

**Phase IA Addendum
Waunner Street, 3044 Veterans Road West (3040 & 3050
Victory Boulevard West), Block 7487, Lot 240, Charleston,
Richmond County, Staten Island, New York**



Prepared for
Environmental Studies Corp.
55 Watermill Lane
Great Neck, NY 11021

Prepared by
Alyssa Loorya, Ph.D., RPA, and Elissa Rutigliano,
Chrysalis Archaeological Consultants

Edited by
Lisa Geiger, MA, RPA, and Christopher Ricciardi, Ph.D., R.P.A.,
Chrysalis Archaeological Consultants

April 2021

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I. INTRODUCTION

This report serves as a Phase IA Addendum to a previous Phase IA background cultural resource survey of Block 7487, Lot 240, Borough of Staten Island, New York, prepared for the New York City Landmarks Preservation Commission (NYC LPC) (project review number 77DCP090R) by Greenhouse Consultants, Inc. (Greenhouse) in April 2015. This report expands on the nature and density of prehistoric land use in the vicinity surrounding the project area and includes an updated historical map and aerial imagery review to assess historic and modern land use and modification.

The project area is the entirety of Lot 240 within Block 7487 in Charleston, Richmond County, Staten Island. The project plans call for construction of two commercial buildings and a parking area across the lot (Greenhouse 2015:1, see Appendix A). The project area is currently a cleared lot with a gravel and compacted earth access road and surface covering, with moderate grass and shrub growth at its western and northern boundaries.

The 2015 Phase IA survey determined that a relatively high number of documented prehistoric archaeological sites lie within two miles of the project area, and there is evidence on historic maps of possible late nineteenth century agricultural structures within the project area, which no longer appeared on maps by 1975. The initial Phase IA cited a 2013 environmental assessment that indicated approximately 30' of soils were removed from the project area in the 1960s for use as fill during construction of the nearby Route 440 highway. Greenhouse recommended no testing based on the assumed extent of disturbance from this event (Greenhouse 2015:13). NYC LPC requested additional information to demonstrate that the lot had been so disturbed that potentially significant archaeological resources likely no longer remain (NYC LPC 2 March 2020).

The following report, prepared by Chrysalis Archaeological Consultants, comprises an addendum to the 2015 Greenhouse Phase IA (Appendix A). This Phase IA Addendum provides additional prehistoric context not presented in the initial Phase IA survey and identifies additional prehistoric archaeological sites within a one-mile radius of the project area. This addendum also presents a historic map and aerial review that demonstrates extensive ground disturbance to the project area. Chrysalis recommends geotechnical borings be conducted and reviewed by an archaeologist, to confirm the limits of ground disturbance extend completely across the project area.

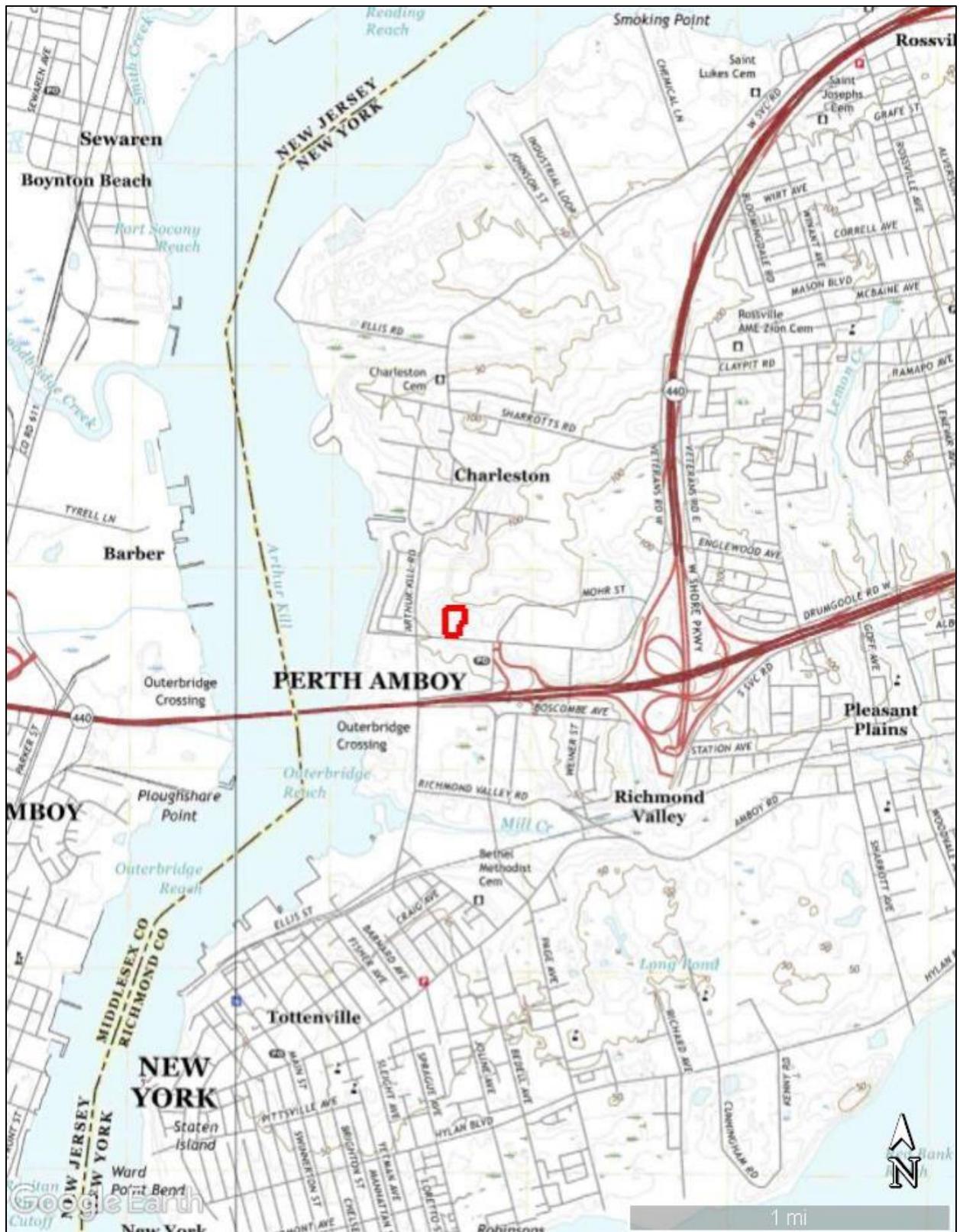
This addendum was prepared to comply with the request of NYC LPC for additional material. All work was conducted in accordance with the NYC LPC Guidelines for Archaeological Work in New York City (NYC LPC 2018) and the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO) guidelines (New York Archaeological Council [NYAC] 1994; 2000; 2002), which are subsequent to 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).

PROJECT DESCRIPTION

The project area occupies the entirety of Lot 240 within Block 7487 in Charleston, Richmond County, Staten Island (Map 1). The project area is described by Greenhouse as Lot 240 at Waunner Street, a “paper street” not officially mapped, covering an area extending north from Veterans Road West. The western boundary extends north from Veterans Road West by 444.12’; the eastern boundary is irregular in shape to accommodate Lot 235 and extends 444.92’ north; the northern boundary is 297’ long, and the south boundary is 174.21’. Lot 240 is 106,540 square feet, or 2.5 acres. Project plans are “to construct two commercial buildings with a parking lot” (Greenhouse 2015:1).

The project area lies in a partially developed, partially scrub and tree-covered area approximately 1400’ east of the Arthur Kill waterway separating Staten Island from New Jersey (Figure 1). Project area soils consist primarily of Greenbelt-Urban land in the central and southern portions of the project area; Urban land, till substratum, in the northeast; and Boonto loam in the extreme northwest (Greenhouse 2015:3).

The Area of Potential Effect (APE) is the portion of the project area that could be affected by project development. Due to planned development of the entire lot, the APE for this project includes all of Lot 240 within Block 7487.



Map 1: Project area, in red, on 2019 USGS *Arthur Kill, NY 7.5 Minute* topographic map (USGS 2019).



Figure 1: 2020 aerial view of the project area, outlined in red (Google Earth 2020).

PROJECT INFORMATION

| | |
|------------------------|------------------------------------|
| Project Name | Waunner Street |
| Street Address | 3044 Veterans Road West |
| Borough/Block/Lot | Staten Island, Block 7487, Lot 240 |
| Applicant Name | Environmental Studies Corp |
| Principal Investigator | Alyssa Loorya, Ph.D., R.P.A. |

II. PROJECT METHODS

The 2015 Phase IA survey determined that 18 prehistoric archaeological sites are documented within one mile of the project area, indicating probable prehistoric use of the project area itself (Greenhouse 2015:8). The 2015 survey also found evidence on historic maps of possible late nineteenth century agricultural structures within the project area, which were no longer mapped by 1975. Greenhouse indicated a 2013 environmental assessment had found that approximately 30' of soils were removed from the project area in the 1960s for use as fill during construction of the nearby Route 440/ West Shore Expressway, and therefore no archaeological testing was recommended (Greenhouse 2015:13).

As per the NYC Department of City Planning permitting process, materials regarding the proposed project were submitted to NYC LPC. NYC LPC requested a Phase IA assessment (see Greenhouse 2015 in Appendix A) and subsequently requested additional information demonstrating project area disturbance be submitted prior to approval (NYC LPC 2 March 2020).

This Phase IA Addendum updates the prehistoric research and archaeological site density for the project area. It also reassesses historical maps and includes historic aerial imagery to document historic period land use and modern disturbance to the project area. Standard documentary research methodologies were utilized in gathering information for this Phase IA Addendum. Methods included reviewing the updated database of cultural resource reports within the repositories of the NYC LPC and NY SHPO via the NY CRIS GIS system. A review of historical maps and other documentary information from online and library/museum repositories was conducted to determine the history and development of the project area. Historic aerial photographs provided by the client were assessed to determine the extent of twentieth and twenty-first century land modification. Repositories utilized included the New York State Archives, New-York Historical Society, New Netherland Institute, New York State Museum, New York Public Library, the Library of Congress, and David Rumsey Historical Map Collection.

III. DOCUMENTARY RESEARCH RESULTS

PREHISTORIC CONTEXT

The prehistoric era begins with the first human occupation of North America and terminates at indigenous contact with European settlers. There is evidence of aboriginal presence in the northeastern United States since approximately 15,000 B.P. following the Laurentide Ice Sheet retreat, which covered the area during the Late Wisconsin Glaciation (Kraft 1986).

