

23977 R

AKRF 2007



**Phase 1A Archaeological Documentary Study**

**New York City Wireless Network (NYCWIn)**

**Site SI-007B:**

**4414 Arthur Kill Road**

**Charleston, Richmond County, New York**

**Prepared for:**

Northrop Grumman Information Technology, Inc.

111 Livingston Street, 21st Floor

Brooklyn, NY 11201

**Prepared by:**

AKRF, Inc.

440 Park Avenue South

New York, New York 10016

**Principal Investigator:** Diane Dallal, R.P.A.

**Report Prepared by:** Elizabeth D. Meade, M.A.

December, 2007

1020

## Table of Contents

<b>I: Introduction and Methodology</b> .....	<b>I-1</b>
A. Project Overview.....	I-1
B. Research Goals and Methodology.....	I-1
<b>II: Environmental Setting</b> .....	<b>II-1</b>
A. Geology and Topography.....	II-1
B. Paleoenvironment.....	II-2
C. Current Conditions .....	II-2
D. Previously Conducted Cultural Resources Investigations.....	II-2
<b>III: Precontact Period</b> .....	<b>III-1</b>
A. Introduction.....	III-1
B. Paleo-Indian Period (11,000-10,000 BP) .....	III-1
C. Archaic Period (10,000-2,700 BP).....	III-2
D. Woodland Period (2,700 BP-AD 1500) .....	III-3
E. Contact Period (AD 1500-1700) .....	III-4
F. Previously Identified Native American Archaeological Sites.....	III-5
<b>IV: The Historic Period</b> .....	<b>IV-1</b>
A. Introduction: Staten Island Historic Context.....	IV-1
B. 17th Century Site History.....	IV-2
C. 18th Century Site History.....	IV-3
D. 19th Century Site History.....	IV-3
E. 20th Century Site History.....	IV-6
F. Utilities in the Project Area.....	IV-7
G. Previously Identified Historic Period Archaeological Sites.....	IV-8
<b>V: Conclusions and Recommendations</b> .....	<b>V-1</b>
A. Conclusions.....	V-1
B. Recommendations .....	V-2

### References

### Figures

### Photographs

<b>Appendix A:</b>	Project Drawings
<b>Appendix B:</b>	Summary of Census Research
<b>Appendix C:</b>	Conveyance Records for Block 7380, Lot 70
<b>Appendix D:</b>	Historic Directories

## List of Figures

---

- Figure 1:** Project Location.
- Figure 2:** Area of Potential Effect; Sanborn Insurance Map, 2005.
- Figure 3:** *Borough of Richmond Topographical Survey*, 1913.
- Figure 4:** Previously Identified Native American Archaeological Sites Within One Mile of the Project Area.
- Figure 5:** *A Map of Staten Island During the Revolution, 1775-1783*. Loring McMillen, 1933.
- Figure 6:** *Map of New-York Bay and Harbor and the Environs*. U.S. Coast Survey, 1844.
- Figure 7:** *The Map of Staten Island, or Richmond County, New York*. James Butler, 1853.
- Figure 8:** *Atlas of Staten Island, New York*. F.W. Beers, 1874.
- Figure 9:** *Atlas of Staten Island, Richmond County, New York*. J.B. Beers, 1887.
- Figure 10:** *Atlas of the Borough of Richmond, City of New York*. Elisha Robinson, 1898.
- Figure 11:** *Atlas of the Borough of Richmond, City of New York*. Elisha Robinson, 1907.
- Figure 12:** Sanborn Insurance Map, 1917.
- Figure 13:** Sanborn Insurance Map, 1937.
- Figure 14:** Areas of Archaeological Sensitivity.

**A. PROJECT OVERVIEW**

AKRF, Inc. has been retained by Northrop Grumman Information Technology, Inc. ("Northrop Grumman") to perform environmental services in connection with the proposed installation of a New York City Wireless Network (NYCWIn) facility at 4414 Arthur Kill Road in the Charleston section of Staten Island (Figure 1). The archaeological Area of Potential Effect (APE) for the proposed project includes a portion of Block 7380, Lot 70 (Figure 2).

Northrop Grumman is under contract to and is working with the New York City Department of Information Technology and Telecommunications (DoITT) to design, install, and maintain the proposed wireless network known as NYCWiN which is designed to support the City's public safety and public service agencies throughout the five boroughs of New York City. NYCWiN will enable a wealth of mobile and fixed applications, including real-time video, rapid database lookup, and the exchange of rich graphical information. The project would require a special permit from the City Planning Commission (CPC) pursuant to Section 107-73 of the *Zoning Resolution*. The Special Permit is required to allow a structure that would exceed the 50-foot maximum height limit for the Special South Richmond Development District. Such action would require review under City Environmental Quality Review (CEQR).

The facility at 4414 Arthur Kill Road would be located in the southeast corner of the lot, directly behind an existing auto service building. The facility would consist of antennas concealed within an approximately 120 foot-tall pole with an equipment cabinet (to be mounted on a concrete pad measuring approximately 6 feet by 3 feet) and other related utility equipment on the ground. The facility would be surrounded by an approximately 8-foot-tall opaque fence. The installation of the pole would require excavation of an area approximately 20 feet deep and more than 3 feet in diameter. Installation of other related utility equipment, conduits, a concrete pad, and the fence would require excavation to a depth of up to 5 feet.

The pole would be located immediately east of an existing auto garage while underground utility conduits will connect the pole and equipment cabinet to an existing utility pole that is situated in an area currently used for parking (Appendix A). The parking area is currently paved, although to the north of the existing garage structure, the conduits would extend through an unpaved area to connect to the facility.

**B. RESEARCH GOALS AND METHODOLOGY**

The following Phase 1A Archaeological Documentary Study has been designed to satisfy the requirements of the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission (LPC) and it follows the guidelines of the New York Archaeological Council (NYAC). The study documents the history of the proposed project area as well as its potential to yield archaeological resources including both precontact and historic cultural remains. In addition, it also documents the current

**A. GEOLOGY AND TOPOGRAPHY**

The project area is found within a geographic bedrock region known as the Northern Piedmont Lowland Section. This portion of Staten Island is composed of conglomerates, red sandstone, red shale, and diabase that date to the Triassic and Jurassic periods which occurred approximately 245 to 208 million years ago (NYSOFT 2004). The vicinity of the project area is composed mostly of the Cretaceous period Raritan sedimentary rock formation but with some Pleistocene age Harbor Hill Moraine glacial deposits to the south (Reeds 1925).

The island's physical setting was shaped by massive glaciers of up to 1,000 feet thick that retreated from the area towards the end of the Pleistocene, which lasted from approximately 1.6 million to 10,000 years before present [BP]. There were four major glaciations which began approximately 17,000 years ago and affected New York City until roughly 12,000 years ago when the Wisconsin period, the last glacial period, came to an end. During the Wisconsin ice age, a glacial moraine traveled southwest across Staten Island, resulting in the separation of the northwestern half of the island, the Northern Piedmont Lowland Section, from the southeastern half, an area known as the Atlantic Coastal Plain (Reeds 1925).

The original topographic setting of southern Staten Island was quite unlike that seen today. The glacial movements also brought about the creation of hundreds of sand hills, known as kames, throughout the New York City region, some of which reached heights of more than one hundred feet. These hills were contrasted by many small streams, rivers, and lakes that were fed by the glacial runoff. As temperatures increased, those small water courses transformed into swamps and marshlands. The melting of the glaciers also caused the sea levels to rise by approximately 300 feet which subsequently caused the coastlines to recede between 60 and 90 feet, separating Staten Island from the mainland (Louis Berger & Associates, Inc. 2001):

The glacial retreat also resulted in the creation of low-lying wetlands traversed by small creeks and streams across most of the island's coastline. Before this, the Arthur Kill, which separates Staten Island from the eastern shores of New Jersey, was originally a narrow stream (Louis Berger & Associates, Inc. 2001).

A topographic survey of Staten Island dating to 1913 (Figure 3) shows that the project area was located on a large hill that sloped down to sea level along the shores of the Arthur Kill. The project area is shown to have been at approximately 50 to 55 feet above the Richmond High Water mark, which is approximately 53 to 58 feet above sea level. Current topographic surveys (see page Z-1 in Appendix A) show that the project area is currently at an elevation of 55 to 58 feet above mean sea level, roughly the same as that seen on the historic topographic map.

The 1913 survey also depicts a small duck pond approximately 300 feet southeast of the project as well as a small marshy area and clay pit connected by small streams to the north and northeast of the APE in an area which was then characterized by "heavy underbrush." To the west of

## D. PREVIOUSLY CONDUCTED CULTURAL RESOURCES INVESTIGATIONS

Several previously conducted cultural resource studies within one half-mile of the project area (Table 1) indicate that the project area was situated within a region that is highly sensitive for prehistoric and, to a lesser extent, historic period archaeological resources. Archaeological sensitivity will be discussed in more detail in Chapters III and IV.

**Table 1**  
**Previously Conducted Cultural Resources Investigations Near the Charleston Section of Staten Island**

Project Name	Location	Findings	Reference
Charleston Bus Annex Stormwater Sewer: Phase 1A and 1B Archaeological Investigations	Arthur Kill Road and Allentown Lane	Phase 1A Documentary Study determined the site to have high potential for the recovery of prehistoric archaeological resources. Phase 1B testing did not indicate the presence of such resources and no further investigations were recommended.	AKRF, Inc. (2006) Boesch (2007)
Phase 1A Archaeological Survey for the Arthur Kill Factory Outlet Center	Area bounded by Allentown Lane, Arthur Kill Road, Androvetta Street, and the Arthur Kill	Recommended archaeological testing for prehistoric and historic archaeological resources.	Hunter Research (Blades and Tomkins, 1995)
Phase 1B Archaeological Survey for the Arthur Kill Factory Outlet Center	Area bounded by Allentown Lane, Arthur Kill Road, Androvetta Street, and the Arthur Kill	Shovel tests and excavation units recovered prehistoric archaeological resources (mostly in the form of lithic flakes and debitage, fire cracked rock, and pottery). Most of those resources were located at the southern end of the site at depths of .67 feet to 5.2 feet in different locations throughout the site. Historic period archaeological resources (including ceramics) were also uncovered at various depths.	Hunter Research (1996)
Phase 3 Archaeological Data Recovery at the Van Allen Farmstead and the Price Prehistoric Site for the Proposed Residential Development, the Tides at Charleston.	Area bounded by Allentown Lane, Arthur Kill Road, Androvetta Street, and the Arthur Kill	Recovered archaeological resources related to the project area's historic farmsteads as well as prehistoric materials representing temporary campsites.	URS Corporation (2005)
Phase 1 Cultural Resource Survey: Oakwood Beach Water Pollution Control Project	Hylan Blvd at Richmond Ave to Arthur Kill Road at Kreischer Street	Prehistoric artifacts found at several locations	Pickman and Yamin (1984)
Preliminary Cultural Resource Assessment: Literature Search and Windshield Survey Oakwood Beach Water Pollution Control Project: Phase III and Future Plans.	Hylan Blvd at Richmond Ave to Arthur Kill Road at Kreischer Street	Area considered sensitive for prehistoric archaeological resources.	Pickman and Yamin (1978)
Evaluation of Archaeological Potential	Block 7527, Lots 17, 19, 21, 23, and 25.	Low sensitivity for the recovery of historic archaeological resources and moderate sensitivity for the recovery of prehistoric resources.	Pickman (1988)
Stage 1 Archaeological Survey	Block 7527, Lots 17, 19, 21, 23, and 25.	No significant resources identified.	Pickman (1989)

**A. INTRODUCTION**

Archaeologists have divided the time between the arrival of the first humans in northeastern North America and the arrival of Europeans more than 10,000 years later into three precontact periods: Paleo-Indian (11,000-10,000 BP), Archaic (10,000-2,700 BP), and Woodland (2,700 BP-AD 1500). These divisions are based on certain changes in environmental conditions, technological advancements, and cultural adaptations, which are observable in the archaeological record.

**B. PALEO-INDIAN PERIOD (11,000-10,000 BP)**

As mentioned in Chapter II, human populations did not inhabit the Northeast until the glaciers retreated some 11,000 years ago. These new occupants included Native American populations referred to by archaeologists as Paleo-Indians, the forbearers of the Delaware—also called the Lenape Indians—who would inhabit the land in later years.

The Paleo-Indians most likely exploited all the different resources provided by their environment. It has been suggested that they did not only actively hunt the large mammals that roamed about the region (mammoth, mastodons, etc.), but they also hunted and trapped smaller animals and supplemented their diet with fish and gathered plants (Cantwell and Wall 2001).

There was a very distinct Paleo-Indian style of lithic technology, typified by fluted points. These were elaborately detailed stone points that would have been used for a variety of functions, most notably for hunting. They were often made of high-quality imported chert, but were also known to have been crafted from local materials. Other stone tools manufactured at this time included knives, scrapers, drills, and graters. Wood, ivory, and other materials were also used for the manufacture of composite tools, such as hunting spears.

Archaeological evidence suggests that the Paleo-Indians were highly mobile hunters and gatherers. They appear to have lived in small groups of fewer than 50 individuals (Dincauze 2000) and did not maintain permanent campsites. In addition, most of the Paleo-Indian sites that have been investigated were located near water sources.

