Appendix G).

MTA submitted the Phase IA for the New Rochelle Yard Expansion (08/2020; Appendix G) to SHPO in September 2020, and SHPO concurred with the report's conclusions (Perazio 10/04/20, Appendix G).

The LPC issued an approval of the APE as defined in the revised PIL (2014) in a letter dated July 15, 2014, and further indicated that there was no archaeological concern for the four station sites (Santucci 7/15/14, Appendix G). A subsequent consultation with LPC also confirmed that they had no further archaeological concerns for the HGL Corridor segments as defined at that time (Pagano 7/28/2014, Appendix G).

10.4 EXISTING CONDITIONS

From 1908 to 1910 the ca.1870 New York New Haven and Harlem Railroad line (now the Metro-North Railroad's Harlem Line) was rebuilt and increased to six tracks with complete grade separation, electrification, and all-new stations. The line originally had been built to conform to the main line standard of the NHL. The new rail consisted of 100-pound sections with creosoted ties. Because the heavier tracks required more ballast for support, current tracks that are at grade have at least 22 inches of ballast beneath.

To ensure that all areas of potential subsurface disturbance are addressed, the archaeological APE for each station site encompasses the maximum footprint and depth of potential disturbance.

10.4.1 Segment 1 (Corridor)

Most of the Segment 1 Corridor is on a built embankment or elevated above grade and therefore lacks archaeological potential. At the north end of the corridor, the tracks are at ground level. MTA has identified precontact sites in the south Bronx near the East River and its tributaries, but a prior archaeological study of the South Bronx-Oak Point Link project found that many precontact sites have been disturbed by historical development, including railroad construction.[6] While there are no reported intact archaeological resources in the Segment 1 Corridor, unknown archaeological resources could be beneath the 22 inches of ballast where rails are located at ground surface.

[6] Energy and Environmental Analysts Inc. 1981. *South Bronx-Oak Point Link Cultural Resources Inventory.* Environmental Assessment, Albany, NY: New York State Department of Transportatoin, 58-60.

10.4.2 Segment 2 (Corridor and Hunts Point Station Area)

10.4.2.1 Corridor

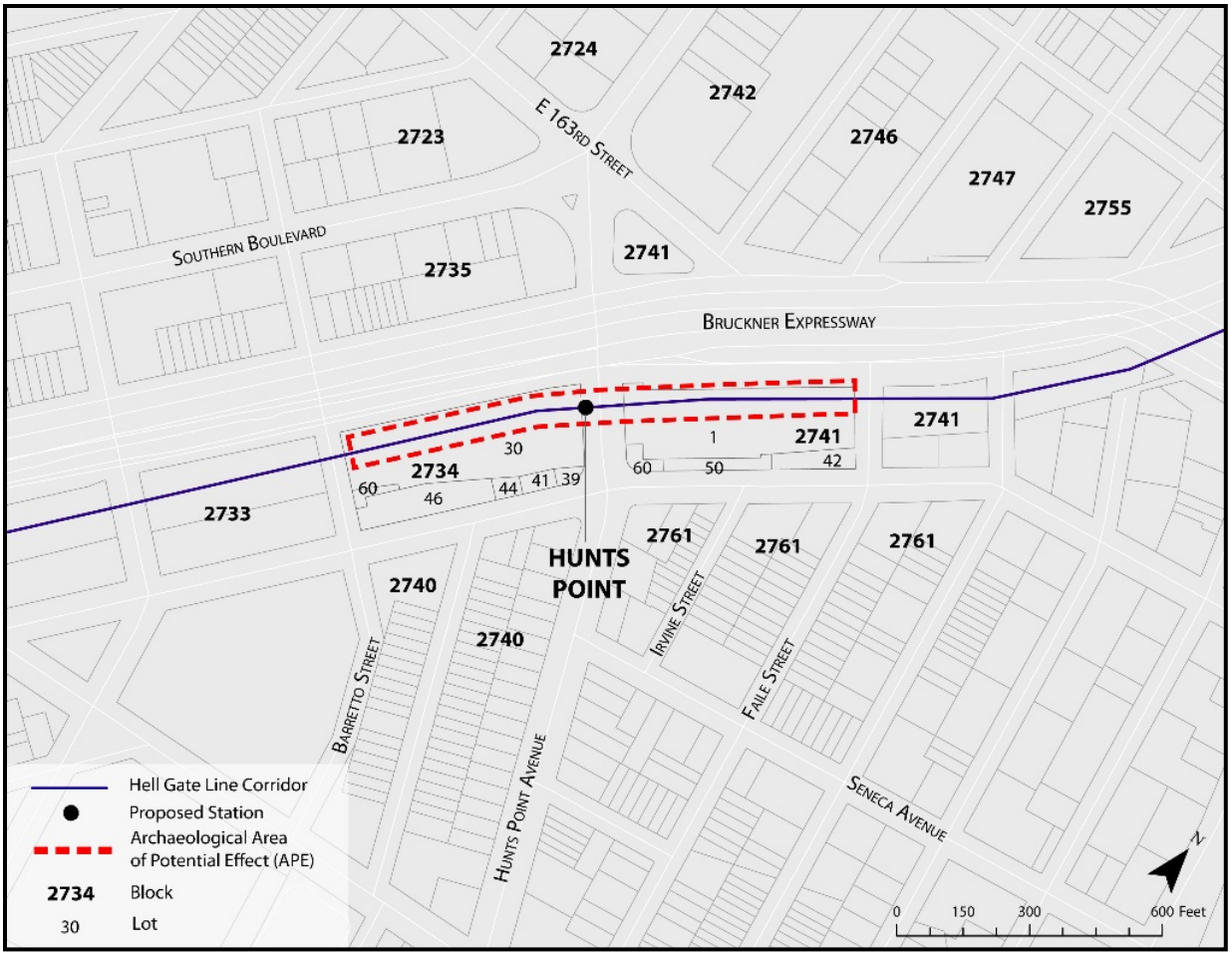
The section of the HGL Corridor in the below-grade cut has no archaeological sensitivity due to extensive disturbance when the rail was originally regulated and opened in the 1870s. The Segment 2 Corridor APE is defined as any location north of the split of the Bruckner Expressway and the Sheridan Expressway where there would be subsurface impacts from the Proposed Project more than 22 inches below grade. While there are no reported intact archaeological resources in the Segment 2 Corridor between the Sheridan Expressway and the west side of the Bronx River, unknown archaeological resources could be beneath the 22 inches of ballast where rails are located on ground surface.