A chronological framework for pre-Columbian North America has been constructed from the archaeological record, which classifies stages of cultural similarity, bookended by significant shifts in tradition, as a distinct cultural period. The sequence of prehistoric occupation in North America is divided into three significant cultural periods: Paleo-Indian (circa 13,000 – 8,000 B.P.), Archaic (circa 8,000 - 3,000 B.P.), and Woodland (circa 3,000 B.P.-A.D. 1670). Archaeological evidence at Staten Island has been uncovered for each of these periods, with most identified belonging to the Late Archaic and Woodland periods.

THE PALEO-INDIAN PERIOD

The first people in North America were nomadic tribes that crossed the Bering Strait from Russia to Alaska when the climate was cooler, and sea levels were much lower than in the present. The climate remained cool during the Paleo period. Occupying what was still tundra, these people gradually spread out on the continent, following prey and subsisting on whatever seasonal terrestrial or marine life was available as subsistence resources were scattered across the landscape. When meat was not available, the early inhabitants supplemented their diet with whatever they could forage from the surrounding plants.

The earliest Paleo inhabitants in New York were presumably small bands of organized and highly mobile hunter-gatherers. They did not establish permanent settlements but moved seasonally according to resource availability. Because of the need for mobility, these early inhabitants maximized efficiency by producing practical and portable objects for their use. As a result, Paleo-Indian tools, objects, and other material culture were not overly complicated or large (which in turn lends to the ephemeral nature of Paleo sites in the archaeological record).

Paleo-Indian sites tend to reflect temporary occupation camps at elevated locations (offering optimal vantage opportunity for hunting) or alongside streams and rivers (Fagan 2005). Elevated locations were well drained and favorably situated to identify and observe the movements of game (Ritchie & Funk 1971). Their subsistence economy would have been comprised of Pleistocene megafauna, small game, nuts, berries, and vegetal foods (Fletcher & Kintz 1979: 12). 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 there (Fagan 2005). 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).

Archaeological evidence of Native American settlement and activity within New York City extends back to the Paleo-Indian period. Few Paleo-Indian period sites have been excavated and recorded by modern archaeologists due to these sites' ephemeral nature and subsequent centuries of post-contact land disturbances (Cantwell & Wall 2001). However, traces of Paleo-Indian culture have been unearthed on Staten Island. Indications of a Paleo-Indian component have been identified on the north shore of Staten Island at the Old Place Neck site. Paleo-Indian materials have also been recovered at Port Mobil and Smoking Point (both sites just over one mile northwest of the project area) and at Kreischerville (within a half a mile of the project area).

THE ARCHAIC PERIOD

The Archaic period in the mid-Atlantic region is generally characterized by the continual adaptation of Native Americans to the environment through hunting, gathering, and fishing activities. Archaeologists tend to view this period in three stages: Early Archaic, Middle Archaic, and Late Archaic.

Environmental transformations and rising sea levels marked the close of the Paleo-Indian period and the onset of the Early Archaic period. Settlement patterns 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 as water sources stabilized. Groups established base camps and moved periodically throughout a more limited territory as resources became available (McManamon et al. 2009). The disappearance of megafauna and migration of large game northwards led to a focus on plants and smaller animals – such as elk, deer, bear, turtles, and fish. The Early Archaic toolkit featured lithic assemblages comprised of hammer and anvil stones, notched pebble net sinkers, and new variations of stemmed and corner-notched projectile points (Kraft & Mounier 1982).

William Ritchie identified three Early Archaic and/or Early Archaic component sites on Staten Island – Old Place, situated along the north shore, and Ward's Point and Hallowell on the southern point of the island (Affleck et al. 2005:4.3). An Early Archaic component was identified at a former prehistoric campsite near Richmond Creek, where grooved axes and other material remains were recovered (Parker 1920:685, Abell-Horn 2020:4).

Environmental changes further transformed the landscape, creating intertidal flats, coastal lagoons and marshes, swamps, lakes, and estuaries. Main population concentrations began to center around river valleys that offered a wealth of diverse plant and animal resources, such as turkey, migratory waterfowl, and fish (Fagan 2005). The exploitation of wetland resources reflects the onset of the Middle Archaic period (Kraft & Mounier 1982). During the Middle Archaic period, the human occupation of New York, which continued to evolve from that of a hunter-gatherer economy, is indicative of "specialized adaptations" of individuals to their environment and the specific range of resources available at the mouth of the Hudson (Fletcher & Kintz 1979:12). Acclimation to specific environments led to the diversity of regional specializations and cultural adaptations (Kraft & Mounier 1982, Kraft 1986). Archaeological evidence for diversity in cultural adaptations is present in more diverse and complex tool kits than Paleo-Indian technology. Specialized fishing equipment and implements for food production – such as grinding stones, mortars, and pestles – appeared (Kraft & Mounier 1982). Tools were more refined and displayed more variety. Woodworking skills and new implements, like ground stone axes, celts, and gouges, appeared. Areas of occupation within eastern Long Island and New Jersey have also offered evidence of bone and copper use in tool production (Kraft & Mounier 1982).

Middle Archaic cultural remains have been recovered from Old Place and Old Place Neck on the north shore of Staten Island and Wards Point on the island's southern point. Chemical Lane and Sandy Ground, which are both just over one mile northwest of the project area, may contain a possible Middle Archaic component (Boesch 1994, Affleck et al. 2005:4.4, Abell-Horn 2020:4).

Larger prehistoric populations characterized the Late Archaic period with markedly more complex settlement activity forms and trade relations. Late Archaic groups fully utilized all environmental niches in their upland and lowland settings. Specialized sites for resource procurement were established – hunting and butchering camps, fishing posts, and wild food collection stations – and they were occupied on a recurring seasonal basis (Fletcher & Kintz 1979:12-13). The purpose and function of lithic tools adapted to fit the new dynamics of a growing population, and there was a marked increase during the Late Archaic in the manufacture of grinding stones, heavy food processing tools, milling equipment, adzes, and stone axes. The Late Archaic archaeological record further reflects a growing complexity in social development and structure – as the population became more sedentary, the foundations for trade and exchange networks emerged.

A large number of sites attributed to the Late Archaic period have been identified on Staten Island. The sharp rise in the number of Late Archaic sites from earlier periods may reflect a rapid population growth occurring across the present-day New York City area (Kraft 1986). "Vast complexes" of shell middens have been discovered along the Raritan Bay and Arthur Kill coastlines (Affleck et al. 2005:4.5).

THE WOODLAND PERIOD

The introduction of agriculture, the appearance of permanent settlements, the introduction and advancement of ceramic technology, and the prevalence of more elaborate and diverse tools typically characterize the prehistoric population's cultural evolution into the Woodland period.

Large rivers remained central to indigenous territories, utilized not only for their rich resources but also for transportation and communication. There is evidence that riverine environments could have supported semi-permanent occupations that utilized the coastal resources. However, these sites represent base camps of small, dispersed groups rather than fully articulated agricultural sites (Kraft 1986). The small groups possibly consisted of a few hundred people, with this number a seasonal aggregate rather than a constant population. Many of the adaptive strategies developed during the Archaic period in the northeastern woodlands continued into the Woodland period. 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 (Kraft & Mounier 1982, Kraft 1986). Cord-marked ceramic vessels and collared ceramic vessels appeared during this period (Abell-Horn 2020:5). Sites evolved through the Woodland period to include various storage and pit features – used for cooking or as refuse receptacles – and specialized work areas (Kraft & Mounier 1982).

The advent of horticultural activities and the domestication of plants and animals was a critical factor in enabling groups to settle in one place and develop into more complex societies (Bolton 1922, Furman 1875). The Woodland populations of New York centered agricultural activities around the cultivation of maize, beans, and squash, and the production of plant and processing tools increased as harvesting became a more common activity (Fletcher & Kintz 1979:12, Abell-Horn 2020:5). Subsistence activities also centered heavily on exploiting marine-based resources (Fletcher & Kintz 1979:12). "It is apparent that Woodland period inhabitants of the coastal New York region relied heavily on abundant shellfish resources of the coastal bays. Shell midden sites are ubiquitous in coastal zones of the lower Hudson Valley" (Affleck et al. 2005:4.6).

Stone tools continued to evolve, and in New York, narrow points characterized much of the Woodland period toolkit (Fagan 2005). Projectile points were made of various locally sourced and non-local, traded stone materials. The Meadowood-type projectile point dominated the early Woodland, followed by Jacks Reef, Fox Creek, and Rossville-type projectile points. Triangular projectile points of the Levanna and Madison types dominated the later Woodland era (Abell-Horn 2020:5).

On Staten Island, Woodland period sites or site components include discoveries at Huguenot and Clay Pit Road, the former within one mile of the current project area (NJ SHPO site A08501.0124, A08501.0118, A08501.0130).

PREHISTORIC BACKGROUND OF STATEN ISLAND

CONTACT PERIOD

Before the Europeans arrived in North America, the Algonquin populated the land along the Atlantic, stretching as far west as the Mississippi River (Leng & Davis 1930:71). The Algonquin people comprised roughly thirty nations, each speaking a dialect of the same language and sharing similar customs. A large regional Algonquin nation was the *Leni-Lenape*, meaning "original people" (Leng & Davis 1930:71). The *Leni-Lenape* were divided into three bands – the Muncey, the Unami, and the Unalacthigo. The scope of their territory covered New Jersey, New York Harbor, and the Lower Hudson Valley, extending west into eastern Pennsylvania and east through Long Island (Skinner 1909:30).

At the time of contact, Native peoples of the Unami band resided on Staten Island. The principal groups on Staten Island were the Hackensack along the north shore; the Tappan, who dwelled in the east; and the Raritan upon the southern and western shores (Dickenson 2003:3, Skinner 1909:32, Bolton 1922:188).

The Raritan tribe were the principal occupants of the current project area. Alanson Skinner indicated the Raritan were divided into two sachemdoms and about twenty chieftaincies. Though their chief seat was in New Jersey's Raritan Valley, the Raritan tribe had been established on Staten Island by the beginning of the seventeenth century (Skinner 1909: 32).