It is because of the close proximity of Paleo-Indian sites to the coastline that so few of them have been preserved in the New York City area. As glaciers continued to melt, sea levels rose and much of what was once adjacent to the water line became submerged. Of the few Paleo-Indian sites that have been discovered in New York City, nearly all have been found on Staten Island. One such site is that of Port Mobil, on Staten Island, to the north of the project area. Like most precontact sites, it is situated on high ground overlooking the water. Due to heavy disturbance in the area—it is currently an oil tank farm—the site has yielded nothing more than a collection of fluted points and other stone tools characteristic of the period (Ritchie 1980). Paleo-Indian artifacts were also found along the eroding shore line 500 yards south of the Port

the artifacts to be deeply buried under more recent debris deposits (Cantwell and Wall 2001). However, at the Old Place Site, the only artifacts which were discovered—stone tool assemblages—were found at relatively shallow depths of around 42 inches (3½ feet) (Ritchie 1980).

There are also few Middle Archaic sites in the region. The majority of these tend to consist of large shell middens, which are often found near major water courses such as the Hudson River, although stone points have also been found in such locations. These sites were in great danger of obliteration because of their proximity to the shrinking coastlines.

Unlike the Early and Middle periods, many Late Archaic sites have been found throughout the New York City area including many in Staten Island. Late Archaic habitation sites are often found in areas of low elevation near water courses and temporary hunting sites are often located near sandy areas (Boesch 1994). Late Archaic sites identified in Staten Island include the Pottery Farm, Bowman's Brook, Smoking Point, Goodrich, Sandy Brook, Wort Farm, and Arlington Avenue sites, among others (Ibid).

In addition, many Terminal Archaic sites from all across the city have provided examples of what archaeologists call the Orient culture, which is characterized by long fishtail stone points and soapstone bowls. There have been extremely elaborate Orient burial sites found on eastern Long Island, but none have been identified on Staten Island. Orient-style fishtail points have been discovered along the shores of Charleston and it is assumed that they fell from eroding cliffs located nearby (Boesch 1994). In addition, most Richmond County sites dating to this period have been characterized by large shell middens (Louis Berger & Associates 2001).

#### **D. WOODLAND PERIOD (2,700 BP-AD 1500)**

The Woodland period represents a cultural revolution of sorts for the Northeast. During this time, Native Americans began to focus on a settled, agricultural lifestyle rather than one of nomadic hunting and gathering. Social rituals begin to become visible in the archaeological record and are represented by many elaborate human and canine burial sites. The first evidence of smoking has also been found—stone pipes have been uncovered at Woodland sites—and it was at this time that pottery began to be produced.

In general, there was a greater emphasis placed on composite tools during the Woodland period. While stone scrapers, knives, and hammerstones were still in use, there was an increased use of bone, shell, and wood in tool making. Furthermore, the development of bows and arrows revolutionized hunting practices. Fishing continued to be important to the local economy and wooden boats and bone hooks were often utilized (Historical Perspectives, Inc. 2005). Many tools were still made from imported materials, indicating that the trade networks established earlier were still being maintained (Cantwell and Wall 2001).

Pottery was introduced into Native American society early in the Woodland period and by the time of European contact in the 1500s, well-crafted and elaborately decorated pottery was being manufactured. Similar to the Archaic period, the Woodland has been divided into Early, Middle, and Late sections, which differ mostly based on the style of pottery which was produced at that time. Woodland pottery had simple beginnings; the first examples were coil pots with pointed bases, which were made with grit temper. These were replaced during the Middle Woodland period by shell-tempered vessels bearing a variety of stamped and imprinted decorations. As the period drew to a close, the decorative aspect of the pottery was further augmented with the addition of intricate ornamental rims (Louis Berger Group 2004).

kettles, glass beads, and alcohol soon became incorporated into the Native American economy. The Native Americans began to suffer from the side-effects of European colonization: disease, alcoholism, and warfare. As land in other parts of New York City was sold off to the Europeans, many displaced Native Americans relocated to Staten Island to the point where "the Raritan consisted of a heterogenous assortment" of Native Americans from all over the New York metropolitan area (Grumet 1981: 45).

Native Americans at first maintained the village sites they had established near water sources. As their trade with European settlers intensified, they became increasingly sedentary. However, as the European population grew and required more land, the relationship between the two groups turned sour. Fierce wars broke out between the Dutch and the Indians. This was most intense during the early 1640s when Dutch Director-General William Kieft ordered many ferocious and unprovoked attacks on the Native population. While the Kieft war ended with a treaty signed in 1645, the Raritans did not agree to peace until 1649 (Grumet 1981).

The warfare was somewhat abated when Kieft was replaced by Peter Stuyvesant, who brought some stability to the area. However, the "Peach War" of 1655 caused more inter-cultural violence on Staten Island. After that war ended, the land was re-sold to the Dutch in 1657. The Native Americans were no match for the growing numbers of armed European settlers, and the natives agreed to sell what was left of their land on Staten Island in 1670, although some Native American villages remained until the early 20th century (Grumet 1981). In the land transaction recorded in 1670, the Native Americans sold all of their holdings on Staten Island in exchange for "four hundred fathom of wampum, thirty match coats, eight coats of dozens made up, thirty shirts, thirty kettles, twenty gunnes, a ffirkin of powder, sixty barres of lead, thirty axes, thirty howes, [and] fifty knives" (Bolton 1975: 73).

There are several Contact period archaeological sites that have been identified in New York City, including the aforementioned Ward's Point site on Staten Island (Grumet 1995).

## **F. PREVIOUSLY IDENTIFIED NATIVE AMERICAN ARCHAEOLOGICAL SITES**

A review of the files at the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), the New York State Museum (NYSM), the New York City Landmarks Preservation Commission (LPC), and cultural resource surveys of projects in the immediate vicinity showed that there at least 20 precontact archaeological sites have been identified within a one mile radius of the project area. In addition, LPC's precontact sensitivity model indicates that the site is situated in an area that is expected to be moderately sensitive for Native American archaeological resources.

The southwestern coast of Staten Island, including the project area, has yielded a relatively large amount of Paleo-Indian artifacts, the only such artifacts found in New York City. At that time, the Native American population appears to have lived in the high lands adjacent to the Arthur Kill and exploited the resources in the low-lying coastal region below (Boesch 1994). There is evidence that these campsites were consistently reoccupied through the Late Woodland period. In fact, the shores of the Charleston area have been described as "the locus of offshore shellfishing in the prehistoric and recent past" (Greenhouse Consultants, Inc. and Vokral 1985: 4-5). Many of the relics recovered from this area were plucked from the surface by avocational archaeologists and pot-hunters in the early 20th century. It is not entirely clear if they were in situ or if they were exposed by erosion or the movement of soils during construction.

**Table 2**

**Previously Identified Precontact Archaeological Sites Within One Mile of the Project Area**

Key to Fig 4	Site Name	OPRHP #	NYSM #	Approximate Distance from APE	Time Period	Site Type
L	Kreischerville Campsites	---	4606	.28 to .75 miles (1,500 to 4,000 feet)	Paleo-Indian to Late Woodland	Campsites: Shell Middens, stone points, fire cracked rock, traces of occupation
M	Charleston Beach	---	---	.85 miles (4,500 feet)	Paleo-Indian to Late Woodland	Native American artifacts
N	Port Socony Site-South	---	---	.95 miles (5,000 feet)	Paleo-Indian	Stone points and debris
O	Parker: ACP RICH 19C	---	8471	.85 miles (4,500 feet)	Precontact	Shell Middens and Traces of Occupation
P	Indian Fields	---	771 and 4620	Less than .1 miles (Less than 500 feet)	Woodland	Traces of occupation
Q	Unnamed Site: Parker (1922) - ACP-RICH	---	---	.75 miles (4,000 feet)	Early Woodland	Small village
<b>Sources:</b> Louis Berger & Associates, Inc. (2001) Boesch (1994) Historical Perspectives, Inc. (2001)						

\*

**A. INTRODUCTION: STATEN ISLAND HISTORIC CONTEXT**

As discussed in Chapter III, bad relations between the Dutch and the Native Americans had prevented the formation of a successful European settlement on Staten Island until the late 1630s. Even afterwards, peaceful relations between the two groups were not established until after the British had seized the colony in 1664. A large English population grew all throughout New Netherlands, and soon they outnumbered the Dutch, making it easy for them to seize the colony in 1664. Although the Dutch were able to re-take the colony, now known as New York, in 1673, they traded it back in 1674 for “the far more lucrative colony of Surinam” (Cantwell and Wall 2001: 181). New York would remain under British control for the next hundred years.

The exodus of the bulk of the Native American population beginning in 1670 made it easier for Staten Island to become a thriving part of the New York economy. Rumors of the island having been won for New York from New Jersey by Captain Christopher Billopp in a sailboat race are most likely false and there is no evidence to suggest that Staten Island was never considered to be a part of the New York colony (Botkin 1956). Without a substantial Indian presence, there were no longer any obstacles blocking the settlement of the island and Richmond County was officially established in 1683.

Under British rule, Staten Island’s open farmland and vast coastline became essential for the production of agricultural products and collection of marine resources for export the city. The colony’s progress was both halted and facilitated in the mid-18th century during the French and Indian War, which concluded in 1763. Although the region experienced the economic side effects of being at war, thousands of British armed forces were stationed throughout the New York City area, bringing money to the region while at the same time increasing its population. During this time, New Yorkers were not completely loyal to the English crown and goods were secretly (and illegally) traded to French colonies via Staten Island’s more secluded ports (Burrows and Wallace 1999).

Despite their treacherous conduct during the French and Indian War, most colonial New Yorkers remained loyal to the British during the Revolutionary War. Staten Island proved to be a key asset during the latter confrontation. In 1776, unsuccessful peace negotiations were held at Captain Billopp’s former house (now known as the “Conference House”) at the southern tip of Staten Island. The British continued to use Staten Island as a rudimentary home base due to its strategic location (Historical Records Survey 1942). It was sufficiently close to both New York and New Jersey that British soldiers could easily be dispatched in the event of an impending battle. And, reminiscent of the activities of the Raritan Indians, the island’s tall hills provided views essential to tracking ships approaching the city. However, the British troops stationed in New York City caused a great deal of trouble by burning farms and homes and stealing from private citizens. This resulted in horrible and brutal living conditions for many of Staten Island’s civilians.

Barber, possibly Barber's son, was listed in a census of Staten Island taken in 1706. It is unknown if any structures were present within the project area in the 17th century and conveyance records for the project area dating to that time could not be located.

### C. 18TH CENTURY SITE HISTORY

As mentioned previously, early 18th century maps depicting Staten Island give no indication that any structures or settlements were situated in the vicinity of the project area until late in the century. Those maps show that towns were growing slowly along the coasts of the northern half of the island and by the publication of Henry Popple's 1733 map of New York, a ferry had been established at the southern tip of the island, running between Billopp's Point and Perth Amboy, New Jersey.

A map created by Jaques Bellin in 1764 shows that a colonial thoroughfare had been constructed across Staten Island, connecting the Billop's Point ferry with others located at the Narrows, at the island's easternmost point, opposite Brooklyn. This road appears to follow the line of modern Amboy Road. In addition to the Billopp's Point ferry, several other ferries were established along Staten Island's west coast, as seen on subsequent 18th century maps, facilitating the transportation of people and goods between New York and New Jersey. The Blazing Star and New Blazing Star ferries<sup>1</sup> were established in 1722 and 1750, respectively (Louis Berger and Associates 2001), and another ferry was constructed at Smoking Point by 1776, when it first appears on a map created by J. Barber.

The establishment of these ferries generated a great deal of traffic in lower Staten Island and prompted growth along the southwestern shore. Road construction increased, and soon the island's various ferries were connected by a small network of roads that crossed the entire island. The 1777 Joseph Des Barres map shows that a road had been constructed linking the Smoking Point ferry with the aforementioned precursor to Amboy Road. Portions of this road may have evolved into modern Arthur Kill Road to the north of the project area. The Des Barres map also shows that a significant number of structures had been established along both roads, but the map's inaccuracy makes it difficult to determine the exact location of these structures with respect to the project area. Regardless, it does not appear that any were in the immediate vicinity of the project area.

The structures are more clearly identified on a map created by Loring McMillan in 1933 (Figure 5) which incorporates data from the Taylor and Skinner map of 1781, The Hessian map of 1777, and a French map detailing English and Hessian camps on Staten Island between 1780 and 1783. This map does not indicate that any structures were present within the project area during the 1780s. The 1797 map of Staten Island drafted by Sprung and Conner does not depict any structures in the vicinity of the project area either.

### D. 19TH CENTURY: SITE HISTORY

No structures are depicted to the east of Arthur Kill Road in the vicinity of the project area in the first few decades of the 19th century. A coastal survey dating to 1835-1836 shows a structure situated on the eastern site of the road which appears to have been located on a hill immediately south of the APE. The same structure is depicted on an 1844 coastal survey (Figure 6) which

---

<sup>1</sup> These ferries, which are to the north of the project area, do not appear on maps until the 1770s.

their eight children who ranged in age from 20 years to 3 months. The occupation of Lewis and his three eldest sons is given as “boatman,” though all other sources show that the family was employed in agriculture only.