The Proposed Project could construct a new two-span bridge immediately north of the extant Amtrak HGL (Northeast Corridor) bascule bridge over the Bronx River that dates to 1907. The spans would likely be supported on new stub abutments and wall piers, each supported by deeply drilled shaft foundations (to bedrock). Archaeological potential was assessed in a Phase IA study and found that the area was extensively disturbed, both vertically and horizontally, when the New York, New Haven, and Hartford Railroad Line was first regulated and opened, and later during multiple bridge construction and removal episodes. The construction and demolition of multiple bridges, modifications to abutments, creation of a bulkhead wall along the Bronx River, and industrial use of the immediate vicinity has resulted in the site's lack of potential for both precontact and historic archaeological resources.

10.4.2.2 Hunts Point Station Area

The APE for the proposed Hunts Pont Station is in the existing right-of-way in a deep railroad cut immediately south of the Bruckner Expressway (Figure 10-1). The Phase IA study of the Hunts Point Station APE found that precontact people used the general area, and the station site may have been as well (Appendix G, "Historic, Archaeological, and Cultural Resources"). However, research also found that cutting through a knoll to construct the rail line in the 1870s extensively affected the site. The ground surface during the precontact and historic periods was lowered by 10 to 20 feet and Hunts Point Avenue now passes above the tracks at grade level. Any potential resources that may have once existed on the knoll have since been removed; therefore, the Hunts Point Station APE has no archaeological potential.

Figure 10-1. Area of Potential Effect (Existing Conditions): Segment 2 – Hunts Point Station



