Phase IA Documentary Study and Archaeological Assessment of P-102DELV- Reconstruction of Del Valle Square, Borough of the Bronx



Prepared for:

City of New York – Department of Design and Construction New York, New York Abel Bainnson Butz, LLP New York, New York

New York State Office of Parks, Recreation and Historic Preservation Albany, New York

City of New York – Landmarks Preservation Commission New York, New York

Prepared by:

Alyssa Loorya, M.A., R.P.A., Kate McCormick, M.A., R.P.A. Eileen Kao, and Chrysalis Archaeological Consultants, Inc.

Edited by:

Christopher Ricciardi, Ph.D., R.P.A., Chrysalis Archaeological Consultants, Inc.

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MANAGEMENT SUMMARY TABLE

NY SHPO Project Review Number:	
Involved City/State/Federal Agencies:	City of New York - Department of Design and Construction (DDC)
	City of New York - Department of Parks and Recreation (Parks)
	New York State Office of Parks, Recreation and Historic Preservation (NY SHPO)
	City of New York – Landmarks Preservation Commission (LPC)
Phase of Survey:	Phase IA
Location Information:	Monsignor Raul Del Valle Square (Block 2741, Lot 200)
Survey Area:	Approximately 29,000 square feet
USGS 7.5 Quad Map:	Central Park Quadrangle, 2016
Archaeological Survey Overview:	Phase IA
Results of Archaeological Survey:	Low to no potential for Historic resources
Recommendation:	No further work is recommended
Results of Architectural Survey: Buildings within Project Area: Buildings adjacent to Project Area Previous N/R Buildings: Eligible N/R Buildings	1 0 0 0
Report Authors:	Alyssa Loorya, M.A., MPhil., R.P.A. Kate McCormick, M.A., R.P.A. Eileen Kao
Report Editor:	Christopher Ricciardi, Ph.D., R.P.A.
Date:	May 2017

On behalf of The City of New York - Department of Design and Construction (DDC) and the City of New York – Department of Parks and Recreation, Abel Bainnson Butz, LLP, contracted Chrysalis Archaeological Consultants, Inc. (Chrysalis) to produce a Phase IA Documentary Study and Archaeological Assessment for P-102DELV- Reconstruction of Del Valle Square, Borough of the Bronx. The project area is located at Block 2741, Lot 200, Bronx (Bronx County), New York, bounded by Bruckner Boulevard on the southeast, Hunts Point Avenue on the west, and East 163rd Street on the north.

All work was conducted in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended, the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800), the New York State Historic Preservation Act (SHPA), New York State Office of Parks, Recreation and Historic Preservation (NY SHPO) guidelines (New York Archaeological Council [NYAC] 1994; 2000; 2002), the (New York) State Environmental Quality Review Act (SEQRA), the (New York) City Environmental Quality Review Act (CEQRA) and the City of New York – Landmarks Preservation Commission (LPC) regulations regarding archaeological investigations.

The purpose of this Phase IA is to provide a documentary history of, and around, the project area in order to assess the impacts of proposed activities within the Area of Potential Effect (APE). More specifically, the goal of the study was to identify the prehistoric and historic potential of the APE with regard to buried and/or extant cultural resources. The APE is defined as any area in which proposed construction activities related to the project have the potential to disturb ground surface and in turn possible cultural resources. This study will assess if the site has the potential to contain significant cultural resources that would be impacted by the proposed development of the APE as well as provide a recommendation for further study or mitigation should the potential for disturbance to potential buried cultural resources exist.

Due to its location in a bustling commercial area, use as a transportation hub, and design inefficiencies, the Square produces high rates of pedestrian-vehicular conflict and incidents of dangerous and illegal left and U-turns. The current proposal for the reconstruction of the square aims to redesign the transportation and traffic operations with the goal of enhancing efficiency and pedestrian safety. The project aims to reduce pedestrian/traffic conflicts and simplify the traffic configuration to improve flow and reduce congestion, while also creating a functional and vibrant public space in the neighborhood.

Based on the documentary study, Chrysalis determined that it is highly unlikely for any cultural resources to exist beneath Del Valle Square. Since the beginning of the twentieth century, the APE has been significantly impacted by modern development—primarily as a result of extensive excavations for the Hunts Point Avenue subway station and to a lesser degree the construction of the Bruckner Expressway. No further archaeological testing or investigation is recommended.

Alyssa Loorya, M.A., R.P.A., Principal Investigator, Kate McCormick, M.A., and Eileen Kao authored this report and Christopher Ricciardi, Ph.D., R.P.A., edited, on behalf of Chrysalis.

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Chrysalis Archaeological Consultants would like to thank Terri Burger, Stephen Pool and David Weissman from Abel Bainnson Butz, LLP for the opportunity to work on their team. Thanks always to NYC DDC for their continued support of the archaeological process. Finally, thanks to Amanda Sutphin (NYC LPC) and Phil Perazio (NY SHPO) for their coordination and cooperation throughout the process.

I. INTRODUCTION

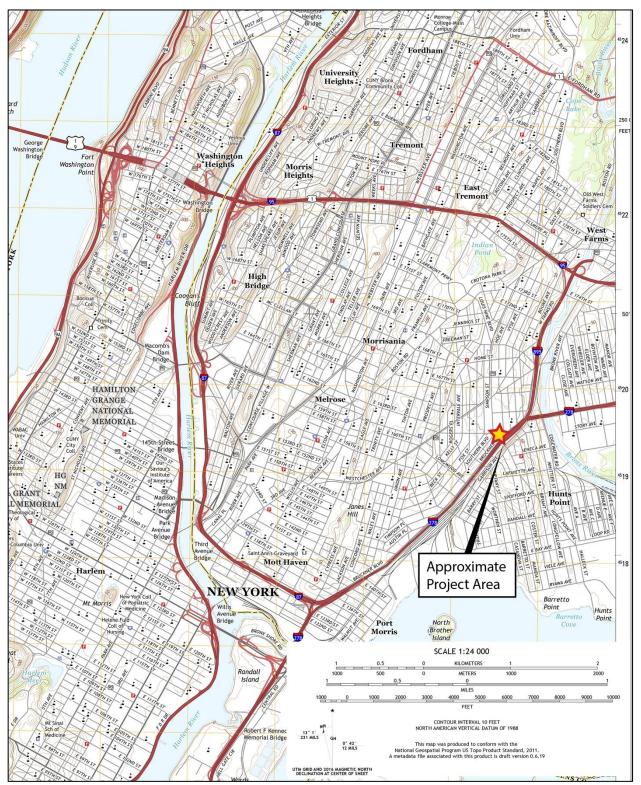
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The area known as Monsignor Del Valle Square, formerly Crames Square, has experienced several modifications since the mid-nineteenth century, including the construction of the Hunts Point Avenue subway station. Due to the location in a bustling commercial area, existing transportation hub, and design deficiencies (i.e. inadequate signage, etc.), the Square produces high rates of pedestrian-vehicular conflict and high incidents of dangerous and illegal left and U-turns. The current proposal for the reconstruction of the square aims to redesign the transportation and traffic operations with the goal of enhancing efficiency and pedestrian safety. Specific safety benefits of the project include simplifying traffic patterns, shortening pedestrian crossing distances, separating bus and pedestrian movements, and guiding pedestrians to legal crossings. An additional goal is to redesign and beautify the existing public space to encourage pedestrian lingering through improvements such as new landscape design and increased site amenities. The project aims to draw increased foot traffic, improve retail business, and ultimately stimulate the overall economy of the surrounding neighborhoods.

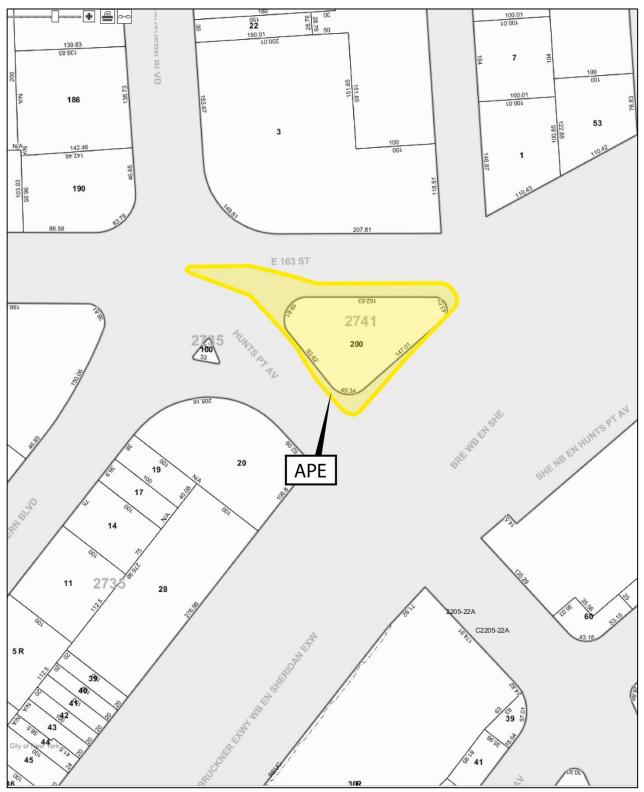
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Alyssa Loorya, M.A., R.P.A., Principal Investigator, Kate McCormick, M.A., and Eileen Kao authored this report and Christopher Ricciardi, Ph.D., R.P.A., edited, on behalf of Chrysalis.



Map 01: Map of project area, Central Park Quadrangle, New York-New Jersey (USGS 2016).



Map 02: Tax map of the APE (NYC Department of Finance 2016).

AREA OF POTENTIAL EFFECT (APE)

The APE is a concrete and brick-paved triangular-shaped public space in a bustling commercial and mixed-use district. It measures approximately 2,695 sq. meters (.67 acres) and is adjacent to Bruckner Boulevard and Expressway, approximately .35 miles west of the Bronx River. It is estimated that thousands of pedestrians pass through the Square each day. The Hunts Point Ave station of the 6-train is located beneath the primarily open-space, which contains one elevator and two stair entrances to the subway platform. Three bus lines operate on the streets adjacent to the square including the Bx 5, 6, and 19. A single-story brick structure, which previously served as a comfort station, is located on the southeast side of the Square (Map 03).

PROJECT DESCRIPTION

The design of the proposed project will permanently reconfigure vehicular, bus, and pedestrian circulation at Del Valle Square to enhance traffic efficiency and pedestrian safety. In addition to the geometric and operational improvements, the proposal includes significant improvements to the design of the plaza to encourage public usage and community participation (Map 04).