The nature of the Charleston area began to change in the mid-19th century with the introduction of industry. In 1854, a German immigrant named Balthazar Kreischer established a brick works just south of the project area, taking advantage of the area’s rich clay deposits (Sachs 1988). The success of the brick factory brought about a new era of industrialization which would characterize southwestern Staten Island during the second half of the 19th century and even resulted in the establishment of a town largely populated by the brick factory’s employees, known as “Kreischerville” (Ibid). Beers’ 1874 atlas (Figure 8) is the first to identify the town by that name, and it depicts the increased development that had occurred in the area, although most new structures were situated to the west of Arthur Kill Road. That map shows that the project area was directly north of Balthazar Kreischer’s personal estate, where the Kreischer House—which is listed on the State and National Registers of Historic Places and is a New York City Landmark—is situated. The changing nature of the Charleston area may have caused Lewis Androvette to sell off portions of his farm to allow for development.

By 1865, state census records show that Lewis, now 61 years old, and his 23 year-old son, Abraham, were farmers. In addition to Abraham, three of the Androvette family’s daughters continued to reside with them in what the census describes as a frame house. The Federal Census of 1870 shows that only one daughter remained in the home by that time and the value of the family’s estate had increased to \$6,000. The state census of 1875 shows that Lewis and Lydia Androvette had taken on a family of boarders William Worth, a cooper in Brooklyn, his wife, and son. The Worth family does not appear alongside the Androvettes in any other historic documents and federal census records show that they lived in New Jersey in 1870 and in Manhattan in 1880.

Lewis Androvette is last depicted as the owner of the property on the 1874 Beers atlas. That map depicts a single structure on the property along Englewood Avenue to the east of Arthur Kill Road. The 1880 Federal census shows that Lewis and Lydia Androvette had moved in with their daughter and son-in-law, Salina and John LaForge. Because that census differentiates between the village of Kreischerville, where the project area was located, and the larger town of Westfield, it appears that the Androvettes no longer resided on the subject property in 1880. However, Lewis Androvette continued to own the property until 1887, at which time he sold it to Julius Knothe. The deed for that transaction notes that the property at that time measures 3.75 acres.

The structures on the property appear to have been razed at some time between the late 1870s, when the Androvettes left the property, and 1887. That year, Beers published another atlas (Figure 9), which shows that a company called Drummond & Berry—depicted as “D&B” on the 1874 Beers atlas to the north of the Androvette property—had expanded to take over the former Androvette property as well. No historic deeds could be located to confirm such a development and a deed recording the transfer of the property from Androvette to Knothe notes that the property began at the corner of the property of Drummond and Berry, suggesting that the 1887 map is incorrect. At this time, the property contained no structures and no structures are depicted on the site on USGS maps of Staten Island dating to 1891 and 1898, although these do not appear to be completely accurate.

Although the Knothe family owned the property since 1887, there is no evidence that they resided on the project site until 1898. The family appears to be listed in the 1880 Federal census,

Between the years 1910 and 1920, Julius Knothe was widowed and his property was transferred to his eldest son, Max, in 1919. The 1920 Federal census shows that Max, his wife, and their three children resided at 4414 Arthur Kill Road (this is the first census to provide both the street name and house number). Julius Knothe and his daughter, Augusta, then a helper in a chemical works, also resided there. In 1923, Max Knothe transferred the property to his three sisters, Augusta Pfahlbusch, Clara Long, and Katie Knothe, in exchange for \$1.00. Two years later, the three women granted the property to Augusta and her husband, Hugo, a laborer who was 11 years her junior. The 1930 Federal census lists Hugo and Gurigusta (Augusta) Pfalbusch as the residents of 4424 Arthur Kill Road (the property immediately south of 4414 Arthur Kill Road is 4426 Arthur Kill Road and it appears that the house number for the structure at 4414 Arthur Kill Road was assumed to be 4424). At that time, the property was estimated at a value of \$12,000.

Augusta Pfahlbusch died some time between 1930 and 1933, when her husband, Hugo, sold the property to Louis and Elizabeth Kosma (Kozma or Korzma). The Kosma family owned the property, although it is not clear if they resided there, until 1960, when they sold it to Norman W. Anderson. Anderson then sold the property to Alfred and Annette Taglianetti in 1973. Again, it is unknown if the owners resided on the property at this time. The property was then granted to Enrico, or Henry, Arena in 1982. It is presumably around this time that the property became the home of Henry's Service Center.

Sanborn maps published from the mid-19th century to the present day do not depict any new development within modern Lot 70. However, a small garage used for repairing automobiles is located along the southern side of the lot, immediately west of the location of the proposed facility (Photograph 4). Records available on the New York City Department of Buildings (DOB) website state that this one-story auto repair shop was constructed in 2004.

## F. UTILITIES IN THE PROJECT AREA

Water lines are first depicted in the Charleston section of Staten Island on the 1898 Robinson atlas (Figure 10), which shows an 8-inch water main running through Arthur Kill Road. By 1907, this line had been replaced with a 12-inch water main, as illustrated on the Robinson atlas of that year (Figure 11). According to records on file at the Richmond County branch of the Department of Environmental Protection Bureau of Water and Sewer Operations (DEP), two water lines are currently situated within Arthur Kill Road: a 12-inch line installed in 1940 and a 20-inch line installed in 1991.

DEP records also show that there are no sewer lines in the vicinity of the project area. The city's sanitary sewer networks have not yet been expanded to service the southwestern portion of Staten Island, therefore, this area relies on the use of septic systems (*CEQR Technical Manual* 2001). Septic systems are composed of "underground tanks that retain sewage for decomposition, and surrounding soils that filter the wastewater once it is released from the tank" (Ibid: 3L-4). No information could be obtained regarding the septic system in use on the project area.

Because water lines were installed relatively late and sewer networks were not installed at all, the residents of the property at 4414 Arthur Kill Road would have relied on domestic shaft features including privies, cisterns, and wells for water-gathering and waste-management. Privies were generally located at a distance from both the house and the street, for the purposes of privacy and sanitation (Wheeler 2000). In New York City, privies have been found at depths of up to 13 feet deep (Cantwell and Wall 2001). For convenience, cisterns and wells would have

**A. CONCLUSIONS**

As part of the background research for this Phase 1A Archaeological Documentary Study, various primary and secondary resources were analyzed, including historic maps and atlases, historic deeds, historic photographs, newspaper articles, local histories, census records, historic directories, building records, and utilities installation records. The information provided by these sources was analyzed to reach the following conclusions.

**PRECONTACT SENSITIVITY ASSESSMENT**

Before European contact, the Charleston area of Staten Island had been an important hunting and fishing location for the local Raritan Indians who resided there. Many temporary campsites dating from the Paleo-Indian period (beginning 11,000 BP) through the Late Woodland (which ended ca. AD 1500) have been identified on the shores of the Arthur Kill in the vicinity of the project area as well as in the surrounding areas. The Indian Fields site, which in the past yielded traces of Native American occupation during the Woodland period, was located less than .1 miles from the project area. In addition, a Native American trail ran along the approximate line of modern Arthur Kill Road, although it terminated approximately 2,500 feet south of the project area.

In general, Native American habitation sites on Staten Island dating to all periods of occupation are most often found in proximity to "well-drained areas near streams or wetlands" and areas of high elevation (Boesch 1994: 9). Most sites are located along the coast near water courses. More specifically, Late Archaic sites have been identified mostly in low-lying areas near water courses and marshes, while temporary camping sites during the Late Archaic were commonly found on sandy knolls (Ibid). Historic maps indicate that the project area was adjacent to several small streams which ran to marshlands along the shores of the Arthur Kill to the west of the project area. The project area is situated on a hilly area that reached a maximum height of 105 feet above mean sea level approximately 750 feet to the east of the project area and sloped downward to the west until it reached sea level at the shores of the Arthur Kill.

The precontact sensitivity of project areas in New York City are generally evaluated by their presence of level slopes, vicinity to water courses, presence of well-drained soils, and proximity to previously identified precontact archaeological sites. Because the NYCWiN Site SI-007B project site is located relatively close to several of these, the project area may have been utilized by Native Americans as a temporary hunting, processing, or camping location. It is possible that archaeological resources related to those activities, including stone tools and debitage, faunal remains, shell middens, fire-cracked rocks, and other artifacts associated with temporary camp sites may be located at the site. Therefore, undisturbed portions of the project area are determined to have moderate sensitivity for the recovery of archaeological resources dating to the precontact period.

## References

## References

---

- AKRF, Inc.  
2003 *South Richmond Watershed Drainage Plans, Final Environmental Impact Statement, CEQR No. 01DEP004R.*
- 2006 *Phase 1A Archaeological Documentary Study: Charleston Bus Annex-Stormwater Sewer Arthur Road and Allentown Lane Charleston, Richmond County, NY.* For: Metropolitan Transportation Authority-New York City Transit.
- Archaeological Research Consultants, Inc.  
1985 *Sharrott Estates Archaeological Project: Report On Mitigation Procedures In The Sandy Ground National Register District, Staten Island, New York.* For: Woodrose Associates. [Multiple authors]
- Barber, J.  
1776 *The country twenty five miles round New York, drawn by a gentleman from that city. J. Barber, sculp.* London: W. Hawkes.  
In the Collection of the Library of Congress Geography and Map Division, Washington, DC.
- Beers, F.W.  
1874 *Atlas of Staten Island, New York.*  
In the Collection of the Staten Island Institute of Arts and Sciences.
- Beers, J.B.  
1887 *Atlas of Staten Island, Richmond County, New York.*  
In the Collection of the Staten Island Institute of Arts and Sciences.
- Bellin, Jacques  
1764 *Baye et port d'Yorc, capitale de la Nouvelle Yorc.* Paris.  
In the Collection of the Library of Congress Geography and Map Division, Washington, DC.
- Boesch, Eugene  
1994 *Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York.* For: The New York City Landmarks Preservation Commission, New York.
- 2007 *Phase 1B Archaeological Investigation of the Allentown Lan Portion of the Charleston Bus Annex-Stormwater Sewer Project Charleston, Richmond County New York.* For: AKRF, Inc., New York.
- Bolton, R. P  
1922 "Indian Paths in the Great Metropolis." *Indian Notes and Monographs, Miscellaneous Series No. 23.* New York: Museum of the American Indian, Heye Foundation.
- 1934 *Indian life of long ago in the city of New York.* New York: J. Graham.
- 1975 *New York City in Indian Possession.* New York: Museum of the American Indian Heye Foundation.

## References

---

### Greenhouse Consultants, Inc.

- 1987a *Phase 1A Historical/Archaeological Sensitivity Evaluation of The Surfside Village Development Project, Staten Island, New York.* For: Richard F. Brody, Raritan Bay Development Corp. (February 9, 1987) CEQR 87-231R [Multiple authors]
- 1987b *Stage 1B/II Archaeological Survey of The Page Avenue Development Project, Staten Island, New York.* For: Isaac Kentor, H & L Development Co. CEQR 84-136R [Multiple authors]
- 1987c *Phase 1B Archaeological Survey Of The Chateau DuBois Development. Staten Island, New York.* For: Richmond Valley Estates, Inc. CEQR 86-114R [Multiple authors]

### Greenhouse Consultants, Inc. and John Vokral

- 1985 *Charleston Plaza, Staten Island, New York, Environmental Impact Statement, Archaeological Analysis and Report.* For: Sanford Nalitt & Associated Companies. CEQR 85-107R (John Vokral)

### Grumet, Robert S.

- 1981 *Native American Place Names in New York City.* New York: Museum of the City of New York.
- 1995 *Historic Contact.* Norman, OK: University of Oklahoma Press.

### Historical Perspectives, Inc

- 1996 *Charleston Retail Center: Veterans Road West, Staten Island, Phase 1A Archaeological Assessment.* For: Wall and Associated, New York, NY.
- 2001 *South Richmond Watersheds: Phase 1A Archaeological Resources Sensitivity Evaluations CEQR: 01DEP004R.* For: New York City Department of Environmental Protection.
- 2005 *Phase 1A Archaeological Assessment: Brooklyn Bridge Park Project; Blocks 1, 7, 16, 25, 26, 45, 199, 208, 245, 258, and Portions of Pearl, Washington, New Dock, Fulton, and Joralemon Streets and Atlantic Avenue; Bounded Roughly by Atlantic Avenue, Jay Street, and the East River; Brooklyn, Kings County, New York.* For: AKRF, Inc, New York, New York.

### Historical Records Survey, Service Division, Work Projects Administration

- 1942 *The earliest volume of Staten Island records, 1678-1813.* New York: The Survey.

### Hubbell, A.Y.

- 1893 *Prominent Men of Staten Island 1893.* New York: A.Y. Hubbell.

### Hunter Research

- 1995 *A Phase 1A Archaeological Survey For the Arthur Kill Factory Outlet Center, Staten Island, Borough of Richmond, County of Richmond, New York City, New York [CEQR 95-DCP-058R].* For Bellemead Development Corporation, Roseland, New Jersey.
- 1996 *A Phase 1B Archaeological Survey of the Arthur Kill Factory Outlet Center, Staten Island, Borough of Richmond, County of Richmond, New York City, New York [CEQR 95-DCP-058R].* For Bellemead Development Corporation, Roseland, New Jersey.

