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NEW YORK STATE MUSEUM
Anthropological Survey

CULTURAL RESOURCE RECONNAISSANCE SURVEY AND SITE EXAMINATION REPORT

PIN X096.18.101
New York State Route 440 (West Shore Expressway),
Edward Curry Avenue to Bloomingdale Road
Staten Island, Richmond County, New York

September 2007

prepared by:

Daria E. Merwin, M.A.
State University of New York at Stony Brook

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The University of the State of New York
The New York State Education Department
Albany, New York 12230

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A Cultural Resources Survey and Site Examination Report

2007-2008 Program Year

PIN X096.18.101

New York State Route 440 (West Shore Expressway)
Edward Curry Avenue to Bloomingdale Road
Staten Island, Richmond County
(Minor Civil Division 08501)

Prepared by
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Prepared for the New York State Museum,
State Education Department

September 2007

Sponsored by the New York State Department of Transportation
and the Federal Highway Administration

MANAGEMENT SUMMARY

Project Identifier	PIN X096.18.101
Project Type	Access and safety improvements on ramps, service roads, and intersections within five interchanges along New York State Route 440; State funding.
Cultural Resource Survey Type	Reconnaissance survey and site examination.
Location	New York State Route 440 (West Shore Expressway) from Edward Curry Avenue to Bloomingdale Road, Staten Island (MCD 08501), New York City, Richmond County.
Survey Area	Three areas: South Avenue, approximately 20 meters (66 feet) wide by 200 meters (657 feet) long; Arden Avenue, 20 meters (66 feet) wide by 75 meters (246 feet) long; Arthur Kill Road, 20 meters (66 feet) wide by 200 meters (657 feet) long. Total area is roughly 0.95 hectare (2.35 acres).
USGS 7.5 minute Quad	*Arthur Kill, New York-New Jersey* (1966/1981).
Sensitivity Assessment	Prehistoric, moderate; historic, moderate at South Avenue, low elsewhere.
Archaeological Survey Methodology	Number of shovel test pits, 45; number of units, 3; surface survey, yes.
Results of Archaeological Survey	One prehistoric deposit was identified, but found to be in thoroughly disturbed soils after site examination. The deposit is not eligible for the State and/or National Register (NR). No historic period artifacts or features were encountered.
Results of Architectural Survey	Number of structures within and adjacent to project area, 11; Number of known NR listed/eligible structures/districts, 1; Number of possible eligible structures/districts, 3; Number of listed/eligible or potentially eligible structures that may be impacted, 0.
Author/Institution	Daria E. Merwin, Institute for Long Island Archaeology, Stony Brook University.
Date	September 2007.
Sponsor	The New York State Department of Transportation and the Federal Highway Administration.

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ARCHAEOLOGICAL SURVEY

This is a report on the results of a cultural resources reconnaissance survey for PIN X096.18.101, New York State Route 440 (West Shore Expressway) at three locations between Edward Curry Avenue to Bloomingdale Road on Staten Island, New York City, Richmond County (Minor Civil Division [MCD] 08501). The cultural resources survey was conducted in July 2006, and a site examination of a prehistoric deposit followed in April 2007. Both studies were undertaken by the Institute for Long Island Archaeology, Stony Brook University, for the New York State Museum (NYSM)/State Education Department under its interagency agreement with the New York State Department of Transportation (NYS DOT). All field data, cultural material, and photographs generated by this survey are curated at the Institute for Long Island Archaeology.

The reconnaissance survey and site examination were conducted according to guidelines for cultural resource surveys contained in the 2004 New York State Museum Cultural Resource Survey Program revised *Work Scope Specifications*. The survey consists of documentary research and field investigation to locate all archaeological sites within the project area, and map documented and standing structures within and adjacent to the project area. The site examination consists of field investigation with the principal goal of gathering additional data (including site boundaries, integrity, age, function, and research potential) required to support either a determination of eligibility or non-eligibility for inclusion in the State and/or National Register of Historic Places. Eligibility is determined by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP).

Department of Transportation Project Description

PIN X096.18.101 consists of access and safety improvements on ramps, service roads, and intersections within five interchanges of New York State Route 440 between Edward Curry Avenue and Bloomingdale Road. The Draft Design Approval Document for PIN X096.18.101identifies five study areas that may be impacted under the proposed work scope (north to south along New York State Route 440): South Avenue, Victory Boulevard, Arden Avenue, Arthur Kill Road, and Bloomingdale Avenue. The areas of proposed impact consist of paving and/or repaving locations. The Draft Design Approval Document completed in August 2005 includes a section on cultural resources, consisting of background research, results of a walkover survey of the project area, and recommendations. Two of the study areas (Victory Boulevard and Bloomingdale Avenue) were determined to have witnessed substantial disturbance and had no to low potential for below ground prehistoric and/or historic period resources. No additional archaeological work was recommended. The remaining three areas (South Avenue, Arden Avenue, and Arthur Kill Road) were found to have potential and further archaeological survey was recommended (see Appendix B). Thus, the limits of the cultural resource reconnaissance survey were based on the Draft Design Approval Document, along with the Form A and map submitted by the Region 11 NYS DOT Cultural Resources Coordinator (Appendix C).

The archaeological survey project area consists of three areas adjacent to New York State Route 440, a busy highway lined with open space, wetlands, the Fresh Kills Landfill, and industrial and commercial properties (Figures 1 and 2; Plates 1 through 3). Each of the proposed areas of impact has a width of roughly 20 meters (66 feet). The study area at South Avenue (actually on the north side of Bloomfield Road) is approximately 200 meters (657 feet) long, the area at Arden Avenue is approximately 75 meters (246 feet) long, and the area at Arthur Kill Road (northeast of Rossville Avenue) is approximately 200 meters (657 feet) long. The area surveyed is thus roughly 0.95 hectare (2.35 acres). There are no previously determined eligible or listed State or National Register of Historic Places properties within or immediately adjacent to these study areas. In addition, no buildings are slated for acquisition under the proposed work scope, although the Draft Design Approval Document did identify ten architectural properties in areas of potential impact, plus a cemetery adjacent to an area of proposed impact, in the Victory Boulevard, Arden Avenue, and Arthur Kill Road study areas. These properties are described in the Architectural Survey section of this report.

General Project Area

Figure 1. Map of southern New York State showing the location of PIN X096.18.101.

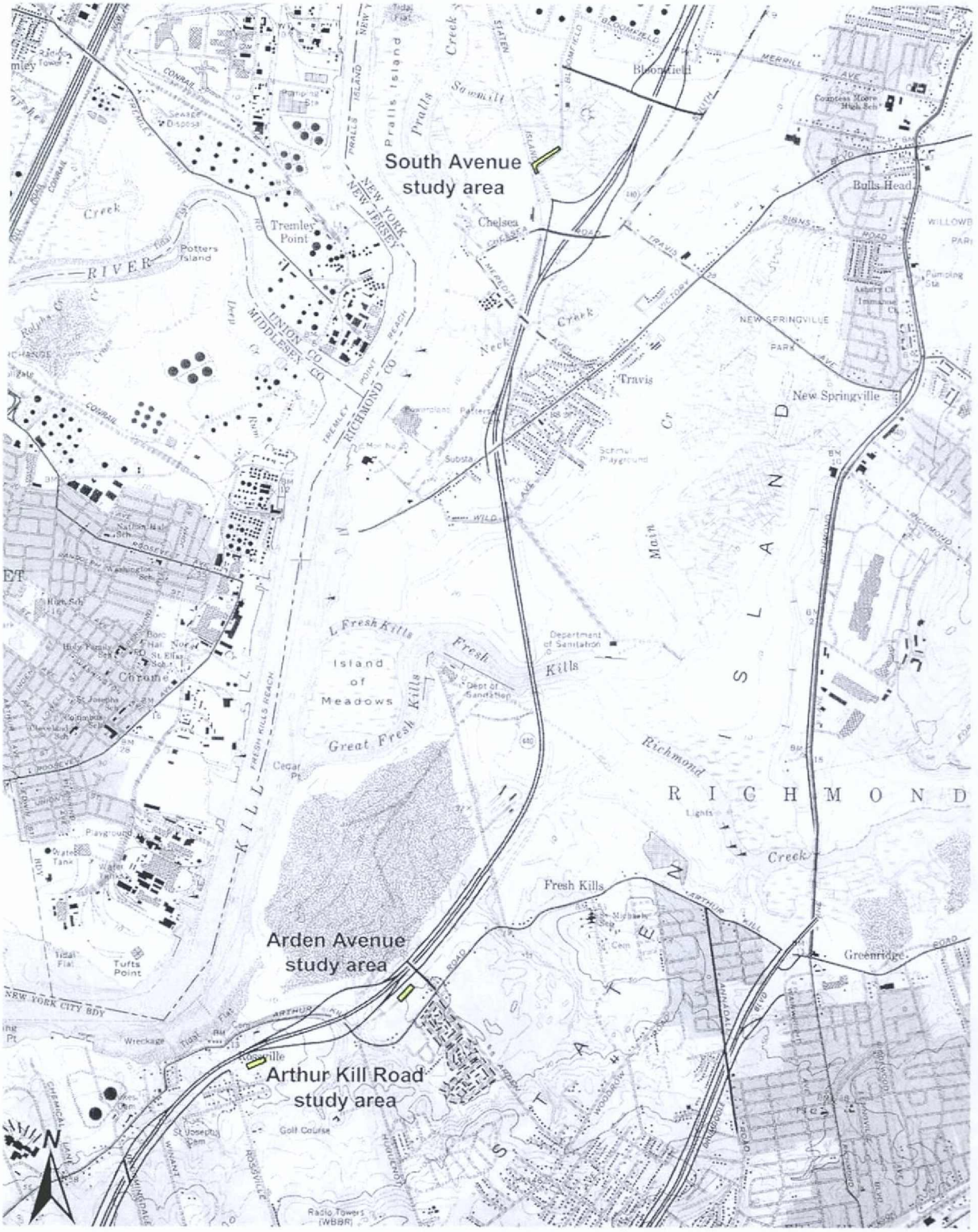


Figure 2. 1966/1981 USGS topographic map of *Arthur Kill, New York-New Jersey* (7.5 minute series, reduced to 65% of original size) showing the location of PIN X096.18.101.

Plate 1. Archaeological survey in the South Avenue study area (on the north side of Bloomfield Road). View is west.

Plate 2. Looking southwest in the Arden Avenue study area, where volunteer vegetation covers an old agricultural field.

Plate 3. Dense volunteer vegetation in the Arthur Kill Road study area. View is southwest.

Background Research

Site File Search. The site files of the New York State Museum (NYSM) and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) document 130 known archaeological sites (though some inventory numbers may actually refer to the same site) within 3.2 kilometers (two miles) of the project area: 79 prehistoric Native American, three Contact period Native American, 39 historic period, five sites with both prehistoric and historic period components, and four sites of unknown age (Appendix C). Sites identified by OPRHP (those with site numbers beginning with A085) have been inventoried. Only sites located within one kilometer (0.6 mile) of each of the three study areas are summarized in Table 1, below.

The density of documented prehistoric archaeological sites on Staten Island (Richmond County) is much greater than that of surrounding counties. This may indicate that the island was relatively densely populated during the prehistoric period, possibly because of favorable environmental characteristics or advantageous location. The higher number of archaeological sites could also be the result of less nineteenth and twentieth century development and more local interest in archaeology, or some combination of these and other factors. Archaeological sites on Staten Island have been the focus of dozens of excavations spanning several decades. Skinner (1909) and Parker (1920) documented several Native American sites, many along or near the island's western shore, some in the vicinity of the project area. Avocational archaeologists reported on many mid-twentieth century excavations, while more recent cultural resource management projects have led to the discovery of still more archaeological sites on Staten Island (Boesch 1994; Cantwell and Wall 2001).

A few surveys in advance of construction projects have been undertaken for areas adjacent to New York State Route 440, including a proposed power plant lateral near Pralls and Sawmill creeks (Hunter Research 2003) (near the South Avenue study area) and the proposed route for the Liberty Pipeline project along the east side of the highway (Lothrop and LeeDecker 1992) (near the Arden Avenue and Arthur Kill Road study areas). No cultural materials were found during these surveys.

Consultation with OPRHP and the on-line National Park Service database indicates that there are no State or National Register of Historic Places listed or previously determined eligible archaeological properties within or immediately adjacent to PIN X096.18.101.

Table 1. Archaeological sites within one kilometer of PIN X096.18.101.

Site Identifier	*Site Name*	*Period*	*Reference*	*Comments*
South Avenue Study Area				
NYSM 746, *A08501.000135*	Chelsea, Burning Ground	prehistoric, poss. Archaic, Transitional	NYSM	Site located approx. 0.5km south of project area and 150m from Sawmill Creek. Dug by Skinner, site had "lodges" and graves.
NYSM 4596	ACP RICH-6	prehistoric (poss. Late Woodland) and historic	Parker 1920:681	"Bloomfield... relics occur more or less abundantly on all the dunes and sandhills. A stone plummet (?), grooved axes, Iroquoian pottery, pipes, arrow points, etc., have been found here."
NYSM 4627	ACP RICH	prehistoric	Parker 1920	Camps near Pralls Creek in Chelsea.
NYSM 7324		prehistoric, Transitional	NYSM	Perkiomen projectile points found in swamp. ca. 1940.
NYSM 8501		prehistoric	NYSM	No information on camp located approx. 0.5km southwest of project area.
NYSM 8502		prehistoric	NYSM	No information on traces of occupation.
NYSM 8503		prehistoric	NYSM	No information on camp.
NYSM 8504		prehistoric	NYSM	No information on traces of occupation covering a large area.
NYSM 8323	ACP RICH-7B	prehistoric	Parker 1920:682	"... dune with relics is between Chelsea and Travisville."
A085.002634		*unknown*	OPRHP	Form missing for site on Pralls Creek in Chelsea.
Arden Avenue Study Area				
NYSM 8498		prehistoric	NYSM	Traces of occupation near Great Fresh Kills.
A08501.000119	Rossville	prehistoric	OPRHP	Shell midden site with quartz and chert flakes; test units dug by NYU in 1976.