Explicit goals of the reconstruction project are:

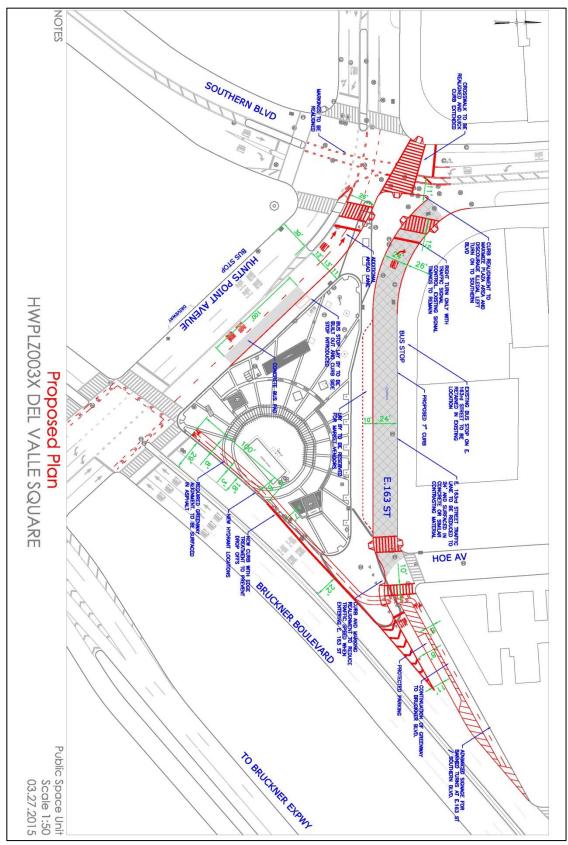
- to enhance pedestrian safety and reduce pedestrian/traffic conflicts;
- to simplify the traffic configuration so as to improve flow and reduce congestion;
- to rehabilitate and enhance the pedestrian plaza to create a functional and vibrant public space;
- to improve bus movement and loading; and improve access to the subway station.

To accomplish these goals, the proposed project activities will involve:

- roadway and curb realignments that significantly reduce traffic flow on East 163rd;
- adding a lane on Hunt's Point Avenue to handle the diverted traffic;
- crosswalk realignment;
- providing a safe route through a congested area for bicyclists by including a connection for two sections of the South Bronx Greenway;
- reconfiguring hydrant locations as required;
- modifying underground utilities as required;
- upgrading signage;
- installing site amenities, such as adequate seating;
- implementing tree planting program and new plaza and landscape design.



Map 03: Aerial map of the APE (NYC Department of Finance 2012).



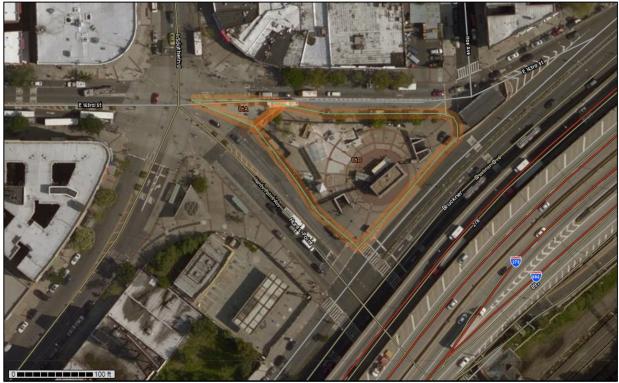
Map 04: Proposed project plans.

II. ENVIRONMENTAL AND GEOGRAPHIC SETTING

The Bronx is a coastal lowland lying within the Hudson Valley Region and is part of the Manhattan Prong of the New England Upland Physiographic Province, which is an extension of the Great Appalachian Valley and includes Manhattan, the Bronx, Westchester County, and part of Putnam County (Isachsen et al. 2000; Scharf 1886). The Bronx is underlain by three different types of bedrock: Fordham gneiss, which is a metamorphic rock found typically in areas with steep terrain; Inwood marble, which is found in low lying areas; and Yonkers granite or Yonkers gneiss, found in the north Bronx and Westchester County (John Milner Associates 2007).

The geology and topography of the Bronx is the result of substantial glacial activity that occurred in the region over nearly half a million years ago. Until at least 20,000 years ago, during the Wisconsinian Glaciation, the project area was covered by the Laurentide Ice Sheet. The glaciers left behind rock and earth that formed moraines running north to south. Glacial meltwater formed rivers and creeks throughout the area, including the Bronx River, the only freshwater river in New York City. Lakes and ponds were also formed at the end of the glacial period, and swamps and marshes formed in areas with poor drainage. The modern terrain of the Bronx is varied and includes hills and level terrain, rock outcroppings and low-lying forests.

According to the United States Department of Agriculture (USDA) soil survey, the soils surrounding the APE are characterized as UtA—Urban land, till substratum, 0-3% slopes (7% of APE) and UtB—Urban land, till substratum, 3-8% slopes (93% of APE). Typical of urban areas, the soils are no longer suitable for farming and have substrata described as "human-transported material" (USDA 2015) (Map 05).



Map 05: USDA Web Soil Survey map (USDA 2015).

III. HISTORIC CONTEXT

PRE-CONTACT PERIOD

The earliest date for human occupation in the northeastern United States is approximately 12,000 to 15,000 years before present (B.P.) following the termination of the last ice age and the recession of the Wisconsin Ice sheet that once covered the area (Kraft 1986; Fagan 2004). The sequence of prehistoric occupation is divided into three major cultural periods: Paleo-Indian (circa 13,000 – 10,000 B.P.), Archaic (circa 10,000 - 3,000 B.P.), and Woodland (circa 3,000 B.P.-A.D. 1600). In most regions of the United States, the prehistoric era starts at the beginning of human occupation and terminates at first contact with European settlers. These cultural period divisions are recognized and identified through changes in climate and the archaeological record.

The Paleo-Indian Period

North America was originally populated by nomadic hunter-gatherers who crossed the Bering Strait from Siberia to Alaska over a land bridge that was exposed during a period of lowered sea levels. These people moved into North and South America, following the megafauna, which they hunted, and adapting their subsistence strategies to available seasonal resources. Paleo-Indian groups consisted of small bands that remained highly mobile, with two bands occasionally joining together for the purposes of exchanging mates or material culture (Fagan 2005). They did not establish permanent settlements but moved seasonally according to resource availability.

Because of the need for mobility, Paleo-Indian tools and other material culture were not overly complicated or large. Lithic assemblages associated with Paleo-Indians in the project area region are of the Eastern Clovis Tradition, which is characterized by lanceolate projectile points with a flute removed on both sides, and other flaked tools (Fagan 2005).

Paleo-Indian sites tend to be located in one of several types of areas. Temporary camps at elevated locations were well-drained and provided good vantage points for identifying and observing the movements of game (Ritchie and Funk 1971). Rivers, lakes, salt marshes and other coastal environments were utilized for the abundant fish, shellfish, fowl, plant life and other aquatic resources that could be easily procured. Lithic assemblages associated with Paleo-Indian are of the Eastern Clovis Tradition, characterized by flaked tools and fluted lanceolate projectile points. Lithic processing sites are often found alongside streams and rivers where food was procured (Marshall 1982; Fagan 2005).

Very few Paleo-Indian sites have been found in the vicinity of the Bronx due to the ephemeral nature of such sites and centuries of post-contact land disturbances, so little is known about the people who inhabited the region during this time (Cantwell and Wall 2001). It is probable that any Paleo-Indian inhabitants of the Bronx consisted of small bands of mobile hunter-gatherers whose subsistence was focused on hunting large mammals such as bison, caribou and mastodon, and supplemented with smaller game and seasonal local plant life.

The Archaic Period

Radical changes in the environment at the end of the glacial period and the resulting changes in available resources, including the extinction of megafauna, necessitated major shifts in the adaptive strategies of indigenous peoples in the Americas. As climate warmed, peoples in the northeastern woodlands turned to deer and other forest mammals, fish and a greater reliance on plant foods, including nuts (Fagan 2005). The overall pattern of Archaic adaptations in the northeast has been described as one of "increasing efficiency and success in exploiting the resources of the forest" (Caldwell 1958).

Settlement patterns during the Archaic remained semi-mobile as the available resources shifted throughout the year, but there was a trend towards increasingly longer amounts of time spent in one location. Groups established base camps, and moved periodically throughout a more limited territory as resources became available (McManamon, et al. 2009). Although population remained low, areas with rich and diverse resources were favored locations and were heavily utilized. The main population concentrations were centered in river valleys that had a wealth of diverse animal and plant resources (Fagan 2005).

Archaeological evidence for diversity in cultural adaptations is present in the form of more diverse and complex tool kits compared to Paleo-Indian technology. Stone tools were more refined, and tools in general displayed more variety, including such new implements as ground stone axes, celts, and gouges. Related to these tool-types were improvements in woodworking skills (Kraft and Mounier 1982).

Information about the Archaic period inhabitants of the Bronx comes from a number of sites that have been identified in the broader region. The majority of these are shell middens found along bodies of water, including several in the Bronx (Rothschild and Matthews 1993; Skinner 1920; Parker 1920; Chrysalis 2015). Evidence suggests that indigenous cultures in this region followed the general Archaic pattern of increased diversity in stone tool kits and the ability to adapt to a wider range of diverse resources. In coastal regions such as the Bronx, this included increased use of marine resources such as the oysters and other shellfish found throughout southeastern New York.

The Woodland Period

Many of the adaptive strategies developed during the Archaic period in the northeastern woodlands continued into the Woodland period. Early and Middle Woodland groups that inhabited the area would have followed the same general settlement and subsistence patterns as the archaic groups before them but made intricately decorated ceramic vessels. Rivers remained central to indigenous territories, utilized not only for their rich resources but also for transportation and communication between scattered peoples. Bands remained small, possibly consisting of a few hundred people at most, with this number being a seasonal aggregate rather than a constant population in fully articulated agricultural sites. Stone tools continued to evolve, and in New York, much of the Woodland period toolkit is characterized by long, narrow points (Kraft 1986; Fagan 2005).

Two major innovations that characterized the Woodland period were the production of clay pottery and the appearance of horticulture/agriculture. Connected to the development of agriculture was the establishment of permanent villages in the Late Woodland period (Kraft 1986; Custer 1988). According to various predictive models, the area around the APE would have been a desirable location for settlement during this period. Numerous wetlands, plentiful natural grasses and plants and abundant game would have provided a variety of plant and animal food and fresh drinking water. The coastal and riverine environments, including the Bronx River, would have been an excellent source of fish and shellfish as well as waterfowl and aquatic plants from the salt marshes. The area waterways also offered transportation options that connected the Bronx to trading and cultural centers to the south, as well as communities upriver in the inland regions that became upstate New York. The rich deciduous forests found throughout the area could have been utilized for plant life such as acorns and mammals, including deer and squirrel.

Prior to European settlement of North America, the Hudson Valley was occupied by people belonging to the Lenni Lenape Native American group of the Algonquin Nation. At the time of European contact as many as 15,000 Native Americans inhabited the New York City area (Burrows and Wallace 1999). The predominant group, called the Wickquasgeck, part of the Wappinger Confederacy, occupied the Hudson River Valley from northern Manhattan to Westchester County (Bolton 1934; Grumet 1981). Pre-contact territory boundaries were not fixed, and several groups of Lenape may have been present in the area, including the Manhattans, the Sint Sinks, the Siwanoy and the Kitchawancs (Scharf 1886). Multiple large settlement sites from the Woodland Period have been documented in the Bronx such as the Mosholu/Keskeskick, Shorakapkock, Nipinichsen, Gowahasuasing and Saperewack (Rothschild and Matthews 1993). The Quinnahung was a large site in Hunts Point reportedly abandoned after European settlement, across the Bronx River from the Snakapins or Clason Point site, an area occupied by groups from the Late Archaic to Late Woodland Periods (Bolton 1922; DeVillo 2015).

Although Native American groups did not keep written records of their habitation, brief descriptions of the area in the seventeenth century are available through written accounts from Henry Hudson's voyage on behalf of the Dutch East India Company. With the arrival of Europeans, Native American settlement and influence in the area quickly diminished. The early European settlers in the area did not establish or maintain amicable relations with the local Native American groups and therefore did not portray them well in recorded history.