The Raritan favored the open beaches and salt meadows of the coast over the dense forests that blanketed most of the inland area (Kolff 1918:1). They dwelt on the shore and took advantage of the coastal resources, while engaging in some inland hunting of turtle, deer, turkey, and other small animals (Bayles 1887:34, 48; Leng & Davis 1930:74; Dickenson 2003:8). A wide variety of wild berries, plants, fruits, and nuts grew on the island, and they cultivated fields with hoes made of stone, shell, or wood. Common crops were beans, pumpkins, wild grapes, watermelon, and large quantities of maize and tobacco (Bayles 1887:48; Leng & Davis 1930:74, 75).

It was easy to conduct trade from Staten Island with neighboring tribes in Manhattan, New Jersey, and Delaware. The Minisink Path – "the highway of the Lenni Lenape" – came through the southwestern coast of Staten Island and wove through Perth Amboy toward the Narrows and Manhattan (Bolton 1922: 39, 195). The Raritan traveled between locations using dugout canoes

and exchanged wampum for fish, flint, and other materials that could not be locally sourced (Dickenson 2003: 7).

In 1609, the first Europeans set foot on New York's shores. Henry Hudson's ship, the *Half Moon*, reached New York's lower bay on September 3, 1609. He and his crew encountered Staten Island's Native inhabitants, most likely the Raritan, and, by their account, the first bloodshed between Europeans and Native Americans occurred when the Raritan's attacked and killed a member of Hudson's crew, John Coleman (Historical Records Survey 1942:xii). The crew responded to the event in kind, and the tone for the Raritan-European relationship was set. Hudson's brief visit launched several consequent expeditions to the New World sponsored by the Dutch East India Company and its later iteration, the Dutch West India Company (Ieradi 2001:8-11). By 1611, when the next voyage sailed into the Narrows, the crew observed that the Natives of Staten Island had erected signal posts on high vantage points along the coastline keep watch for their return (Historical Records Survey 1942:xii).

SEVENTEENTH CENTURY

With the arrival of Europeans in America, Native American settlement and influence in the area quickly diminished. The Native history of Staten Island – including their place-names, stations, and trails – was not well preserved by European settlers (Bolton 1922:189). Small insights into the culture and lifeways of the Native Americans inhabiting Staten Island during the seventeenth century are scattered throughout early Dutch records. In general, these documents indicate Staten Island remained almost exclusively settled by indigenous peoples, including the Raritan near the project area, into the late 1600s, far longer than the surrounding portions of New York City.

Fifteen years after Hudson's first encounter with Staten Island's Native inhabitants, the second written record appears. On July 27, 1626, Isaak de Rasieres, then-Provincial Secretary of the Dutch West India Company, sailed through the Narrows and arrived at a place he called *Hamels Hoofden*, where he came upon the Raritan tribe living there. He described the island as "Inhabited by 80 to 90 savages, who support themselves by planting maize" (NYS Legislature 1917:228). *Hamels Hoofden* was the name of the Narrows, or the hills along the coast of Narrows (Fernow 1881:2, Skinner 1909:38).

On August 10, 1630, the first deed for land on Staten Island was granted to Michiel Paauw by its Native American proprietors Krahorat, Tamekap, Tetemakwemama, Wieromies, Siearewach, Sackwewew, Wissipock, and Saheinsios. The document declares them as "Inhabitants, owners and inheritors of the island called by us Staten-Island, on the west side of *Hamels Hoofden*" (New Netherland Council, Patents Vol GG:6).

Whatever Paauw's initial intentions were in purchasing the land, he ultimately chose not to develop it, and it is unclear if he ever ventured onto the island itself (Kolff 1918:24). Six years later, on January 5, 1639, David Pietersz De Vries became the first European to attempt real settlement on Staten Island. De Vries was a Dutch navigator or marine merchant who had arrived in New Amsterdam a year prior. He secured the rights to build a colony on Staten Island from then-Director of New Netherland, Wouter Van Twiller (De Vries 1639-41:202). De Vries and a small company established several farms in Arrochar (Kolff 1918:24-25).

On July 16, 1640, the newly appointed Director Willem Kieft incited the first of several wars between the Dutch and Native Americans under his leadership. The Director issued an ordinance that charged the Raritans of Staten Island with the theft of several missing pigs belonging to De Vries. Though it was later determined that Dutch sailors from New Amsterdam had committed the crime, Kieft resolved that it was Raritan wrong-doing and ordered a force of fifty soldiers and twenty sailors to *Raritanghe*, "a nation of savages who live where a little stream runs up about five leagues behind Staten Island" (Fernow 1881:7, De Vries 1639-41:208). The false accusation escalated into the Pig War massacre (De Vries 1639-41:208). Several Raritans were killed by Kieft's men, and the brother of the chief was tortured and taken prisoner (Bayles 1887:54). The outrage amongst the Raritans and consequent retaliation saw the destruction of De Vries plantation on Staten Island the following year (Bayles 1887:54).

On July 4, 1641, the New Netherland Council charged the Raritan on Staten Island with the deaths of four tobacco planters in De Vries' employ and arson of De Vries dwelling house and tobacco house. Kieft again issued an ordinance targeting the Raritan group, and the Council offered their Native allies wampum as reward for Raritan heads (New Netherland Council, Minutes Vol 4:97, Fernow 1881:7-8, Kolff 1918:19). The ordinance could not salvage what De Vries' had invested into the island. By September 1, 1641, De Vries wrote that he had abandoned the Staten Island colony project (De Vries 1639-1641:211).

The second European attempt at settlement on Staten Island was Cornelis Melyn, a controversial Dutch merchant who had arrived in the New Netherland in 1639. By August of 1641, Kieft had granted Melyn colonization rights to Staten Island and acknowledged him as its patroon (De Vries 1639-1641:208). The following year, the agreement was documented in a title deed that conveyed to Melyn the entirety of Staten Island, excepting the plantation which had already been conveyed to De Vries (New Netherland Council, Patents Vol GG:50). Melyn established himself at "the point of Staten Island where the maize land lay", an area that has not been identified on the modern island (NYS Legislature 1917:232).

At some point during 1642 and 1643, Kieft requested that Melyn establish a distillery for him (the first to have been built in America) on Staten Island in present-day New Brighton. Mixing alcohol with the rising temperaments of the Dutch and the Raritan resulted in the second war, known as the Whiskey War (Kolff 1918:20).

Tensions continued to rise between the Dutch and the Raritan's on Staten Island, further propelled by Kieft's abuse of Native Americans elsewhere in New Netherland. In October of 1643, during the height of the two yearlong clashes known as Kieft's War, the Dutch allied briefly with the English and recruited thirty-five Englishmen from Connecticut to come to Staten Island and join them for an "Indian hunt." Seventy-five men set upon the Native villages in Staten Island, which had fortunately been abandoned before their arrival (NYS Legislature 1917:232). The following month, the Natives of Staten Island set fire to Melyn's property, houses, and farms, which forced Melyn and his family to leave the island and take refuge in New Amsterdam, where they remained until 1647. With their departure, the second attempt to colonize Staten Island came to an end (Dowell et al. 1915:34-35).

For roughly seven years, Staten Island remained virtually devoid of European presence or active attempt to colonize it. In April of 1652, the Holland-based directors of the Dutch West India Company wrote to Peter Stuyvesant, Kieft's successor as Director-General of New Netherland, and lamented the limited occupation of the island, saying that, "Eight leagues of the country has only settled five or six living beings" (New Netherland Council, Admin. Vol 11:54).

In circa 1650, Baron Hendrick van der Capellen, a nobleman well-connected within the West India Company, entered into a private agreement with Melyn for patroonship of Staten Island with the intention to colonize. The arrangement was not made through the New Netherland Council or the West India Company (New Netherland Council, Admin. Vol 13:14).

In 1655, by his own account, van der Capellen's colony on Staten Island had grown to accommodate eleven developing plantations and a population of ninety (New Netherland Council, Ordinances Vol 16:124). Melyn had also returned to the island to try once again to develop it, and in 1655, he claimed sixteen cultivated farms with twenty-seven buildings (Melyn Papers, 109-116). Capellen and Melyn's efforts to develop Staten Island were devastated in 1655 by the onset of the third and final war to take place between the Native Americans and the Dutch, the Peach War. In September of 1655, six hundred Native Americans landed on the southern tip of New Amsterdam and assailed the city. Simultaneous attacks were carried out in Westchester County and on Staten Island.

The attack on Staten Island decimated van der Capellen's colony. All buildings and property had been razed beyond saving, and only cattle remained. The surviving settlers relocated to New Utrecht and elsewhere within the colony. Only one family, that of van der Capellen's colonial representative, Captain Adriaen Post, remained on the island (New Netherland Council, Admin. Vol 12:68, Admin. Vol 14:30, Ordinances Vol 16:124; Correspondence 1654-1658, 152-154). Melyn's settlement on Staten Island did not fare any better. The Natives had burned his houses, barns, and grain and had killed his son, son-in-law, and two nephews. Melyn later claimed that fifty-one persons, including himself and his wife, were taken hostage by the Natives and held in captivity for thirty-one days (Melyn 1659:109-115).

Following the Peach War, Stuyvesant and the New Netherland Council all but gave up on Staten Island. On April 27, 1656, still reeling in the wake of the Peach War, Captain Post's wife petitioned the Council for a small armed force to be sent to Staten Island to protect her family from the Native communities who dwelled there. The Council denied her request and, noting that the island's European population was six or seven persons, wrote: "there was nothing on the island worth preserving but the cattle" (Dowell 1915: 31).

In the following years, van der Capellen returned to Staten Island with a handful of settlers to rebuild his colony (New Netherland Council, Minutes Vol 6:379). In 1656, the West India Company's directors requested Stuyvesant assign five or six soldiers to Capellen's land in Staten Island for the protection of the settlers (Correspondence 1654-1658, 102-112). On July 10, 1657, an attorney for van der Capellen and twenty Native Americans from six different tribes gathered "on the land of Waerhinnis Couwee at the Hespatingh near Hackingsack." Of the twenty Native Americans in attendance, thirteen were the proprietors and the "hereditary owners of Staten Island" who sold the land to van der Capellen (New Netherland Council, Admin. Vol 12:61) (Figure 2).

In July of 1659, Stuyvesant wrote that few persons totaling no more than two or three families lived on Staten Island under van der Capellen. In 1660, Stuyvesant wrote to the West India Company's directors that the land on Staten Island was "suitable" but not settled. The total population of van der Capellen's settlement had not changed, and Melyn's settlement had long been abandoned. By 1661, van der Capellen's heirs had released their right to the Dutch West India Company (Dowell 1915: 33, 35).