Table 1. Continued.

Site Identifier	*Site Name*	*Period*	*Reference*	*Comments*
Arthur Kill Road Study Area				
NYSM 737	Smoking Point	prehistoric, Archaic to Woodland	NYSM	Shell middens and camps located on Arthur Kill less than 0.5km west-northwest of the project area.
NYSM 738	Pottery Farm	prehistoric, Woodland	NYSM	No information on site other than yielded many pottery fragments.
NYSM 772	Rossville Shell Heap	prehistoric	NYSM	Shell midden near Arthur Kill.
NYSM 4624	ACP RICH	prehistoric	Parker 1920	Possible camp or village site.
NYSM 8495		prehistoric	NYSM	Shell middens along Arthur Kill.
A08501.000119	Rossville	prehistoric	OPRHP	Shell midden site with quartz and chert flakes; test units dug by NYU in 1976.
A08501.002426	SICF-Area C1	prehistoric, Late Woodland	OPRHP	Shell midden and camp at Staten Island Correctional Facility; lithic tools, debitage, pottery, and fire-cracked rock.
A08501.002427	Winant Homestead Cottage	historic	OPRHP	Pre-1850 house foundation at Staten Island Correctional Facility; stone foundation and brick floor features.
A08501.002601	Vessel V-12	historic	OPRHP	Abandoned ship on shore of Arthur Kill.
A08501.002677	Vessel V-43	historic	OPRHP	Abandoned ship on shore of Arthur Kill.

Environmental Setting. PIN X096.18.101 is located on northwestern Staten Island (Richmond County) (Figure 1). The project area consists of three study areas: South Avenue, between the localities of Bloomfield and Chelsea, and Arden Avenue and Arthur Kill Road, both near the locality of Rossville (Figure 2). In general, Staten Island is situated within the Manhattan Prong section of the New England Uplands physiographic province, with low northeast-trending ridges carved from gneiss and schist bedrock (Van Diver 1985). Glacial deposits overlay the bedrock: the Ronkonkoma terminal moraine, a hilly geological feature created during the maximum extent of the Wisconsinan ice sheet more than 20,000 years ago, bisects Staten Island. The surficial geology of the New York State Route 440 corridor is comprised mostly of glacial till and artificial fill.

South Avenue. Topography in the South Avenue study area is relatively flat, with an average elevation of 3.3 meters (10 feet) above mean sea level. This section of the project area is adjacent to tidal wetlands associated with Sawmill Creek, and the nearest source of fresh water consists of seeps in the high marsh. Vegetation within the project area includes deciduous woods (mostly maple, sassafras, and wild black cherry trees with a dense understory of weeds and vines) and phragmites. Disturbances from road construction, guard rail and utility installation, and dumping are evident. Soils in the South Avenue study area are mapped as Windsor, loamy substratum, 0 to 8%

slopes (west half) and Ipswich-Pawcatuck-Matunuck mucky peats (east half) (New York City Soil Survey Staff [NYC SS] 2005). Windsor soils are typically found on glacial outwash plains and terraces, and consist of deep, excessively drained, acidic soils. The typical profile for Windsor loamy sand includes a topsoil layer (A horizon) of black loamy sand to an average depth of 7.6 centimeters (3 inches), underlain by an upper subsoil (B1 horizon) of medium brown loamy sand to 20 centimeters (8 inches), the lower subsoil (B2) of yellowish brown loamy sand to 33 centimeters (13 inches), and the substratum (B3) of strong brown loamy sand to 68.6 centimeters (27 inches) (NYC SS 2005:43). Ipswich series mucky peats are found in tidal marshes, and are very deep and very poorly drained. The Ipswich organic deposits typically consist of medium brown mucky peat to an average depth of 51 centimeters (20 inches) over very dark grayish brown mucky peat to 101.6 centimeters (40 inches) (NYC SS 2005:33).

Arden Avenue. The Arden Avenue study area is also relatively flat, with an average elevation of 11 meters (36 feet) above mean sea level. The east side of New York State Route 440 south of Arden Avenue appears to have been cut, filled, and graded. This section of the project area includes an open field with volunteer vegetation (e.g., wild rose, briar, poison ivy, grasses) bordered by phragmites to the west (along the highway) and mature woods to the east. The nearest source of fresh water is a small stream, located approximately 450 meters (1475 feet) to the southwest. Soils in the Arden Avenue study area consist of the Wethersfield-Forest Hills-Pavement and Building complex, 0 to 8% slopes (NYC SS 2005). This Wethersfield complex is often found on till plains and hills that have been partially filled, and consist of deep, gently sloping, well-drained soils with areas covered by buildings, streets, and other impervious structures. The typical profile for undisturbed Wethersfield soils consists of a topsoil layer (A horizon) of dark brown loam to an average depth of 7.6 centimeters (3 inches). It is underlain by the upper subsoil (B1 horizon) of reddish brown loam to 33 centimeters (13 inches) and lower subsoil (B2) of dark reddish brown gravelly loam to 68.6 centimeters (27 inches) (NYC SS 2005:42).

Arthur Kill Road. Topography in the Arthur Kill Road study area is relatively flat, with an average elevation of 10 meters (33 feet) above mean sea level. Like Arden Avenue, this section on the east side of New York State Route 440 appears to have been cut, filled, and graded. Soils immediately adjacent to the highway are obviously disturbed. East of the highway is vegetated with phragmites, grass, and other volunteer growth. The nearest source of fresh water is a small fresh water stream that bisects the project area, while the Arthur Kill is located less than one kilometer to the north. Soils in the study area consist of the Wethersfield-Forest Hills complex, 0 to 8% slopes. The profile for this complex is similar to that described for the Arden Avenue study area, above (NYC SS 2005:420.

Prehistoric Context. As mentioned above, the site files contain information on 79 prehistoric Native American archaeological sites, three Contact period Native American sites, and five sites with both prehistoric and historic period components within two miles (3.2 kilometers) of the project area (Appendix C). Several of these sites are located within one kilometer of each of the three study areas (Table 1).

Staten Island was occupied for at least ten thousand years by ancestors of modern and historically known Algonquian speaking Indians, starting in the Paleoindian period (circa 12,000 to 10,000 years ago). One of the best-known Paleoindian sites on Staten Island is at Port Mobil, located on a bluff overlooking Arthur Kill. The Port Mobil site yielded over one hundred stone tools, including several small fluted points, scrapers, drills, knives, and cores. Most of the artifacts were found in disturbed contexts during oil tank construction (Kraft 1977). Paleoindian artifacts were found on the ground surface at the Smoking Point site, also located on Arthur Kill, less than half a kilometer west of the Arthur Kill Road study area (Appendix C).

The Paleoindian period ended with the Late Pleistocene, and was followed by the Archaic period (subdivided into Early, Middle, and Late Archaic). Following the retreat of the ice sheet southeast New York was forested, first dominated by spruce and later pine. By about 9,000 years ago, during the Early Archaic period, hardwood forests similar to those that characterize the Eastern Woodlands today began to develop in the region (Sirkin 1995). The Archaic period is characterized by the gradual development of more-or-less modern environmental conditions. Humans adapted to the abundant resources provided by interior woodlands, ponds, and rivers, as well as coastal estuaries by exploiting a broad range of food (nuts, large and small game, seed-bearing plants, fish, etc.) and industrial products (stone for making tools and weapons, plants for baskets and textiles, bark

for house construction, etc.). By 6000 BP the region was heavily settled, with populations for the southeastern New York and New Jersey coast and offshore islands possibly numbering in the thousands.

Just as the fluted projectile point is regarded as representative of Paleoindian activity, the bifurcated base point is seen as characteristic of the Early Archaic period. Several sites on Staten Island have yielded Early Archaic bifurcated points. The large multi-component site at Wards Point contained artifacts from the Early Archaic through the historic period, including 21 bifurcated base points, 16 other projectile points, and other tools. Charcoal from a hearth feature was radiocarbon dated to 8300±140 BP (Ritchie and Funk 1971). Similar materials were recovered from the Hollowell site, the Old Place site, and the Richmond Hill site, the latter of which yielded one of the oldest radiocarbon dates from the region (9410±120 BP) (Ritchie and Funk 1973). The Middle Archaic is the least well-represented period at Staten Island sites (with probable Middle Archaic artifacts at the Old Place and Wards Point sites) and elsewhere throughout southeast New York. During this period (roughly 8,000 to 6,000 years ago), continued climatic warming resulted in the establishment of an essentially near-modern landscape.

The Late Archaic period (approximately 6,000 to 3,000 years ago) is well represented in southeast New York, though Ritchie (1969:142) noted that Archaic period archaeological sites on Staten Island appear more similar to contemporaneous sites in New Jersey than to sites elsewhere in New York State. The main projectile point types believed to be diagnostic of the Late Archaic period consist of stemmed types, such as Bare Island, Lackawaxen, Lamoka, Poplar Island, and Rossville (Ritchie 1971). Other stone tool types found in Late Archaic assemblages include both ground and chipped axes, choppers, net-sinkers, and pestles, likely to have been used for woodworking, fishing, and processing plant foods.

The Terminal Archaic (sometimes referred to as the Transitional, 3,000 to 2,700 years ago) is characterized by the addition of steatite to regional artifact assemblages. Orient fishtail projectile points are also believed to be diagnostic of this relatively short period (Ritchie 1969), while thick, coarse grit-tempered pottery is sometimes found in association with the fishtail points on coastal New York archaeological sites. Orient fishtail points and steatite bowl sherds were found at the Arlington Place site on Staten Island. Other Staten Island sites that yielded fishtail points include the Pottery Farm site and the Smoking Point site (Boesch 1994), both within one kilometer of the project area (Appendix C).

Archaeologically, little behavioral change is observable during the Woodland period in the region (Bernstein 2003). Some artifact forms are altered (e.g., projectile point shape) and pottery seems to be increasingly important over time, but the long-established economic pattern of the exploitation of a broad range of natural resources seemingly continues (although the Early and Middle Woodland periods are not very well-known in the region). Marine resources played an important role, as suggested by numerous large shell middens along Staten Island shores such as the one found on the Staten Island Correctional Facility property near the south end of the project area (Table 1). Faunal and floral remains in the Woodland period middens suggest a broad diet breadth for the Woodland period inhabitants of Staten Island, while the artifact assemblage is similarly diverse. Most lithic tools were produced using chipped stone technology, but ground stone tools are also present. Jasper, chert, and quartz Levanna triangle projectile points are commonly found in Late Woodland deposits, along with Madison triangle projectile points, straight-stemmed projectile points, triangular bifacial tools or preforms, bifacial and unifacial scrapers, cores, and debitage. Another common projectile point found in Early to Middle Woodland period deposits is the Rossville type, named for the locality on Staten Island (Ritchie 1971).

The Contact period (after approximately A.D. 1500) is represented by Euro-American trade goods (e.g., glass beads, smoking pipes, metal implements, and gun flints) in at least five sites on Staten Island. The Old Place site north of the project area yielded a wampum bead and whelk columellae, possibly from wampum manufacture (Ceci 1977). At the time of contact, the land around the New York Bight was inhabited by Munsee-speaking Delaware Indians, a sub-group of the Eastern Algonquian people (Goddard 1978). Native American populations in the region were reduced dramatically after circa 1640, when European-introduced diseases coupled with Dutch aggression resulted in hundreds of Delaware Indian deaths. By the early eighteenth century, most of the remaining Delaware had moved westward to the Ohio River Valley (Goddard 1978:220-222).

Based on the results of the archaeological site files search and a consideration of environmental features, the project area generally has a moderate to high potential for the presence of prehistoric sites in undisturbed sections. Sensitivity is highest in areas within or adjacent to known sites, and in areas adjacent to fresh water resources. In contrast, areas with the lowest sensitivity are those that have been subject to significant ground disturbance (e.g., resulting from cutting, grading, and construction) and land filling.

Historic Context. The site files contain information on 39 historic period archaeological sites, three Contact period Native American sites, and five sites with both prehistoric and historic period components within two miles (3.2 kilometers) of the project area (Appendix C). None of these sites are located within one kilometer of either the South Avenue or Arden Avenue study areas, while three known sites (the pre-1850 Winant Homestead and two abandoned ships) are within one kilometer of the Arthur Kill Road study area (Table 1).

Euro-American settlement on Staten Island began in 1639, when David de Vries established a small Dutch colony at Tompkinsville. This first colony was wiped out two years later during fighting between the settlers and the local Native Americans. A similar fate befell the next two attempts at Dutch settlement in 1642 and 1655. A permanent Dutch colony was made at Oude Dorp on the east side of the island in 1661, though Dutch tenure was short-lived. The Dutch ceded control of what became New York in 1664, and English land ownership of Staten Island was confirmed by a deed from the Native Americans in 1670. Late seventeenth century Euro-American population on the island was approximately 640, with another 70 slaves. By 1776, the island's population neared 3,000 people (Kroessler 2005).