Soon after the arrival of the Europeans a majority of the Native American population was decimated by a combination of war and disease (Burrows and Wallace 1999; Ritchie 1958). Both Native American and European cultures were substantially altered by interactions between the groups, and the material remains from this time period often exhibit an adaptive quality, with the incorporation or overlay of European cultural aspects onto Native cultures, or vice versa. Unfortunately, several factors have helped to reduce the degree of documented history and research potential with regard to Native American activity in the New York City area. Permanent settlements by Native Americans did not occur until fairly late in the Woodland Period. The majority of uncovered Native American sites within the area were either located on the highly disturbed fringes of the City or were excavated by amateurs and/or pot-hunters/looters at the turn of the twentieth century, thus destroying the Native American history of the area, without proper documentation (Cantwell and Wall 2001; Bolton 1922, 1934; Burrows and Wallace 1999).

CONTACT PERIOD

Henry Hudson's 1609 expedition up the Hudson River was likely the first time Europeans laid eyes on the countryside that would one day be known as the Bronx. Years later in 1639, the Dutch West India Company purchased land north of the Harlem River from the Weckquaesgeek tribe (Scharf 1886). The first European inhabitants of this land were a Swedish sea captain named Jonas Bronck, his family, and a number of indentured servants, who established a farm along the Harlem River in what is today the neighborhood of Mott Haven. Although Jonas Bronck died just four years after starting his farm, the Bronck family name remained.

The village of Westchester was the first permanent European settlement in the area. Thomas Pell, who bought the deed from the local Siwanoy leader founded Westchester in 1654. He and sixteen other families moved from Connecticut to the land east of the Broncks' farm, across the Broncks' (Bronx) River. When the New York Colony formed counties in 1683, the area to the north of New York was made Westchester County and the eponymous town served as the county seat until 1714. The village was granted a charter to become a borough in 1696, making it the first and only town in New York with an elected mayor (Hermalyn and Ultan 1995).

HISTORICAL PERIOD¹

Seventeenth & Eighteenth Centuries

Lewis Morris, born in 1671, became the first lord of Morrisania as an infant. His parents, Richard and Sarah Morris, purchased the original Broncks farmland shortly before their deaths, leaving the infant to be raised by his uncle, Colonel Lewis Morris. After Col. Morris's death in 1691, Lewis Morris took full control of the estate, and in 1697 was granted a patent for the land by Governor Fletcher (Historical Society of the New York Courts). There was some question as to the rightful owner of some of the lands claimed by Lewis Morris, as a number of families had been occupying the land since 1666 under the community name of West Farms. The head of one such family was Thomas Hunt, for whom Hunts Point is named. The area would not be fully settled until 1740 (Bolton 1848). Along with the towns of Westchester and its neighbor Eastchester, the manor of Morrisania was one of four estates that comprised what is today the Bronx, along with Pelham, Fordham, and Philipsburgh (Hermalyn and Ultan 1995).

The Morris family produced many notable men. The Lewis Morris who obtained the patent for the manor later became first Judge, then Chief Judge of the New York Supreme Court of Judicature, and in 1738 was appointed Governor of New Jersey, a position held until his death in 1746. Two of his grandsons, Lewis Morris III (who inherited the estate) and Gouverneur Morris, signed the Declaration of Independence. Lewis Morris III also wrote a letter to the Continental Congress in 1783 proposing Morrisania become the permanent capitol of the new nation. The proposal was never considered. (Bronx County Historical Society 2016).

¹ Additional project area maps, not directly referenced in the text are presented in Appendix A.

During English rule, inhabitants of the Bronx were predominantly English and Dutch. Slaves from the West Indies were often found in households and on farms, although rarely in large numbers, and the area's first free black person appears in records from 1698. By the early 1700s, Native Americans had left the area. While the colonial government supported the Anglican Church the majority of worshipers in the area were Presbyterian, Quakers, and members of the Dutch Reform Church. Catholics did not arrive in the Bronx until 1744, followed a decade later by the first Jews (Hermalyn and Ultan 1995).

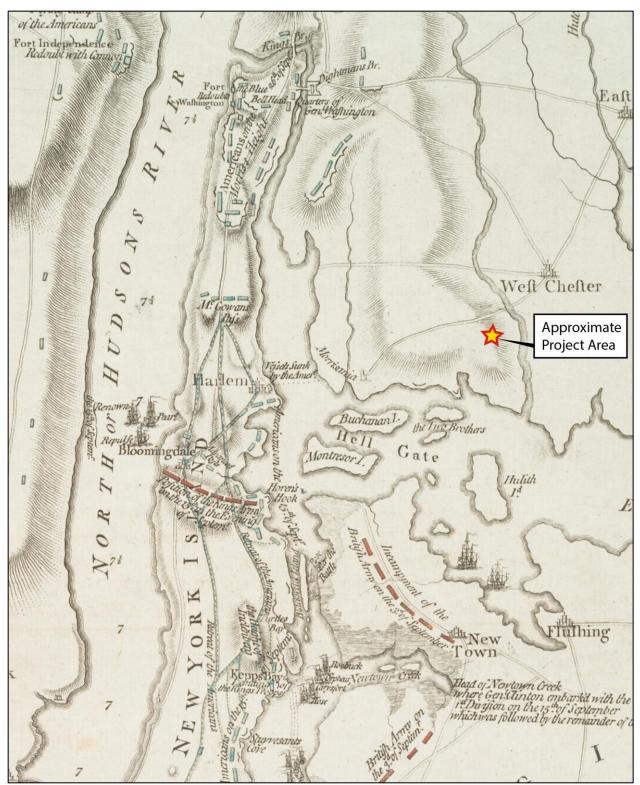
The Bronx remained under British control during the Revolutionary War but saw a great deal of activity (Map 06). The British landed at Throgs Neck on October 12, 1776, circumventing American fortification efforts, but were stalled six days later at the Battle of Pell's Point, allowing Washington and his army to withdraw to White Plains. The final act of the war occurred in 1783, as Washington's army marched from the Van Cortlandt mansion, five miles north of the APE, to re-take New York City from the retreating British (Hermalyn and Ultan 1995).

Nineteenth Century

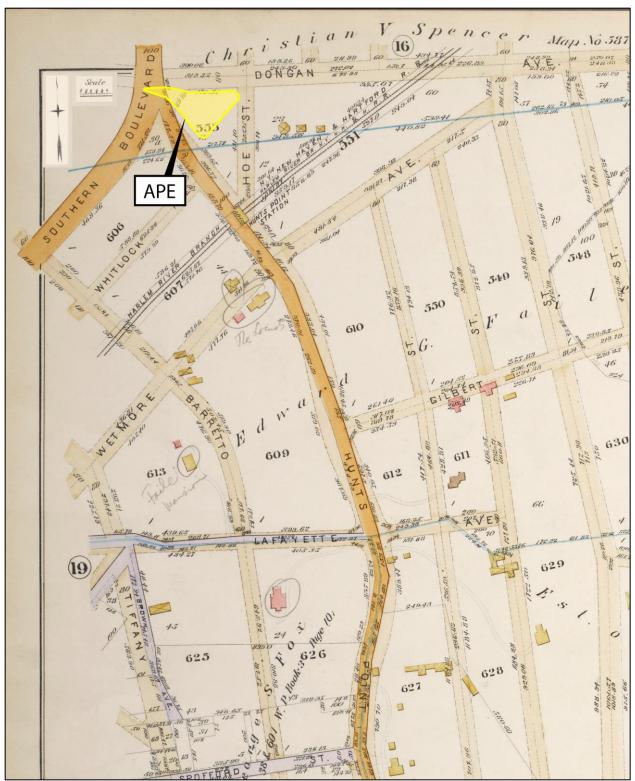
Morrisania and the surrounding area remained relatively rural and undeveloped until 1842, when the New York and Harlem Railroad extended its line from eastern Manhattan, across the Harlem River, up to Williams Bridge, approximately 4 miles northeast of the APE (NYCSHS 2008). The Harlem River and Portchester Railroad was built between 1866 and 1873, passing through the southeast edge of the APE as it connected Manhattan to the suburban town of Portchester to the northeast (Parks 2009). The Hunts Point Station was built near the southern tip of the APE (Map 07).

Increased accessibility brought about growth in population and industry in the region. Many immigrants, particularly from Germany and Ireland, moved to the Bronx in the nineteenth century to take advantage of the growing number of factories operating in the area (Hermalyn and Ultan 1995). The town of West Farms was incorporated in 1846 from part of Westchester (Bolton 1848) (Map 08), followed by the formation of the town of Morrisania in 1855 from a portion of West Farms (Scharf 1886). By the second half of the nineteenth century, the lands around the APE were divided up into smaller plots of land; as of 1868 the APE itself lay along Hunts Point Road, between estates known as Ambleside, Brightside, Woodside, and Summer Home (Map 09).

In 1874, the section of Westchester County including West Farms and Morrisania was annexed to New York City as its 23rd and 24th wards. The APE was part of the 23rd ward (Map 10). This section was referred to as the Annexed Districts, as it was newly part of New York City but was the part of the city situated outside of Manhattan. More of Westchester County was added to the 24th ward of New York City in 1895. The consolidation of New York City in 1898 united Manhattan and its Annexed Districts, now officially named the Bronx, along with Brooklyn, Richmond County (Staten Island), and the western portion of Queens County. Bronx County became a distinct jurisdiction from New York County in 1914, the last county formed in New York State (Hermalyn and Ultan 1995).



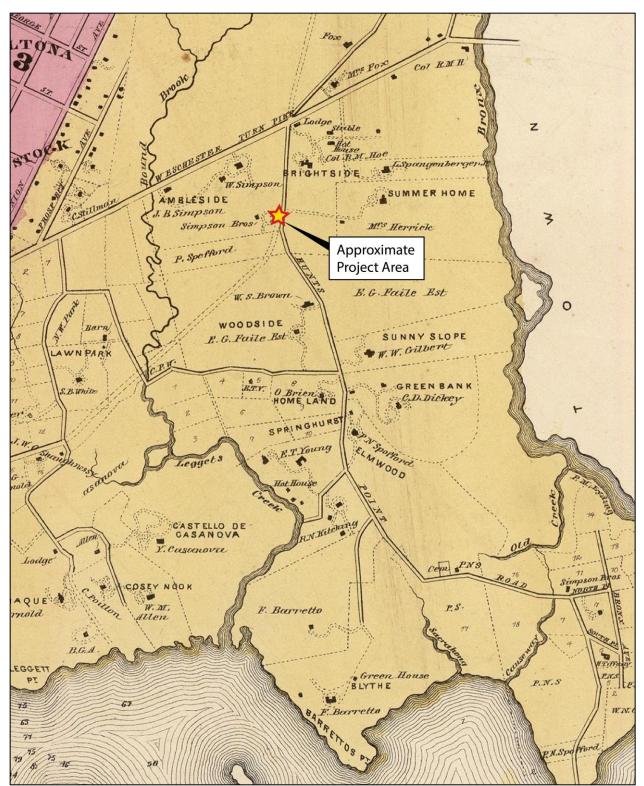
Map 06: Detail of "A plan of New York Island, with part of Long Island, Staten Island & east New Jersey" (Faden 1776).