Source: New York City Department of City Planning and WSP, 2019

10.4.3 Segment 3 (Corridor and Parkchester-Van Nest, Morris Park, and Co-op City Station Areas)

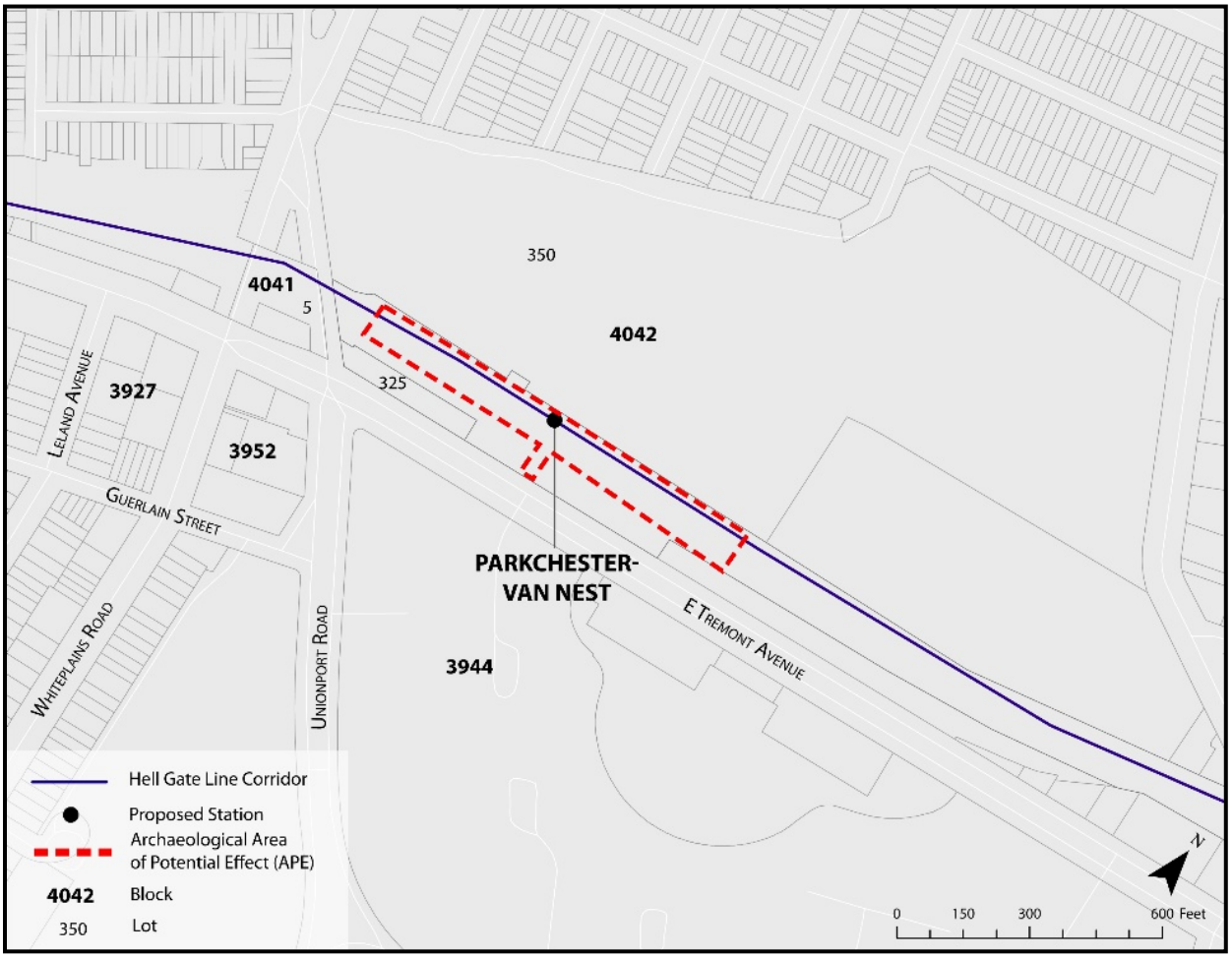
10.4.3.1 Corridor

The Segment 3 Corridor extends from a point just east of the Bronx River Bridge to just west of the Pelham Bay Bridge. The railroad right-of-way stays at or close to ground level through Segment 3, with the various overhead and below-grade highway bridges predominantly reflecting changes in street elevation. The railroad tracks in the right-of-way are supported by 22 inches of recent ballast. Therefore, the archaeological APE for the Segment 3 Corridor is any location where disturbance extends beneath the 22 inches of ballast. While there are no reported intact archaeological resources in the Segment 3 Corridor, unknown archaeological resources could be beneath the 22 inches of ballast.

10.4.3.2 Parkchester-Van Nest Station Area

The APE for the proposed Parkchester-Van Nest Station is in the existing railroad right-of-way parallel to East Tremont Avenue (Figure 10-2). The Phase IA documentary research found that precontact people used the surrounding area and possible the station site as well (Appendix G, "Historic, Archaeological, and Cultural Resources"). However, research also found that the APE was extensively affected when the NHL was originally constructed (excavation and grading was required to pass through the sloping land). East Tremont Avenue to the south now rises above the tracks in the APE by between 10 and 15 feet. The ground surface during the precontact and historic periods appears to have been lowered to allow for the creation of a 1 percent grade for the rail line. Any potential resources that may have once existed on the original ground surface have since been removed or disturbed; therefore, the Parkchester-Van Nest Station APE has no archaeological potential.

Figure 10-2. Area of Potential Effect (Existing Conditions): Segment 3 – Parkchester-Van Nest Station