Richmond County, which is coterminous with Staten Island, was one of the ten original counties of New York created in 1683. Four towns were established during the Colonial Period (Bayles 1887). The project area, near the unincorporated localities of Bloomfield, Chelsea, and Rossville, was part of the towns of Northfield and Westfield. In 1898, the towns and villages of Staten Island disbanded to form the Borough of Richmond (later Borough of Staten Island), part of New York City (Kroessler 2005).

During the American Revolution, descendants of English settlers tended to be Loyalist, while Dutch and Huguenot families mostly joined the American cause. Despite the large Loyalist population, the British occupied Staten Island early in the conflict, and raided area farms. No major battles took place on the island, but the area witnessed numerous skirmishes and felt the effects of raiding parties from both sides (Bayles 1887). Pre-war economic patterns were gradually resumed during the early nineteenth century, facilitated by waterborne trade and proximity to Manhattan.

The economy of western Staten Island during the nineteenth century was based largely on agriculture and fishing (especially oystering). As late as 1900 there were nearly three hundred farms on Staten Island, most engaged in truck farming produce to Manhattan. In the 1830s, free African-American oystermen from the Chesapeake region established a settlement at Sandy Ground, south of Rossville, which may have also served as a stop on the Underground Railroad. Rossville and Chelsea, both near the project area, were also oystering communities (Bayles 1887:710). Fishing and shellfishing declined through the late nineteenth century due to overharvesting and pollution. The Arthur Kill shellfish beds were ordered closed in 1917 because of contamination. Other industries on western Staten Island during the nineteenth century included shipbuilding, dye manufacture and brickmaking (both along the Arthur Kill west and south of the south end of the project area), and the country's first linoleum factory, in operation between 1873 and 1931 at Linoleumville (now Travis, near the north end of the project area). Another industry was milling. In 1697, Richard Merrill petitioned to establish a mill on the north side what is now Sawmill Creek, north of the South Avenue study area. Originally a grist mill, by the late eighteenth century it was in use as a saw mill. The mill apparently ended operations by the mid-nineteenth century, as the mill dam was removed in the 1860s so oystermen could use the creek (McMillen 1949).

Early settlement on western Staten Island was concentrated along the Arthur Kill, with parts of Arthur Kill Road skirting the shoreline by the late seventeenth century. Settlement around the north end of the project area (between communities at Chelsea and Bloomfield) was relatively sparse (see historic maps, below). As mentioned above, milling was conducted on Sawmill Creek, and in 1839 approximately 14 acres of tidal marsh south of the

creek were purchased for the county poor farm (Morris 1898) just north of, and probably including, the South Avenue study area. Rossville was an important community, originally known as Blazing Star Ferry for the boat service between the island and mainland New Jersey that began in 1722. By the 1840s, Rossville included 32 houses, three stores, and 181 inhabitants, but the community failed to prosper when it was bypassed by the railroad (Lothrop and LeeDecker 1992:13).

In 1889, the Staten Island Rapid Transit (SIRT) railroad joined with the Baltimore and Ohio Railroad (B&O) to provide passenger and freight service from Staten Island to New Jersey over the Arthur Kill (Morris 1900). Three bridges over the Arthur Kill opened in 1928: the B&O Railroad bridge, the Goethals Bridge, and the Outerbridge Crossing. Access to the latter two automobile bridges was improved when the West Shore Expressway (New York State Route 440) was completed in 1976 (Kroessler 2005). The once-rural region is today a busy suburb of the New York City metropolitan area.

A survey of maps dating from the early through late nineteenth century indicates that the New York State Route 440 corridor in the project area was lightly settled during the historic period. Eighteenth century settlement along the west shore of Staten Island near the project area was seemingly too insignificant to merit inclusion on the 1812 Eddy *Map of the Country Thirty Miles Round the City of New York* (Figure 4). No buildings or any development (other than a road near the Arthur Kill Road study area) are illustrated on the 1812 map. A similar settlement pattern is depicted on the 1829 Burr *Map of the Counties of New York, Queens, Kings, and Richmond* (Figure 5), with most development indicated on the south side of Staten Island.

Coastal navigation charts published in the mid-nineteenth century provide information on land use along the western shore of Staten Island. The 1844 U.S. Coastal Survey *Map of New York Bay* (Figure 6) depicts a cluster of farmsteads in Chelsea near the north end of the project area. According to the 1844 map, the South Avenue study area was part of an agricultural field at the edge of woods. There is a building shown west of the study area, probably the W.F. Carey house illustrated on the 1853 J. Butler *Map of Staten Island*. The 1866 U.S. Coastal Survey *New York Bay and Harbor* (Figure 7) depicts less farmland and more wetland in Chelsea Landing than the 1844 map, but three buildings are illustrated adjacent to the South Avenue study area. Both the Arden Avenue and Arthur Kill Road study areas were active farm fields associated with homes lining Arthur Kill Road at the time of the 1844 and 1866 maps.

No buildings are illustrated within or adjacent to any of the study areas on the 1891 Bien and Clarkson map of Richmond County (Figure 8). The South Avenue study area is shown as ribbon of dry land along which Watchogue Road (now Bloomfield Avenue) runs through marsh. The Arden Avenue and Arthur Kill Road parcels are depicted as open uplands, and were likely still farmed during this period.

The 1898 USGS topographic map of *Staten Island, New York* (15 minute series; Figure 9) shows one building west of the South Avenue study area, possibly the same structure depicted on the 1844 and 1866 coastal maps (Figures 6 and 7). No evidence of this building was identified during field research, and based on its depicted relationship to Sawmill Creek, it probably stood west of the railroad tracks outside of the project area. No buildings are shown within or adjacent to the Arden Avenue study area on the 1898 map; the closest structures to the north were likely destroyed during construction of New York State Route 440. The nearest buildings to the Arthur Kill Road study area on the 1898 map line Morris Street, south of and beyond the project area.

In summary, there are three map documented structures depicted on historic maps adjacent to the South Avenue study area: a building to the west shown on the 1844, 1866, and 1898 maps (the W.F. Carey house), and buildings near the west and east ends of the parcel depicted on only the 1866 map. No evidence of these structures was found in the field. Based on the results of the site file search, historical background, and map survey, the sensitivity for the presence of historic archaeological sites is moderate to high in the South Avenue study area and relatively low at Arden Avenue and Arthur Kill Road.

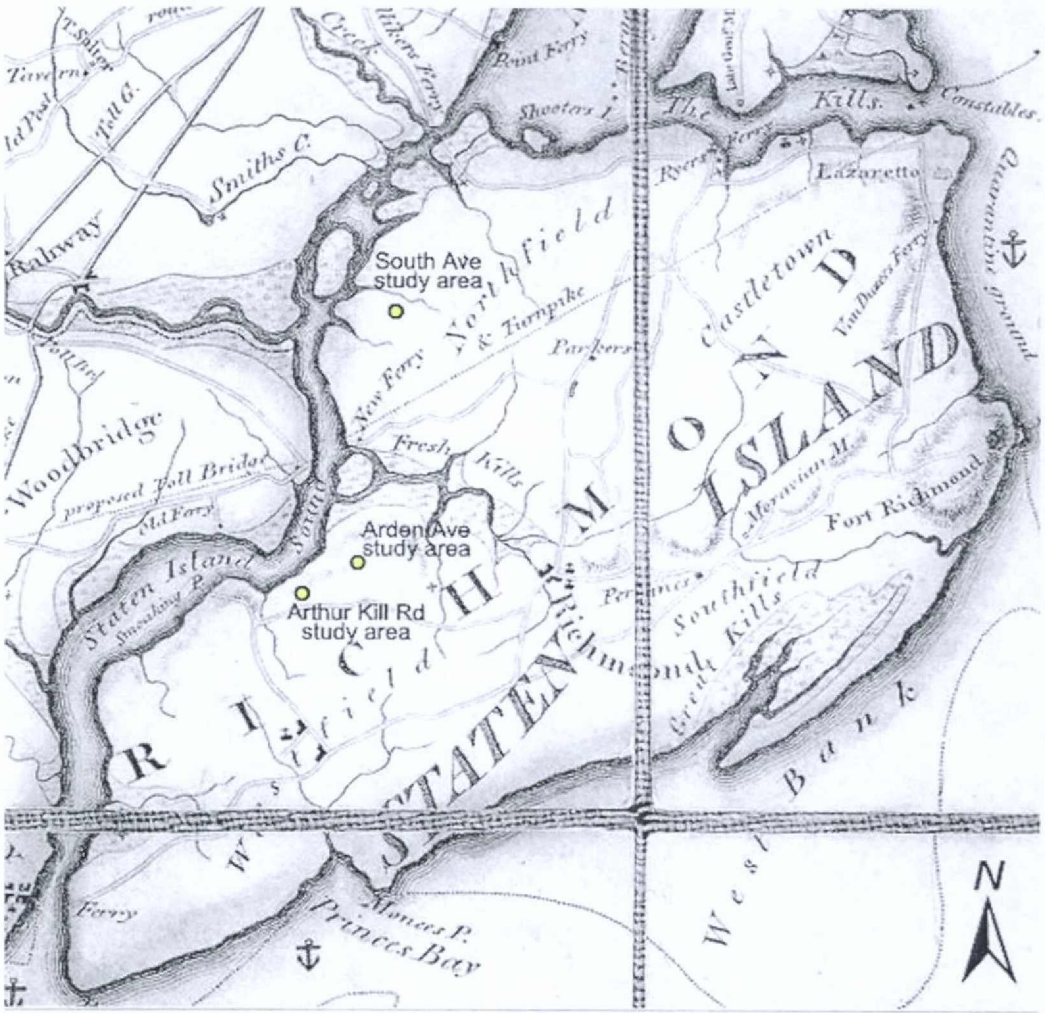


Figure 4. 1812 Eddy *Map of the Country Thirty Miles Round the City of New York.* No buildings are depicted anywhere near the three study areas.

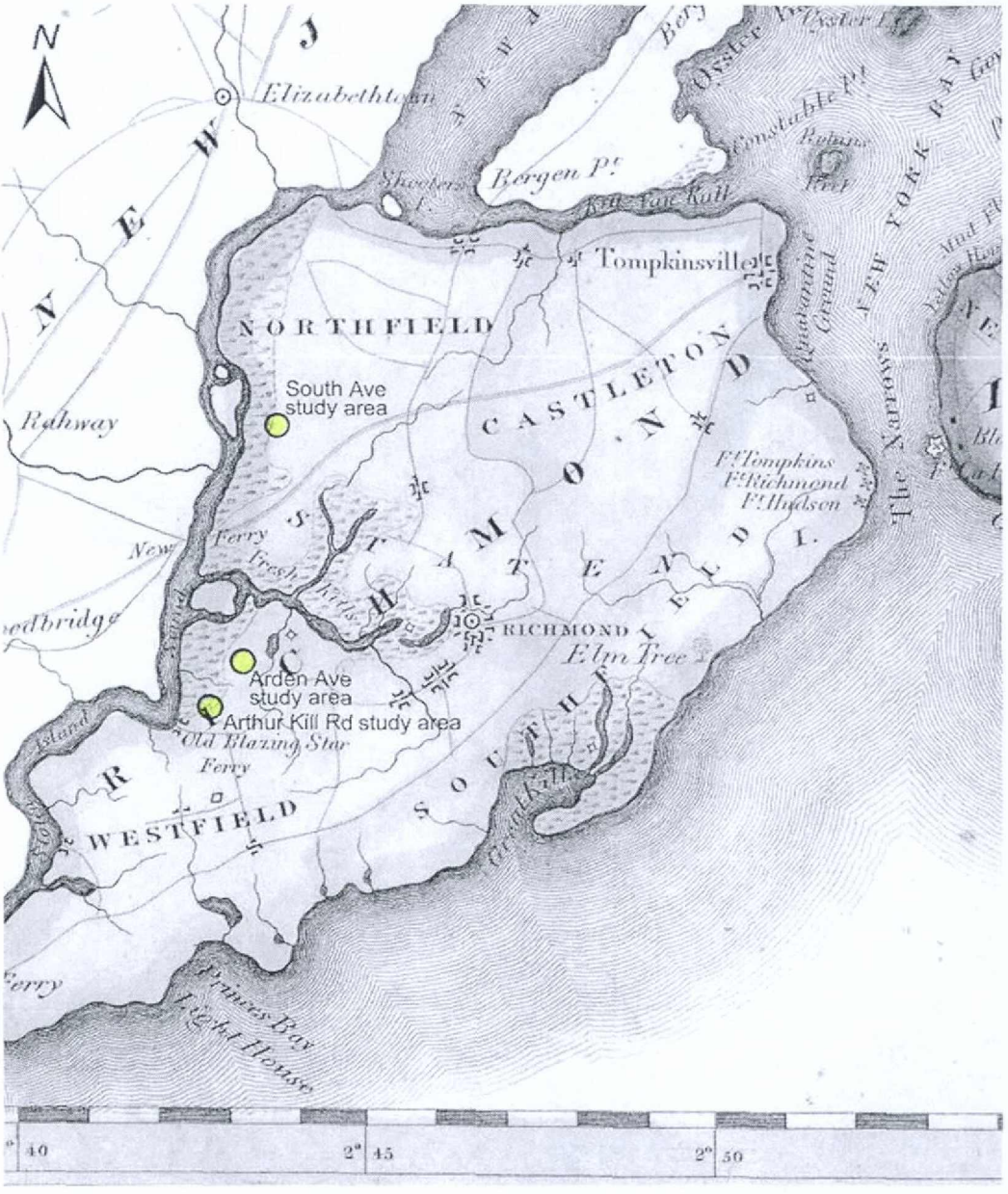


Figure 5. 1829 Burr *Map of the Counties of New York, Queens, Kings, and Richmond.* No buildings are illustrated near the project area.