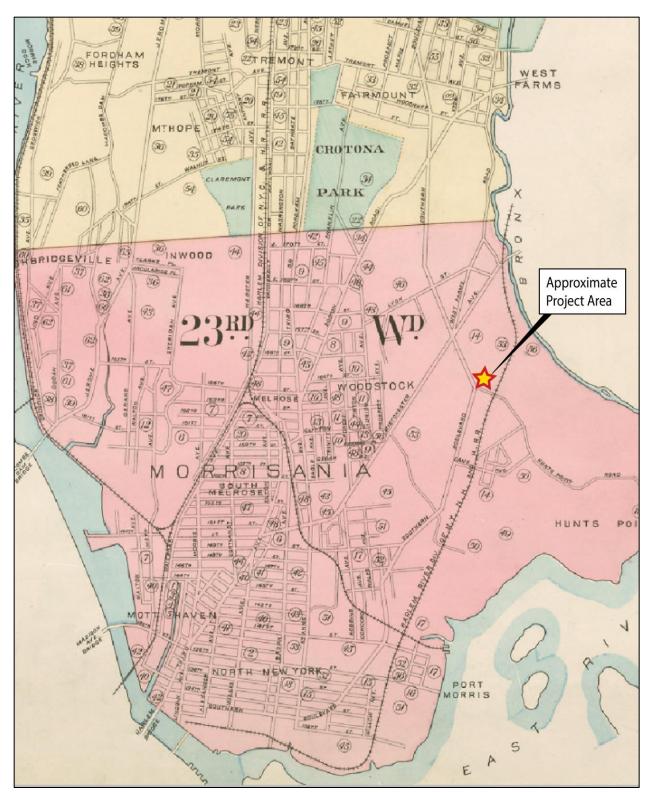
Map 07: Detail of "Outline and Index Map of the 23rd Ward, City of New York" from *Atlas of the City of New York* (Robinson 1887).

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Map 08: Detail of *Map of the country thirty three miles around the city of New York* (Colton 1849).



Map 09: Detail of "West Farms and Morrisania" from *Atlas of New York and vicinity: from actual surveys* (Beers 1868).



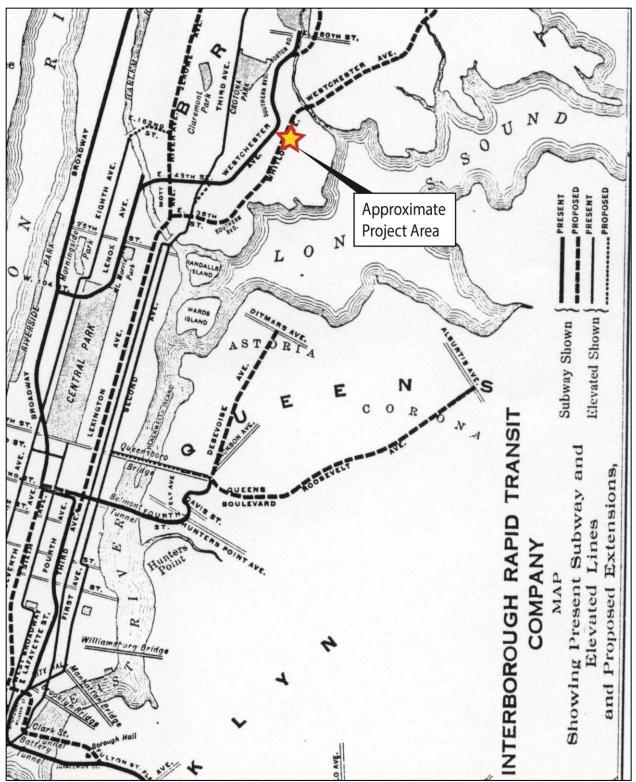
Map 10: "Map of the 23d and 24th Wards, New York" from *Certified copies of important maps* appertaining to the 23rd and 24th wards, City of New York (Robinson 1888).

Twentieth Century

The Interborough Rapid Transit Company (IRT) opened in 1904, taking over the Manhattan Railway's Third Avenue line and expanding it further into the Bronx. The new addition, Section 4, traveled underneath Westchester Avenue and Southern Boulevard, just a few blocks to the west of the APE. It was built in 1904 but was not connected to Manhattan until 1905, via the Harlem River Tunnel. Another line was proposed at this time that would travel directly underneath the APE along Bruckner Boulevard, then called Whitlock Avenue (Map 11) (nycsubway.org 2012). The new segment of subway extending to Hunts Point Avenue opened in 1919 (Image 01), and was later expanded northeasterly to Pelham Bay via an elevated line that surfaces about 0.25 miles northeast of the APE. This subway stop still exists today as the Hunts Point Avenue station stop on the 6 line. The expansion of the subway to Pelham Bay was heralded as "one of the most important of the rapid transit lines for the reason that [...] it penetrates a territory heretofore closed to rapid transit, and consequently closed to improvement so far as the development of property was concerned" (*New York Times* 5 Jan. 1919).



Image 01: View of Southern Boulevard facing North from Hunts Point Avenue. Keystone View Co. Inc. of N.Y., 1919.



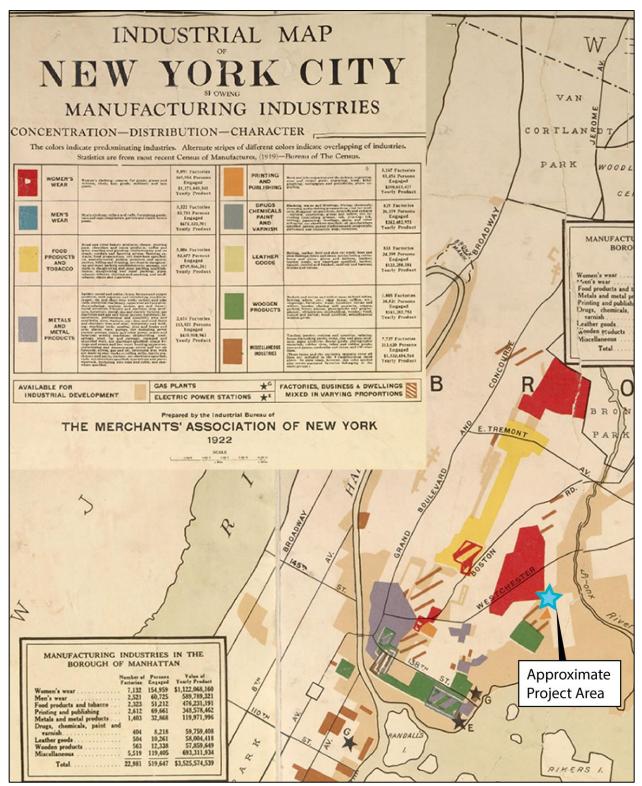
Map 11: Detail of "Interborough Rapid Transit Company Map, Showing Present Subway and Elevated Lines and Proposed Extensions" (IRT 1904).

The APE was purchased by New York City in 1909 through condemnation. It was not given an official name until 1923, "when it was designated Crames Square in honor of Private Charles Crames who died in World War I" (NYC Parks 2016). In 1938, the Hunts Point Civic Association, Inc., and the Hunts Point Memorial Association erected a monument to all of the area's soldiers who were killed in World War I. The mother of Private Crames, Mrs. Tillie Crames, unveiled the monolith, which was located at the junction of Hunts Point Avenue and Whitlock Avenue Parkway, across from Crames Square (*New York Times* 23 May 1938). The memorial currently sits on the southern corner of Hunts Point Avenue and Southern Boulevard (Image 02).



Image 02: View of WWI memorial as it sits today.

The immigrant influx into the Bronx picked up speed following World War I. The Germans and Irish were joined by French, Polish, and Italian immigrants. The Jewish population also rose steeply. Industry flourished throughout much of the South Bronx, although much of Hunts Point still awaited development, in part due to the persistent scarcity of public transportation to the peninsula (Map 12). Prohibition brought speakeasies and bootleggers, as well as the attendant criminal element associated with illegal alcohol distribution at the time (Yes the Bronx 2014). While the Great Depression of the 1930s slowed the borough's growth significantly, Bronx housing remained of higher quality than much of the rest of the city. "Almost 99 percent of residences had private bathrooms, about 95 percent central heating, more than 97 percent hot water, and more than 48 percent mechanical refrigeration" (Hermalyn and Ultan 1995).



Map 12: Detail of Industrial map of New York City (Merchants' Association of New York 1922).

By the 1950s, the demographics of the Bronx had shifted significantly. The families of European immigrants had begun to move to the more affluent New York City suburbs, and were most often replaced by African-Americans and Puerto Ricans. Some industry remained in the area. Industrial parks opened along Bathgate Avenue to the west of the APE and Zerega Avenue to the northeast (Hermalyn and Ultan 1995). The Hunts Point Food Market opened in 1965, less than 1-mile southeast of the APE, and grew to become the largest produce wholesaler in the world (Hunts Point Produce Market 2015).

A number of factors have been cited for the decline in quality of life in the Bronx during the second half of the twentieth century. Redlining, or the practice of denying certain neighborhoods access to mortgages and other financial services, grew in the South Bronx. Landlords did not (or could not) maintain their properties, and a wave of fires (largely considered to be arson) in the late 1960s and early 1970s razed a significant portion of the South Bronx. Lower density housing slowly disappeared, replaced by high-density housing projects that left families little room to expand. The construction of the Cross-Bronx Expressway, a project championed by Robert Moses, destroyed several neighborhoods by the time it was completed in 1965. The Bruckner Expressway, which runs along the eastern edge of the APE, was opened in 1973, but because it largely followed the pre-existing Bruckner Boulevard (formerly Whitlock Avenue), its construction did not cause the same degree of disruption as other large-scale infrastructure projects of the time (Hermalyn and Ultan 1995; Yes the Bronx 2014). By 1981, the Hunts Point Avenue subway station, an entrance to which is located in the APE, made the Metropolitan Transportation Authority's list of "the 69 stations most in need of repair in the New York City subway system" (*New York Times* 11 June 1981).

Raúl del Valle was a Catholic priest and community organizer who worked in the South Bronx in the 1970s and '80s. Monsignor del Valle was born in Cuba on June 1, 1926. He left in 1949 to study for the priesthood in Rome, returning to his native country for his ordination. After the rise of Fidel Castro, Monsignor del Valle fled to the United States in 1961 (NYC Parks 2016). He became the pastor of Saint Anslem's Church in 1976, located 0.84 miles to the southwest of the APE. In 1980, he was asked to take over the nearby Saint Athanasius Church, 0.22 miles southwest of the church while staying active in issues important to the broader community. In 1985, he was appointed Chancellor of the Archdiocese of New York, the first born in Latin American. Monsignor del Valle passed away on September 20, 1988, at age 62, from stomach cancer. In 1991, Community Board #2 requested that the square be renamed for Monsignor del Valle (NYC Parks 2016). A dedication ceremony was held on October 28. 1997 (Twomey 2002).

The efforts of community organizers like Monsignor Raúl del Valle, in cooperation with the local government, helped the Bronx begin to rebound in the 1980s and '90s. New housing was constructed in place of the burnt and dilapidated buildings of previous decades (Yes the Bronx 2014). New residents are bringing greater diversity to the area; Koreans, Vietnamese, Jamaicans, Greeks, and Russians make up a growing portion of the population (Bronx County Historical Society 2016). The New Fulton Fish Market, "the largest consortium of seafood wholesalers in the country," relocated from lower Manhattan to Hunts Point in 2005 (New Fulton Fish Market). In 2014, the Hunts Point Avenue subway stop in the APE was improved and made ADA compliant (MTA 2014).