## References

- 1989 Stage II Archaeological Survey, Block 7527, Lots 17, 19, 21, 23 and 25, Staten Island, New York. For: The City of New York, Department of General Services, Division of Real Property. CEQR 88-132R.
- Pickman, Arnold and Rebecca Yamin  
1978 *Oakwood Beach Water Pollution Control Project, Phase I Cultural Resources Survey. Hylan Boulevard at Richmond Avenue to Arthur Kill Road at Krelscher Street. Capital Project WP-136.* City of New York, Borough of Staten Island. Submitted to: Woodward-Cl.
- Popple, Henry  
1733 *A map of New York and Perthamboy Harbours.*  
In the collection of the New York Public Library Lionel Pincus and Princess Firyal Map Division.
- Reeds, Chester A.  
1925 *The Geology of New York City and Vicinity.* New York: The American Museum of Natural History Guide Leaflet No. 56.
- Ritchie, William A.  
1980 *The Archaeology of New York State: Revised Edition.* Harrison, New York: Harbor Hill Books.
- Robinson, Elisha  
1898 *Atlas of the Borough of Richmond, City of New York.*  
In the Collection of the Staten Island Institute of Arts and Sciences.  
1907 *Atlas of the Borough of Richmond, City of New York.*  
In the Collection of the Staten Island Institute of Arts and Sciences.
- Sachs, Charles L.  
1988 *Made on Staten Island.* Staten Island, NY: Staten Island Historical Society.
- Sanborn Map Company  
1910 Insurance maps of Staten Island.  
1917 Insurance maps of Staten Island.  
1937 Insurance maps of Staten Island.  
1982 Insurance maps of Staten Island.  
2005 Insurance maps of Staten Island.  
2007 Insurance maps of Staten Island.
- Skene, Frederick  
1907 Map of land grants or patents on Staten Island, 1688-1672.  
In the Collection of the Staten Island Institute of Arts and Sciences.
- United States of America, Bureau of the Census  
1790-1930 United States Federal Census. Washington, D.C.: National Archives and Records Administration. Database on-line at <http://www.ancestry.com>
- URS Corporation  
2005 *Phase III Archaeological Data Recovery at 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.* For: Allen Arthur LLC. Bayonne, New Jersey.



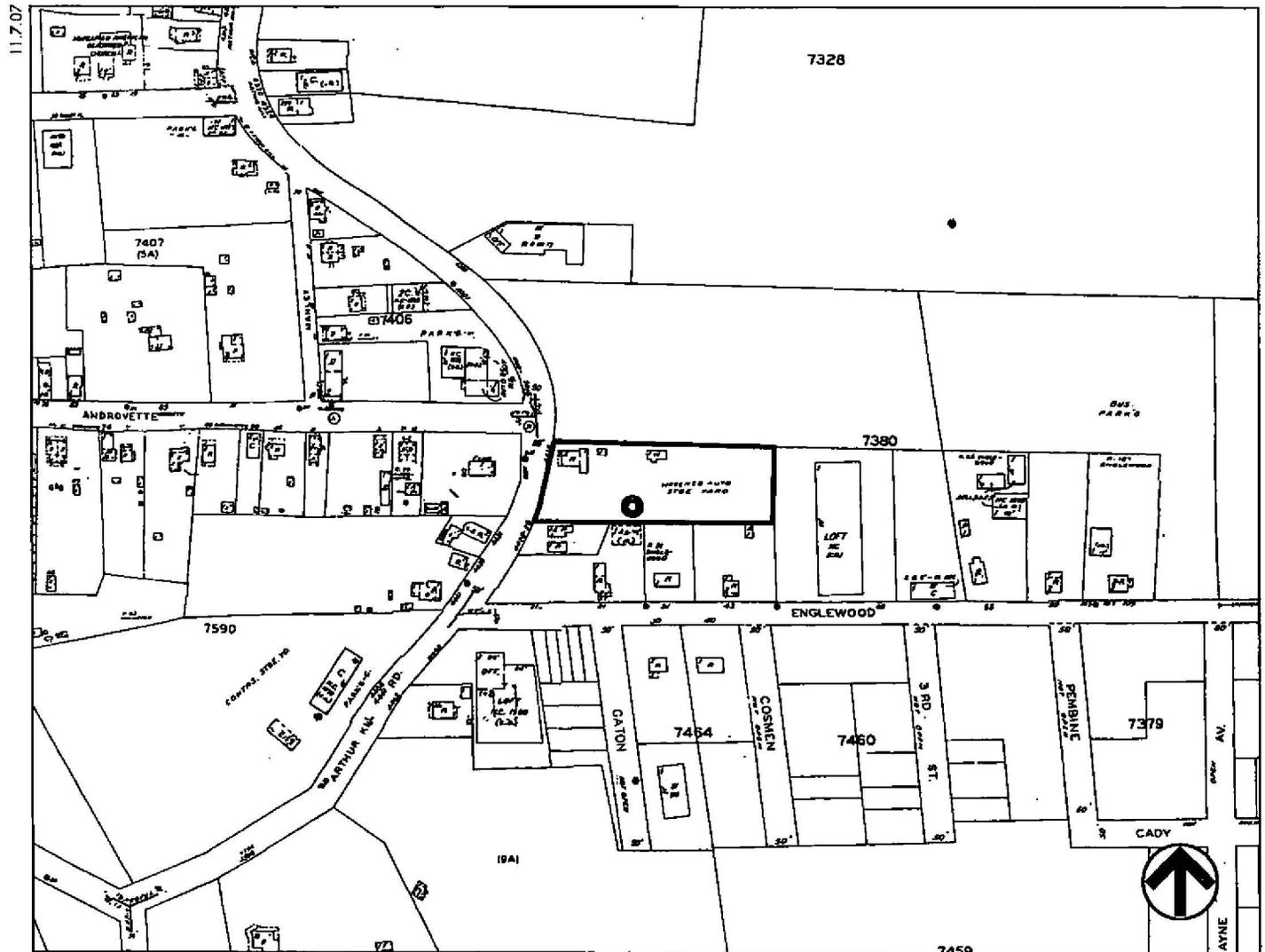
## Figures

11.7.07



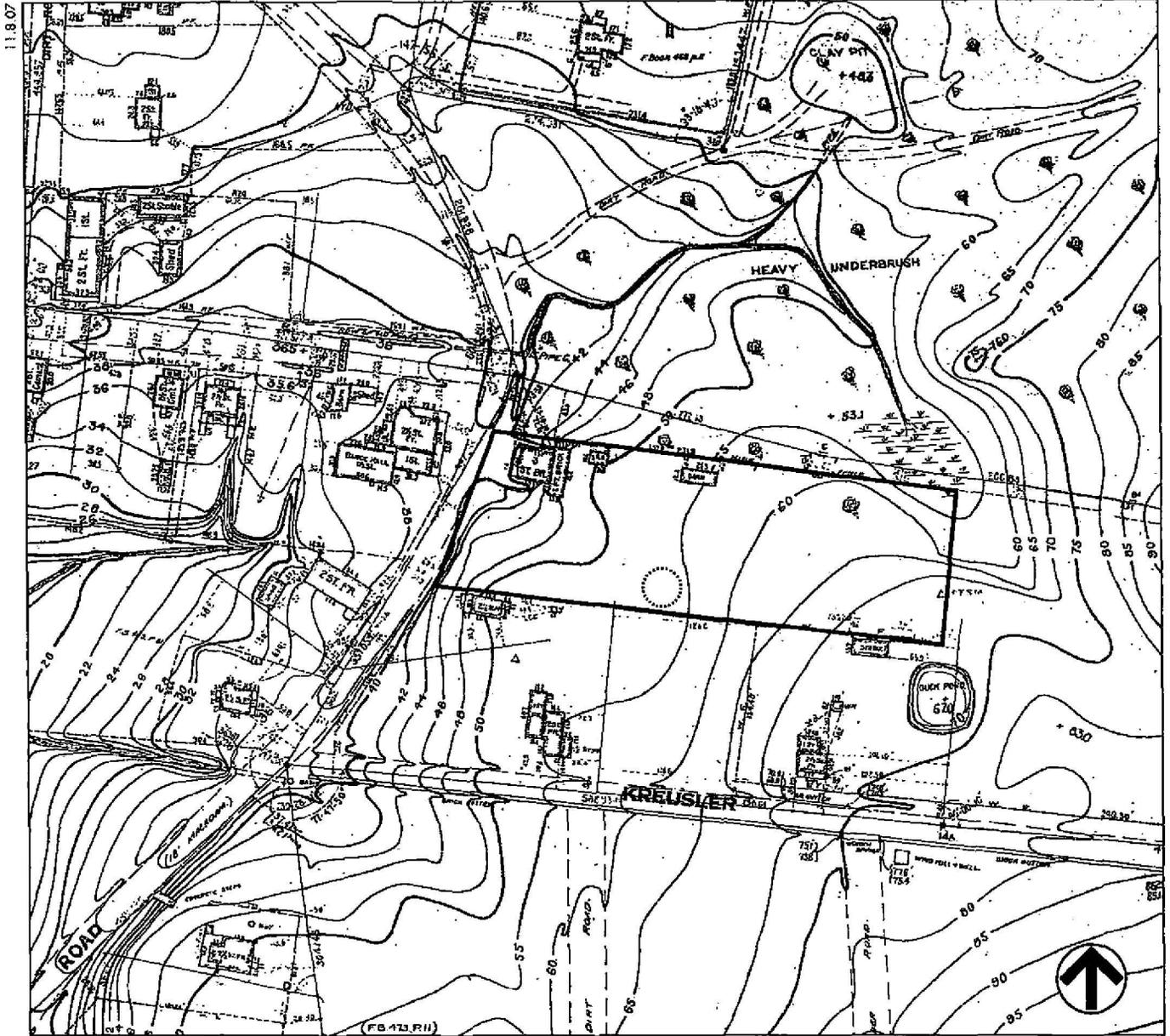
0 4000 FEET  
SCALE

Figure 1  
Project Location  
USGS Map, Arthur Kill Quadrangle



- Project Site
- Proposed NYCWIN Facility Location

0 100 200 FEET  
SCALE



-  Approximate Location of Proposed NYCWIN Facility Site
-  Approximate Location of Modern Lot 70

Figure 3  
 Borough of Richmond  
 Topographical Survey, 1913

11707

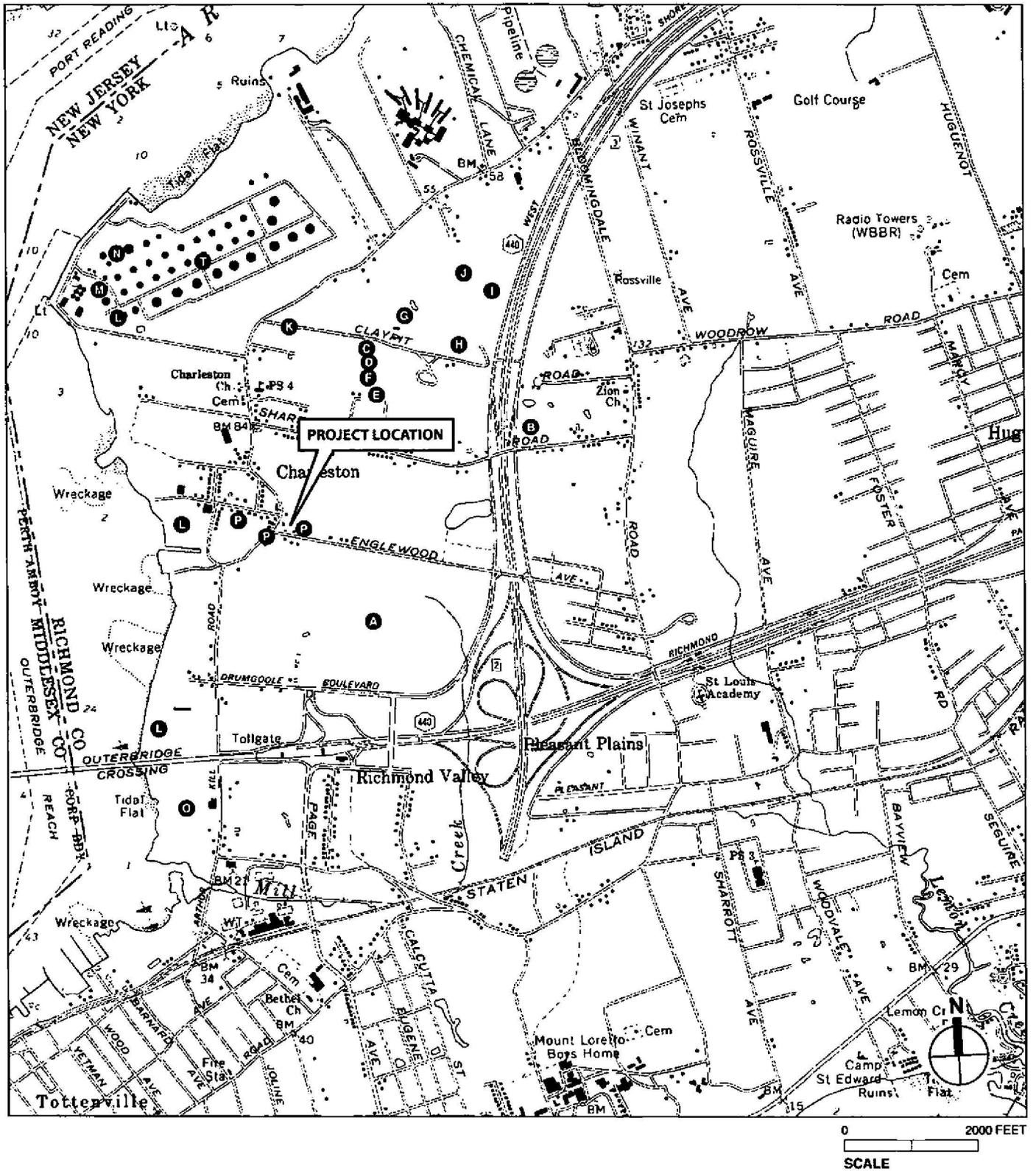


Figure 4  
 Previously Identified Native American Archaeological Sites  
 Within One Mile of the Project Area.  
 USGS Map, Arthur Kill Quadrangle

# DURING THE REVOLUTION 1775 - 1783

COMPILED FROM THE FOLLOWING MAPS  
AND FROM OTHER SOURCES

## THE TAYLOR & SKINNER MAP 1781

Original in the British Museum gives geographical features and all Roads and Houses indicated in brown.