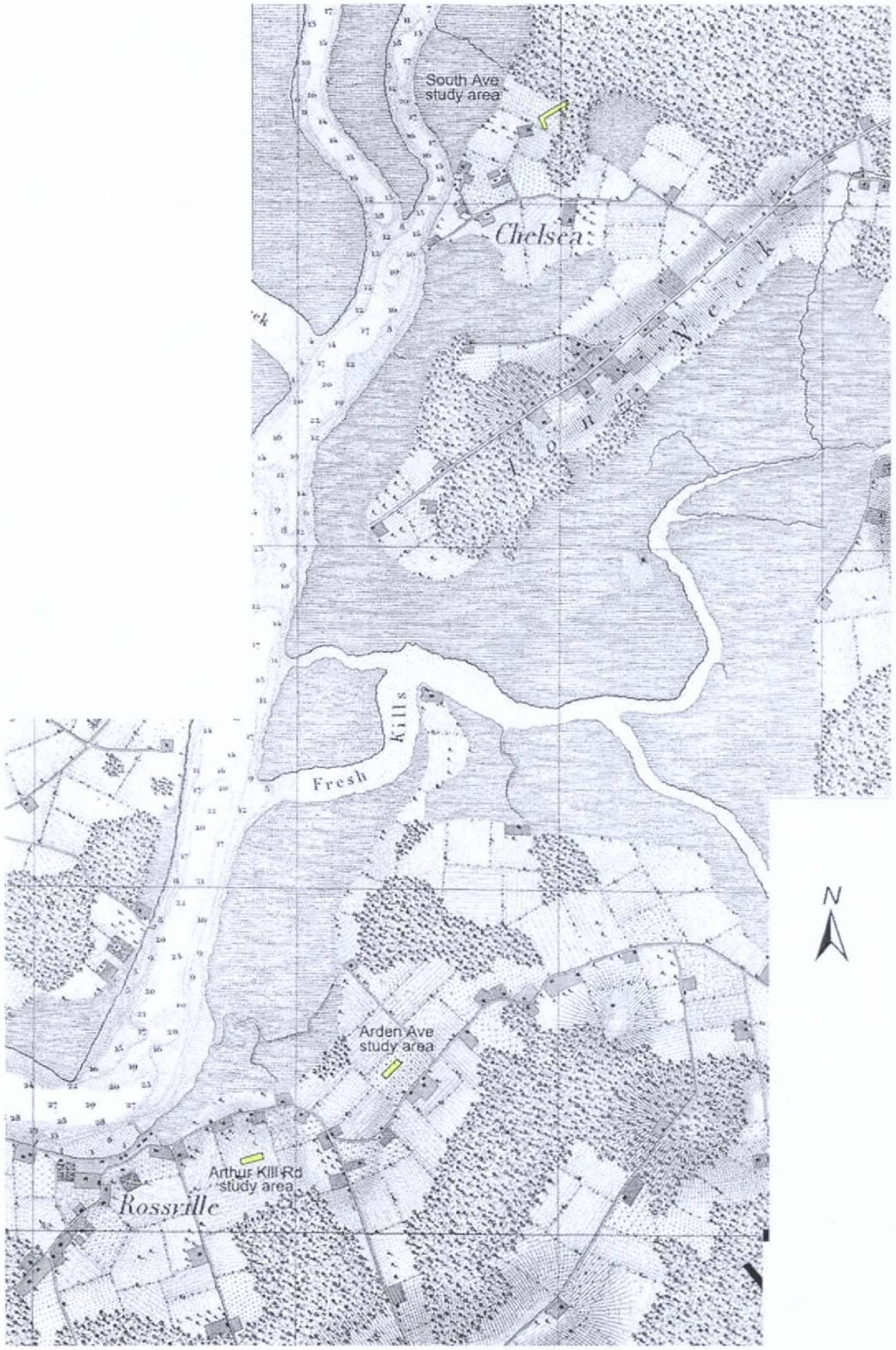


Figure 6. The 1844 U.S. Coastal Survey *Map of New York Bay* showing all three study areas under active cultivation. There is one map documented structure illustrated west of the South Avenue parcel.

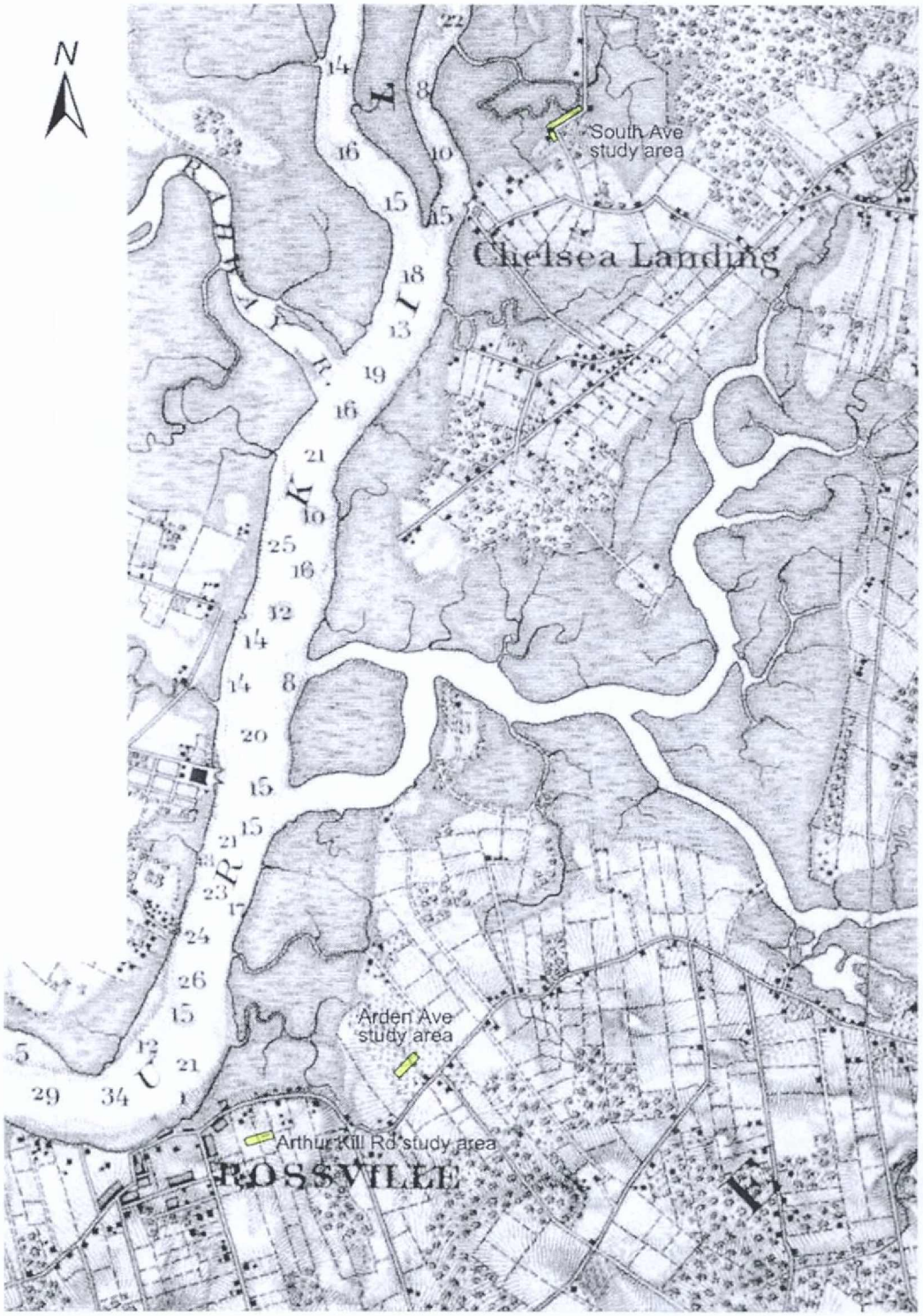


Figure 7. 1866 U.S. Coastal Survey *New York Bay and Harbor* showing the location of the three study areas. Three buildings are depicted close to the South Avenue study area, while the remaining two study areas are illustrated as farm fields.

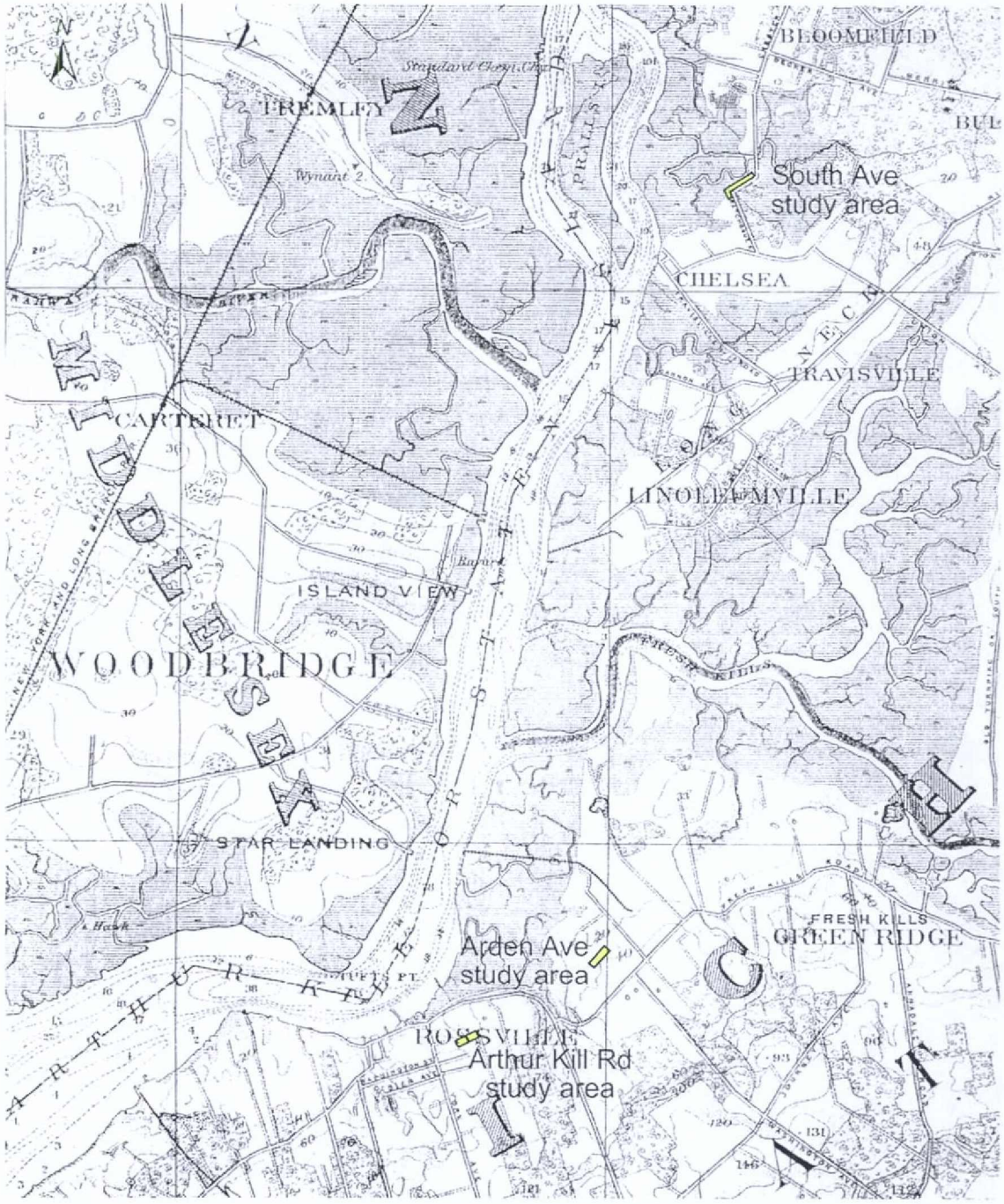


Figure 8. 1891 Bien and Clarkson map of Richmond County Island from the *Atlas of the Metropolitan District and Adjacent Country*. No buildings are shown within or adjacent to the project area.