IV. PREVIOUS CULTURAL RESOURCE STUDIES

There are sixty-seven previously identified culturally significant resources within .5 miles of the project APE that are listed on the New York State Museum registry and/or the State and National Register of Historic Places (Table 01). The structures located on Beck, Dawson, and Kelly Streets are part of the Longwood Historic District. Three archaeological resource studies were conducted within .5 miles of the APE (Table 02). None of the following resources will be impacted by proposed project activities.

USN	RESOURCE	ELIGIBILITY
501.000045	FIREHOUSE: ENGINE CO. 29 (HOOK & LADDER 48) - 1226 SENECA AVE	Eligible
501.00033	756 BECK ST	Listed
501.000331	758 BECK ST	Listed
501.000332	760 BECK ST	Listed
501.000333	762 BECK ST	Listed
501.000334	764 BECK ST	Listed
501.000335	766 BECK ST	Listed
501.000336	768 BECK ST	Listed
501.000337	770 BECK ST	Listed
501.000338	772 BECK ST	Listed
501.000339	774 BECK ST	Listed
501.00034	776 BECK ST	Listed
501.000341	778 BECK ST	Listed
501.000361	757 BECK ST	Listed
501.000362	759 BECK ST	Listed
501.000363	761 BECK ST	Listed
501.000364	763 BECK ST	Listed
501.000365	765 BECK ST	Listed
501.000366	767 BECK ST	Listed
501.000367	769 BECK ST	Listed
501.000368	771 BECK ST	Listed
501.000369	773 BECK ST	Listed
501.00037	775 BECK ST	Listed
501.000371	777 BECK ST	Listed
501.00038	778 DAWSON ST	Listed
501.000381	780 DAWSON ST	Listed

Table 01: Previously Identified Resources within .5 miles of APE.

USN	RESOURCE	ELIGIBILITY
501.000382	782 DAWSON ST	Listed
501.000382	782 DAWSON ST 784 DAWSON ST	Listed
501.000383	786 DAWSON ST	Listed
501.000385	788 DAWSON ST	Listed
501.000395	775 DAWSON ST	Listed
501.000397	779 DAWSON St	Listed
501.000398	781 DAWSON ST	Listed
501.000399	783 DAWSON ST	Listed
501.0004	785 DAWSON ST	Listed
501.000401	787 DAWSON ST	Listed
501.000402	789 DAWSON ST	Listed
501.000479	738 KELLY ST	Listed
501.00048	740 KELLY ST	Listed
501.000481	742 KELLY ST	Listed
501.000482	744 KELLY ST	Listed
501.000483	746 KELLY ST	Listed
501.000484	748 KELLY ST	Listed
501.000485	750 KELLY ST	Listed
501.000486	752 KELLY ST	Listed
501.000487	754 KELLY ST	Listed
501.000488	756 KELLY ST	Listed
501.000498	739 KELLY ST	Listed
501.000499	741 KELLY ST	Listed
501.0005	743 KELLY ST	Listed
501.000501	745 KELLY ST	Listed
501.000502	747 KELLY ST	Listed
501.000503	749 KELLY ST	Listed
501.000504	751 KELLY ST	Listed
501.000505	753 KELLY ST	Listed
501.000506	755 KELLY ST	Listed
501.000736	SUNNYSLOPE - 812 FAILE ST	Listed
501.000793	NEW YORK CITY POLICE DEPT. 41 PCT 1086 SIMPSON ST	Eligible
501.000831	SIMPSON STREET SUBWAY STATION - WESTCHESTER AVE	Listed

USN	RESOURCE	ELIGIBILITY
501.000881	U S POST OFFICE - BOULEVARD STATION - 1132-1136 SOUTHERN BLVD	Eligible
501.001015	NEW YORK PUBLIC LIBRARY, HUNT'S POINT BRANCH - 877 SOUTHERN BLVD	Eligible
501.001346	P.S. 75 - 984 Faile St	Eligible
501.001421	Eastern Boulevard Bridge (dual double leaf bascule - Eastern Blvd	Eligible
501.001422	P.S. 48 - 1290 Spofford Ave	Eligible
501.001475	Public School 60-X - 888 Rev. James A. Polite Ave	Eligible
501.001483	American Bank Note Company Printing Plant (1911; K - 1201 - 3 Lafayette Ave	Eligible
501.001484	Corpus Christi Monastery - 1230 Lafayette Avenue 10474	Eligible

Table 02: Archaeological Resource Studies conducted within .5 miles of APE.

SURVEY NUMBER	NAME
02SR53072	Phase 1A Archaeological Assessment: Hunts Point Station / Metro- North Penn Station Access Major Investment Study/Draft Environmental Impact Statement
87SR61526	Cultural Resources Management Survey, 1987 Highway Program: Hunt's Point Access, PIN X730.17.111, Borough of the Bronx, Bronx County, New York
05SR55524	Phase 1A Archaeological Assessment, PS/IS at 1740 Macombs Road, Block 2866 Lots 70 and 100, the Bronx, New York

Several archaeological investigations and documentary studies have been conducted in the vicinity of the APE. Table 03 lists relevant reports completed within Morrisania and Hunts Point and submitted to LPC.

LPC #	REPORT TITLE	AUTHOR	YEAR
49	Analysis of Soil Borings and Test Trenchs, Proposed Fish Market Relocation, Hunt's Point, Bronx, New York. 00DME011X	Greenhouse Consultants, Inc.	2001
62	Phase 1A Archaeological Assessment Report For The New York City Department of Correction: Hunt's Point Correctional Facility, Bronx, New York. For: Parsons Brinckerhoff Quade & Douglas, Inc. CEQR 89-143X [Multiple authors]	Historical Perspectives, Inc.	1989
68	Archaeological Assessment, Criminal Court Facility, B 2444, 2445. Morrisania, X. CEQR 95DGS003X [Multiple authors]	Historical Perspectives, Inc.	1994
79A	Archival Documentation AND Archival Research Draft of a Phase 1A Cultural Resource Survey for the Harlem River Yard, Oak Pt. Link Study – Full Freight Access Program in the Bronx, New York.	Johanemann, Edward J. & Laurie Schroeder	1982
79B	Archival Documentation AND Archival Research Draft of a Phase 1A Cultural Resource Survey for the Harlem River Yard, Oak Pt. Link Study – Full Freight Access Program in the Bronx, New York.	Johanemann, Edward J. & Laurie Schroeder	1982
93	Archaeological Documentary Study, The Nehemiah Project, Block 2637, Lots 1 & 10, Borough of The Bronx, New York. For: South Bronx Churches. CEQR 93HPD-015X [810 Trinity Ave]	Pickman, Arnold,	1994
94	Archaeological Field Testing, The Nehemiah Project, [Block 2537, Lots 1 & 10], Borough of The Bronx, New York. For: South Bronx Churches. CEQR 93HPD-015X [810 Trinity Ave]	Pickman, Arnold,	1995
100	An Archaeological Assessment of the Morrisania Urban Renewal Project Bronx, New York. For: Tams Consultants, Inc. CEQR 91-033X (Joan H. Geismar)	Tams Consultants, Inc. (Joan H. Geismar)	1992
958	Archaeological and Historic Sensitivity Evaluation, 745 Fox Street, Bronx, NY	Greenhouse Consultants, Inc.	2006

Table 03: Previous Documentary and Archaeological investigations.

LPC #	REPORT TITLE	AUTHOR	YEAR
970	Phase IB Archaeological Field Testing, The Cedars, 745 Fox Street, Block 2707, Lot 11, Borough of the Bronx, NY	Bergoffen, Celia J.	2007
1072	Department of Correction, Prison Barge Proposal. Project Data Statement: AY Assessment. For Parsons Brinkerhoff Quade & Douglas, Inc. CEQR 90-001X	Historical Perspectives, Inc.	1989
1234	Appendix A: Preliminary Cultural Resources Assessment, ABB Energy Ventures, Oak Point Energy Generating Facility, Hunts Point, The Bronx	Geoarchaeology Research Associates	2000

V. CONCLUSIONS AND RECOMMENDATIONS

The purpose of the Phase IA is to determine the potential for recovery of significant cultural resources and assess any impacts of the proposed construction activities on such resources. The proposed project intends to improve the APE by modifying underground utility systems (e.g. sewer, watermain, etc.) and redesigning the existing public space to promote a more efficient and safe pedestrian-traffic experience.

PREHISTORIC SENSITIVITY

While it is likely that Native Americans used the area of the APE prior to European contact, the potential for preservation and recovery of any artifacts or features is extremely low. Relevant factors in determining whether such resources could remain intact include the nature of the occupation, the post-depositional durability of materials and the post-deposition land use. As the APE is extremely close to the shoreline and wetlands, it is unlikely that a village or Native American burial site would exist here; but it is very possible that the area was utilized for its riverine resources. However, encountering Native American resources in heavily urban areas such as the APE is rare as typically such resources have been obliterated by the surrounding development.

HISTORIC SENSITIVITY

All of the nineteenth century maps depict the APE as being undeveloped. Maps from the eighteenth century to mid-nineteenth century show the APE as portions of larger estates (Map 09). In the later nineteenth century when block and lot divisions expanded into Westchester, the APE remained an undivided parcel. There is no documentary evidence of any historic resources within the APE. Therefore the APE is considered to have a low sensitivity for the presence of historic resources.

Contributing to the low sensitivity for both prehistoric and historic resources is the early twentieth century construction that extended the subway beneath the APE to Pelham Bay and the construction of the Hunts Point Avenue subway station. These two substantial works would have severely impacted any existing resources.

RECOMMENDATION

In summary, the project APE has been significantly impacted over the last approximately 100 years; primarily as a result of extensive excavations for the Hunts Point Avenue subway station and to a lesser degree the constriction of the Bruckner Expressway. It is highly likely that any prehistoric and/or early historic cultural materials that may have existed in the APE have been previously and substantially impacted. Therefore, the proposed project is considered to have low sensitivity to encounter either prehistoric or historic buried archaeological resources and no further archaeological testing or investigation is recommended.