On March 6, 1660, the Natives of Staten Island appeared again in the written record. A treaty of peace was brokered between the Dutch and the chiefs of seven tribes residing in present-day Queens County, Hackensack, Nyack, Haverstraw, and Westchester County. The document identifies Mattenouw, the former chief of the *Najack*, as the chief of Staten Island (New Netherland Council, Minutes Vol 9:118, Fernow 1881:148). Warrhan is named chief or representative of Staten Island in an additional peace treaty brokered on July 15, 1660, and Mattenouw is again identified as the sachem of Staten Island in a Dutch recording dated June 27, 1663 (Fernow 1881:261-262). The journal of Captain Cregier, written during his voyage to the Newsinghs in the winter of 1663, attested to Raritan presence on Staten Island and observed "two houses of southern savages" (New Netherland Council, Admin. Vol 15:85, Fernow 1881:375)

The first settlement to take hold within Staten Island was established during these years of peace. On August 22, 1661, a band of newly emigrated Huguenots led by Pieter Billou and Claude Le Maitre petitioned Stuyvesant for land on Staten Island in Westfield (Kolff 1918:25). In 1662 Old Town was founded (New Netherland Council, Minutes Vol 9:735). By 1664, the fledgling settlement was home to twelve to fourteen Dutch and French families (Dowell 1915:37). In 1666, Stuyvesant's final report to the directors of the West India Company on the surrender of the colony, he wrote that Staten Island was only inhabited at its south side by 10-12 Europeans, who were armed against local natives (Dowell 1915: 38-39).

On April 7, 1670, English governor Francis Lovelace initiated negotiation to purchase the entirety of Staten Island from its Native American owners, along with their right and interest in the land (Fernow 1881:453). The five owners – Matackos, Kararamint, Matarus, Craoquy, and Wenonecameke – and a handful of their representatives formed the Native delegation that met with Lovelace. They convened in Manhattan at Fort James. Discussions progressed over a six-day period, where the voided 1657 sale of the island to Capellen was contested by the Natives and used by Lovelace as a basis for their compensation (Fernow 1881:453; Lipman 2015, para. 9). A deal was ultimately struck, and the island was purchased on behalf of the English crown.

The deed stipulated that the Native Americans living on Staten Island were to have "free leave and liberty" for one more year and then vacate the land. On May 1, 1671, the Native Americans of Aquehonga-Manacknong relinquished their interest and title to the island, ending their recognized tenure on Staten Island. On the first of May in the following years, the written sachems (or their descendants) and the English Governor would convene again at Fort James to reaffirm the deed.

PREHISTORIC BACKGROUND OF THE PROJECT AREA

This Phase IA Addendum has identified 20 prehistoric sites within a one-mile radius of the APE through research on the NY CRIS GIS system (Table 1) (Map 2). Of these, nine were located within one half mile of the project area. Three of the sites closest to the project area that included materials recovered from partially disturbed soil contexts are described below. These sites generally show that prehistoric archaeological materials might still be present in areas disturbed by historic plowing and by addition of soil overburden atop intact stratigraphy.

The 2015 Phase IA survey identified six historic archaeological sites within a one-mile radius of the APE, including one National Register-eligible site (the Kreisler House). None of these sites are located within 0.25 miles of the project area (Greenhouse 2015:6, see Appendix A). The Phase IA also identified 11 previous cultural resource surveys within a one-mile radius of the APE, none of which covered the current project area (Greenhouse 2015:7-8).

Table 1: Prehistoric Sites within a 1-mile radius of the project area.

| SITE, IDENTIFIER | DISTANCE | DESCRIPTION | RECORDER |
|--|-----------------|---|---|
| Price Prehistoric Site (SHPO A08501.002847) | .2 Miles W | Evidence of features, material below plow zone, material in plow zone | Douglas Mackey in 2007 |
| Canada Hill 1 (SHPO A08501.000073) | .26 Miles E | Possible shell heap. | Lorraine Williams in 1967 |
| Fairview Prehistoric Site (Canada Hill 2) (SHPO A08501.002815) | .26 Miles E | Surface evidence, buried evidence, material in plow zone | Patrick J. Heaton, John Milner Associates in 2005 |
| Catbriar (SHPO A08501.003358) | .35 Miles SW | Camp, shell midden, evidence of features, intact occupation floor; buried evidence, material below plow zone, material in plow zone | Greenhouse Consultants, Inc. in 2017 |
| Kreischerville (NYSM #771) | .37 Miles NW | Kreischer historic settlement atop lithic scatter, some identified as potential Paleo/Archaic fluted-points in 1960s. Non-diagnostic lithics found in 2000. | Rebecca Yamin in 1978 |
| A7-MCB-1 (SHPO A08501.002767) | .4 Miles NE | Buried evidence, workshop, material in plow zone | John Milner Associates in 2000 |
| C4-MCB-1 (SHPO A08501.002766) | .4 Miles NE | Buried evidence, workshop, material in plow zone | John Milner Associates in 2000 |
| Dissosway Totten Starr Site (SHPO A08501.003697) | .41 Miles SW | Camp, buried evidence, material below plow zone, material in plow zone | William Sandy, Greenhouse Consultants, Inc. in 2017 |

| SITE, IDENTIFIER | DISTANCE | DESCRIPTION | RECORDER |
|--|-----------------|--|---|
| Area 1 West Site (SHPO A08501.003696) | .42 Miles SW | Camp, buried evidence, material below plow zone, material in plow zone | William Sandy, Greenhouse Consultants, Inc. in 2016 |
| Arthur Kill Road at Mill Creek Site (SHPO A08501.004064) | .55 Miles S | No information provided | Julie Abell-Horn in 2020 |
| Abraham's Pond Locus C (SHPO A08501.000880) | .57 Miles NE | Buried evidence | Arnold Pickman, Rebecca Yamin in 1986 |
| Nassau Place Site (SHPO A08501.000025) | .87 Miles SW | Buried evidence | Arnold Pickman in 1984 |
| Abraham's Pond Locus B (SHPO A08501.000879) | .89 Miles NE | Surface evidence | Arnold Pickman, Rebecca Yamin in 1986 |
| Park Headquarters Site (SHPO A08501.000130) | .89 Miles NE | Surface evidence, buried evidence | Arnold Pickman, Rebecca Yamin in 1986 |
| Canada Hill (NYSM #770) | .92 Miles E | Possible contact-period site | Lorraine Williams in 1967 |
| Port Socony South (NYSM #743) | .93 Mile N | No information available | No information available |
| Abraham's Pond Locus A (SHPO A08501.000878) | .95 Miles NE | Surface evidence | Arnold Pickman, Rebecca Yamin in 1986 |
| Clay Pit Road Site (SHPO A08501.000124) | .97 Miles N | Surface evidence, buried evidence | Arnold Pickman, Rebecca Yamin in 2986 |
| T and J Site (SHPO A08501.000118) | .98 Miles N | Surface evidence, buried evidence | Arnold Pickman, Rebecca Yamin in 1986 |
| Salamander Court (SHPO A08501.002378) | 1 Mile NE | Stray find, buried evidence | William I. Roberts, IV., Greenhouse Consultants, Inc. in 1988 |



Map 2: Prehistoric archaeological sites within a 1-mile radius of the project area (highlighted in red).

A08501.002847 – PRICE PREHISTORIC SITE

The Price Prehistoric Site is located .2 miles west of the APE near the coastline overlooking the Arthur Kill. The site was marked for sensitivity during Phase IB/II investigation of a 22-acre tract conducted by Hunter Research (HRI) in 1995 and further excavation by URS in 2004 (Affleck et al. 2005:6.1). The prehistoric site component, comprised of Middle and Late Woodlands lithics, pottery, and shell waste, was identified under approximately 3.5' of sand overburden, and in areas extended to the Ap and B horizon approximately 4.6' and 5.3' below ground surface (Affleck et al. 2005:6.7-6.8). Sand overburden raising the ground surface level and covering some areas of intact prehistoric material was a result of a mix of natural deposition and areas of construction-related sand collection. Where modern construction activity had cut and filled portions of the project area with sandy fills, the local stratigraphy had been extensively disturbed and the areas considered of low archaeological potential (Affleck et al. 2005:2.4).

The Price Prehistoric Site investigation was done in conjunction with an investigation of the adjacent Van Allen Farmstead site. SHPO designates the Van Allen Farmstead as a historic site, and the URS excavations recovered 7,800 artifacts mostly of historical significance; 405 artifacts were of prehistoric origin.

A08501.002815 – FAIRVIEW PREHISTORIC SITE (CANADA HILL)

The Fairview Prehistoric Site, also known as Canada Hill, is located .26 miles west of the APE bordering the property associated with the Kreisler Estate. The site was situated in previously cultivated woodland with a gentle slope and poor natural drainage. John Milner Associates conducted Phase II investigation at the Kreisler Estate site in the Spring of 1999 and 2000. Shovel testing and test unit excavation identified non-diagnostic prehistoric materials that had been partially disturbed by historic plowing and construction activity that mottled and redeposited prehistoric materials into the C horizon (Klein et al. 2000: 25)

A08501.002767 – A7-MCB-1

Prehistoric Site A7-MCB-1 is located .4 miles northeast of the APE in the central-eastern half of Fairview Park, immediately south of Englewood Avenue. It was identified by John Milner Associates in 2000. The site was situated on a small knoll or hill with a flat summit and natural drainage. Prehistoric materials were found mixed into a plowzone and, to a lesser degree, the B horizon. This disturbance was determined to be made by historical agricultural activity, impacting stratigraphy but leaving prehistoric materials from previous occupation eras mixed into the area soils (Klein et al. 2000:26).

IV. HISTORIC MAP AND AERIAL REVIEW

The 2015 Phase IA survey for this project included a historic map review covering ca. 1694 through 1975, with detailed county atlas and insurance maps of the project area from 1845 to 1974. This review identified structures immediately west of the project area beginning in 1853 (attributed to “H. Butler”) and 1874 (attributed to “Geo. Conklin”), with an ancillary structure within the project area by 1907 (Greenhouse 2015:11-12).

This Phase IA Addendum reassessed historic maps using the project area limits supplied in 2020 by the client and examined historic aerial photographs to interpret the historic use and more recent landscape modification of the project area.

Review of the 1853 Butler map suggests Allentown Lane (later to become Veterans Road West) was in place at the south end of the project area. No structures are depicted in the project area, although structures were present west of the project area (“C. Shea”) and east of the project area (“H. Butler”) (Map 3).