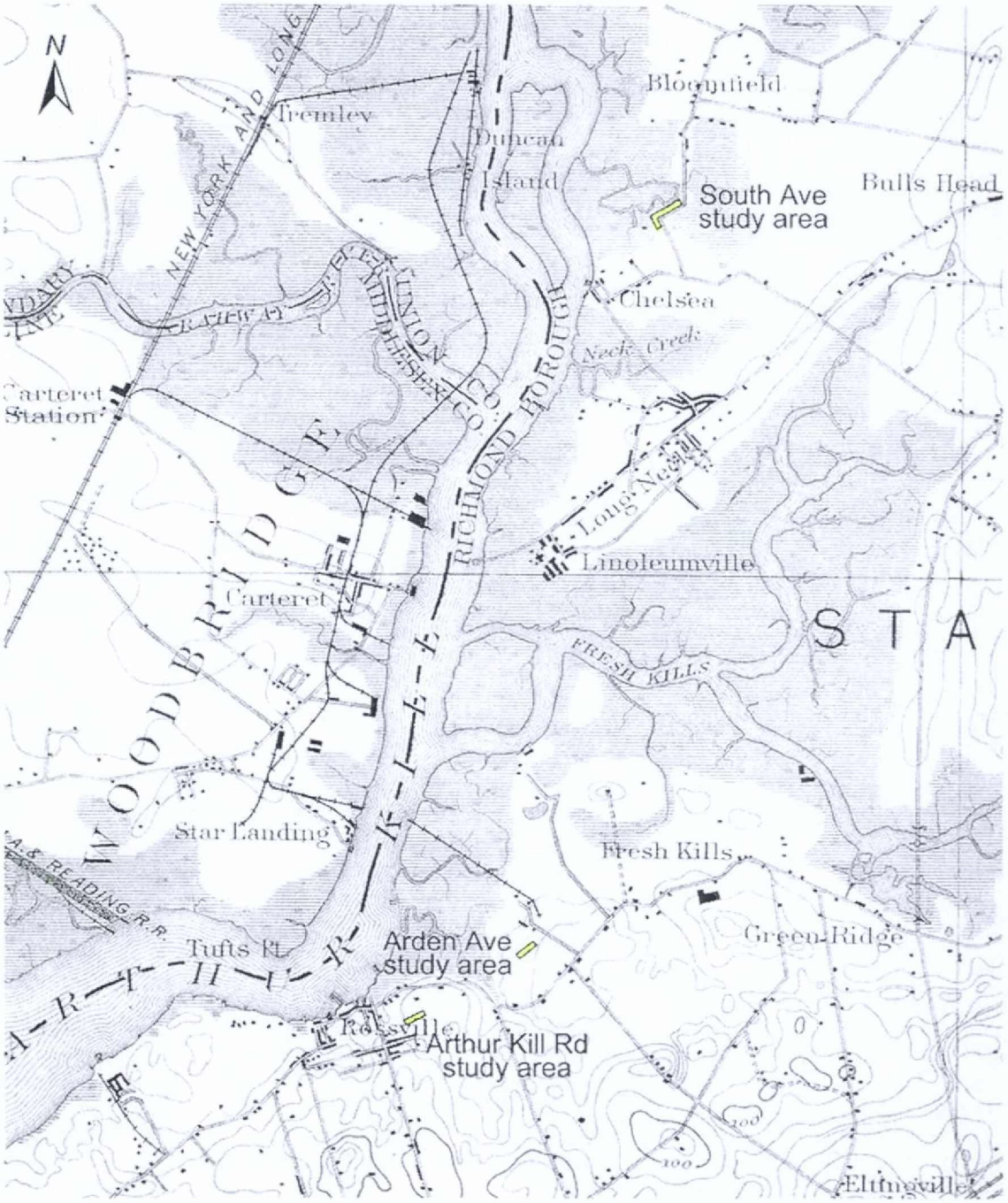


Figure 9. The 1898 USGS topographic map of *Staten Island, New York* (15 minute series). One building is depicted west of the South Avenue study area.

Archaeological Survey Methodology

Surface Inspection. PIN X096.18.101 was inspected with a walk-over survey. Particular attention was given to areas of soil exposure such as dirt paths and eroded banks. Most of the project area is covered with roadside and volunteer vegetation (Plates 1-3), and ground surface visibility is generally poor to fair. No prehistoric or historic period artifacts or features were identified during the walk-over survey.

Testing Procedures. Subsurface testing consisted of the excavation of shovel test pits (STPs) to ascertain if cultural remains are present beneath the ground surface. A substantial portion of the project area has been thoroughly disturbed by road and utility construction, and was not subject to subsurface testing. Less obviously disturbed vegetated sections of the project area were generally tested using a 15 meter (49 foot) interval between shovel test pits (Figure 3). Closer intervals (i.e., 1, 5, 7.5, and 10 meters) were used in the vicinity of prehistoric artifacts at the South Avenue study area. A total of 28 shovel test pits was dug in the South Avenue study area (STPs 1-20 and 8a-8h), four in the Arden Avenue study area, and 13 in the Arthur Kill Road study area.

Shovel test pits have a diameter of approximately 40 centimeters (16 inches), and were excavated to an average depth of 60 centimeters (two feet) below the ground surface where possible. Exceptions occurred where water was reached in shovel tests, and in cases where excavation was blocked by asphalt or concrete (Appendix B). The soils were screened through six millimeter (0.25 inch) wire mesh. Soil descriptions are given in Appendix B, and the location of shovel test pits are plotted on the project map (Figure 3 [Appendix D]).

Prehistoric artifacts were found in the South Avenue study area during the reconnaissance survey (see Archaeological Survey Results section, below), and a site examination was undertaken to determine the bounds, integrity, and research potential of the identified prehistoric deposit. The site examination entailed the excavation of shovel test pits and three 1x1 meter (3.3x3.3 foot) units (Plate 4). Vertical control was maintained through the use of 10 centimeter (four inch) arbitrary levels within stratigraphic horizons. Exceptions to this strategy occurred when stratigraphic layers were less than ten centimeters thick and for shovel test pits dug at the bottom of three of the units to verify that sterile subsoil had been reached. Excavation was accomplished by shovel skimming and troweling. Units were excavated to sterile levels in the B2 subsoil horizon. All sediment was passed through 0.25 inch (6 millimeter) wire mesh. Data for each level was recorded on standardized forms. After the excavation of a 1x1 meter unit was completed, a stratigraphic profile of one exposed wall was drawn and photographed. Soil and artifact data for each 1x1 meter square are presented in Appendix B.

In the laboratory, all recovered artifacts were cleaned and catalogued. Lithic debitage (flakes or chipping waste) pieces are placed in one of three categories based on the amount of cortex (natural surface, or rind, found on the exterior of the stone) remaining on the dorsal face of a flake. Primary flakes are those with more than 50% of the dorsal face containing cortex. Secondary flakes exhibit cortex over less than 50% of the dorsal face, while tertiary flakes have no cortex remaining. Bifaces are tools which exhibit substantial modification on both the ventral and dorsal surfaces. Cultural material, photographs and field and laboratory notes generated by the survey and site examination are curated at the Institute for Long Island Archaeology, Stony Brook University.

Archaeological Survey Results

No prehistoric Native American or historic period artifacts or sites were encountered during the archaeological survey in the Arden Avenue and Arthur Kill Road study areas of PIN X096.18.101. Late twentieth century and recent cultural material was found in several shovel test pits, and soils in every test pit in the two southern study areas were disturbed (Appendix B). No further archaeological investigations are recommended for the Arden Avenue and Arthur Kill Road study areas.

As mentioned above, a prehistoric deposit was encountered in the South Avenue study area during the reconnaissance survey, and was subsequently the subject of a site examination. This find, identified here as the Bloomfield Road deposit, is described below.

The Bloomfield Road Deposit

Prehistoric artifacts were found near the middle of the South Avenue study area, which runs along the north side of Bloomfield Road south of Sawmill Creek (Plate 1; Figures 3 and 10). Initially, a single transect of shovel test pits was established along the road, three meters (9.8 feet) north of the edge-of-pavement, and 10 to 30 meters (33 to 98 feet) apart based on the degree of ground disturbance. One of the original test pits (STP 8) yielded three chert and jasper flakes, waste products of prehistoric stone tool manufacture and/or resharpening. Additional test pits were dug at 1 and 5 meters (3.3 and 16 feet) from STP 8, resulting in two more positive test pits with one flake each (Appendix B). Soils in the shovel test pits appeared to be disturbed, but the nature and extent of the disturbance was difficult to assess using only shovel tests. A site examination was recommended to establish the vertical and horizontal boundaries of the prehistoric deposit, and to assess its integrity, research potential, and eligibility for the State and/or National Register of Historic Places. The site examination entailed the excavation of nine additional closely-spaced shovel test pits (STPs 12 to 20; bringing the total to 28) and three 1x1 meter (3.3x3.3 foot) units (Units I, II, and III; Figure 10).

Context statement. As outlined in the Prehistoric Context section, above, Staten Island has a rich and diverse prehistoric archaeological record. The nearest known site is NYSM 746/A08501.000135, the Chelsea Burning (or Burying) Ground, located approximately 500 meters south of the South Avenue study area. The site was examined by Skinner (1909), who reported "lodges" and graves. Bloomfield Road was established during the mid-nineteenth century along a ridge of higher ground surrounded by wetlands associated with Sawmill Creek. This setting of uplands immediately adjacent to tidal wetlands has a high sensitivity for prehistoric archaeological sites.

Site size. Prehistoric artifacts were found in just three closely-spaced shovel test pits (Figures 3 and 10). The deposit is less than 10 meters (33 feet) long and approximately four meters (13 feet) wide within the project limits. Artifacts were recovered from disturbed soils extending between roughly 10 and 60 centimeters (4 and 24 inches) below the ground surface. Roughly 10% of the site area was excavated during both phases of field work.

Plate 4. Site examination excavation of Units I and II (foreground) and Unit III (center) along the north side of Bloomfield Road. View is northeast.

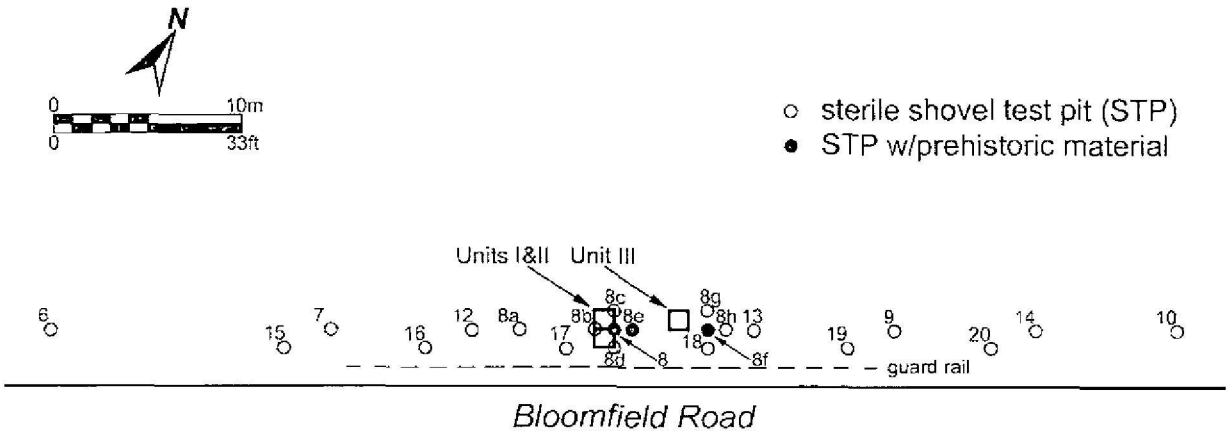


Figure 10. Archaeological investigation of the Bloomfield Road deposit.

Site location. The deposit is located on the north side of Bloomfield Road, near the middle of the second leg leading north from the New York State Route 440 ramp. It is in the Borough of Staten Island (MCD 08501), Richmond County. The artifacts were found in a wooded strip along the road (Plates 1 and 4), near the tidal wetlands of the Sawmill Creek preserve.

Site characteristics. The small deposit consists of a very light density of lithic artifacts and a few pieces of prehistoric pottery. None of the lithic artifacts is temporally diagnostic, but the pottery suggests a Woodland period (circa 700 B.C. to A.D. 1500) date for the deposit. No organic materials definitely associated with the prehistoric deposit were identified, and no features were encountered.

Artifacts. A total of just 20 prehistoric artifacts was found in the 28 shovel test pits and three 1x1meter units. The shovel tests contained three jasper flakes, one chert flake, and one shale flake. Unit I had one jasper flake, three chert flakes, one shale flake, and three small eroded pieces of prehistoric pottery. Unit II had two jasper flakes, one chert flake, and one shale flake, while Unit III had only one shale pointed bifacial tool and one jasper flake (Appendix B). All of the lithic raw materials are likely local to Staten Island.

Artifact distribution. As mentioned above, the deposit is quite small, with all artifacts found within an area of approximately 40 square meters (429 square feet), most found immediately adjacent to STP 8 (Figures 3 and 10). Artifact density is very light, with most pieces found between 10 and 60 centimeters (4 and 24 inches) below the ground surface, all in disturbed soils (Appendix B).

Identified features. No features were encountered.

Integrity. Soils encountered in the shovel test pits dug for the reconnaissance survey were identified as disturbed, but the nature and extent of the disturbance was unclear. Larger exposures were required to address the question of integrity, prompting the next phase of field investigation, the site examination (Appendix C). Three 1x1 meter units were excavated for the site examination (Units I and II were joined to form a 1x2 meter trench). Soils in all units were found to be thoroughly disturbed (Figures 11 and 12, Plates 5 and 6). The soil profile consists of a thin topsoil (called the A0/A1 horizon) of dark brown sandy loam extending to an average depth of six centimeters (2.4 inches), over the first disturbed level of medium brown loamy sand to approximately 16 centimeters (6.3 inches). Next is a thick disturbed layer of mottled orange brown sand mixed with medium brown sand, to roughly 60 centimeters (24 inches) below the ground surface. All of the prehistoric artifacts from the units were found in this layer, which also yielded twentieth century refuse and asphalt at its bottom, suggesting that the disturbance is the result of filling for road construction. Beneath the black asphalt lenses apparently undisturbed buried old topsoil (buried A horizon) of medium brown sand and subsoil (B2 horizon) of orange brown sand were reached. No artifacts were found in these undisturbed layers, and water filled Units II and III at approximately 110 centimeters (43 inches) below the ground surface.