## Plan No 31 du Camp Anglo-Hessois dans Staten Island de 1760 à 1783

Original in the French War Office gives Features indicated in red, names of inhabitants and following

### LEGEND

- A. Small redoubt containing 60 men with a Black House
- B. Small Fort made of earth containing 200 men that Fort and Fort C have in front a Spot of ground which 1000 men can be paraded in order of battle and several Batteries can be raised there.
- C. Small Fort made of earth containing about 250 men
- D. A Piece of rising ground which commands a little trail on which the Redoubts are built
- E. Place of a Stone House formerly burnt and destroyed by Lord Stirling
- F. Fort with two Batteries made of earth containing 500 men
- G. Detached Batteries commanded by the Fort
- H. Two Redoubts with several wooden Houses, and most part Stone towers each of the Houses have an orchard

THE NAMES: Westfield, South Westfield and Castle town were not adopted until 1783 but are here used because of their similarity. The respective Revolutionary titles were North, South and West Quarters, Daniels or Daniels and the Manor.

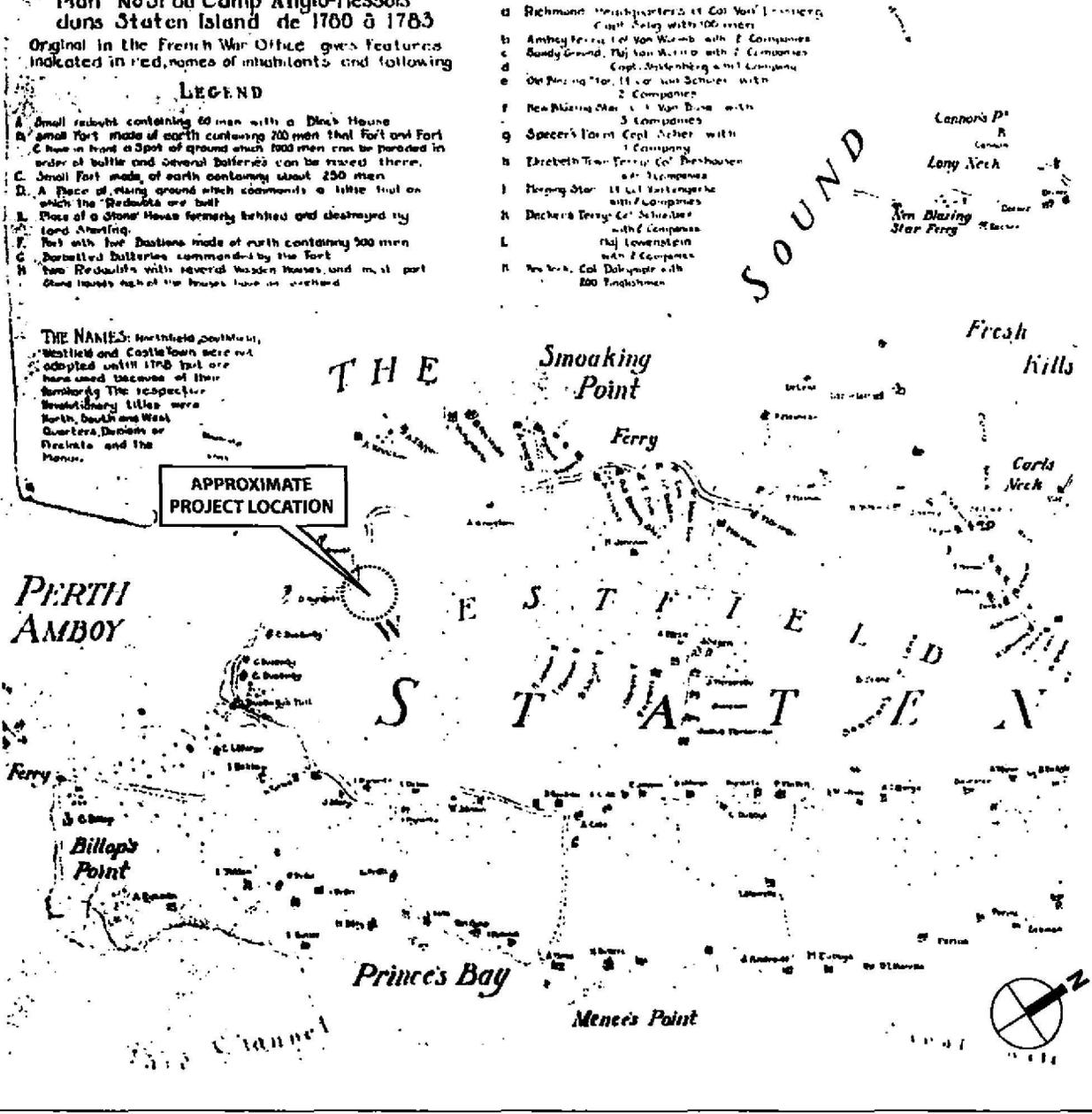
APPROXIMATE PROJECT LOCATION

## THE HESSIAN MAP 1777

Copy in New York Public Library gives Lines Sites indicated in blue with the following original

### LEGEND

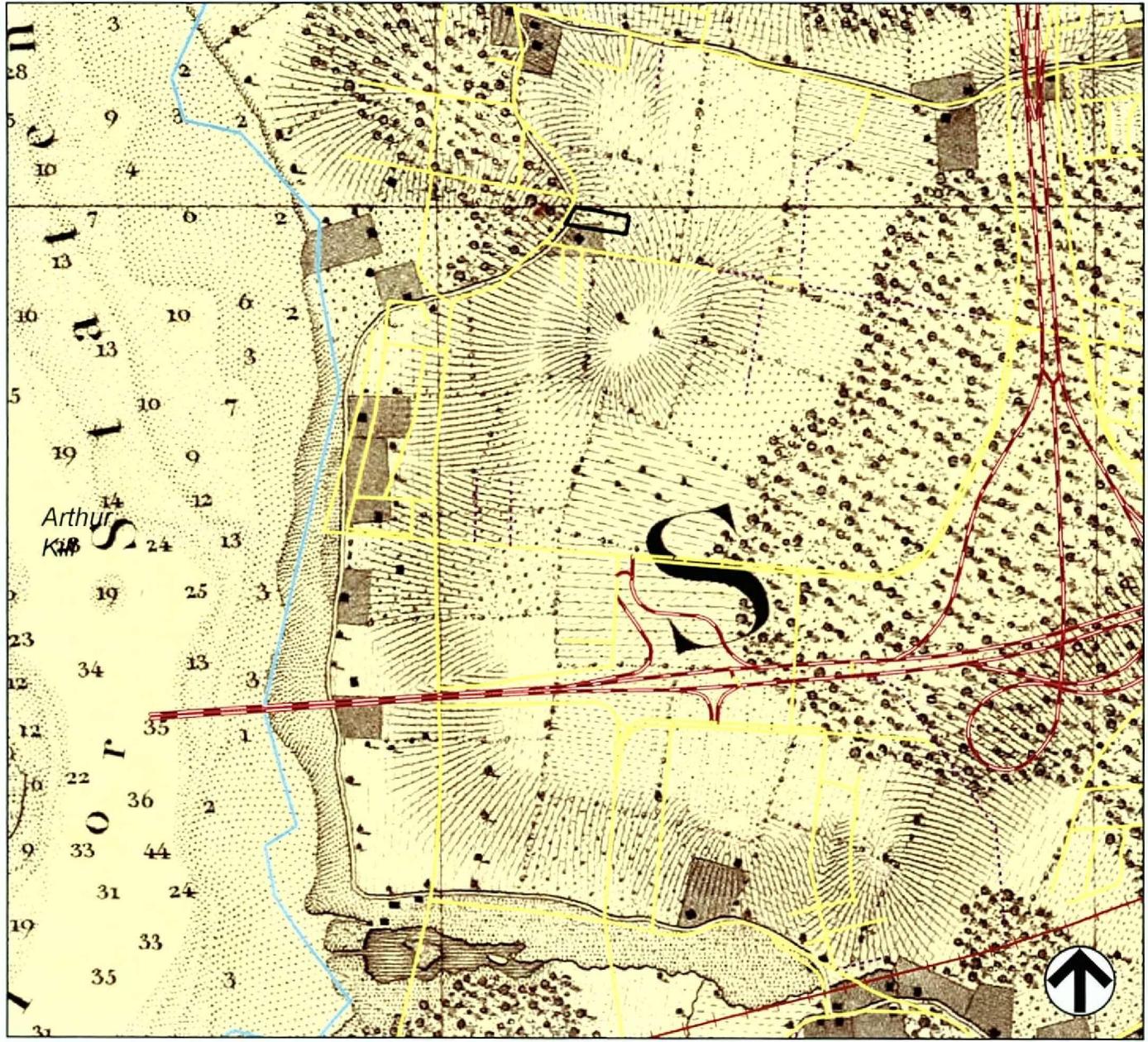
- a. Richmond Headquarters of Col Von Donop with 1000 men
- b. Anthony Ferry of Van Worme with 2 Companies
- c. Sandy Ground, Nij van Worme with 2 Companies
- d. Capt. Schuyler's unit Company
- e. Detachment of Lt. von Schuler with 2 Companies
- f. New Britain Camp of Van Donop with 3 Companies
- g. Speers Farm Capt. Scher with 1 Company
- h. Elizabeth Town Ferry of Berghausen with 3 Companies
- i. Flying Star of Lt. von Kangerke with 2 Companies
- k. Decker's Ferry of Col. Schuler with 6 Companies
- l. Lt. von Kangerke with 2 Companies
- m. The Hook, Col. Dalrymple with 200 Englishmen



NOT TO SCALE

Figure 5  
The Map of Staten Island,  
During the Revolution, 1775-1783.  
Loring McMillen, 1933

11.807



-  Modern Lot 70
- MODERN FEATURES**
-  Street
-  Highway
-  Railroad Track
-  Shoreline
-  Paper Street

0 0.25 MILES  
SCALE

Figure 6  
Map of New York Bay and Harbor and the Environs  
U.S. Coast Survey, 1844