The 1874 Beers atlas shows Geo. Conklin has ownership of the lands forming the project area, and a structure fronting Allentown Lane is present at the south end of the project area. The western third of the project area may extend into the C. Shea estate, but it does not include any mapped structures (Map 4).

The 1907 Robinson atlas shows Felix Hayden as owner of the lands forming the project area. A structure fronting Allentown Lane, likely the same as that pictured in 1874, remains within the project area, accompanied by a secondary structure just east of the project boundaries (Map 5).

The 1932 edition of the 1900 USGS *Staten Island, NJ* 15-minute series topographic map confirms the layout shown in the 1874 and 1907 atlases, with one structure – or a small group of structures – at the south end of the project area fronting Allentown Lane (Map 6). These structures remain depicted in the 1947 *Arthur Kill, NY* USGS 7.5-minute series topographic map, but they are no longer present on the 1966 USGS map (Maps 7-8).

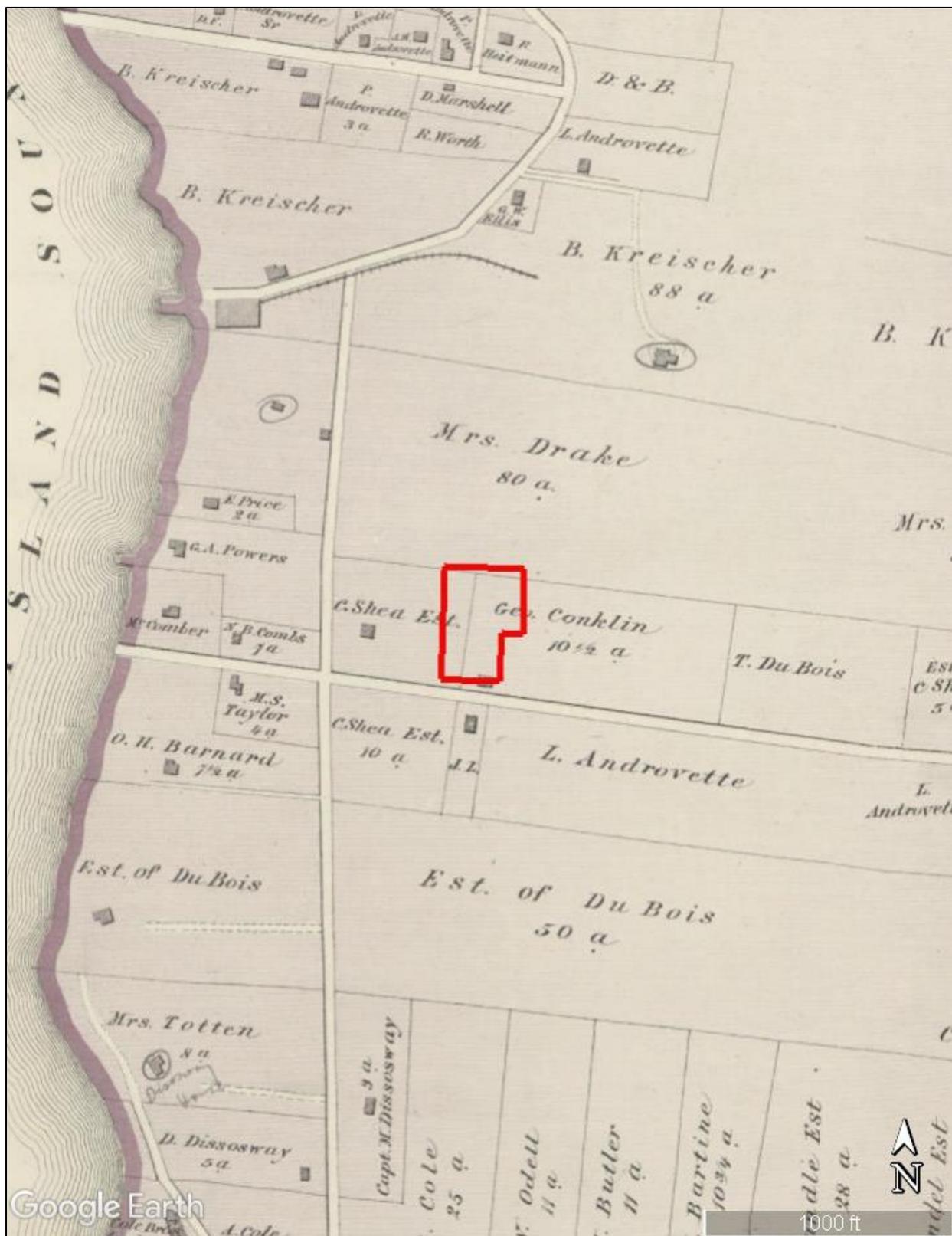
Historic aerial images from 1940 to 2017 indicate the project area changed from generally undeveloped forested land to a landscaped area cleared by earth-moving operations in the mid twentieth century. The 1940 and 1951 aerial images show the project area as forested, without obvious evidence of structures fronting Allentown Lane/Veterans Road West within the project area. Isolated structures appear south of the roadway, outside the project area (Maps 9-10). The 1962 aerial shows the entire project area cleared of trees, with sandy subsoil apparent across every portion of Lot 240, except for some apparent darker soil or scrub land at the extreme northwest corner (Map 11).

The 1974 aerial continues to show the project area as cleared land with sandy soils or subsoils exposed at ground surface, with the extreme northwest and southern portion of the lot covered by scrub or regrowth (Map 12). The 1995 aerial shows another round of more extensive clearing operations affecting the entire project area, save a small portion of previously cleared land at the extreme northeast, north of a newly constructed commercial complex (Map 13). The 2006 aerial shows the entire north half of the project area cleared again, including the area left as scrubland in

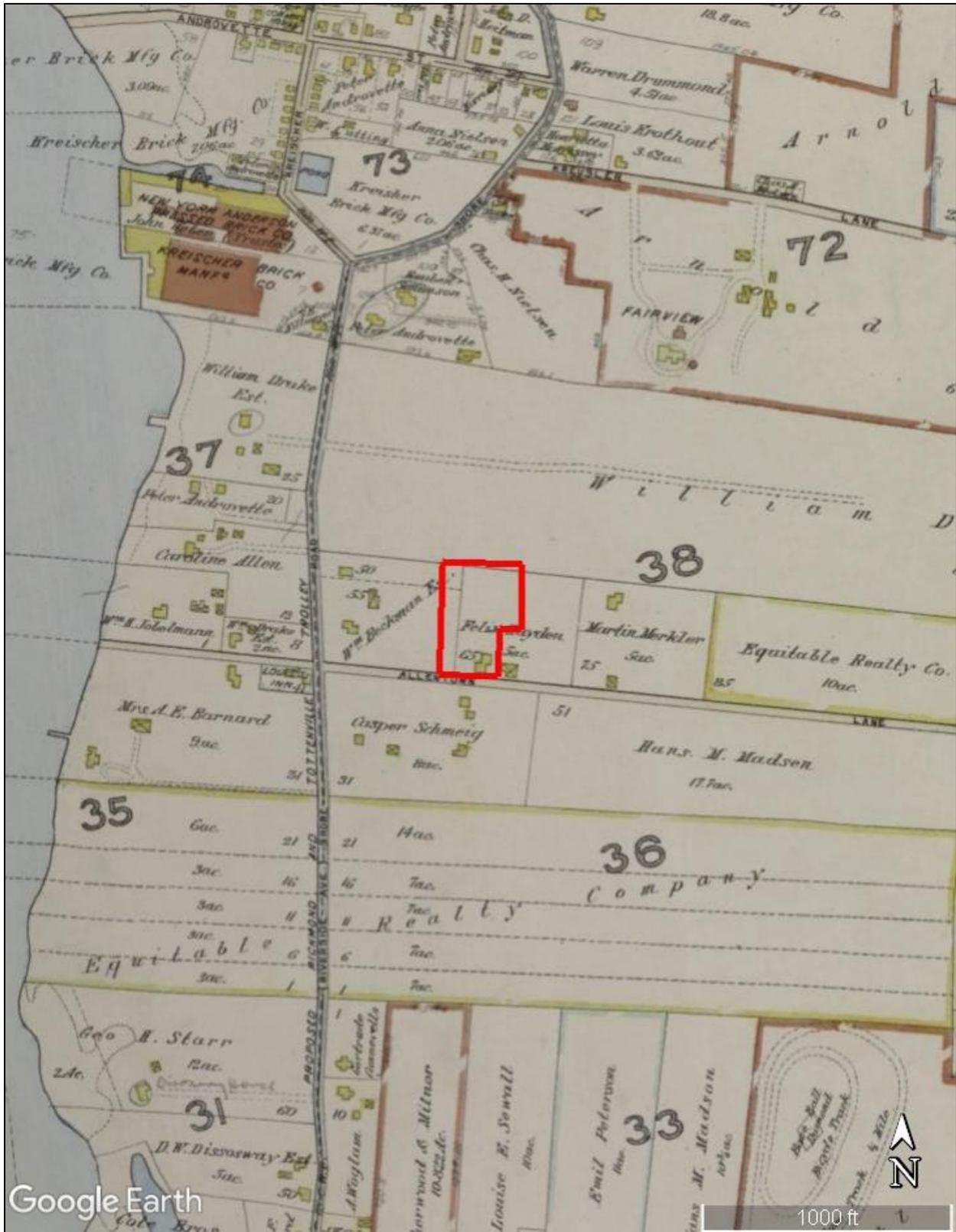
1995, with a dirt roadway crossing southwest to northeast across the lot and grassy regrowth to the south (Map 14). Currently, the southeastern three-quarters of the lot are covered by a mix of dirt and gravel surfacing, with an extended concrete paved sidewalk area at the southern lot boundary (Map 15, see also Figure 1).