Research potential. The Bloomfield Road deposit is very light density, has relatively low artifact diversity, and most importantly, lacks integrity. The original context of the artifacts is unknown, as they may have been transported from offsite along with the fill material that comprises the disturbed strata in the project area. No artifacts were found in the buried undisturbed strata. Based on the results of the site examination, the deposit has no research potential for contributing to our understanding of prehistory on Staten Island.

Potential impacts. The location of the prehistoric artifact deposit may be impacted as part of the safety improvements proposed for PIN X096.18.101. However, the results of the site examination indicate that the deposit has no integrity or research potential.

Recommendations. Because all artifacts from the Bloomfield Road deposit were recovered from thoroughly disturbed (fill) soils, and no cultural material was found in undisturbed strata, the site lacks integrity and research potential. It is not eligible for listing on the State and/or National Register of Historic Places. No further archaeological investigations are recommended.

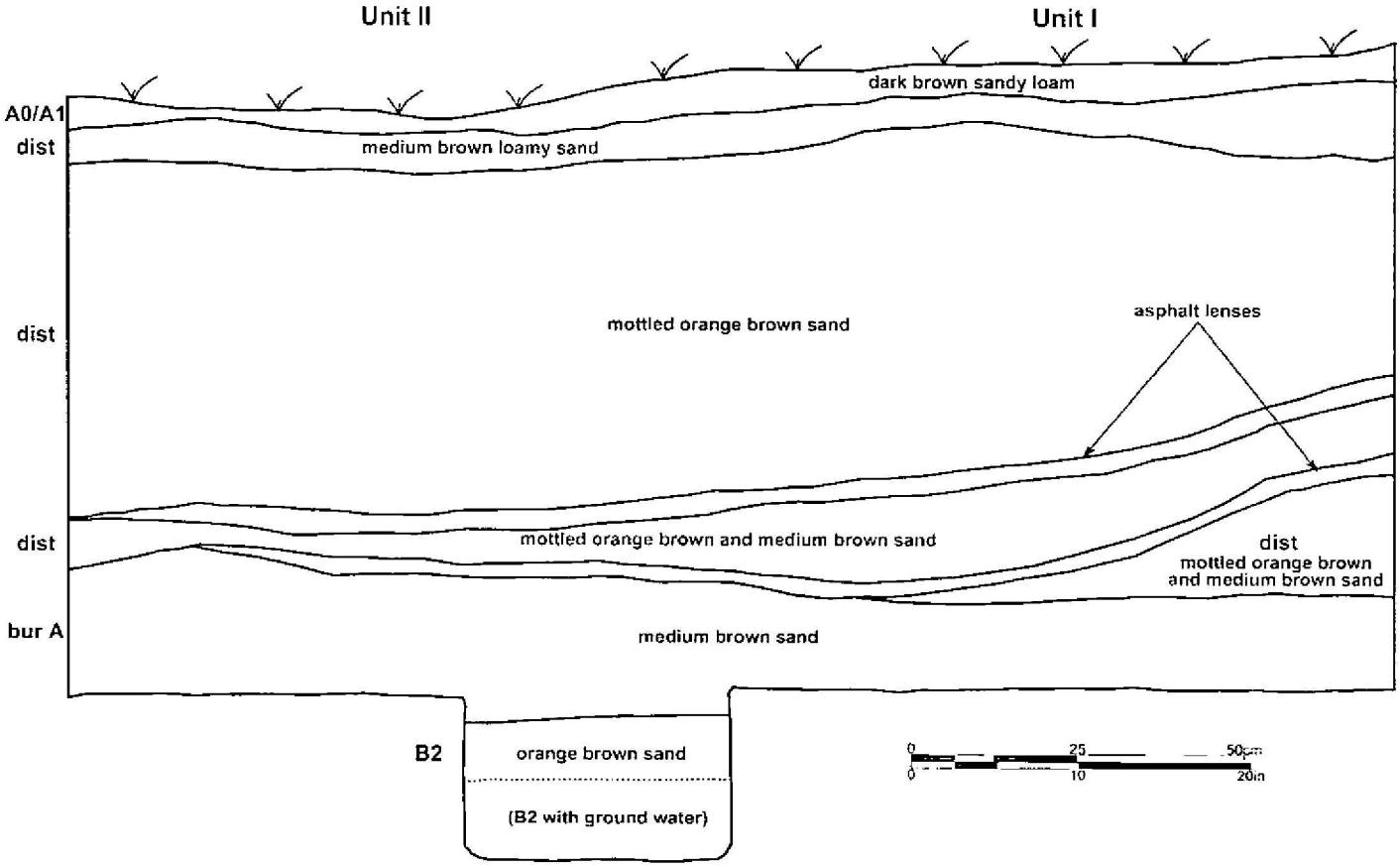


Figure 11. East wall profile drawing of Units I and II.

Plate 5. East wall of Units I and II.

Plate 6. East wall of Unit III.

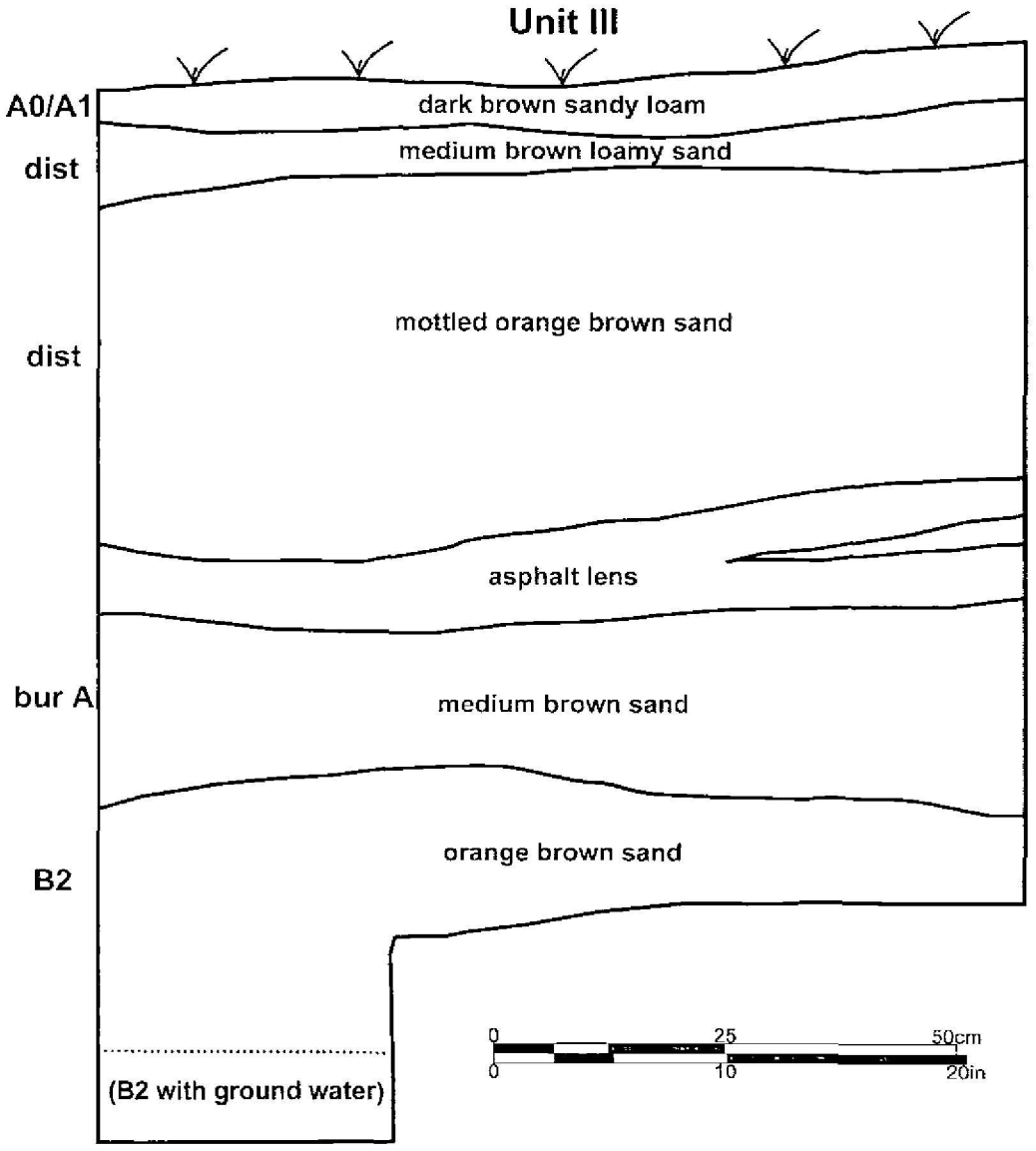


Figure 12. East wall profile drawing of Unit III.

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM

For Office Use Only--Site Identifier _____

Project Identifier PIN X096.18.101 Date August 2007

Your Name Daria E. Merwin Phone (631) 632-7618

Address Dept. of Anthropology, SUNY Stony Brook

Stony Brook, New York

Zip 11794-4364

Organization (if any) Institute for Long Island Archaeology

1. Site Identifier(s) Bloomfield Road Prehistoric Deposit

2. County Richmond One of following: Borough of Staten Island (MCD 08501)
   Township _____
   Incorporated Village _____
   Unincorporated Village or Hamlet _____

3. Present Owner NYS right-of-way (?)
   Address _____
   Zip _____

4. Site Description (check all appropriate categories): Structure/site

Site

__ Stray find	__ Cave/Rockshelter	__ Workshop
__ Pictograph	__ Quarry	__ Mound
__ Burial	__ Shell midden	__ Village
__ Surface evidence	__ Camp	__ Material in plow zone
__ Material below plow zone	X Buried evidence	__ Intact occupation floor
? Single component	__ Evidence of features	__ Stratified
__ Multicomponent		

Location

__ Under cultivation	X Never cultivated	__ Previously cultivated
__ Pastureland	X Woodland	__ Floodplain
__Upland	__ Sustaining erosion	__ Residential lawn

Soil Drainage: excellent__ good__ fair__ poor X

Slope: flat X gentle__ moderate__ steep__

Distance to nearest water from site (approx.) 50m to Sawmill Creek Elevation: 3.3 meters

5. Site Investigation (append additional sheets, if necessary):

Surface--date(s) July 2006, April 2007

Site Map (Submit with form) see report

Collection _____

Subsurface--date(s) July 2006, April 2007

Testing: shovel X coring__ other __ unit size 40cm dia.x60cm deep____ no. of units 28

Excavation: unit size 1x1 meter____ no. of units three

Investigator Daria Merwin, M.A.

Manuscript or published report(s)(reference fully): Merwin, Daria E. (2007): *A Cultural Resources Survey and Site Examination Report of PIN X096.18.101, New York State Route 440 from Edward Curry Avenue to Bloomingdale Road, Staten Island, Richmond County, New York.* Institute for Long Island Archaeology, SUNY Stony Brook.

Present repository of materials Institute for Long Island Archaeology, SUNY Stony Brook

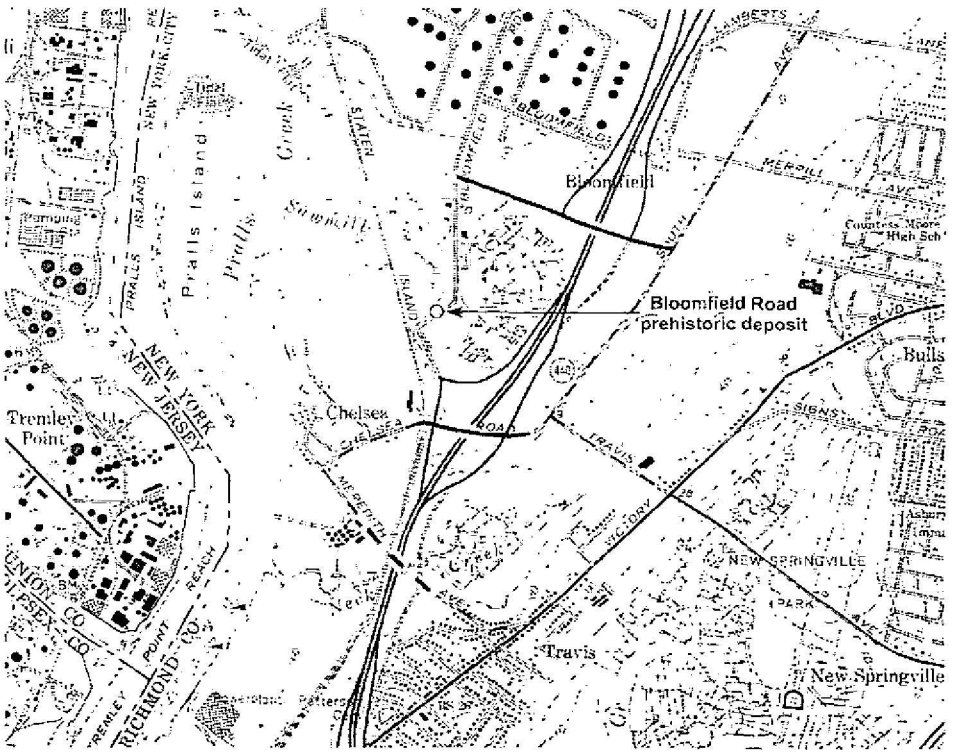
6. Component (s)(cultural affiliation/dates):
prehistoric; cultural affiliation unknown but probably Woodland period based on prehistoric pottery

7. List of material remains (be as specific as possible in identifying object and material):
lithics: one shale pointed biface, four shale flakes, seven jasper flakes, and five chert flakes
pottery: three small eroded pieces
all artifacts were in disturbed soils (road fill), and no prehistoric features were encountered

If historic materials are evident, check here and fill out historic site form.__

8. Map References: Map or maps showing exact location and extent of site must accompany this form and must be identified by source and date. Keep this submission to 8.5x11" if possible.
USGS 7.5' Minute Series Quad. Name *Arthur Kill, New York-New Jersey* (1961/81)
For Office Use Only--UTM Coordinates _____

9. Photography (optional for environmental impact survey):
Please submit a 5x7" black and white print(s) showing the current state of the site. Provide a label for the print(s) on a separate sheet. (see report)



ARCHITECTURAL SURVEY

Architectural Survey Methodology

A survey of early through late nineteenth century maps and local history sources indicates that there are three map documented structures adjacent to the South Avenue study area. No evidence of any of these buildings was identified during the field survey. As mentioned above, there are no listed or previously determined eligible State or National Register of Historic Places properties within or adjacent to the archaeological survey project area.