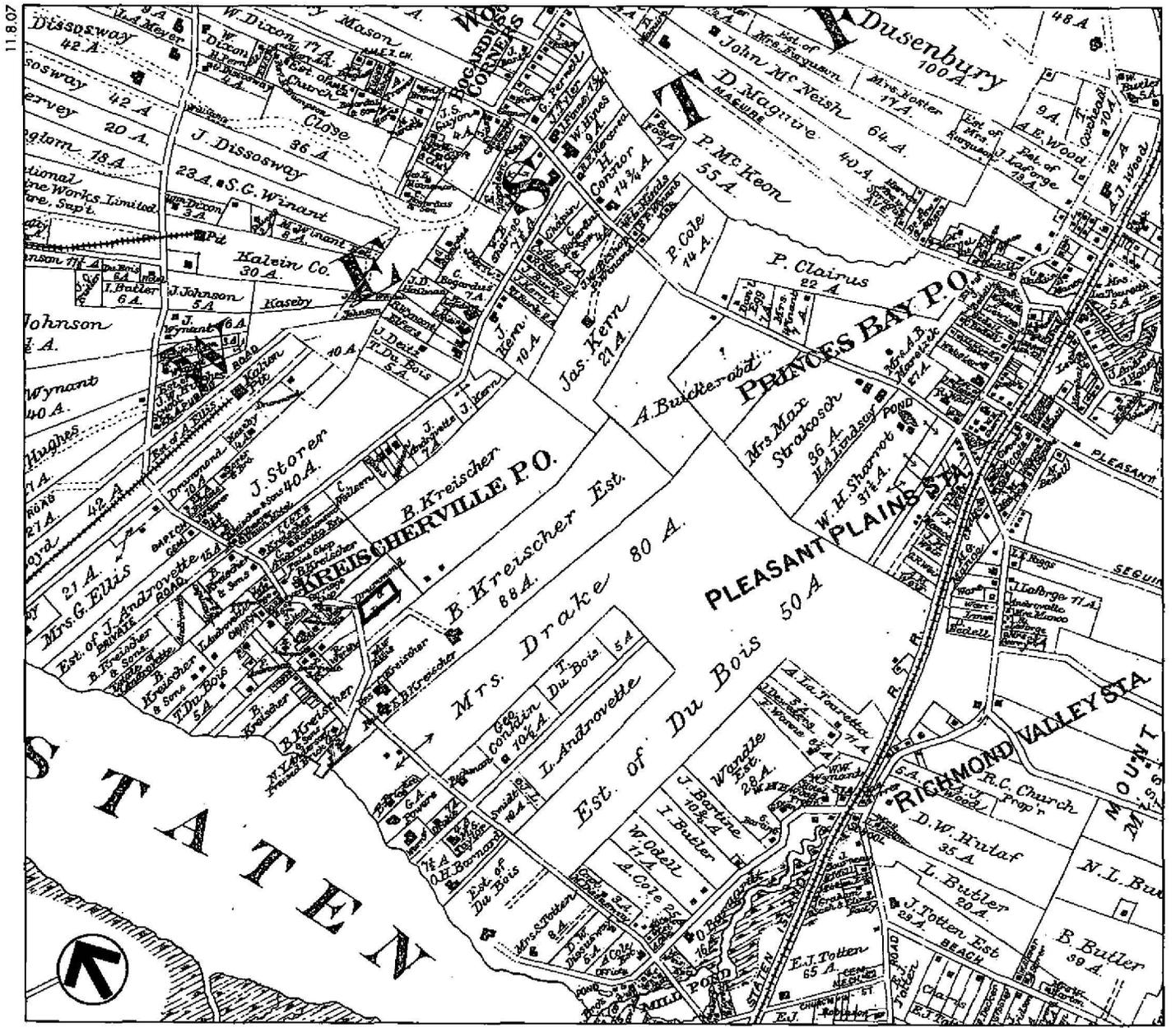
11.807



Approximate Location of Modern Lot 70

0 350 700 FEET  
SCALE

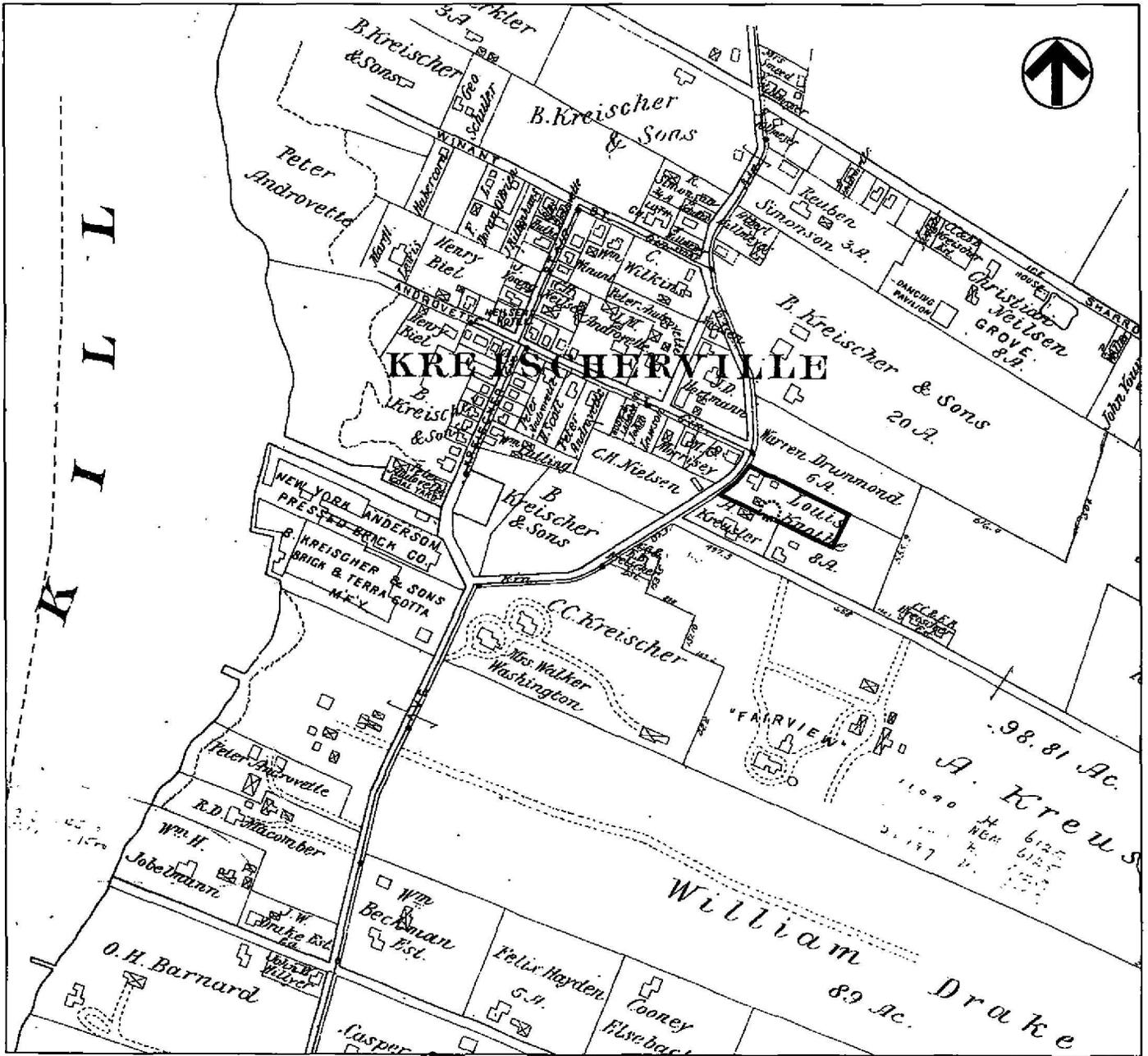
Figure 8  
Atlas of Staten Island, New York  
F. W. Beers, 1874



Approximate Location of Modern Lot 70

0 1500 3000 FEET  
SCALE

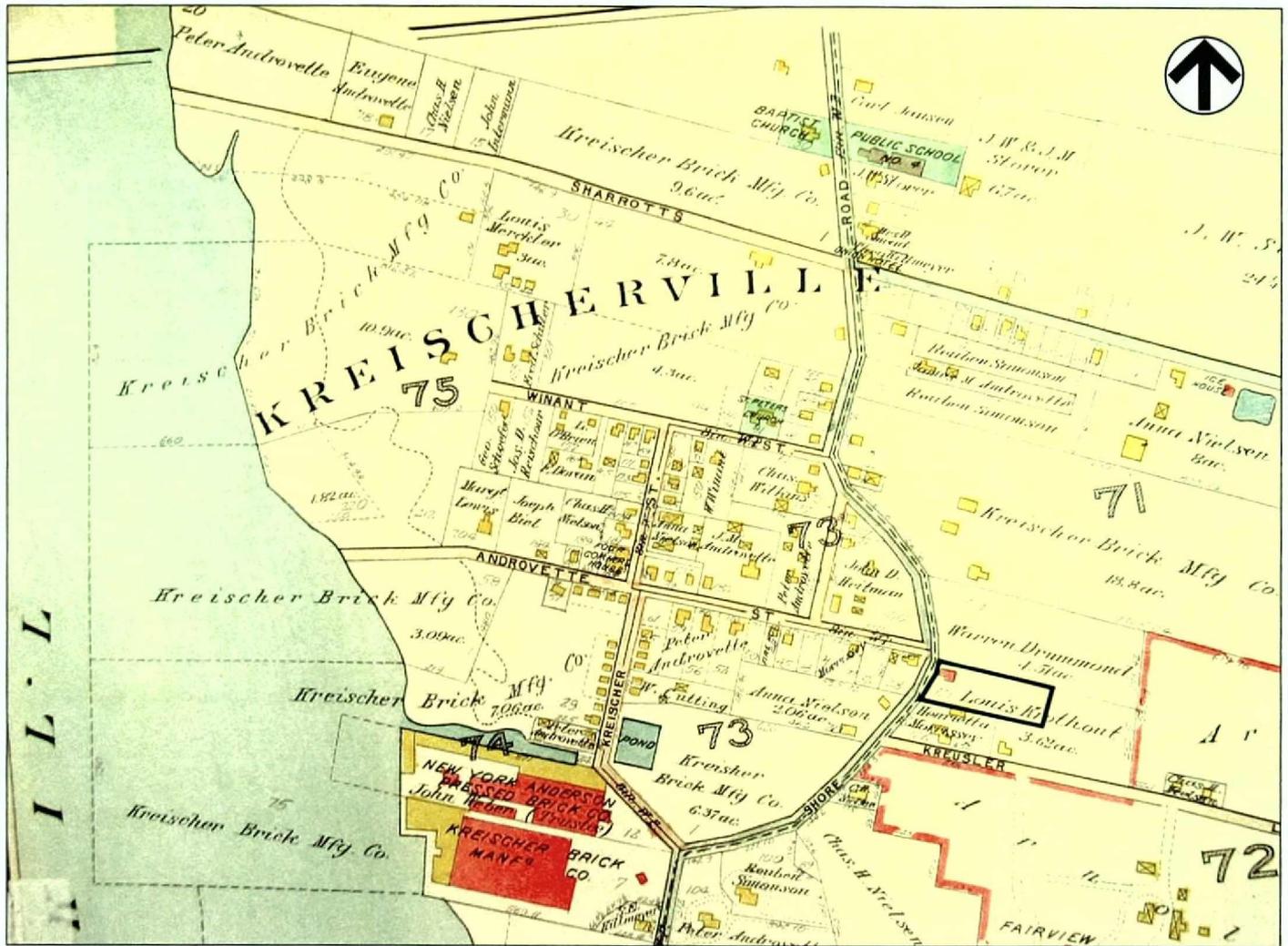
Figure 9  
Atlas of Staten Island,  
Richmond County  
J.B. Beers, 1887



 Approximate Location of Proposed NYCWIN Facility Site  
 Approximate Location of of Modern Lot 70

0 400 800 FEET  
 SCALE

Figure 10  
 Atlas of the Borough of Richmond,  
 City of New York  
 E. Robinson, 1898



Approximate Location of Modern Lot 70

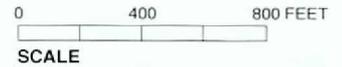
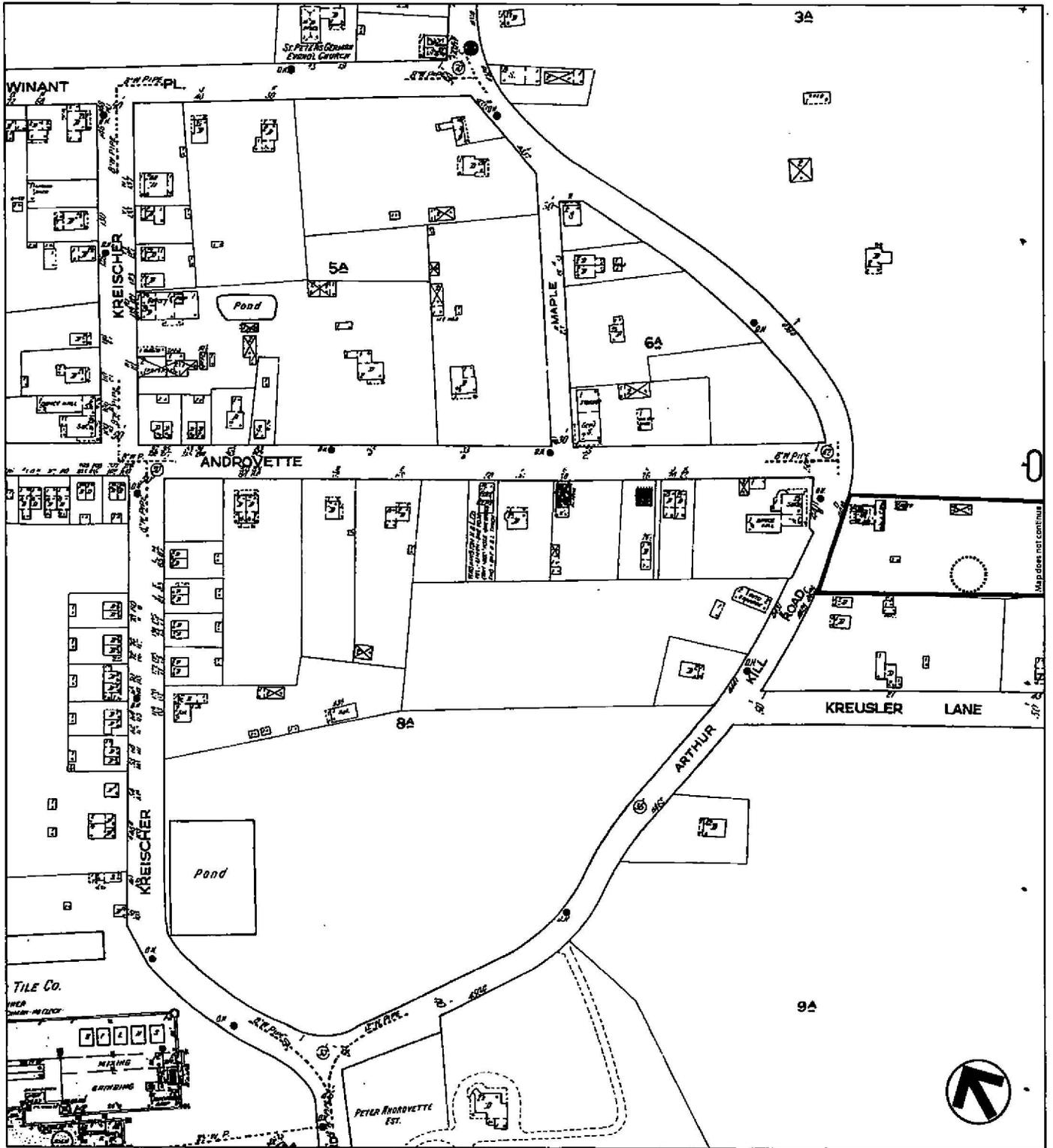
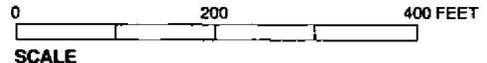


Figure 11  
 Atlas of the Borough of Richmond,  
 City of New York  
 E. Robinson, 1907