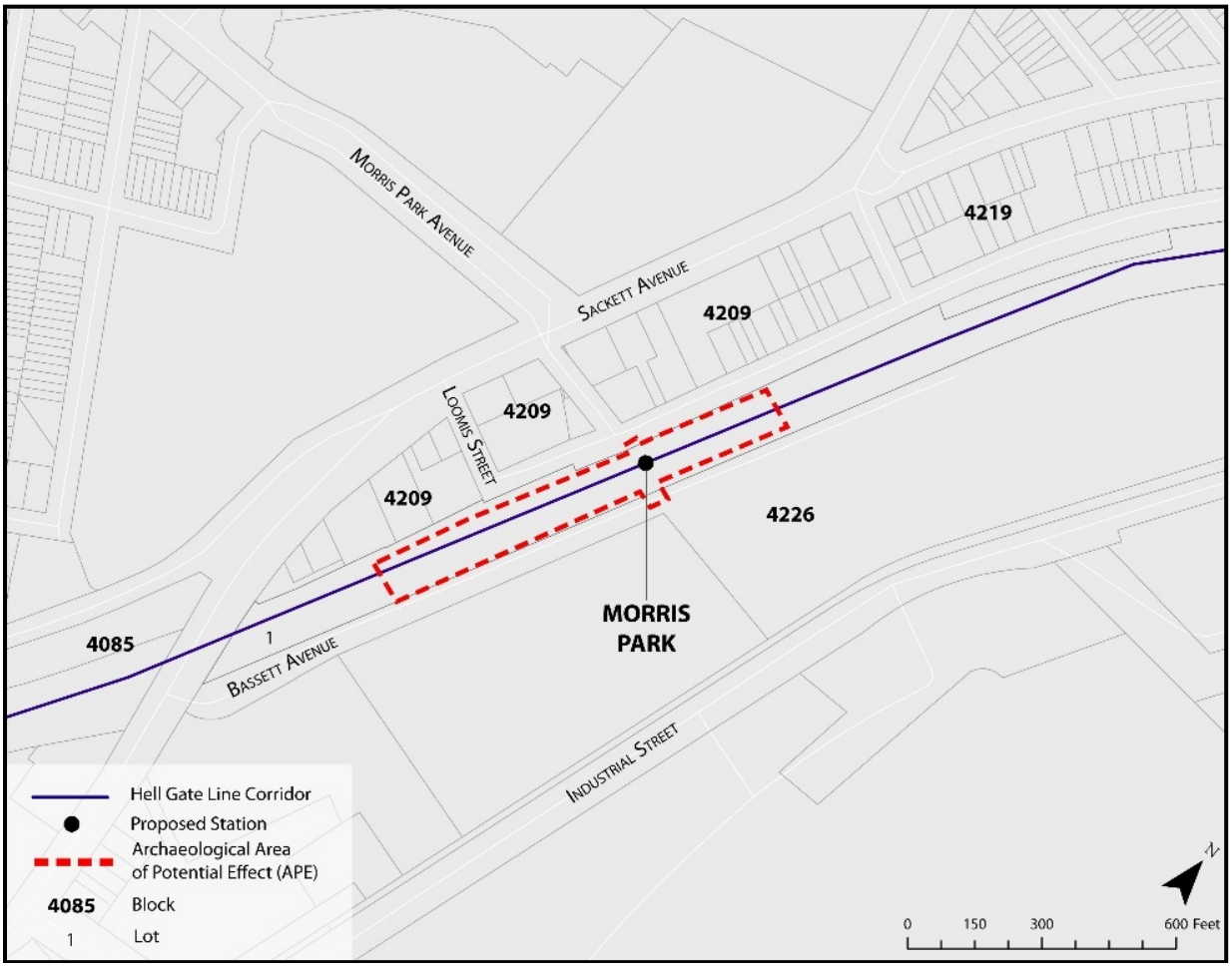


Source: New York City Department of City Planning and WSP, 2019

10.4.3.3 Morris Park Station Area

The Morris Park Station APE is in the existing railroad right-of-way parallel to and north of Bassett Avenue (Figure 10-3). A Phase IA study concluded that the Morris Park Station APE is potentially sensitive for precontact resources beneath fill that was used to create solid land where there was previously marsh along the Westchester Creek. The depth of fill is unknown, but the depth of track ballast is established as 22 inches below grade (Appendix G, "Historic, Archaeological, and Cultural Resources"). Therefore, the archaeological APE is potentially sensitive for precontact resources beneath at least 22 inches of ballast, and possibly deeper levels of fill.

Figure 10-3. Area of Potential Effect (Existing Conditions): Segment 3 – Morris Park Station