The Draft Design Approval Document prepared for PIN X096.18.101 addressed historic architectural resources in areas of potential impact, and recommended that ten properties be evaluated for possible State and/or National Register eligibility. These properties are located in the Victory Boulevard, Arden Avenue, and Arthur Kill Road study areas (Table 2). In addition, the National Register listed and New York City landmarked Blazing Star Burial Ground (also known as the Rossville Cemetery and Sleight Family Cemetery, OPRHP 08501.000965) is adjacent to the Arthur Kill Road study area.

The architectural inventory for the pre-1957 properties includes location, age, and photographic documentation. Architectural descriptions are based on general references, particularly McAlester and McAlester (1984).

Architectural Survey Results

As mentioned above, ten properties plus the Blazing Star Burial Ground adjacent to the PIN X096.18.101 project area were identified in the Draft Design Approval Document as potentially having historic or architectural significance. This document indicates that the Blazing Star Burial Ground (08501.000965) is National Register listed, while two additional properties (#2341 Arthur Kill Road [08501.000953] and #2355 Arthur Kill Road [08501.000955]) have been inventoried but not evaluated by OPRHP. The properties are in the Victory Boulevard, Arden Avenue, and Arthur Kill Road study areas. Most of the buildings have witnessed alterations such as new windows and additions. Loss of architectural integrity has diminished their eligibility for the State and/or National Register.

Victory Boulevard. There are three properties in this study area, all on the east side of New York State Route 440: #183 Cannon Avenue, #11 Glen Street, and the Sylvan Grove Cemetery on the northeast corner of Victory Avenue and New York State Route 440. The house at #183 Cannon Avenue (Plate 7) dates to around 1910. It is a one-and-one-half story vernacular cottage with several alterations, notably the large rear addition. It does not appear to be National Register eligible. The house at #11 Glen Street (Plate 8) is a two-story, gable front and wing building with Queen Anne style elements that dates to the late nineteenth century. Modifications include new siding and new windows. It does not appear to be National Register eligible. Repaving and/or extension of the east (northbound) service road of New York State Route 440 north of Victory Boulevard will result in minimal visual impact to these two houses.

The Sylvan Grove Cemetery (Plates 9 and 10) is located within a wooded triangle bounded by Glen Street to the west, Victory Boulevard to the southeast, and Melvin Avenue to the northeast. The hill on which the cemetery is situated was probably first used as a family burial ground, after French Huguenot immigrant Andre Cannon acquired 160 acres on both sides of what is now Victory Boulevard in 1698. Descendants of Cannon married into locally prominent families including the Decker, Prall, Price, and Wood families, many of whom are represented on tombstones in the cemetery. In 1781, Charles Decker sold land that included the burial ground to James Woods, and in the 1860s, local records show that the Woods family had started to sell plots to members of the community. The cemetery suffered from neglect during the late nineteenth and early twentieth centuries, and was briefly used by a Methodist church before New York City acquired the property in 1953 for non-payment of taxes (Johnson 2001).

The cemetery is currently in poor condition, threatened by vandalism despite the efforts of a local organization, the Friends of Abandoned Cemeteries. Although it has suffered a loss of integrity because many headstones have been seriously damaged and even completely lost, the cemetery may still have potential to address subjects such as funerary art and local history, and is possibly eligible for the State and/or National Register. Most of the gravestones in Sylvan Grove Cemetery are virtually invisible from the roads surrounding the property due to trees and thick vegetation (Plates 9 and 10). While this growth provides cover for vandals, it also means that proposed work on the east side of New York State Route 440 would have minimal visual impact to the cemetery.

Arden Avenue. Three properties in the Arden Avenue study area were identified in the Draft Design Approval Document for further investigation: #1765, #1803, and #1815 Arthur Kill Road. The building at #1765 Arthur Kill Road (Plate 11) is a flat roofed two-story structure that dates to circa 1920. Modifications to the building include new siding, new windows, the shed roof of the front entrance, and a large rear addition. The commercial building at #1803 Arthur Kill Road is a mid-twentieth century service station (Plate 12). The facade has been modernized, thus negatively affecting the structure's integrity. The house at #1815 Arthur Kill Road (Plate 13) is now part of a commercial garden center complex. Alterations to this late nineteenth century house include a redesigned entrance, and new windows and siding. None of the three properties in the Arden Avenue study area appear to be State and/or National Register eligible.

Arthur Kill Road. There are five properties adjacent to the Arthur Kill Road study area: the Blazing Star Burial Ground (08501.000965), #2341 and #2355 Arthur Kill Road (08501.000953 and 08501.000955), and #1087 and #1088 Rossville Avenue. As mentioned above, the Blazing Star Burial Ground is listed on the National Register and New York City Landmarks list, while the two buildings on Arthur Kill Road previously have been inventoried, but not evaluated by OPRHP. The Blazing Star Burial Ground (Plate 14) was in use from roughly 1750 until 1850. The site, located on the north side of Arthur Kill Road east of Rossville Avenue, is well-maintained. The cemetery is beyond the area of proposed work for PIN X096.18.101, and will not be impacted. Similarly, the buildings at #2341 Arthur Kill Road (a two-story side gable vernacular house possibly dating to the eighteenth century; Plate 15) and #2355 Arthur Kill Road (a circa 1900 brick former firehouse now used as a store; Plate 16) are both outside of the area of proposed work. Both buildings have witnessed exterior modifications, but may still retain some architectural significance, the house due to age (there are few extant eighteenth century buildings on Staten Island) and the former firehouse because of function and design. The late nineteenth century vernacular two-story house at #1087 Rossville Avenue (Plate 17) has alterations including a new roof, new windows, and new siding. It does not appear to be State and/or National Register eligible. The small circa 1920 cottage at #1088 Rossville Avenue (Plate 18) does retain many original elements, but lacks architectural significance. Neither of the buildings on Rossville Avenue will be directly impacted by proposed work.

In summary, 11 properties in the Victory Boulevard, Arden Avenue, and Arthur Kill Road study areas consist of nine buildings and two cemeteries (Table 2). The buildings date from the eighteenth through the early twentieth centuries, while interments in both the Sylvan Grove Cemetery and Blazing Star Burial Ground began in the eighteenth century. The Blazing Star Burial Ground is National Register listed and a New York City landmark, and the Sylvan Grove Cemetery, although in poor condition, may also be State and/or National Register eligible. Neither cemetery will be impacted under the proposed work scope.

No buildings are slated for direct impact and none are scheduled for acquisition under PIN X096.18.101. There may be some indirect (visual) impact to standing structures as a result of access and safety improvements (with work on ramps, service roads, and intersections along New York State Route 440), particularly in the Victory Boulevard study area, and to a lesser degree the Arden Avenue study area. None of the buildings at these locations appear to be eligible for the State and/or National Register. No further architectural investigations are recommended for PIN X096.18.101.

Table 2. Standing structures adjacent to PIN X096.18.101.

*Location**	*NR Eligible*	*Not NR Eligible*	*Comments*
Victory Boulevard Study Area			
#183 Cannon Ave		X	ca. 1910 single-story vernacular house (Plate 7)
#11 Glen St		X	late 19th c. Queen Anne style house (Plate 8)
Glen St between Victory Blvd and Melvin Ave	?X		Sylvan Grove Cemetery, earliest interments date to the 18th c.; NYCDPR property (Plates 9 and 10)
Arden Avenue Study Area			
#1765 Arthur Kill Rd		X	ca. 1920 flat-roofed two-story building (Plate 11)
#1803 Arthur Kill Rd		X	ca. 1950 Colonial Revival style service station (Plate 12)
#1815 Arthur Kill Rd		X	late 19th c. Queen Anne style house, now used as a commercial garden center (Plate 13)
Arthur Kill Road Study Area			
Arthur Kill Rd at Rossville Ave	L		Blazing Star Burial Ground (aka Rossville Cemetery and Sleight Family Cemetery), ca. 1750-1850; NR listed, NYC Landmark (08501.000965) (Plate 14)
#2341 Arthur Kill Rd	?X		18th c. two-story vernacular house (08501.000953) (Plate 15)
#2355 Arthur Kill Rd	?X		ca. 1900 former firehouse (08501.000955) (Plate 16)
#1087 Rossville Ave		X	ca. 1890 two-story house (Plate 17)
#1088 Rossville Ave		X	ca. 1920 one-and-a-half-story house (Plate 18)

*all structures are located in Minor Civil Division 08501
?=possibly State and/or National Register eligible

2365 ARR

Plate 7. #183 Cannon Avenue. This circa 1910 cottage has witnessed several alterations, and does not appear to be National Register eligible. View is northeast.

Plate 8. #11 Glen Street, looking east. This late nineteenth century house has been modified, and does not appear to be eligible for the National Register.

Plate 9. The south corner of Sylvan Grove Cemetery looking north to Glen Street. No graves in the cemetery are visible from the road due to dense vegetation.

Plate 10. View southwest along Victory Boulevard in front of Sylvan Grove Cemetery (in woods at right).

Plate 11. #1765 Arthur Kill Road, looking west.

Plate 12. #1803 Arthur Kill Road. Updates to the facade of this mid-twentieth century commercial structure have affected its stylistic integrity. View is southwest.

Plate 13. #1815 Arthur Kill Road, looking southwest. Alterations to this late nineteenth century house include new entrance, windows, and siding.

Plate 14. The circa 1750 to 1850 Blazing Star Burial Ground (08501.0009650), a New York City landmark. View is northeast along Arthur Kill Road beyond the area of proposed impact.

Plate 15. #2341 Arthur Kill Road, a two-story side gable vernacular house possibly dating to the eighteenth century (08501.000953), looking southwest.

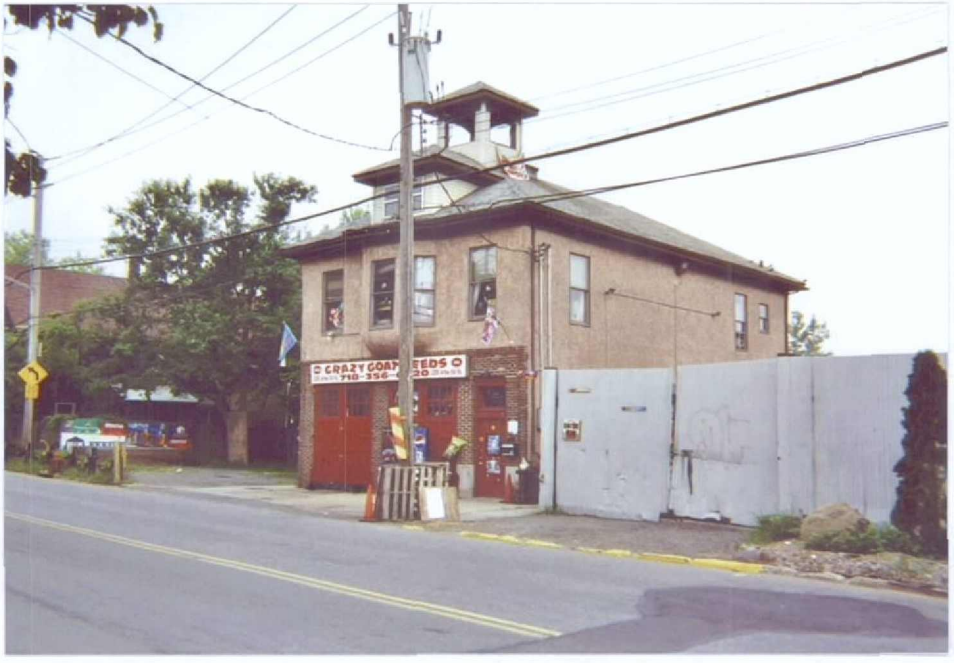


Plate 16. #2355 Arthur Kill Road, a circa 1900 brick former firehouse now used as a store (08501.000955), looking southwest.