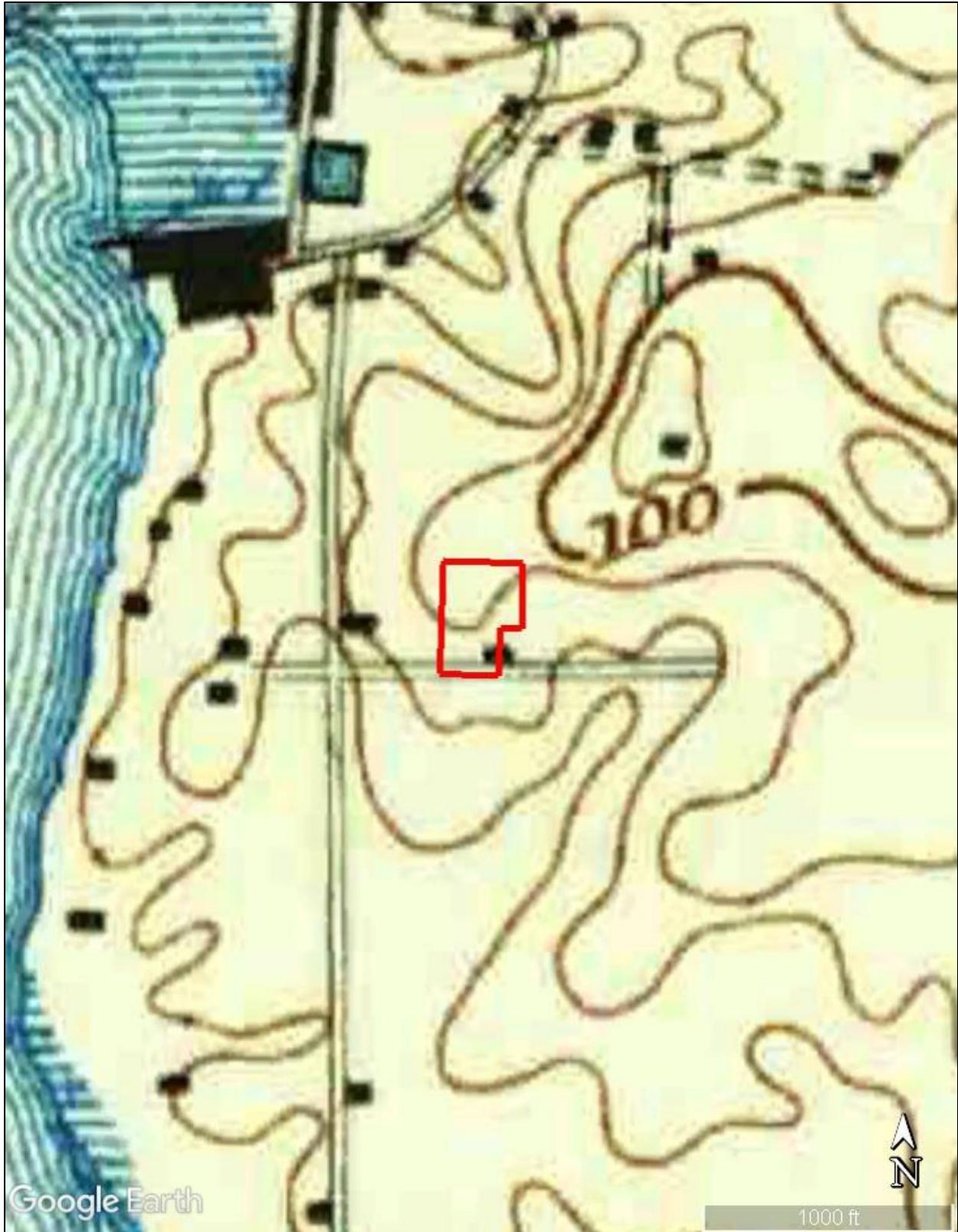
Map 3: Detail of 1853 atlas, project area in red (Butler 1853).



Map 4: Detail of 1874 atlas, project area in red (Beers 1874).



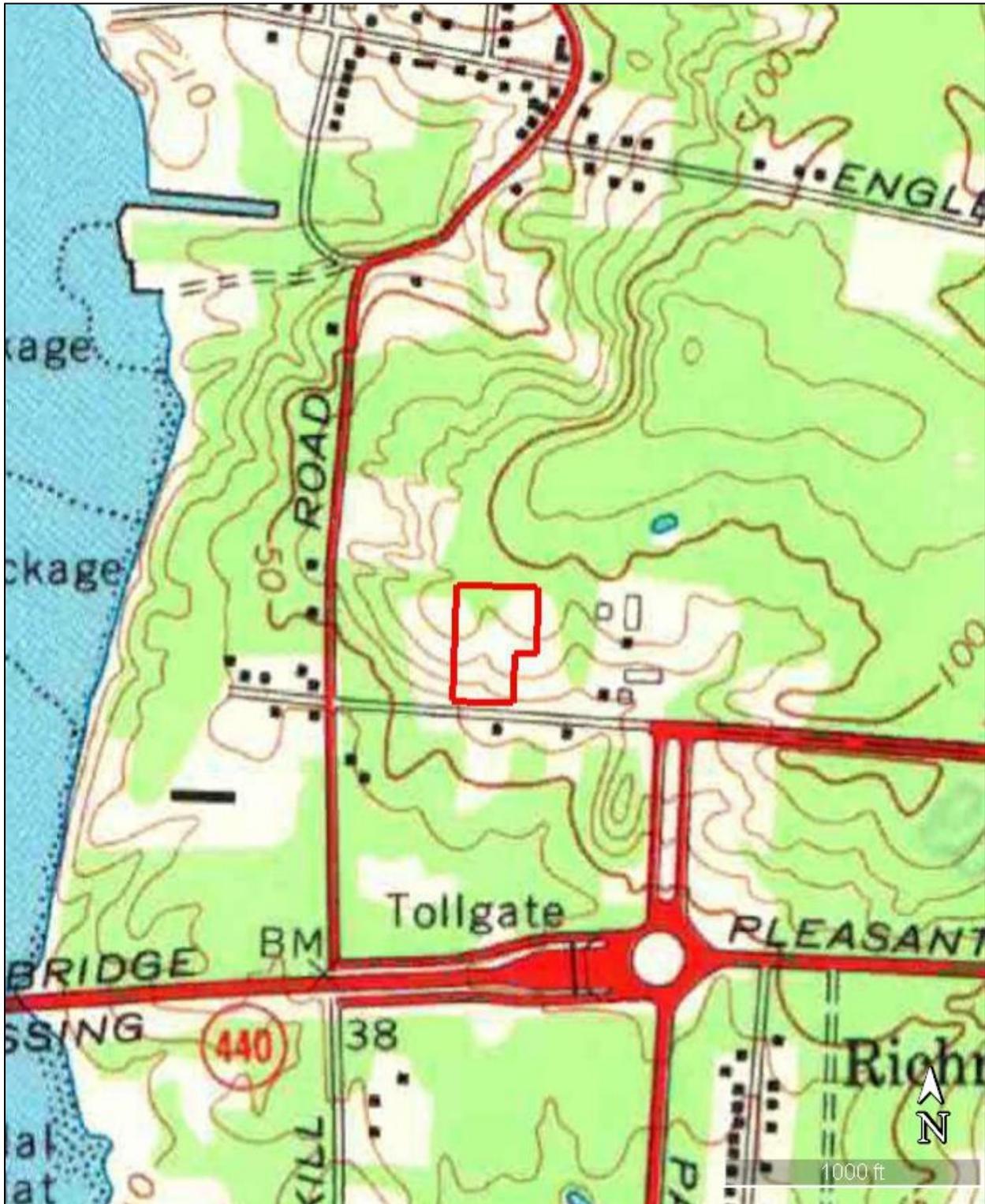
Map 5: Detail of 1907 atlas, project area in red (Robinson 1907).



Map 6: Detail of 1932 edition of 1900 *Staten Island, NJ* USGS 15-minute topographic map, project area in red (USGS 1932).



Map 7: Detail of 1947 *Arthur Kill, NJ* USGS 7.5-minute topographic map, project area in red (USGS 1947).



Map 8: Detail of 1966 *Arthur Kill, NJ* USGS 7.5-minute topographic map, project area in red (USGS 1966).



Map 9: 1940 aerial image, project area in red (EDR 1940).



Map 10: 1951 aerial image, project area in red (EDR 1951).



Map 11: 1962 aerial image, project area in red (EDR 1962).



Map 12: 1974 aerial image, project area in red (EDR 1974).



Map 13: 1995 aerial image, project area in red (EDR 1995).



Map 14: 2006 aerial image, project area in red (EDR 2006).



Map 15: 2020 aerial view of the project area (Google Earth 2020).

V. CONCLUSIONS

This Phase IA Addendum identified 20 documented archaeological sites with a prehistoric component within a one mile radius of the project area. These sites included Paleo and Archaic period materials (NYSM 771, A08501.002847). The density of prehistoric sites indicates there is a high probability the project area was utilized by prehistoric peoples who may have left potentially significant archaeological remains.

The 2015 Phase IA survey identified structures immediately west of the project area beginning in 1853 and 1874, with an ancillary structure within the project area by 1907 (Greenhoues 2015:12). This Phase IA Addendum amended these findings to indicate structures were in place to the west and east of the project area by 1853, attributed to “C. Shea” and “H. Butler”, respectively. The project area was on Geo. Conklin land with a structure within the project area fronting Allentown Lane/Veterans Road West in 1874. A second structure just east of the project area limits was in place fronting Allentown Lane by 1907. Historic aerial images indicate the structure within the project area at Allentown Lane/Veterans Road West and the secondary structure just east of the project area were likely razed by 1940. The presence of these late nineteenth century structures indicates historic land usage, likely agricultural or residential, of the project area.

The 2015 Phase IA survey cited a 2013 environmental review that indicated 30’ of soil had been removed from the subject property in the 1960s to be used as fill for construction of nearby Route 440¹. This Phase IA Addendum investigated historic aerial imagery to determine that the structures identified above had likely been razed by 1940, and the project area remained forested land until at least 1951. By 1962, the entire project area had been cleared of trees and sandy soil or subsoil exposed across the entire lot, with possibly the extreme northwest portion of the project area left as scrub land. Earthmoving activities continued to leave the lot bare with exposed sandy soil or subsoil until at least 1984. In 1995, more land modification stripped the entire lot and surrounding areas, leaving sandy soil or subsoil at surface. A dirt road was in place by 2006, with grassy regrowth across the south half of the lot. Currently, the lot features a mix of earthen and gravel surfacing.

¹ Chrysalis has not been able to obtain and review the 2013 environmental study.