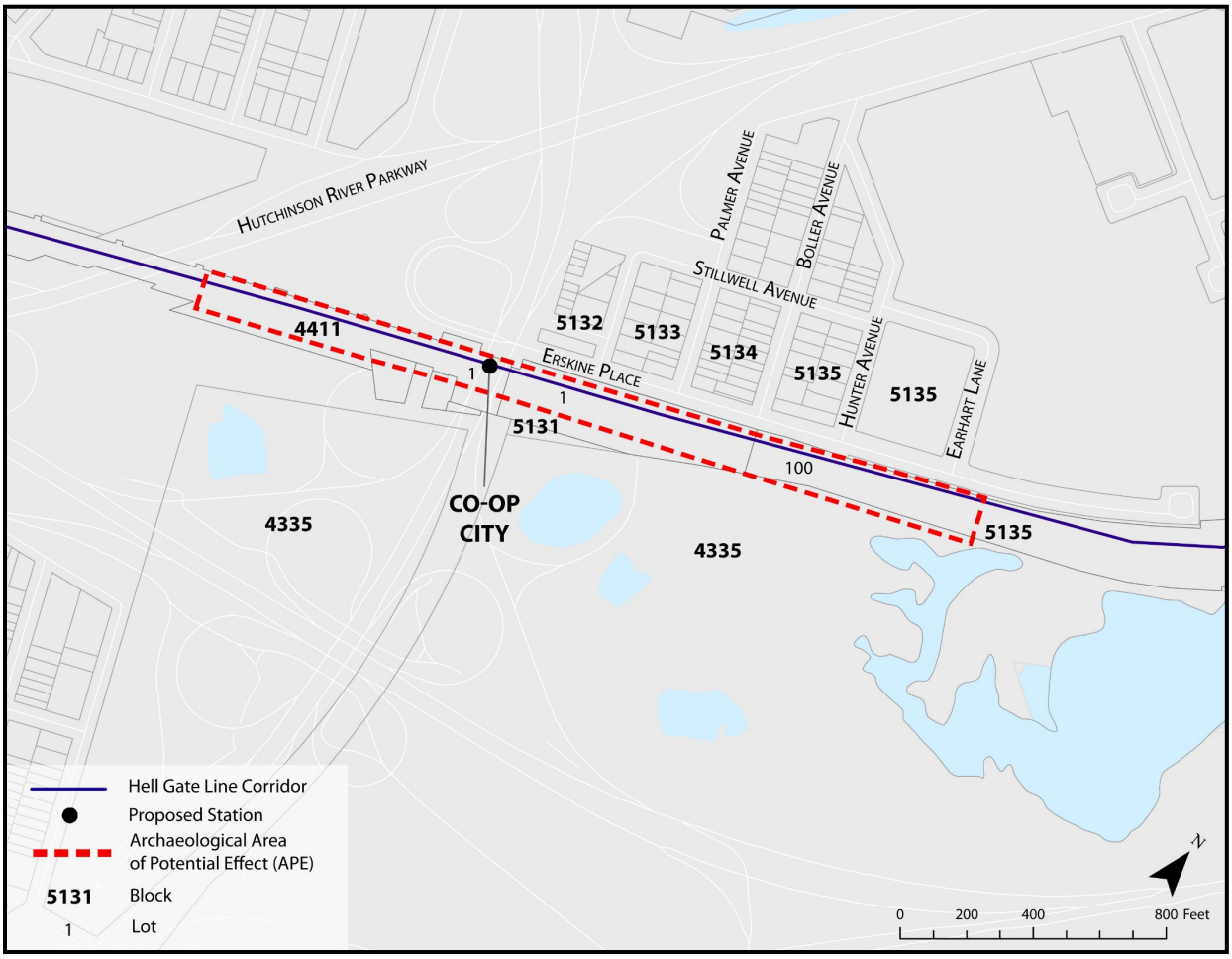


Source: New York City Department of City Planning and WSP, 2019

10.4.3.4 Co-op City Station Area

The Co-op City Station APE is in the existing railroad right-of-way parallel to Erskine Avenue (Figure 10-4). The Phase IA study concluded that the Co-op City Station APE is potentially sensitive for precontact resources beneath fill that was used to create solid land where there was previously marsh near Pelham Bay (Appendix G). The depth of fill in this location is unknown, but the depth of track ballast is established as 22 inches below grade. Therefore, the archaeological APE is potentially sensitive for precontact resources beneath at least 22 inches of ballast and possibly deeper levels of fill.

Figure 10-4. Area of Potential Effect (Existing Conditions): Segment 3 – Co-op City Station



Source: New York City Department of City Planning and WSP, 2019

10.4.4 Segment 4 (Corridor)

10.4.4.1 Corridor

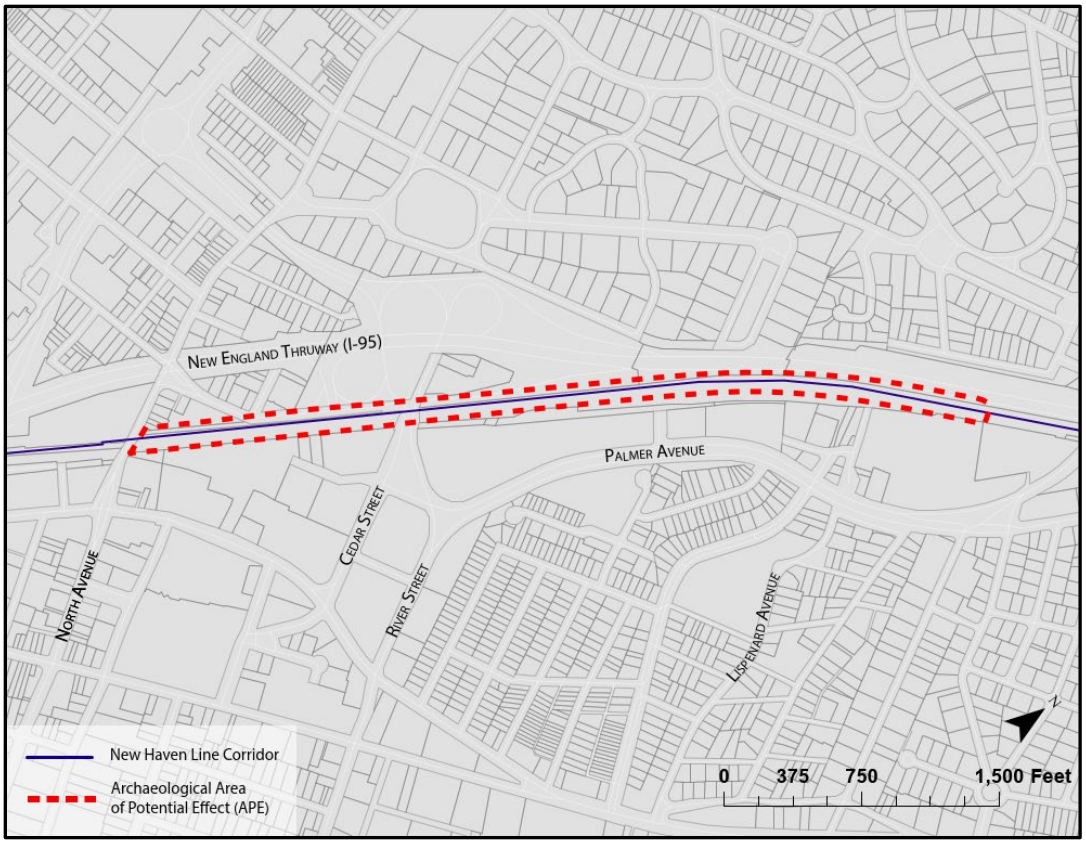
The original rail line in the Segment 4 Corridor was built to conform to the main line standard of the NHL throughout its entire length. In the early 20th century, the tracks were upgraded, which required the installation of 22 inches of ballast. Therefore, the archaeological APE for the Segment 4 Corridor is any location where disturbance would extend beneath the 22 inches of ballast.