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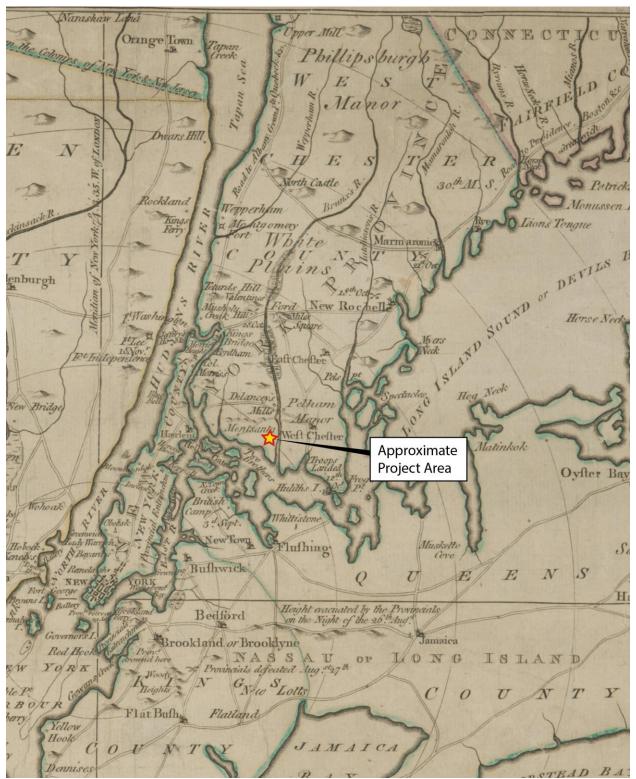
United States Geological Survey

2013 Central Park Quadrangle. New York-New Jersey. 7.5-minute

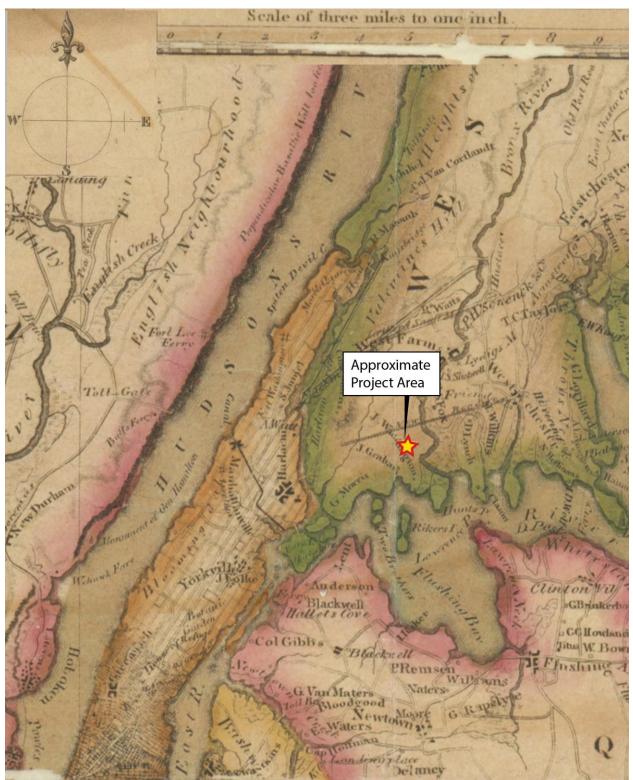
Yes the Bronx

2014 "History of the Bronx". Yes the Bronx. http://www.yesthebronx.org/about/history-of-the-bronx/. Appendix A:

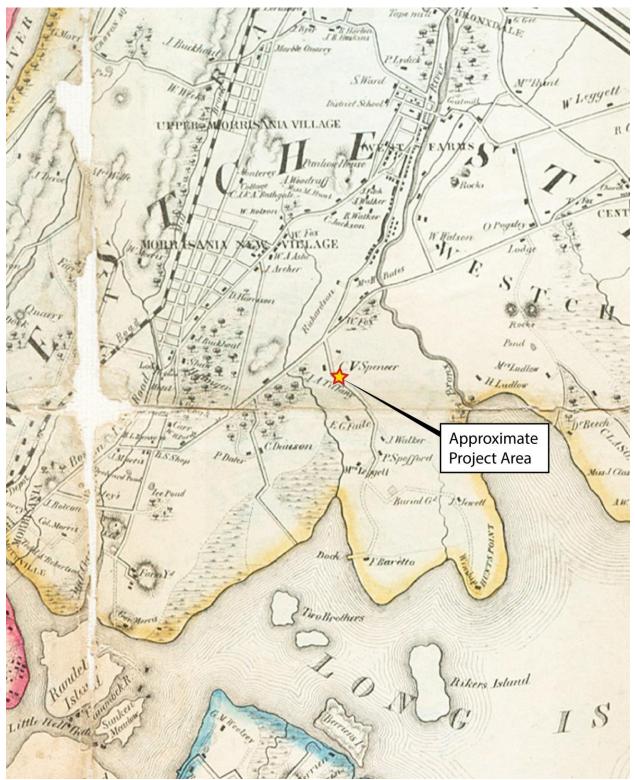
Additional Maps



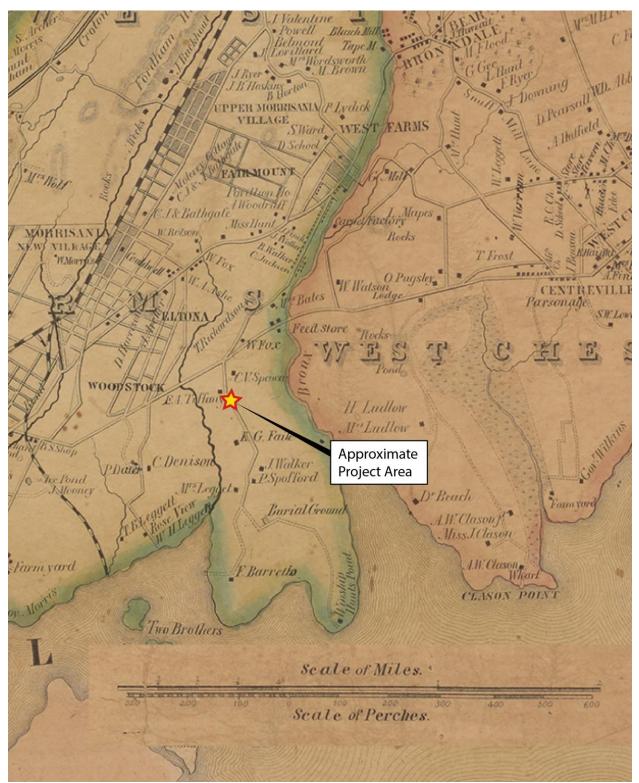
Map 13: Detail of *The Country twenty five miles round New York* (Barber 1777).



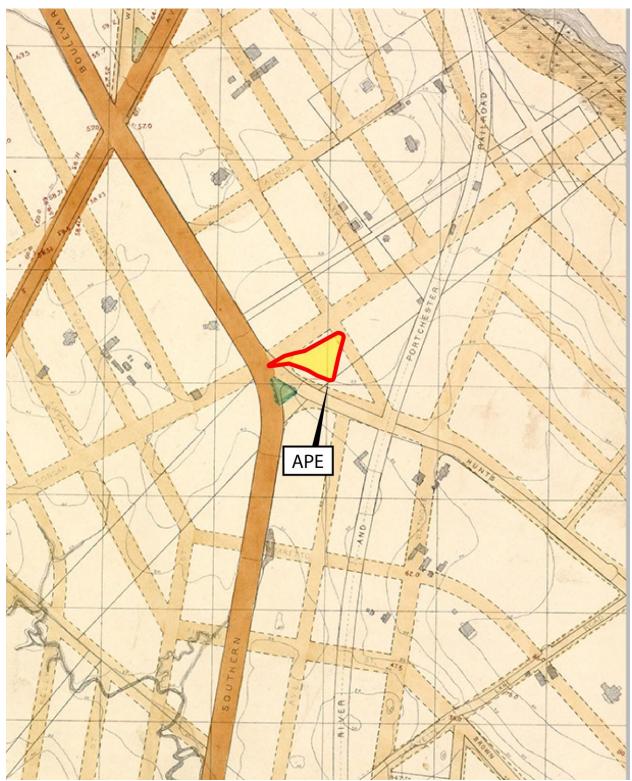
Map 14: Detail of Map of the country thirty miles round the city of New York (Eddy 1828).



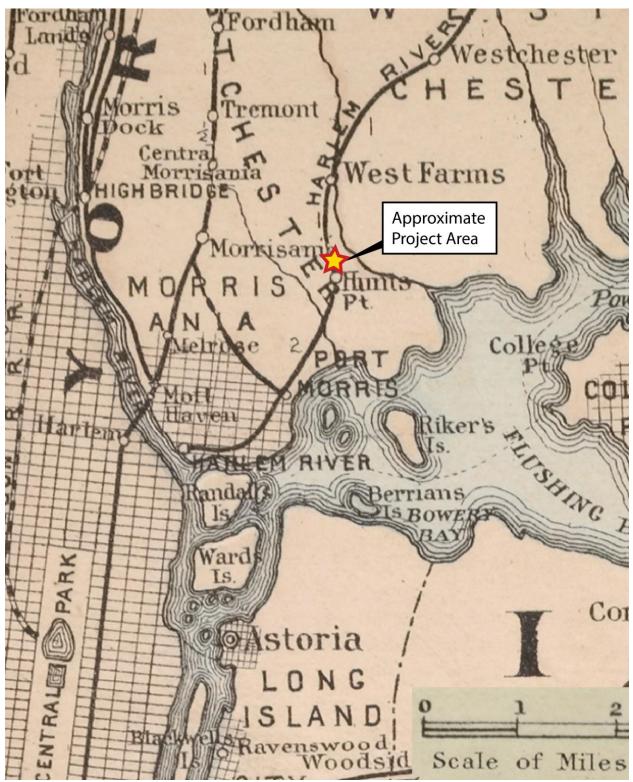
Map 15: Detail of Sidney's map of twelve miles around New-York (Friend 1849).



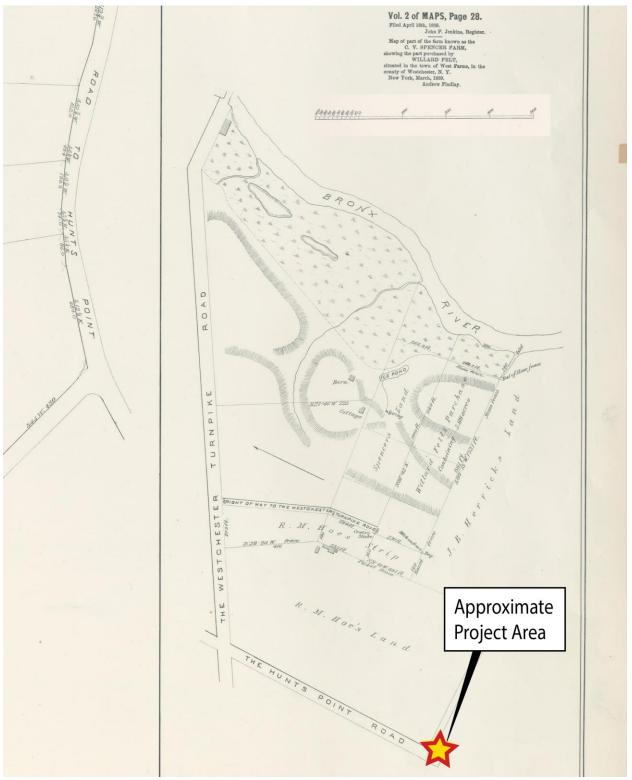
Map 16: Detail of Map of Westchester County New York (Sidney & Neff 1851).



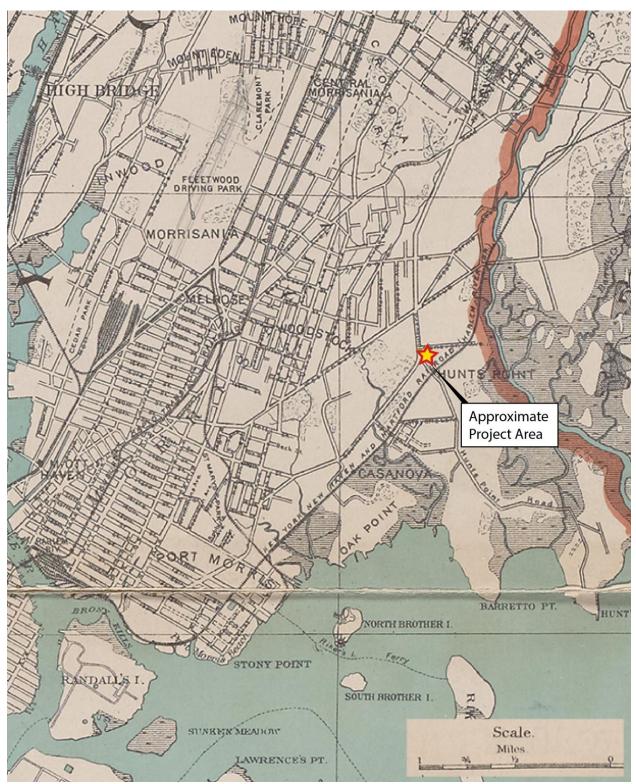
Map 17: Detail of "Bronx, Topographical Map Sheet 12" from *Topographical map made from* surveys by the commissioners of the Department of Public Parks of the City of New York of that part of Westchester County adjacent to the City and County of New York embraced by chapter 534 of laws of 1871 as amended by chapter 878 of laws of 1872 (N.Y. Dept. of Parks 1873).