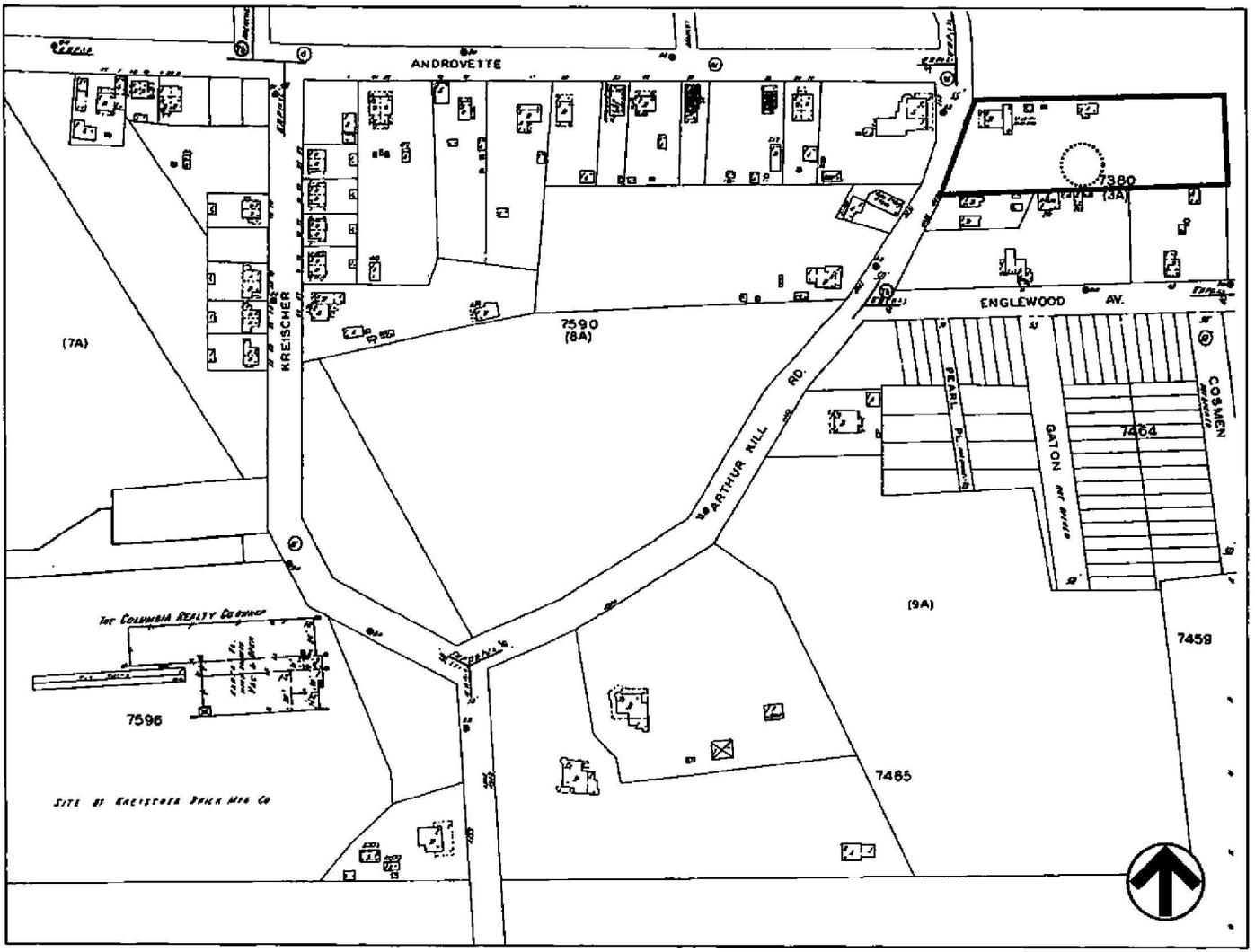
11.8.07



-  Approximate Location of Proposed NYCWIN Facility Site
-  Approximate Location of of Modern Lot 70



11.8.07



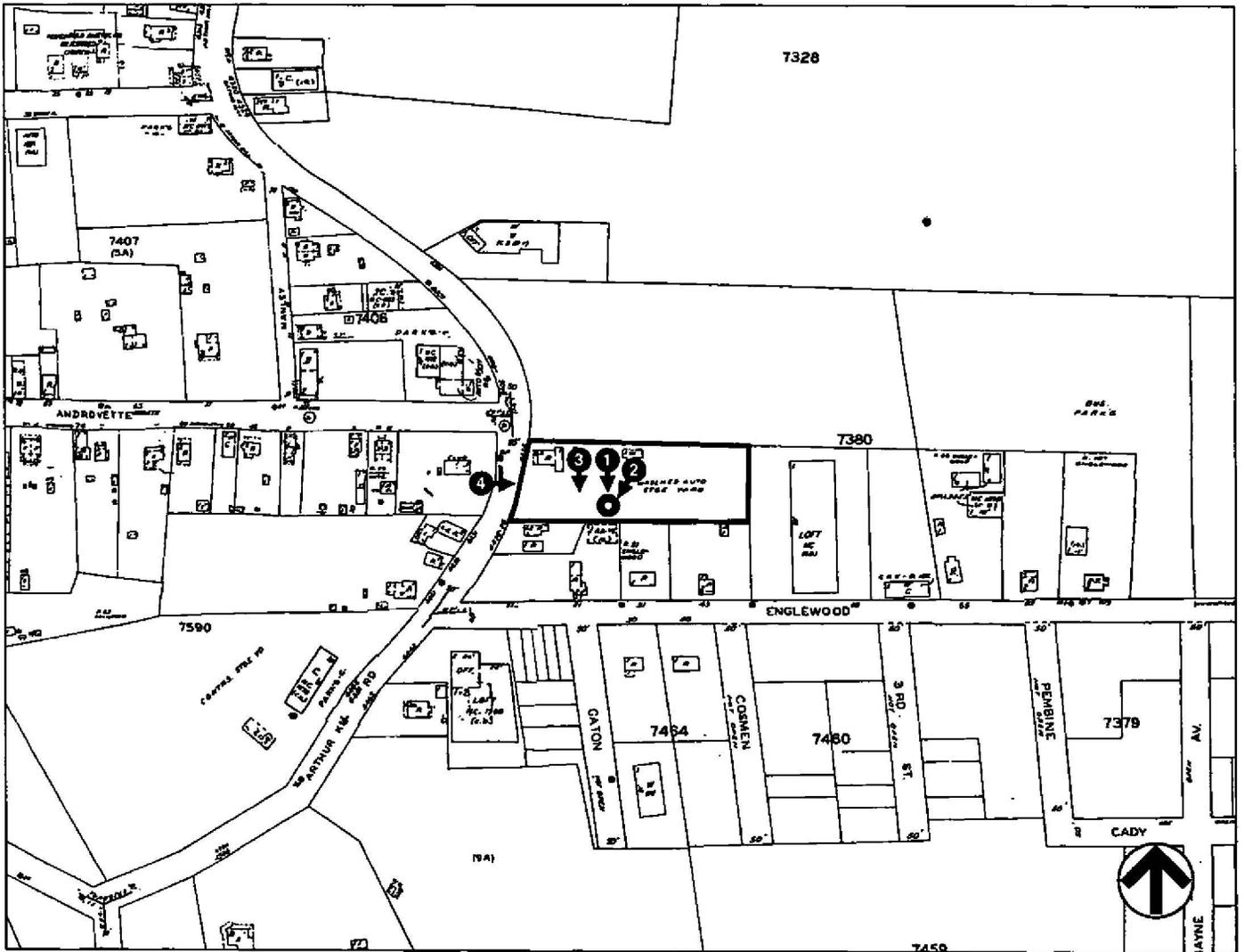
 Approximate Location of Proposed NYCWiN Facility Site  
 Approximate Location of Modern Lot 70

0 400 800 FEET  
 SCALE

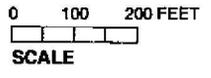


Photographs

11.7.07

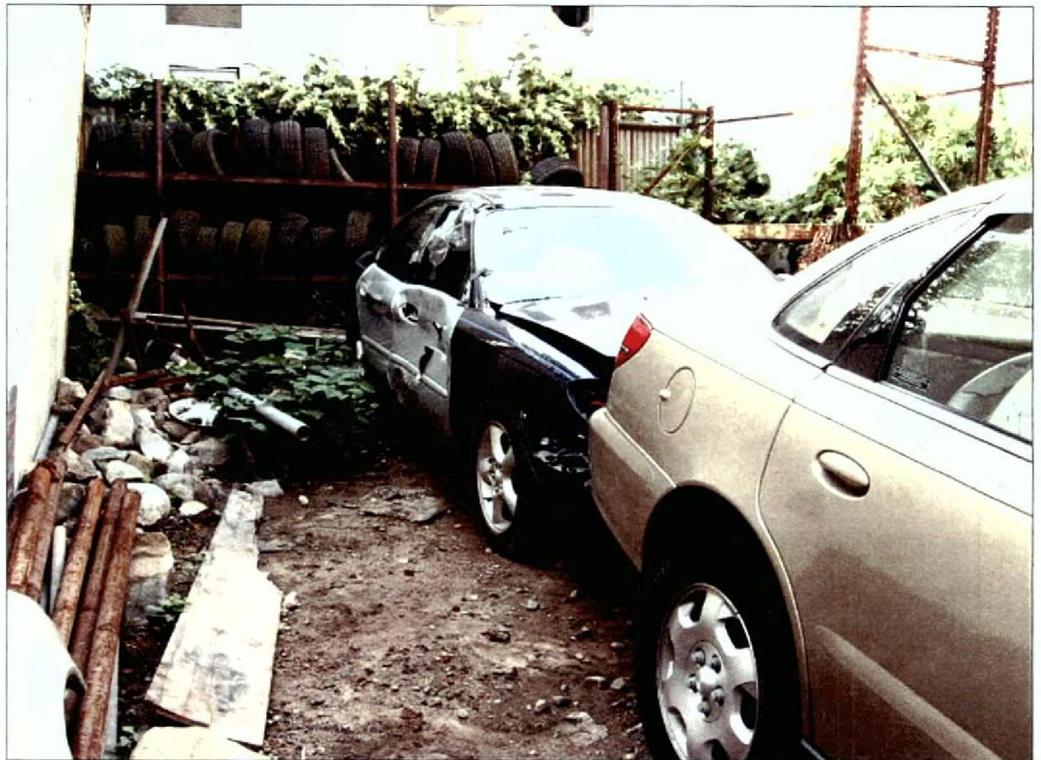


- Project Site
- Proposed NYCWIN Facility Location
- Photo View Direction and Reference Number

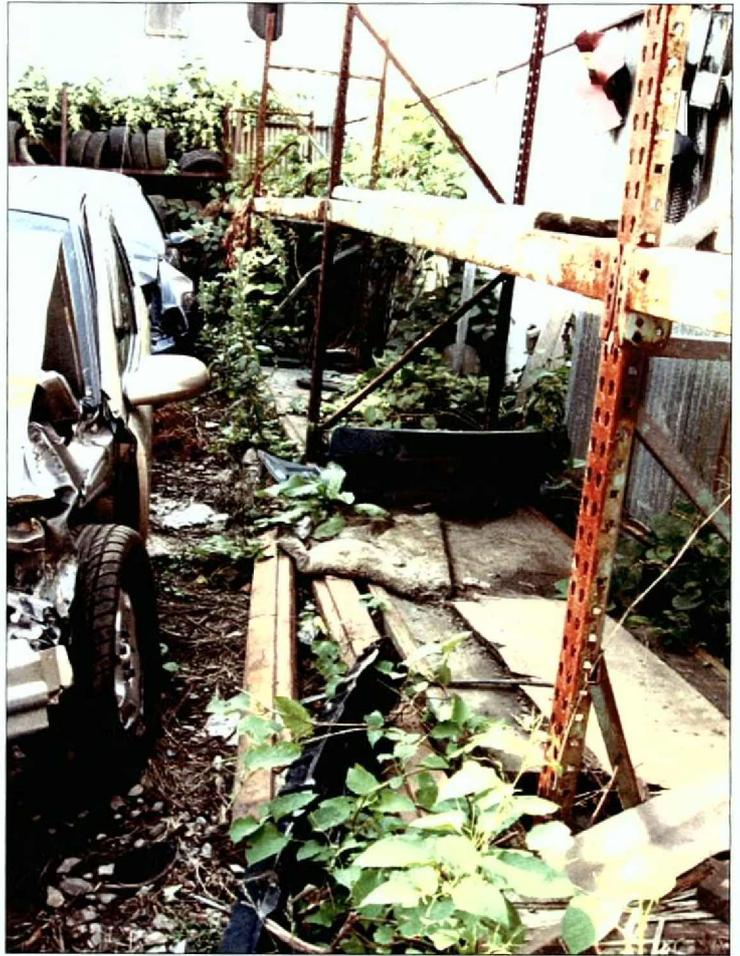




Location of proposed wireless facility, looking south 1



Debris and wrecked automobiles along eastern side of project area, looking southwest 2