- MTA identified precontact sites in proximity to Long Island Sound. While there are no reported intact archaeological resources in the Segment 4 Corridor, unknown archaeological resources in the APE could be beneath the 22 inches of introduced ballast.

10.4.4.2 New Rochelle Yard

The existing New Rochelle Yard consists of a Metro-North rail yard and tracks on the New Haven Line at New Rochelle, Westchester County, New York. As part of the Proposed Project, the existing yard would be expanded linearly to provide for the mid-day storage and turning of passenger fleet trainsets to accommodate PSA service. The archaeological APE is the rail alignment and yard extending from the North Avenue bridge, north to a point just north of Lispenard Avenue (Figure 10-5). The Phase IA found that the New Rochelle Yard APE was extensively disturbed, both vertically and horizontally, when the New York, New Haven, and Hartford Railroad line was first regulated and opened in the late 1840s, and again when the tracks and yard were sunk below their natural grade or elevated on an artificial embankment in conjunction with extensive upgrades in the late 1880s. Further, a review of soil borings confirmed that there were no undisturbed, intact soil horizons buried in the APE. Therefore, no additional archaeological consideration is recommended.

Figure 10-5. Area of Potential Effect (Existing Conditions): New Rochelle Yard



Source: Historical Perspectives, Inc., 2021.

10.5 NO ACTION ALTERNATIVE

MTA anticipates no construction in the HGL Corridor or station sites. Therefore, there will be no impacts to potential archaeological deposits.

10.6 PROPOSED PROJECT

10.6.1 Segment 1 (Corridor)

Within the Segment 1 Corridor, the Proposed Project would construct new passenger rail tracks and realign existing passenger tracks. The Proposed Project would require up to two new DC substations and require construction of new OCS and a signal system. The anticipated depth of construction disturbance to install new track and drainage and realign existing track in the right-of-way would be 2 to 6 feet below existing grade (up to 10 feet below existing grade in some cases). For OCS installation, the depth of construction disturbance could extend up to 20 feet below the existing grade.

The archaeological APE for Segment 1 has experienced prior subsurface disturbance to a depth of at least 22 inches below existing grade. There could be the potential for precontact archaeological resources where prior disturbance has not extended below the 22-inch threshold. Therefore, where subsurface impacts from the Proposed Project extend to a depth greater than 22 inches below grade, the Proposed Project could affect

unknown archaeological resources in the archaeological APE. As outlined in the Draft Programmatic Agreement, the design-builder will conduct an archaeological review in coordination with the subsurface geotechnical studies during the design phase.

10.6.2 Segment 2 (Corridor and Hunts Point Station Area)

10.6.2.1 Corridor

Within the Segment 2 Corridor, the Proposed Project would construct a new passenger rail track and realign existing tracks. In the Segment 2 Corridor, the Proposed Project would include a new Leggett Interlocking at its western end to improve operational flexibility, with a new Oak AC substation and a new Young Interlocking to handle the expansion to three passenger tracks. In Segment 2, the Proposed Project would also add a third passenger track from Leggett Interlocking for the full length of the segment, crossing the Bronx River Bridge south span on an existing vacant trackway and a new two span bridge to be constructed over the river. The anticipated depth of disturbance for constructing the interlockings, installing a new track and drainage, and realigning existing track in the right-of-way would be 2 to 6 feet below existing grade (up to 10 feet below existing grade in some cases). The installation of an abutment and pier for the new Bronx River bridge could extend down to bedrock.

The Segment 2 Corridor between East 149th Street and the Bruckner Expressway is in a below-grade cut and has no archaeological sensitivity due to the removal of 10 to 15 feet of the original ground surface. Therefore, the Proposed Project would not affect any archaeological resources between East 149th Street and the Bruckner Expressway. Proceeding farther east on the Segment 2 Corridor, precontact archaeological resources could be at a depth greater than 22 inches below grade. Therefore, where subsurface impacts from the Proposed Project extend to a depth greater than 22 inches below grade, the Proposed Project could affect unknown archaeological resources in the archaeological APE. As outlined in the Draft Programmatic Agreement, the design-builder will conduct an archaeological review in coordination with the subsurface geotechnical studies during the design phase.

In addition, MTA completed a Phase IA study for the APE of the new Bronx River bridge to assess archaeological potential (Appendix G, "Historic, Archaeological, and Cultural Resources"). The study found that the APE lacks potential for both precontact and historic archaeological resources; therefore, construction of the new two-span bridge over the Bronx River would have no impact to archaeological resources. The SHPO agreed with the finding in a letter dated May 4, 2020.

10.6.2.2 Hunts Point Station Area

MTA would construct the proposed Hunts Point Station, including an elevator and pedestrian overpass, in a deep railroad cut centered on Hunts Point Avenue west to Barretto Street and as far east as Faile Street. The Phase IA study of the Hunts Point Station APE found that the site was extensively affected when the NHL was originally constructed in the 1870s (Appendix G, "Historic, Archaeological, and Cultural Resources"). Since the site lacks archaeological potential, the Proposed Project construction of the Hunts Point Station would have no impact to archaeological resources.