VI. RECOMMENDATIONS

While the project area's location, surrounding prehistoric site density, and historic map review suggest prehistoric and late-nineteenth century historic archaeological sensitivity, the project area has undergone extreme and repeated landscape modification between ca. 1962 and 2020. The start of this work appears to coincide with the soil removal for Route 440 construction fill reported in the 2013 environmental study that is cited in the 2015 archaeological survey. The extent of this disturbance covers the entire Lot 240 project area. Although Greenhouse reported 30' of soil was removed from the project area in the 1960s, the depth of disturbance cannot be determined by historic aerial images, nor can it be determined if all land modification activity was soil removal or some combination of cutting and filling.

An assessment of several nearby prehistoric archaeological sites indicates that prehistoric archaeological materials have been recovered in areas with historic plowzone disturbance or modern soil stockpiling. However, where cut and fill activities have taken place – for example, at portions of the Price Prehistoric Site - these areas have been considered disturbed and of limited archaeological potential (Affleck et al. 2005:2.4). It is expected that the large-scale earth moving activities evident in historic aerial images of the project area represent a mix of cutting, filling, and leveling related to 1960s sourcing of Route 440 construction fill and prepping the area for construction of the commercial complex immediately east of the project area in the late 1900s. These activities would have destroyed any remaining elements of the historic housing that appeared between 1853 and 1874 and was likely razed by 1940. No other historic usage of this land was documented, and historic archaeological sensitivity is considered low.

Due to the density of prehistoric sites found nearby, Chrysalis recommends geotechnical soil borings be conducted throughout the project area and reviewed by an archaeologist to assess the extant soil stratigraphy in these areas and determine whether the earth moving activities evident in aerial images extended across the entirety of Lot 240 (Figure 3). The extreme western side and northwestern corner of the lot are the only areas where scrub growth was visible during the post-1962 disturbance events at the project area. If natural soil stratigraphy remains intact, it is expected the deepest potential artifact-bearing strata would lie within 2.5' of the ground surface (within the A-Bw2 horizons of Greenbelt complex or Boontom complex soils mapped across the project area [Greenhouse 2015:4]). Soil borings will be undertaken in order to reach the depth of potential natural subsoil. A review of soil borings may indicate if disturbance in these liminal areas was minimal and some level of stratigraphic and archaeological integrity may remain.

VII. REFERENCES

- Abell-Horn, J.
2020 Arthur Kill Road Storage, Block 7983, Lot 100, Staten Island, Richmond County, New York. Phase IA Archaeological Documentary Study. Westport: Historical Perspectives, Inc. Report on file with New York State Historic Preservation Office
- Abell Horn, J., & Mascia, S.
2018 North Bridge Street Development, Block 7515, Lot 200, Staten Island, Richmond County, New York. Phase 1A/1B Archaeological Investigation. Westport: Historical Perspectives, Inc. Report on file with New York State Historic Preservation Office
2020 Arthur Kill Road Storage, Block 7983, Lot 100, Staten Island, Richmond County, New York. Phase IB Archaeological Testing Program. Westport: Historical Perspectives, Inc. Report on file with New York State Historic Preservation Office
- Adams, A., & Risley, S. A.
1915 *A Genealogy of the Lake Family of Great Egg Harbor, In Old Gloucester County, In New Jersey, Descended From John Lake of Gravesend, Long Island.* Hartford: Private Printing. Digitized 2007 by University of Wisconsin
- Affleck, R., Harbsion, J., Eichinger, D. Janowitz, M., Wuebber, I.
2005 The Van Allen Farmstead Site and the Price Prehistoric Site for the Proposed Residential Development, The Tides at Charleston, Arthur Kill Road, Staten Island, New York. Phase III Archaeological Data Recovery. Burlington: URS Corporation. Report on file with New York State Historic Preservation Office
- Bailey, P.
1949 *Long Island, A History of Two Great Counties Nassau and Suffolk.* (Vol. 1). New York: Lewis Historical Publishing Co., Inc.
- Bayles, R. M. (Ed.).
1887 *History of Richmond County, Staten Island, New York, From its Discovery to the Present Time.* New York: L. E. Preston & Co. Digitized by the State Historical Society of Wisconsin
- Beauchamp, W. M.
1901 Wampum and Shell Articles Used by the New York Indians. In *Bulletin of the New York State Museum*, 8(41). Albany: University of the State of New York

- 1907 Aboriginal Place Names of New York. In *Bulletin of the New York State Museum*, (108, Archaeology 12). Albany: University of the State of New York
- Beers, F.W.
1874 Atlas of Staten Island, Richmond County. Part of Westfield. J.B. Beers & Co. New York: NY. New York Public Library Digital Collections. <https://digitalcollections.nypl.org/items/510d47e2-0b93-a3d9-e040-e00a18064a99>.
- Black, F. R.
1983 A History of Fort Wadsworth, New York Harbor. Historic Resource Study. Boston: Division of Cultural Resources, National Park Service
- Bolton, R. P.
1922 New York City in Indian Possession. In F. W. Hodge (Ed.), *Indian Notes and Monographs*. (Vol. 2). New York: Museum of the American Indian, Heye Foundation
- Bradley, J. W.
2006 Before Albany: An Archaeology of Native-Dutch Relations in the Capital Region 1660-1664. In *New York State Museum Bulletin*, 509. Albany: University of the State of New York
- Butler, J.
1853 Map of Staten Island, or Richmond County, New York. James Butler and F. Mayer & Co. New York, NY. New York Public Library Digital Collections. <https://digitalcollections.nypl.org/items/bc27e5ae-1d7c-b174-e040-e00a1806625c>
- Clute, J. J.
1877 *Annals of Staten Island, from its discovery to the present time*. New York: Press of Chas. Vogt
- Cornelis Melyn
1659 Melyn Papers, 1640-1699. In *Collections of the New-York Historical Society for the year 1913*. New York: Printed for the New-York Historical Society, 1913 (97-138)
- Crowley, S.
2015 Waterfront Commons, Block 7620, Lot 1, Block 7632, Lots 1, 6, 50, 150 and 151, Richmond County, Staten Island, New York. Phase 1 Archaeological and Historical Survey. New Jersey: Greenhouse Consultants, Inc. Report on file with New York State Historic Preservation Office

- Crowley, S., & Beadenkopf, K.
 2004 Block 7580, Lots 1, 3, 5, 7, Staten Island, New York. Additional Phase 1B Archaeological Testing. New Jersey: Greenhouse Consultants, Inc. Report on file with New York State Historic Preservation Office
- Crowley, S., & Boesch, R.
 2017 Archaeological and Historical Investigations of Riverside Galleria (formerly Waterfront Commons), Block 7620, Lot 1, Block 7632, Lots 1, 6, 50, 150, and 151, and Richmond Valley Road Extension, Lots 100 and 110, Richmond County, Staten Island, New York. Supplemental Phase IB and Phase II. New Jersey: Greenhouse Consultants, Inc. Report on file with New York State Historic Preservation Office
- De Vries, David Pietersz
 1639-41 *Korte Historiae ende Journaels Aenteyckeninge*. In J. F. Jameson (Ed.), *Narratives of New Netherland, 1609 – 1664*. New York: Charles Scribner's Sons for the American Historical Association, 2009 (181-234)
- Dickenson, R. (Ed.)
 2003 *Holden's Staten Island: The History of Richmond County*. In R. Dickenson (Ed.), *Center for Migration Studies Special Issues, 18(1)*.
- Dowell, P., Hollick, A., Davis, W. T. (Eds.)
 1915 *Proceedings of the Staten Island Association of Arts and Sciences*. (Vol. 6). Lancaster: New Era Printing Company
- EDR
 1940 Historic Aerial Inquiry #5474926.8. <https://edrnet.com/>.
 1951 Historic Aerial Inquiry #5474926.8. <https://edrnet.com/>.
 1962 Historic Aerial Inquiry #5474926.8. <https://edrnet.com/>.
 1974 Historic Aerial Inquiry #5474926.8. <https://edrnet.com/>.
 1995 Historic Aerial Inquiry #5474926.8. <https://edrnet.com/>.
 2006 Historic Aerial Inquiry #5474926.8. <https://edrnet.com/>.
- Fagan, B. M.
 2005 *Ancient North America: The Archaeology of a Continent*. 4th Ed. New York: Thames & Hudson
- Fernow, B. (Ed.)
 1881 *Documents Relating to the History and Settlements of the Towns Along the Hudson and Mohawk Rivers (with the exception of Albany), from 1630 to 1684*. In B. Fernow (Ed.), *Documents Relating to the Colonial History of New York*. (Vol. 13). Albany: Weed, Parsons, and Co.

- Fletcher, L., & Kintz, E.
 1979 Fire Island National Seashore, Long Island, New York. Historic Resource Study. Report on file with U.S. Department of the Interior, National Parks Service
- Gehring, C. T. (Ed./Trans.).
 1980 *New York Historical Manuscripts: Dutch, Vols. GG, HH, & II, Land Papers, 1630-1664*. Baltimore: Genealogical Publishing Co., Inc.; The Holland Society of New York
 1991 *Laws & Writs of Appeal, 1647 – 1663*. Syracuse: Syracuse University Press; The Holland Society of New York
 2000 *Correspondence, 1647 – 1653*. New Netherland Documents Series. (Vol. 11). Syracuse: Syracuse University Press; The Holland Society of New York
 2003 *Correspondence, 1654 – 1658*. New Netherland Documents Series. (Vol. 12). Syracuse: Syracuse University Press; The Holland Society of New York
- Geismar, J.
 2016 Fairview Park, Charleston, Staten Island, New York. Phase 2 Archaeological Survey. New York: Joan Geismar; Hargreaves Jones Landscape Architecture DPC. Report on file with New York State Historic Preservation Office
- Greenhouse Environmental Consultants, Inc. (Greenhouse)
 2015 Phase 1A Survey, Waunner Street, 3044 Veterans Road West (3040 & 3050 Victory Boulevard West), Block 7487, Lot 240, Charleston, Richmond County, Staten Island, New York. 77DCP090R
- Historical Records Survey (New York, N.)
 1942 *The Earliest Volume of Staten Island Records, 1678-1813*. New York: Work Projects Administration. Digitized by the University of Michigan
- Jacobs, J.
 1998 A Hitherto Unknown Letter of Adriaen van der Donck. In *de Halve Maen: Magazine of the Dutch Colonial Period in America*, 71(1). New York: The Holland Society of New York
- Klein, J. I., Heaton, P. J., Fitts, R. K., & M. C. Bonasera
 2000 Phase IB/II Archaeological Investigations of Bricktown Centre at Charleston, Staten Island, New York. Phase IB-II Archaeological Report. Croton-on-Hudson: John Milner Associates. Report on file with New York State Historic Preservation Office
- Kolff, C. G.
 1918 *Early History of Staten Island*. Rosebank: Privately published