Western half of project area, looking south 3



Parking lot of auto service facility, looking east 4

8.22.07



 Radio access node location

Date of orthoimagery: 2002



CITYWIDE WIRELESS NETWORK

Aerial Orthophoto  
SI-007

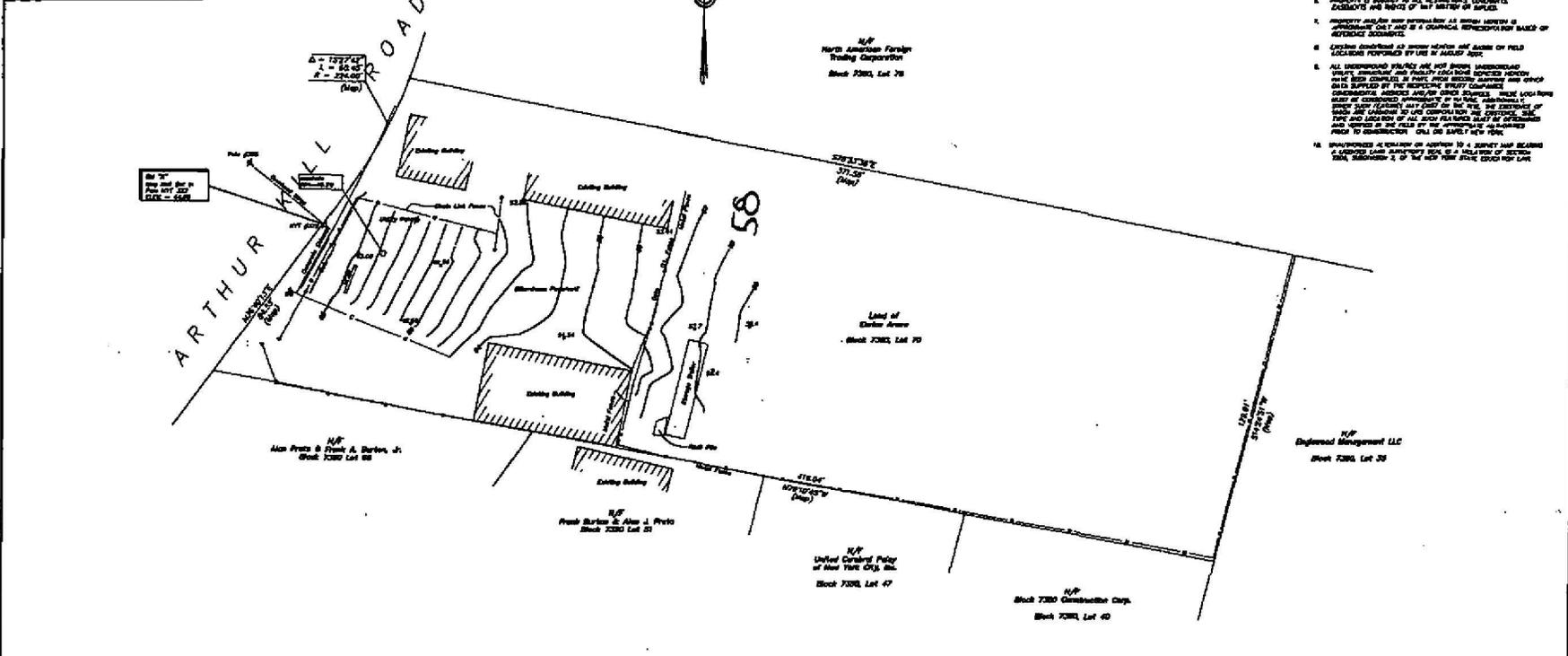
Appendix A:  
Project Drawings





**LEGEND**

	Spot		Marker
	Object Mark		Section
	Obstruction Pole		Parking Marker
	Obstruction Pole		Sign
	Air Line		Utility Pole
	Railroad		Water Ditch
	Light Pole		



- NOTES**
1. REVISIONS REFER TO THE NUMBER AS ESTABLISHED BY THE MAP IN NOTE 2A.
  2. ELEVATIONS SHOWN IN THIS MAP ARE MEASUREMENTS TAKEN FROM THE MEAN SEA LEVEL DATUM OF 1985. THE VERTICAL DATUM OF 1985 IS THE MEAN SEA LEVEL DATUM OF 1985. THE VERTICAL DATUM OF 1985 IS THE MEAN SEA LEVEL DATUM OF 1985.
  3. REFERENCE IS MADE TO THE FOLLOWING MAPS:
    - A. "THE MAP INFORMATION ACT, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2942, 2943, 2944, 2945, 2946, 2947, 2948, 2949, 2950, 2951, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2967, 2968, 2969, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2986, 2987, 2988, 2989, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3002, 3003, 3004, 3005, 3006, 3007, 3008, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029, 3030, 3031, 3032, 3033, 3034, 3035, 3036, 3037, 3038, 3039, 3040, 3041, 3042, 3043, 3044, 3045, 3046, 3047, 3048, 3049, 3050, 3051, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 3060, 3061, 3062, 3063, 3064, 3065, 3066, 3067, 3068, 3069, 3070, 3071, 3072, 3073, 3074, 3075, 3076, 3077, 3078, 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090, 3091, 3092, 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108, 3109, 3110, 3111, 3112, 3113, 3114, 3115, 3116, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3124, 3125, 3126, 3127, 3128, 3129, 3130, 3131, 3132, 3133, 3134, 3135, 3136, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3159, 3160, 3161, 3162, 3163, 3164, 3165, 3166, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3277, 3278, 3279, 3280, 3281, 3282, 3283, 3284, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3292, 3293, 3294, 3295, 3296, 3297, 3298, 3299, 3300, 3301, 3302, 3303, 3304, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3347, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3391, 3392, 3393, 3394, 3395, 3396, 3397, 3398, 3399, 3400, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 3419, 3420, 3421, 3422, 3423, 3424, 3425, 3426, 3427, 3428, 3429, 3430, 3431, 3432, 3433, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3493, 3494, 3495, 3496, 3497, 3498, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3507, 3508, 3509, 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525, 3526, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600, 3601, 3602, 3603, 3604, 3605, 3606, 3607, 3608, 3609, 3610, 3611, 3612, 3613, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3622, 3623, 3624, 3625, 3626, 3627, 3628, 3629, 3630, 3631, 3632, 3633, 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3687, 3688, 3689, 3690, 3691, 3692, 3693, 3694, 3695, 3696, 3697, 3698, 3699, 3700, 3701, 3702, 3703, 3704, 3705, 3706, 3707, 3708, 3709, 3710, 3711, 3712, 3713, 3714, 3715, 3716, 3717, 3718, 3719, 3720, 3721, 3722, 3723, 3724, 3725, 3726, 3727, 3728, 3729, 3730, 3731, 3732, 3733, 3734, 3735, 3736, 3737, 3738, 3739, 3740, 3741, 3742, 3743, 3744, 3745, 3746, 3747, 3748, 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3756, 3757, 3758, 3759, 3760, 3761, 3762, 3763, 3764, 3765, 3766, 3767, 3768, 3769, 3770, 3771, 3772, 3773, 3774, 3775, 3776, 3777, 3778, 3779, 3780, 3781, 3782, 3783, 3784, 3785, 3786, 3787, 3788, 3789, 3790, 3791, 3792, 3793, 3794, 3795, 3796, 3797, 3798, 3799, 3800, 3801, 3802, 3803, 3804, 3805, 3806, 3807, 3808, 3809, 3810, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 3818, 3819, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830, 3831, 3832, 3833, 3834, 3835, 3836, 3837, 3838, 3839, 3840, 3841, 3842, 3843, 3844, 3845, 3846, 3847, 3848, 3849, 3850, 3851, 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863, 3864, 3865, 3866, 3867, 3868, 3869, 3870, 3871, 3872, 3873, 3874, 3875, 3876, 3877, 3878, 3879, 3880, 3881, 3882, 3883, 3884, 3885, 3886, 3887, 3888, 3889, 3890, 3891, 3892, 3893, 3894, 3895, 3896, 3897, 3898, 3899, 3900, 3901, 3902, 3903, 3904, 3905, 3906, 3907, 3908, 3909, 3910, 3911, 3912, 3913, 3914, 3915, 3916, 3917, 3918, 3919, 3920, 3921, 3922,







**Appendix B:**

**Summary of Census Research**

Year/ Census	Residence	Name	Occupation	Listed Age(s)	Place of Birth
1820 Federal	Westfield, Richmond County, NY	Charles Androvat	1 member of household engaged in Agriculture	1 FWM < 10 1 FWM 10<16 1 FWM 16<18 3 FWM 16<26 1 FWM 45+ 2 FWF <10 1 FWF 10<16 1 FWF 26<45 1 MS 26<45	<i>Not Listed</i>
1830 Federal	Westfield, Richmond County, NY*	Lewis Androvat	<i>Not Listed</i>	1 FWM < 10 1 FWM 20<30 1 FWF 20<30	<i>Not Listed</i>
	Westfield, Richmond County, NY*	Charles Androvat	<i>Not Listed</i>	2 FWM 5<10 2 FWM 20<30 1 FWM 60<70 1 FWF 5<10 1 FWF 10<15 2 FWF 15<20 1 FWF 30<40	<i>Not Listed</i>
1835 State	Westfield, Richmond County, NY	Lewis Androvette	Not listed: Family owned 100 acres and contains 16 cattle, 1 horse, and 4 hogs	2 Males 2 Females 1 Male Voter 1 Married female < 45 1 unmarried female 16<45	<i>Not Listed</i>
1840 Federal	Westfield, Richmond County, NY	Lewis Androvette	2 members of household engaged in Agriculture	1 FWM 20<30 1 FWM 30<40 1 FWM 50<60 1 FWF 20<30 1 FWF 40<50	<i>Not Listed</i>
1850 Federal	Westfield, Richmond County, NY  Estate valued at \$1,500	Lewis Androvatte Lydia Androvatte William Androvatte Joseph Androvatte Asher Androvatte James Androvatte Winant Androvatte Abraham W. Androvatte Salina Androvatte Susan K. Androvatte	Boatman  Boatman Boatman Boatman	37 (sic) 41 20 17 15 13 10 7 3 3 mos.	N.Y. N.Y. N.Y. N.Y. N.Y. N.Y. N.Y. N.Y. N.Y. N.Y.
1865 State	Westfield, Richmond County, NY  Frame House	Lewis Androvatte Lydia Androvatte Abraham W. Androvatte Lydia Androvatte Susan R. Androvatte Mary E. Androvatte	Farmer  Farmer	61 57 23 19 15 10	<i>Not listed</i>
1870 Federal	Westfield, Richmond County, NY  Estate valued at \$6,000	Louis Androvat Liddia Androvat Susan K. Androvat	Farmer Keeping House	65 62 20	N.Y. N.Y. N.Y.

**Appendix C:**

**Conveyance Records for Block 7380, Lot 70<sup>†</sup>**

Date	Grantor	Grantee	Liber	Page	Block and Lot # (if specified)	Remarks
5/16/1833	Charles Androvette	Lewis Androvette	V	95		Possibly Block 7380 Lot 70
5/26/1887	Lewis Androvette	Julius Knothe	175	40		
7/5/1919	Julius Knothe, widower	Max and Margaret Knothe	499	98		
10/26/1923	Max and Margaret Knothe	Augusta Pfahlbusch, Clara Long, and Katie Knothe	570	313	Former Block 7379	
11/23/1925	Augusta Pfahlbusch, Clara Long, and Katie Knothe	Hugo and Augusta Pfahlbusch	610	38	Former Block 7379	
10/24/1933	Hugo Pfahlbusch widower and exr of Augusta	Louis and Elizabeth Kosma	753	545	Former Block 7379A	
6/30/1960	Louis Kosma, aka Kozma	Norman W. Anderson	1498	191	Former Block 7379A	
4/23/1968	Norman W. Anderson	Norman W. and Mary Anderson	1815	289	Former Block 7379A	
11/12/1973	Norman W. Anderson	Alfred and Annette Taglianetti	2062	29	Former Block 7379A	
8/17/1981	Alfred and Annette Taglianetti	Enrico Arena	2439	494	Block 7380, Lot 70	
8/19/1981	Alfred and Annette Taglianetti	Enrico Arena	2439	493	Former Block 7379A	
6/2/1982	Henry Arena	City of New York	Reel 5	8366	Block 7380, Lot 70	Waiver
<p><b>Notes:</b> <sup>†</sup>Early 20th century Conveyance records for this area are categorized by block number and individual lot numbers are not provided. Furthermore, 17th, 18th, and 19th century deeds are organized by Grantor and Grantee name only, therefore it is difficult to identify which transactions pertain specifically to Block 7380 Lot 70. The above table was generated by tracing land grants back through time in an attempt to determine the owners of the subject property throughout history but it may not represent all applicable conveyance records.</p>						
<p><b>Sources:</b> Deed indices and Liber books on file at the Office of the Richmond County Clerk, Staten Island.</p>						

\*

**Appendix D:****Historic Directories**

<b>Directory</b>	<b>Name</b>	<b>Occupation</b>	<b>Address</b>
1893 <i>Standard Directory</i>	Julius Knothe	Mason	Riverside av n Sharott's Lane, K*
1900 <i>Residential Directory</i>	Julius Knothe	Mason	h. Riverside Av, Kreischerville
1903 <i>Standard Directory</i>	Louis Knothe (sic)	Mason and Bricklayer	Riverside av, Krvle
1912 <i>Richmond Borough Directory</i>	Julius Knothe	—	Fresh Kills Rd, Richmond
<b>Notes:</b> *Riverside Avenue is a former name of Arthur Kill Road; "K" is the abbreviation used for the village of Kreischerville. <b>Sources:</b> Directories on file at the New York Public Library Milstein Division of Local History and Genealogy Microform Room.			

\*