10.6.3 Segment 3 (Corridor and Parkchester-Van Nest, Morris Park, and Co-op City Station Areas)

10.6.3.1 Corridor

The Segment 3 Corridor extends from a point just east of the Bronx River Bridge to just west of the Pelham Bay Bridge. Track reconfiguration in this segment would disturb conditions up to 6 feet below grade. The Proposed Project would replace the Van Nest AC Substation as well as rehabilitate or replace the Bronxdale Avenue and Eastchester Road bridges. The existing Pelham Bay Interlocking would be reconfigured. The archaeological APE for Segment 3 has experienced prior subsurface disturbance related to railroad construction to a depth of 22 inches below existing grade. There could be the potential for precontact archaeological resources where prior disturbance has not extended below the 22-inch threshold. Therefore, where subsurface impacts from the Proposed Project extend to a depth greater than 22 inches below grade, the Proposed Project could affect unknown archaeological resources in the archaeological APE of the Segment 3 Corridor. As outlined in the Draft Programmatic Agreement, the design-builder will conduct an archaeological review in coordination with the subsurface geotechnical studies during the design phase,

10.6.3.2 Parkchester-Van Nest Station Area

MTA would construct the proposed station, elevators, and pedestrian overpasses for the Parkchester-Van Nest Station within the existing railroad right-of-way and street space directly adjacent. The Phase IA documentary research found that precontact people used the surrounding area and most likely the station site. However, the site has experienced extensive subsurface disturbance (Appendix G) and any potential resources that may have once existed have since been removed or disturbed; therefore, the APE has no archaeological potential, and the Proposed Project construction of the Parkchester-Van Nest Station would have no impact to archaeological resources.

10.6.3.3 Morris Park Station Area

MTA would construct the proposed Morris Park Station, elevators, and pedestrian overpasses within the existing railroad right-of-way, which constitutes the archaeological APE. The Phase IA study concluded that the Morris Park Station APE is potentially sensitive for precontact resources beneath added fill that was used to create solid land where there was previously marsh along the Westchester Creek (Appendix G). Review of soil borings completed in September and October 2019 revealed a subsurface profile that contained track ballast above a deep level of fill to a depth ranging between 16 feet to 22.5 feet below grade. One boring, at the south end of the proposed station site produced a level described as "organic" between the fill and the glacial till level (22.5 feet below grade extending to 27.5 feet below grade); however, the sample lacked shells, peat, or other materials that would indicate a potential precontact living surface. Therefore, the southernmost location of the proposed platform has potential precontact sensitivity, but only a low probability for producing an intact archaeological site. In a letter dated April 14, 2020, the SHPO concurred with the soil boring analysis. As outlined in the Draft Programmatic Agreement, should design necessitate that the identified archaeologically sensitive deposits be disturbed by the Proposed Project, the design-builder would develop Phase IB testing work plans and submit them to the SHPO for review and comment.

10.6.3.4 Co-op City Station Area

In Segment 3, the Proposed Project would connect to the existing low-level movable Pelham Bay Bridge. MTA would locate the new Co-op City Station platforms principally east of the I-95 New England Thruway overhead bridge. MTA would construct the proposed interlocking, elevators, platforms, and pedestrian overpasses within

the existing railroad right-of-way. The Phase IA study concluded that the Co-op City Station APE is potentially sensitive for precontact resources beneath approximately 22 inches of ballast, and beneath any added fill (Appendix G, "Historic, Archaeological and Cultural Resources"). Review of soil borings completed in September and October 2019 revealed four borings with an intact soil level with organics, one with peat, encountered between 5 and 9 feet below grade and ranging in thickness from 2 to 5 feet. Therefore, this location has potential precontact sensitivity, with a moderate probability for producing an intact archaeological site. In a letter dated April 14, 2020, the SHPO concurred with the soil boring analysis. As outlined in the Draft Programmatic Agreement, should design necessitate that the Proposed Project disturb identified archaeologically sensitive deposits, the design-builder would develop Phase IB testing work plans and submit them to SHPO for review and comment.

10.6.4 Segment 4 (Corridor)

- Within the Segment 4 Corridor, the Proposed Project would construct some new tracks and realign existing tracks. In Segment 4, the Proposed Project would provide a new Bronx Interlocking and rehabilitate or replace the Pelham Lane Pathway Bridge. The Proposed Project also proposes to replace the existing New Rochelle AC substation, as well as expand the New Rochelle Yard. There are no proposed stations in this segment.
- The anticipated depth of construction disturbance is 2 to 6 feet below existing grade (up to 10 feet below existing grade in some cases). The Segment 4 APE is defined as any location where there would be subsurface impacts from the Proposed Project to more than 22 inches below grade. There could be the potential for precontact archaeological resources where prior disturbance has not extended below the 22-inch threshold. Therefore, where subsurface impacts from the Proposed Project extend to a depth greater than 22 inches below grade, the Proposed Project could affect unknown archaeological resources in the archaeological APE of Segment 4. As outlined in the Draft Programmatic Agreement, for locations where new subsurface disturbance are expected to occur, the design-builder will conduct an archaeological review in coordination with geotechnical studies during the design phase.
- In addition, MTA completed a Phase IA study for the APE of the expanded New Rochelle Yard to assess archaeological potential (Appendix G, "Historic, Archaeological, and Cultural Resources"). The study found that the APE lacks potential for both precontact and historic archaeological resources; therefore, expansion of the yard would have no impact to archaeological resources.