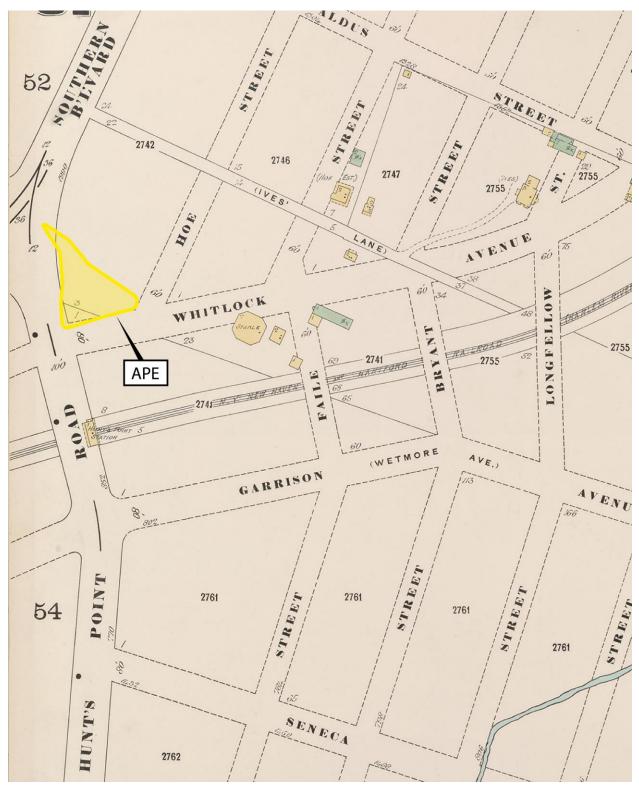
Map 18: Detail of Watson's guide map to summer resorts around New York (Watson 1880).



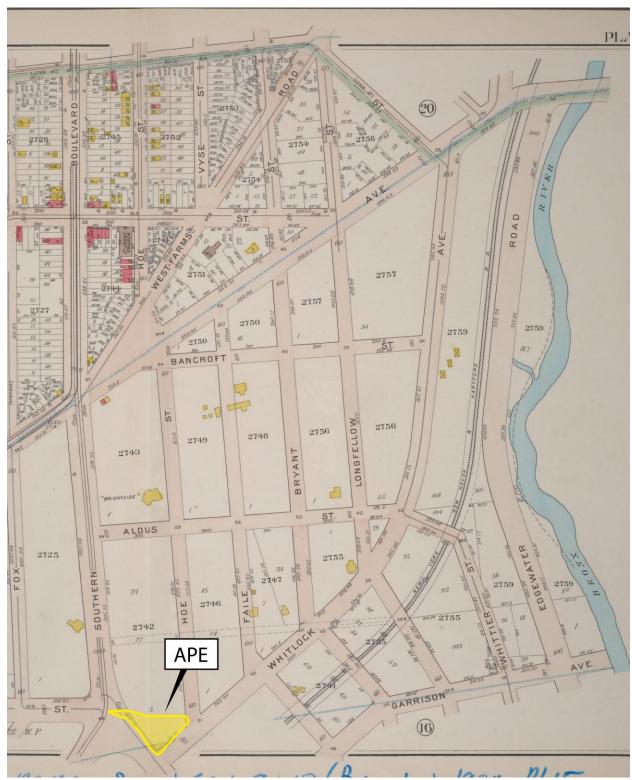
Map 19: Detail of "Plate 14: Vol. 3 of Maps, Page 10. [Bounded by Old Road, Road to Hunt's Point and (Homestead Farms of Thos. Leggett) Leggetts Creek.] - Vol 2. of Maps, Page 28. [Bounded by Bronx River, The Hunt's Point Road and The Westchester Turnpike Road.]" from *Certified copies of important maps appertaining to the 23rd and 24th wards, City of New York* (Robinson 1888).



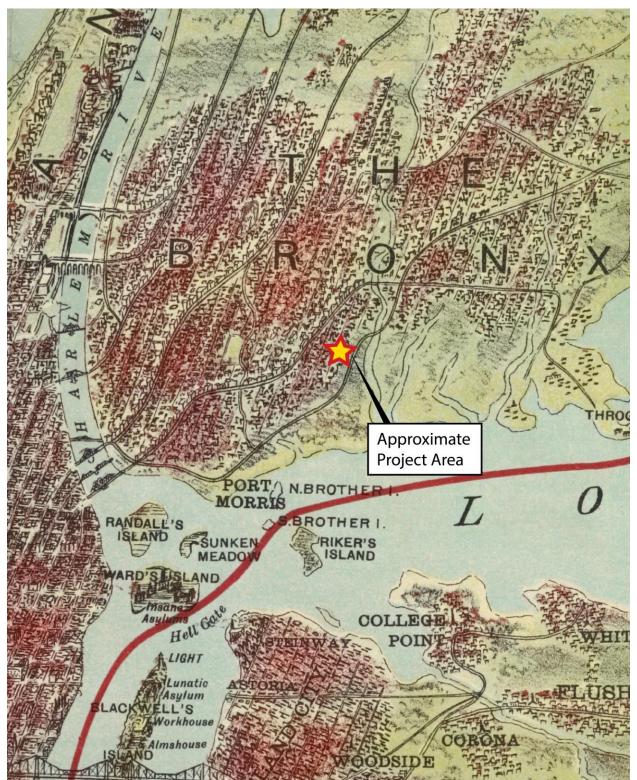
Map 20: Detail of "Long Island Sound – Westchester North to Mt. Vernon – Queens South to Jamaica" from Atlas of the Metropolitan District and adjacent country comprising the counties of New York, Kings, Richmond, Westchester and part of Queens in the State of New York, the county of Hudson and parts of the counties of Bergen, Passaic, Essex and Union in the State of New Jersey (Bien 1891).



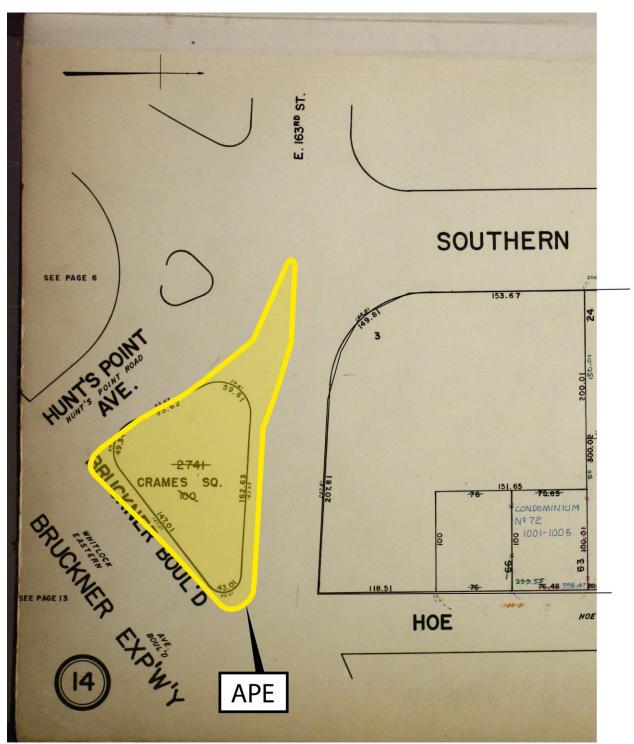
Map 21: Detail of "Bronx, V. 14, Plate No. 51 [Map bounded by Aldus St., Bronx River, Lafayette Ave., Hunt's Point Rd.]" from *Insurance maps of the City of New York* (Sanborn 1901).



Map 22: Detail of "Plate 15: Part of Section 10, Borough of the Bronx. [Bounded by Home Street, Westchester Avenue, Edgewater Road, Garrison Avenue, Faile Street, Whitlock Avenue, Dongan Street, Rogers Place, E. 165th Street, Hall Place and Intervale Avenue.]" from *Atlas and owners names, borough of the Bronx, sections 9 & 10* (Bromley 1904).



Map 23: Detail of Bird's eye view map of New York and vicinity (C.S. Hammond & Co 1909).



Map 24: Detail of NYC Tax Map for Block 2742 (1968).

Appendix B:

Resumes of Key Personnel

Alyssa Loorya, M.Phil, M.A., R.P.A. President, Principal Investigator

Ms. Loorya is founder and president of Chrysalis Archaeological Consultants. For nearly twenty years she has worked in cultural resource management and public education devoted to preserving cultural resources and communicating their value to local communities. She has completed over sixty technical and academic reports and has delivered dozens of presentations concerning preservation compliance, New York City historical development, and educational curricula. Her extensive experience lends itself to her roles in developing and executing research and excavation plans, project management, regulatory compliance and report production.

SELECTEED PROJECTS

Project undertaken on behalf of the City of New York – Department of Design and Construction for infrastructure improvements have included:

Beekman Street, New York, NY, Phase IA, IB – 2005 City Hall Park, New York, NY, Phase IB, II – 2010-2013 Downtown Brooklyn Water Mains Project, Brooklyn, NY – Phase IB – 2011

- Fulton Street Reconstruction, New York, NY Phase IA, IB 2009-2015
- Peck Slip Reconstruction, New York, NY Phase IA, IB 2010-2015

The High Bridge, New York, NY, Phase IB – 2012-2015 Washington Square Park, New York, NY – Phase IB – 2015 to present

Worth Street Reconstruction - Phase I and II - 2016 to present

Projects undertaken on behalf of the City and State of New York – Department of Transportation for infrastructure improvements have included:

City Island Bridge, Bronx, New York – Phase IB – 2013 to present

Tappan Zee Bridge Replacement, Tarrytown, NY – Phase I – 2014 to present

Kosciuszko Bridge Replacement Project, Brooklyn/Queens, NY – Phase I – 2014 to present



AREAS OF EXPERTISE

National Historic Preservation Act Section 106 Compliance

Material Collections Analysis

Archaeological Survey and Excavation

Public Outreach

EDUCATION

Ph.D candidate, Anthropology and Archaeology: CUNY Graduate School. Expected graduation 2016

M.Phil, 2000 Anthropology and Archaeology: CUNY Graduate School

M.A., Anthropology: 1998, Hunter College

CERTIFICATIONS

Register of Professional Archaeologists

10-Hour OSHA Construction Safety

30-Hour OSHA Construction Safety

40-Hour OSHA HAZWOPER

SWAC - Secure Worker Access Consortium

PROFESSIONAL EXPERIENCE

2001-Present: Chrysalis Archaeological Consultants

2006-2010: URS Corporation, Principal Investigator

2007-2010: Gray & Pape, Supervisory Consultant

CONTACT INFORMATION

aloorya@chrysalisarchaeology.com

New York Headquarters 4110 Quentin Road Brooklyn, NY 11234-4322 Phone: 718.645.3962 Brooklyn Laboratory 3604 Quentin Road Brooklyn, NY 11234 www.chrysalisarchaeology.com Rhode Island Regional Office One Richmond Square – Suite 121F Providence, RI 02906-5139 Phone: 401.499.4354 Project's undertaken on behalf of the City of New York – Department of Parks and Recreation at historic houses have included:

Bartow-Pell Mansion; Bronx, NY, Phase IB, 1993, 2004, 2008, 2012

Chambers Street, New York, NY, Phase I, 2005 City Hall Park, Fuel Cell Project, New York, NY, Phase IB, 2013 City Hall Park, New York, NY, Phase IB, II, 2012 City Island Bridge, Bronx, NY, Phase IB, 2014 Columbus Park, New York, NY, Phase I, 2007 Dyckman Farmhouse; New York, NY, Phase IB, 2007 Gravesend Cemetery; Brooklyn, NY, Phase IB, 2002 Hendrick I. Lott House, Brooklyn, NY - Phase I, II, 2004, 2013 High Bridge, New York, NY, Phase IB, 2014 John Bowne House, Queens, NY, Phase IB, 2014 Pelham Bay Park, Bronx, NY, Phase IB, 2014-2015 Pieter Claesen Wyckoff House; Brooklyn, NY, Phase IB, 1997, 2004 Queens County Farm Museum; Queens, NY, Phase IB, 2004 Roger Morris Park, New York, NY, Phase IB, 2005 Rufus King Park, Queens, NY, Phase IB, 2006, 2007 Van Cortlandt Park, Bronx, NY, Phase IB, 1990-1993, 2005

Van Cortlandt Park, Bronx, NY (Dog Run), Phase IB, 2015

Kate McCormick, M.A., R.P.A. Archaeologist

Ms. McCormick has two years of experience working in all phases of archaeological excavation around the Mid-Atlantic. Her specializations include recovery and osteological analysis of human remains and GIS analysis. She has extensive experience with in-field GPS devices.

SELECTED PROJECT EXPERIENCE BY STATE

Delaware

Harrington-Bridgeville Power Project - Phase IB (2015)

Sussex County, DE Performed shovel testing at locations of proposed utility pole replacements to identify potential prehistoric or historic sites.

New Jersey

Hamilton - Phase IB (2015)

Mercer County, NJ Performed shovel testing at the site of a proposed warehouse to identify potential prehistoric or historic sites.

Interstate - Phase IB (2015)

Middlesex County, NJ

Performed shovel testing at the site of a proposed warehouse to identify potential prehistoric or historic sites.

New York

Washinton Square Park – Phase IB (2015) New York, NY

Monitored replacement of utility lines in archaeologically sensitive areas surrounding the park.

World Trade Center PHR Recovery Project (2010 & 2013) Staten Island, NY

Used archaeological techniques to sift through debris from the World Trade Center site searching for human remains and personal effects as part of Phases III and IV of the recovery efforts

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Chrysalis Archaeological Consultants

AREAS OF EXPERTISE

Archaeological Survey and Excavation GIS Analysis Forensic Archaeology

EDUCATION

M.A., Biological Anthropology: 2014 New York University

B.A., Archaeology: 2009 Boston University

CERTIFICATIONS

8-Hour Annual HAZWOPER Refresher Course (2015)

10-Hour OSHA Construction Safety Training (2015)

40-Hour HAZWOPER Safety Training (20014)

PROFESSIONAL EXPERIENCE

2016-Present: Chrysalis Archaeological Consultants

2014-2016: John Milner Associates

2015: A.D. Marble & Co.

2015: Black Hills National Forest

2010, 2013: NYC Office of Chief Medical Examiner

CONTACT INFORMATION

kmccormick@ chrysalisarchaeology.com

Van Alst Cemetery – Phase IB (2015-16) Queens, NY

Served as on-site forensic anthropologist monitoring ongoing construction work on the former site of a 17th & 18th century cemetery. Monitored the excavation of test trenches dug with a hydraulic excavator to determine potential for discovery of human remains. Monitored all removal of soil within the historic boundaries of the cemetery to ensure no burials remained on site.

Pennsylvania

Museum of the American Revolution Project - Phase II & III (2014)

Philadelphia, PA

Excavated historic structures & features in Old City, Philadelphia. Monitored construction equipment to identify features as they were uncovered.

Pennsylvania Rapid Bridge Replacement Project - Phase IB (2015)

State-wide, PA

Performed shovel testing in advance of bridge improvements in various locations around the state for the Pennsylvania Department of Transportation.

P1410 Truck Lane Project – Phase IB (2015)

Westmoreland County, PA

Performed shovel testing in advance of expansion of S.R. 356 to identify potential historic and prehistoric sites.

West Oak 3 - Phase II (2015)

Chester County, PA

Excavated test units to investigate the extent of a previously identified prehistoric site in advance of a proposed expansion of a nearby Calpine oil pipeline

Wyoming

Bearlodge Ranger District Seasonal Archaeology Technician, Black Hills National Forest (2015) Crook County, WY

Performed pedestrian surveying to identify and record historic and prehistoric sites within the district. Relocated & monitored or updated previously identified sites. Performed shovel tests and test units to assess subsurface deposition at new sites and during in course of site updates. Performed literature reviews in support of upcoming district projects and timber sales.

PUBLICATIONS

R2015020300331 Scott-Hardy Spring Dam Repair (internal report for the Bearlodge Ranger District, Black Hills National Forest)

R2015020300302: Dean Unit 47 Skid Trail (internal report for the Bearlodge Ranger District, Black Hills Examination of Age-Related Changes of the Auricular Surface Using Geographic Information Systems Analysis (master's thesis)

Eileen Kao | Field Supervisor

Ms. Kao has over six years of experience working in all phases of archaeological excavation and reporting. Her specializations include both prehistoric and historic contexts in the Middle Atlantic, New England, and Midwest regions. She has extensive knowledge of laboratory analysis and archival preparation techniques for prehistoric and historic artifacts, and has experience with in-field GPS devices.

PROJECT EXPERIENCE

Forth Wadsworth – Phase IB

Staten Island, NY

Monitored ongoing excavations for drainage and infrastructural improvements at a Revolutionary War era fort with the potential to yield prehistoric cultural resources due to its location adjacent to the historically rich waters of the New York Bay.

City Island Bridge Replacement - Monitoring Bronx, NY

Monitored excavations in Pelham Bay Park and City Island in advance of the City Island Bridge replacement to mitigate any impacts to potential prehistoric or historic cultural resources in an area

50 Bowery – Phase IA

New York City, NY

Contributed to documentary research investigating the site use history of a former tavern structure with potential historic significance in the Bowery, Manhattan.

Hendrick I. Lott House - Phase IB/Monitoring Brooklyn, NY

Participated in excavation of outdoor features associated with 19th century rural and farmland activities at one of the oldest remaining historic houses in New York City.

DEL-359 - Catskill and Delaware Interconnection Replacement - Phase IB

Gardiner, Ulster County, NY Led shovel test to investigate potential prehistoric and historic cultural nature of an aqueduct water shaft station in the Hudson River Valley.



AREAS OF EXPERTISE

Archaeological Survey and Excavation

Laboratory Analysis

Industrial Archaeology

EDUCATION

M.A., Anthropology: In progress, Hunter College

B.A., Anthropology: 2007, University of Pittsburg, Pittsburg, PA

CERTIFICATIONS

8-Hour Annual HAZWOPER Refresher Course (2012)

10-Hour OSHA Construction Safety Training (2010)

40-Hour HAZWOPER Safety Training and Update (2009 & 2011)

PROFESSIONAL EXPERIENCE

2011-Present: Chrysalis Archaeological Consultants

2008-2011: URS Corporation

CONTACT INFORMATION

ekao@chrysalisarchaeology.com

CHRYSALIS ARCHAEOLOGICAL CONSULTANTS, INC.

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Richmond, VT - Phase IB

Chittenden County, VT

Led shovel test survey to investigate the prehistoric and historic cultural sensitivity of upland rural farmland. Coordinated field investigations and prepared a final report summarizing the findings.

Weathersfield, VT - Phase IB

Windsor County, VT

Led shovel test survey to investigate possible prehistoric cultural resources associated Native American occupation of an area adjacent to a tributary of the Connecticut River. Coordinated field investigations and prepared a final report summarizing the findings.

John Bowne House – Phase IB/Monitoring

Queens, NY

Conducted Phase IB excavation of household features related to 18th and 19th century Dutch settlement landscape in this portion of Long Island. Monitored excavations for structural upgrades to the historic house.

Little Bay Park – Monitoring

Queens, NY

Conducted Phase II monitoring for infrastructural improvements at a park site with the potential for prehistoric and historic cultural resources related to turn of the century recreational usage by New York City's elite.

High Bridge Park - Monitoring

New York City, NY

Participated in identification of historic cultural resources beneath the High Bridge, which once housed the historic Croton Aqueduct. Catalogued potential cultural and architectural artifacts, the remnants of infrastructural development activities beneath the bridge.

Archaeological Field Test of 246 Front Street – Phase I New York City, NY

Contributed to historic property background research and monitored test pit excavations in advance of construction on the property to assess any remaining historic cultural resources related to 18th and 19th century commercial activities. Documented findings and prepared a final report summarizing the results.

Fulton Street Reconstruction – Phase II

New York City, NY

Monitored excavations and investigated historic architecture and water supply features in advance of road reconstruction and utility replacements at Fulton Street in downtown Manhattan's South Street Seaport Historic District.

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Gowanus Canal – Phase IA

Brooklyn, NY

Completed an assessment of archaeological/historic sensitivity for the Gowanus Canal area of Brooklyn, NY as part of NY SHPO's investigation into expansion of the historic district. Developed map analysis to potentially locate the burial site of American Revolutionary War soldiers.

Southard Avenue, Howell Township – Phase IB

Howell, Ocean County, NJ

Served as crew chief for shovel test survey of a historic farm site with the potential to yield cultural historic resources. Conducted research, coordinated field efforts for survey and testing, and prepared a final report summarizing results.

Pleasant Grove, Jackson Mitigation Site - Phase IB

Jackson, Ocean County, NJ

Served as crew chief and led shovel test survey to investigate prehistoric and historic potential of 19th century farmland. Conducted research, coordinated field efforts for survey and testing of a 10 acre wetland mitigation area, and prepared a final report summarizing the results.

Oradell Reservoir Mitigation Bank – Phase I

Oradell, Bergen County, NJ

Contributed to Phase IA historic documentary research and led Phase IB ground survey of a wetland mitigation area within the Hackensack River valley. Coordinated field efforts to explore an area with the potential to yield prehistoric resources and prepared a final report summarizing the results.

Peck Slip Rehabilitation – Phase II

New York City, NY

Supplemented historic business and property background research. Conducted monitoring, mapping, and feature-specific excavations during road reconstruction and utility replacements at Peck Slip, an 18th and 19th century shipping area and Historic District in downtown Manhattan. Organized public outreach sessions incorporating collaborative lectures and didactic displays.

City Hall Reconstruction Project - Phase IB and II

New York City, NY

Performed monitoring and Phase II excavations at City Hall pinpointing historic architecture and features. Highlighted discoveries include a prerevolution British jail, early water management features, and large scale refuse deposits. Performed in conjunction with URS.

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