- Kraft, H. C.
1986 *The Lenape – Archaeology, History, and Ethnography*. Newark: Jersey Historical Society.
- Kraft, H. C., & Mounier, R. A.
1982 The Archaic Period in New Jersey: ca. 8000 B.C. - 1000 B.C. In O. Chesler (Ed.), *New Jersey's Archeological Resources from the Paleo-Indian Period to the Present: A Review of Research Problems and Survey Priorities* (p.52-102). Trenton: Office of Cultural and Environmental Services, New Jersey Department of Environmental Protection
- Landmarks Preservation Commission
2009 *Hubbard House Designation Report [LP-229]*. New York, City of New York. Prepared by Gale Harris.
- Leng, C. W., & Davis, W. T.
1930 *Staten Island and Its People, A History, 1609-1929*. (Vol. 1). New York: Lewis Historical Publishing Company, Inc.
- Lipman, A.
2015 Buying and Selling Staten Island: The Curious Case of the 1670 Deed to Aquehonga Manacknong. In *Common-Place: The Interactive Journal of Early America*, 15(2).
- Marshall, S. B.
1982 Aboriginal Settlement in New Jersey During the Paleo-Indian Cultural Period, ca. 10,000 BC-6000 BC. In O. Chester (Ed.), *New Jersey's Archeological Resources from the Paleo-Indian Period to the Present: A Review of Research problems and Survey Priorities* (p.139-184). Trenton: Office of New Jersey Heritage, New Jersey Department of Environmental Protection
- McManamon, F. P., Cordell, L. S., Lightfoot, K. G., & G. R. Milner
2009 *Archaeology in America: An Encyclopedia*. Westport: Greenwood Press.
- New Netherland Council
1630-64 New Netherland. Council. Dutch colonial patents and deeds, 1630-1664. Series A1880. New York State Archives
- "Indian deed to Michiel Paauw for land on Staten Island" August 10, 1630. Vol. GG (6)
- "Patent of Cornelis Melyn for Staten Island" March 28, 1642. Vol. GG (50)

- 1638-55 New Netherland. Council. Dutch colonial council minutes, 1638-1665. Series A1809. New York State Archives
- "Dutch colonial council minutes, 20 June – 4 July 1641" July 1641. Vol. 4 (97)
- "Dutch colonial council minutes, 19-26 June 1642" June 1642. Vol. 4 (127)
- "Minute. Of a message brought from the Indians at Paulus Hook, to the effect that all the prisoners will be restored in two days" October 13, 1655. Vol. 6 (101a)
- "Letter from the Director and Council to capt. Post" October 16, 1655. Vol. 6 (105a)
- "Minute of the return of 14 captives by Pennekeck, chief of Achkinkeshacky, and of presents made him in consequence" October 18, 1655. Vol. 6 (108)
- "Paper read by director Stuyvesant to the council" January 26, 1656. Vol. 6 (253)
- "Advice of the council thereupon; to remove the settlers on Staten Island to New Utrecht, and in case of refusal, to send the soldiers back to that island" January 26, 1656. Vol. 6 (256)
- "Order to the soldiers who accompanied Adriaen Post's wife from Staten Island to return there with her" April 25, 1656. Vol. 6 (365b)
- "Declaration of the soldiers that they would not accompany Adriaen Post's wife to Staten Island" April 25, 1656. Vol. 6 (366a)
- "Petition of Dirck van Schelluyne, agent of baron Van der Capelle, patroon of Staten Island, asking permission to engage some freemen to settle there" April 29, 1656. Vol. 6 (379)
- "Treaty of peace renewed with the Chiefs of Marsepingh and Rechkawick, Hackinkasacky, the Highlands, Najeck, Staten Island, Rimiachenanck alias Haverstraw, and Wiechquaeskeck" March 6, 1660. Vol. 9 (118)
- "Minute. Cornelis Melyn's refusal to surrender the soil to Staten Island to the W. I. Company" May 23, 1661. Vol. 9 (622b)
- "List of papers relating to Staten Island delivered up by Cornelis Melyn" May 1661. Vol. 9 (625)

"Petition of several recently arrive immigrants for land on Staten Island" August 22, 1661. Vol. 9 (735)

"Proposals of Oratamy and other Hackingsack and Staten Island Indians, and answer" February 23, 1664. Vol. 10 (88)

"Proposals of Hackingsack, Staten Island and Minissink Indians, with answers" March 6, 1664. Vol. 10 (89)

1646-64 New York (Colony). Council. Dutch colonial administrative correspondence. 1646-1664. Series A1810-78. New York State Archives

"Letters from the directors in Amsterdam to Petrus Stuyvesant" April 7, 1648. Vol. 11 (12)

"Letter from the directors in Amsterdam to Petrus Stuyvesant" April 4, 1652. Vol. 11 (53)

"Letter from the directors in Amsterdam to Petrus Stuyvesant" April 4, 1652. Vol. 11 (54)

"Indian deed to Lubbertus van Dincklage, attorney of Hendrick van der Capelle tho Ryssel, for the whole of Staten island, called by the Indians Eghquaon. The deed includes a small drawing or doodle of native Americans and a Dutchman smoking a pipe" July 10, 1657. Vol. 12 (61)

"List of the farmers, men, women, children, male and female servants, sent to Staten Island in New Netherland in West India, since May 1650, by Yoncker Henrick van der Capelle toe Ryssel" November 14, 1657. Vol. 12 (68)

"List of surviving settlers sent to Staten Island by Hendrick van der Capellen Toe Rijssel" November 14, 1657. Vol. 12 (68)

"Deeds of surrender by Cornelis Melyn to the Amsterdam chamber of the W. I. Company of his right as patroon of Staten Island" June 16, 1659. Vol. 13 (14)

"Deed. Surrender of Staten Island by the heirs of Baron Van der Capelle" November 20, 1660. Vol. 13 (144)

"Letter from Stuyvesant to the directors at Amsterdam" July 21, 1661. Vol. 14 (30)

"Letter. Capt. Cregier to Director Stuyvesant, continuation of affairs at Esopus" August 3, 1663. Vol. 15 (51)

- "Journal of the Esopus war by Martin Cregier" 1663. Vol. 15 (85)
- 1646-64 New Netherland. Council. Dutch colonial ordinances, 1647-1658. Series A1875. New York State Archives
- "Account. Of the fines received at Fort Orange and of the expenses incurred at that place from 4th October 1656, to 28th March 1658" October 4, 1656 – March 28, 1658. Vol. 16 (124)
- 1673-74 New Netherland. Council. Dutch colonial administrative records, 1673-1674. Series A1881. New York State Archives
- "Survey of land on Staten Island for Roelof van der Linde, Jan Spieringh, Jan van der Linde, Hans Spieringh" September 25, 1674. Vol. 23.2 (404)
- "Petition. Children and heirs of Cornelis Melyn et al., relative to Staten Island (fragment)" October 5, 1674. Vol. 23.2 (406)
- "Return of survey for Jacob Gerritse and Zeger Gerritse of a tract of land on Staten Island" October 10, 1674. Vol. 23.2 (407)
- New York Legislature (NYS Legislature)
- 1917 Documents of the Assembly of the State of New York Legislature, 140th Session. 18(51). Albany: J. B. Lyon Co. Printers.
- O'Callaghan, E. B.
- 1845 *History of New Netherland; or, New York Under the Dutch.* (Vol. 1). New York: D. Appleton & Company
- Parker, A. C.
- 1920 The Archaeological History of New York (Parts I and II). In *New York State Museum Bulletin*. Albany: University of the State of New York
- Pickman, A.
- 1993 Atlantic Coast of Long Island, Jones Inlet to East Rockaway Inlet, City of Long Beach, Village of Atlantic Beach, Lido Beach and Point Lookout Areas, Town of Hempstead, Long Beach Island, Nassau County, New York. Cultural Resources Reconnaissance. Report on file with U.S. Army Corps of Engineers
- Ritchie, W. A.
- 1969 *The Archaeology of New York State.* Garden City: Natural History Press

- Ritchie, W. A., & Funk, R. E.
1971 Evidence for Early Archaic occupations on Staten Island. In *Pennsylvania Archaeologist* 41(3): 45-49
- Robinson, E.
1907 Atlas of the borough of Richmond, city of New York. Plate 24. New York Public Library Digital Collections.
<https://digitalcollections.nypl.org/items/510d47e4-7359-a3d9-e040-e00a18064a99>.
- Ruttenber, E. M.
1906 *Footprints of the Red Men. Indian Geographical Names*. New York: New York State Historical Association
- Salwen, Bert.
1978 Indians of Southern New England and Long Island: Early Period. In B. Trigger (Ed.), *Handbook of North American Indians*. (Vol. 15, p.160-176). Washington, D.C.: Smithsonian Institution
- Schuberth, C. J.
1968 *The Geology of New York City and Environs*. Garden City: The Natural History Press.
- Skinner, A.
1909 The Lenape Indians of Staten Island. In C. Wissler (Ed.), *Anthropological Papers of the American Museum of Natural History: The Indians of Greater New York and the Lower Hudson*. (Vol. 3). New York: Hudson-Fulton Publication. Digitized by Harvard University
- Stufflebean, D. G.
2011 *A French Huguenot Legacy*. United Kingdom: Lulu
- Tooker, W. W., & Chamberlain, A. F. (Ed.).
1911 *The Indian Place-Names on Long Island and Island Adjacent*. New York and London: G. P. Putnam's Sons; The Knickerbocker Press
- United States Geological Survey (USGS)
1932 *Staten Island, NJ 15 Minute Topographic Map*. United State Geological Survey. <https://ngmdb.usgs.gov/topoview>.
2019 *Arthur Kill, NY 7.5 Minute Topographic Map*. United State Geological Survey. <https://ngmdb.usgs.gov/topoview>.
2019 *Perth Amboy, NJ 7.5 Minute Topographic Map*. United State Geological Survey. <https://ngmdb.usgs.gov/topoview>.

Yamin, R., & Pickman, A.

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Clay Pit Ponds State Park Preserve, Staten Island, Richmond County, N.Y.
Stage IA Archaeological Survey. Westport: Historical Perspectives, Inc.
Report on file with New York State Historic Preservation Office