10.7 MEASURES TO MINIMIZE ARCHAEOLOGICAL IMPACTS

As outlined in the Draft Programmatic Agreement (Appendix G, "Historic, Archaeological, and Cultural Resources"), at locations where MTA identified archaeologically sensitive areas through the Phase IA studies prepared as part of this EA, the design-builder will compare the potential depth of disturbance with the depth of potential sensitivity once a design is finalized. The results of the analysis would be submitted to SHPO for review.

If excavation would occur to a depth that could affect impact archaeologically sensitive locations, the design-builder will complete Phase IB field testing to identify the presence or absence of archaeological resources. Prior to commencing any field investigations, a Field Testing Protocol outlining the proposed methodology

will be submitted to the SHPO for review. For all field-tested locations, a Phase IB report will be submitted to SHPO for review.

If archaeological resources are identified through Phase IB investigations, the design-builder will undertake further investigations in the form of Phase II excavations to evaluate identified resources for NRHP-eligibility using the *Secretary of Interior's Standards and Guidelines for Evaluation* (48 Federal Register 44723-44726, and National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*). An assessment of the effects of planned ground disturbing construction activities on any NRHP-eligible resources will be undertaken. If adverse effects cannot be avoided, a Data Recovery Plan will be prepared for review and approval by SHPO. The Data Recover Plan will be consistent with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-44737), the Council's Treatment of Archaeological Properties, and the standards of the SHPO (NYAC 1994, 2000; Office of Parks, Recreation, and Historic Preservation 2005), as appropriate. The Data Recovery Plan will specify the following:

- Exact location of data recovery
- Identification of any property that will be destroyed or altered without data recovery
- Research questions to be addressed by the data recovery, with an explanation of their relevance and importance
- Methodology of analysis, management and dissemination of the data, including a schedule
- Disposition and curation standards for recovered materials and records
- Procedure for including the interested public
- Proposed methods for disseminating results of the work to the interested public
- Proposed schedule for submission of progress reports to the SHPO.

MTA will ensure that the Data Recovery Plan is implemented. If MTA and SHPO cannot agree on how to resolve an adverse effect, then MTA will resolve the disagreement in accordance with 36 C.F.R. § 800.6(b).

MTA, in consultation with FTA and SHPO, will develop an Unanticipated Discovery Plan that will be followed in the event that any unanticipated archaeological and/or human remains are encountered during construction of the Proposed Project. FTA, MTA, and SHPO acknowledge that extraordinary costs would be incurred if construction were to be halted or delayed once underway. Accordingly, the parties will make every effort to implement the approved the Unanticipated Discovery Plan expeditiously in circumstances requiring its use.

If human skeletal remains are encountered, then MTA will follow the Unanticipated Discovery Plan and treat remains in accordance with the current (2018) SHPO guidelines, and with the applicable (2003) New York Cemetery Act provisions. In addition, compliance with New York City regulations would be required, including notifying both the New York City Police Department and the New York City Office of the Chief Medical Examiner. If it is determined that the skeletal remains (and any associated grave goods) are Native American, then 5h3 MTA will additionally, and as soon as possible, consult with the SHPO and FTA regarding the applicability and implementation of relevant procedures under the Native American Graves Protection and Repatriation Act of 1990 (43 C.F.R. Part 10). No human remains will be removed from the site without a NYC Department of Health Disinterment Permit. MTA will treat all unanticipated discoveries in accordance with the procedures outlined in 36 C.F.R. §§ 800.11 and 800.13 in consultation with FTA and SHPO.

MTA will ensure that the adequacy of efforts to identify archaeological resources, the professional qualifications of archaeological personnel, and the standards for all submitted reports are in accordance with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716), as well as the standards of SHPO (NYAC 1994, 2000; Office of Parks, Recreation, and Historic Preservation 2005).

10.8 CONCLUSION

Research to date has established that past construction activities related to the transportation use of the corridor have disturbed sections of the HGL Corridor, which have greatly affected the preservation of potentially intact archaeological resources. The depth of disturbance is tied to the 22-inch depth of the constructed trackbed ballast. Therefore, the Proposed Project could affect archaeological resources in areas where the depth of construction exceeds 22 inches. Previous Phase IA studies of the four station sites, the proposed new two-span bridge over the Bronx River, and the expansion of New Rochelle Yard found no archaeological potential at the proposed Hunts Point and Parkchester-Van Nest Stations, the new Bronx River bridge site, and the New Rochelle Yard expansion site. The Morris Park Station site and the Co-op City Station site were found to be potentially sensitive for precontact resources beneath approximately 22 inches of ballast, and possibly beneath deeper levels of added fill. Further geotechnical studies of these two sites clarified subsurface conditions and archaeological potential. The Morris Park Station site has low archaeological sensitivity and the Co-op City Station site has moderate archaeological sensitivity. As outlined in the Draft Programmatic Agreement, the design-builder would avoid any impacts to potential resources through further investigation and, if necessary, mitigation prior to construction.

Further, if the Proposed Project results in previously unidentified effects to historic properties located in the APEs, then MTA will conduct additional Section 106 review in coordination with the SHPO. This review would include delineating additional APEs if required; identifying potential archaeological resources; evaluating effects should any potential or eligible resources be identified and, if necessary, mitigation prior to construction.