Plate 17. #1087 Rossville Avenue, looking southeast. This late nineteenth century vernacular house has been modified, and does not appear to be eligible for the National Register.

Plate 18. #1088 Rossville Avenue, a circa 1920 cottage. View is north. The area of proposed work is near the New York State Route 440 overpass seen in the background, at right.

APPENDIX A: References

Bayles, Richard M.
1887 *History of Richmond County, New York from Its Discovery to the Present Time.* L.E. Preston, New York.

Bernstein, David J.
2003 Patterns in the Prehistoric Use of Non-Agrarian Botanical Resources in the Long Island and Block Island Sound Region of Eastern North America. In *Hunter Gatherer Archaeobotany*, edited by Sarah Mason and Jon Hather, pages 77-86. Institute of Archaeology, University College, London.

Boesch, Eugene J.
1994 Archaeological Evaluation and Sensitivity Assessment of Staten Island, New York. Report prepared for the New York City Landmarks Preservation Commission.

Cantwell, Anne-Marie and Diana diZerega Wall
2001 *Unearthing Gotham.* Yale University Press, New Haven.

Ceci, Lynn
1977 *The Effect of European Contact and Trade on the Settlement Pattern of Indians in Coastal New York, 1524-1665: The Archeological and Documentary Evidence.* Ph.D. dissertation, City University of New York.

Goddard, Ives
1978 Delaware. Pages 213-239 in *Handbook of North American Indians, Volume 15: Northeast*, edited by Bruce G. Trigger. Smithsonian Institution, Washington, D.C.

Hunter Research
2003 Stage 1B Cultural Resource Survey for the Arthur Kill Power Plant Lateral, Staten Island, Borough of Richmond, Richmond County, New York. Report prepared by Hunter Research, Trenton, New Jersey for the U.S. Army Corps of Engineers, New York District.

Johnson, Marjorie
2001 Sylvan Cemetery. *Staten Island Historian* Summer-Fall. Staten Island Historical Society.

Kraft, Herbert C.
1977 The Paleo-Indian Sites at Port Mobil, Staten Island. In *Current Perspectives in Northeastern Archeology: Essays in Honor of William A. Ritchie*, edited by R.E. Funk and C.F. Haynes III, pages 1-19. Researches and Transactions of the New York State Archeological Association 17, Albany.

Kroessler Jeffrey A.
2005 Staten Island. In *The Encyclopedia of New York State*, edited by Peter Eisenstadt, pages 1455-1458. Syracuse University Press.

Lothrop, Jonathan C. and Charles H. LeeDecker
1992 Phase I Historical and Archaeological Survey, Liberty Pipeline Project, Borough of Richmond, New York, New York. Report prepared for the Liberty Pipeline Company, Houston, Texas by the Cultural Resource Group, Louis Berger and Associates, East Orange, New Jersey.

McAlester, Virginia and Lee McAlester
1984 *A Field Guide to American Houses.* Knopf, New York.

McMillen, Loring
1949 Old Mills of Staten Island. *Staten Island Historian* July-September. Staten Island Historical Society.

Morris, Ira K.
1898 *Morris's Memorial History. Volume I.* Memorial Publishing Company, New York.
1900 *Morris's Memorial History. Volume II.* Published by the author, West New Brighton, New York.

New York City Soil Survey Staff
2005 *New York City Reconnaissance Soil Survey.* U.S. Department of Agriculture, Natural Resources Conservation Service, Staten Island, New York.

Parker, Arthur C.
1920 *The Archeological History of New York.* New York State Museum Bulletin Numbers 237 and 238. Albany, New York.

Ritchie, William A.
1969 *The Archaeology of New York State.* Second edition. Natural History Press, Garden City, New York.
1971 *A Typology and Nomenclature for New York Projectile Points.* Revised edition. New York State Museum Bulletin 384. The University of the State of New York, Albany.

Ritchie, William A. and Robert E. Funk
1971 Evidence for Early Archaic Occupation on Staten Island. *Pennsylvania Archaeologist* 41:45-49.
1973 *Aboriginal Settlement Patterns in the Northeast.* New York State Museum and Science Service Memoir 20, Albany.

Sirkin, Les
1995 *Eastern Long Island Geology with Field Trips.* The Book and Tackle Shop, Watch Hill, Rhode Island.

Skinner, Alanson
1909 The Lenape Indians of Staten Island. *American Museum of Natural History Anthropological Papers* 3:3-61.

Van Diver, Bradford B.
1985 *Roadside Geology of New York.* Mountain Press Publishing Company, Missoula, Montana.

List of Maps

Bien, Joseph R. and Clarkson, Cornelius C.
1891 Richmond County, Staten Island. From *Atlas of the Metropolitan District and Adjacent Country*. Julius Bien and Company, New York.

Burr, David H.
1829 *Map of the Counties of New York, Queens, Kings, and Richmond, An Atlas of the State of New York*. Rawdon, Clark, and Company, Albany.

Eddy, John H.
1812 *Map of the Country Thirty Miles Round the City of New York*. Prior and Dunning, New York.

United States Coastal Survey
1844 Map of New-York Bay and Harbor and the Environs. U.S. Coastal Survey, Washington, D.C.
1866 Coast Chart No. 20: New York Bay and Harbor, New York. U.S. Coastal Survey, Washington, D.C.

United States Geological Survey
1898 *Staten Island, New York*. 15 minute series. Topographic Surveys, Washington, D.C.
1967/1981 *Arthur Kill, New York-New Jersey*. 7.5 minute series. Department of the Interior, Washington, D.C.

APPENDIX B: Excavation and Artifact Inventory

Basic descriptive data from the project are presented in the following appendix. Excavation, stratigraphic, and cultural material information are included. Excavation information includes shovel test pit numbers (STP), stratigraphic designation (stratum), and starting (SD) and ending (ED) depths (given in centimeters) for each excavated level.

An inventory of the cultural material recovered during the project is found in the final column. All prehistoric stone artifacts are analyzed and classified. Debitage flakes (chipping waste) are placed in one of three categories based on the amount of cortex remaining on the dorsal face of a flake. Primary flakes are those with more than 50% of the dorsal face containing cortex. Secondary flakes exhibit cortex over less than 50% of the dorsal face, while tertiary flakes have no cortex remaining. Bifaces are flaked tools which exhibit substantial modification on both the ventral and dorsal surfaces.

The following are abbreviations used in the accompanying excavation and artifact inventory:

Stratum
A0/A1-topsoil
B2-lower subsoil
bur A-buried topsoil
dist-disturbed

Soils
bn-brown
cb-cobbles
cl-clay(ey)
dk-dark
gb-gray brown
gv-gravel
lm-loam(y)
lt-light
md-medium
mo-mottled
ob-orange brown
pb-pebbles
rb-red brown
sd-sand(y)
st-silt(y)
vy-very
yb-yellow brown

Cultural Material
prehist-prehistoric
pri-primary
sec-secondary
tert-tertiary

APPENDIX B: Excavation and Artifact Inventory

STP	SD	ED	Stratum	Soils	Cultural Material
South Avenue/Bloomfield Road					
1	0	5	A0/A1	dk bn sd lm	
	5	36	dist	md bn sd	9 aqua window glass, 1 earthenware rim, asphalt
	36	60	dist	ob sd	
2	0	5	A0/A1	dk bn sd lm	
	5	34	dist	md bn sd	recent trash
	34	60	dist	ob sd	
3	0	5	A0/A1	dk bn sd lm	
	5	15	dist	md bn sd	
	15	60	B2	ob sd	
4	0	8	A0/A1	dk bn sd lm	
	8	18	dist	md bn sd	
	18	50	B2	ob sd	
5	0	7	A0/A1	dk bn sd lm	
	7	26	dist	md bn st sd	
	26	60	B2	ob st sd	
6	0	6	A0/A1	dk bn sd lm	
	6	15	dist	md bn st sd	
	15	23	lens	vy dk bn sd	
	23	36	dist	md bn st sd	
	36	60	B2	ob st sd	
7	0	6	A0/A1	dk bn sd lm	
	6	34	dist	md bn st sd	
	34	60	B2	ob st sd	
8	0	7	A0/A1	md bn sd lm	concrete
	7	25	dist	dk yb lm sd	
	25	50	dist	mo dk gb sd	1 jasper tert flake, 1 chert tert flake, recent bottle glass
	50	70	dist	mo dk yb sd	1 jasper tert flake
8a	0	7	A0/A1	dk bn sd lm	
	7	47	dist	mo md bn/ob st sd	
	47	57	dist	ob sd	
	57	62	dist	dk bn st sd	
8b	0	7	A0/A1	dk bn sd lm	
	7	65	dist	mo ob/md bn st sd	clear window glass, brick, push pin, tar shingle, asphalt, slag
8c	0	8	A0/A1	md bn sd lm	
	8	22	dist	mo dk yb lm sd	
	22	43	dist	mo md bn sd	recent metal (key, screw, nut, bracket)
	43	60	dist	mo dk yb sd	
	60	74	dist	md bn sd	

STP	SD	ED	Stratum	Soils	Cultural Material
8d	0	9	A0/A1	dk bn sd lm	
	9	23	dist	md bn st sd	recent clear bottle glass, 1 square cut nail, coal
	23	41	dist	ob st sd	
	41	60	dist	dk bn st sd	
8e	0	5	A0/A1	dk bn lm	recent green bottle glass
	5	28	dist	mo md bn lm sd	1 shale tert flake, recent bottle glass
	28	42	dist	mo dk bn lm sd	
	42	67	dist	mo ob lm sd	
8f	0	6	A0/A1	dk bn lm	
	6	52	dist	mo md bn/ob lm sd	1 jasper sec flake, recent architectural tile
	52	71	B2	dk ob lm sd	
8g	0	12	A0/A1	dk bn lm	
	12	55	dist	mo dk bn/ob lm sd	recent bottle glass, 1 glazed stoneware, cement, slag
	55	60	B2	ob lm sd	
8h	0	14	A0/A1	md bn sd lm	
	14	52	dist	mo md bn lm sd	recent bottle glass, 2 earthenware, 1 brick, plastic
	52	70	B2	dk ob sd	
9	0	5	A0/A1	dk bn sd lm	
	5	12	dist	md bn sd	clear bottle glass, 1 brick, 2 screws, slag, plastic
	12	64	B2	ob sd	
10	0	20	dist	dk bn lm	recent trash, asphalt
	20	60	B2	dk ob lm sd	
11	0	9	A0/A1	md bn lm sd	
	9	62	B2	dk yb sd	
12	0	6	A0/A1	dk gb st sd	
	6	77	dist	mo yb st sd	plastic, asphalt, aluminum foil
13	0	17	dist	dk bn st sd	
	17	44	dist	mo dk yb sd	recent green and clear bottle glass, 2 brick, 1 metal bracket, cement, foil, plastic styrofoam
	44	73	B2	yb sd	
14	0	39	dist	mo dk bn st sd	recent glass, perfume bottles, nail polish bottles, knife, ballpoint pen, plastic
	39	65	B2	yb sd	
15	0	60	dist	mo md bn sd lm	recent bottle glass, 2 whiteware, 2 painted porcelain, 1 brick, 1 metal bottlecap
16	0	20	dist	mo dk bn st sd	recent glass, 1 brick, plastic, styrofoam
	20	50	dist	ob sd	
	50	63	dist	mo dk bn sd	
	63	80	B2	ob sd	
17	0	11	dist	md bn sd lm	recent bottle glass, 3 brick
	11	51	dist	mo ob sd	
	51	71	dist	vy dk bn sd	recent clear bottle glass
18	0	10	dist	dk bn sd lm	
	10	34	dist	mo ob/dk bn sd	recent brown and green bottle glass, window glass, tar shingle
	34	78	dist	mo ob sd	

STP	SD	ED	Stratum	Soils	Cultural Material
19	0	20	dist	mo md bn sd lm	1 glazed redware rim, 1 brick, plastic
	20	45	dist	mo ob sd	
	45	85	B2	ob sd	
20	0	36	dist	md bn sd lm	recent window and bottle glass, 2 brick, 1 wire nail, 1 plastic paintbrush, 1 plastic tube
	36	60	B2	ob sd	
	Arden Avenue				
21	0	9	A0/A1	md bn sd lm	
	9	34	dist	ob cl sd	recent green bottle glass
22	0	8	A0/A1	dk bn sd lm	
	8	40	dist	rb cl st	recent brown bottle glass
23	0	5	A0/A1	dk bn sd lm	
	5	10	dist	rd bn sd	
	10	50	B2	ob sd	
24	0	5	A0/A1	dk bn sd lm	
	5	40	dist	rb sd w/pb&cb	recent trash
	Arthur Kill Road				
25	0	6	A0/A1	dk bn sd lm	
	6	45	dist	ob sd w/pb	
26	0	6	A0/A1	dk bn sd lm	
	6	30	dist	ob cl st	
27	0	7	A0/A1	dk bn sd lm	
	7	50	dist	ob cl st	
28	0	8	A0/A1	dk bn sd lm	
	8	40	dist	ob cl st	
29	0	8	A0/A1	dk bn sd lm	
	8	45	dist	ob cl st	
30	0	4	A0/A1	dk bn sd lm	
	4	60	dist	ob cl st	1 oyster, recent bottle glass
31	0	5	A0/A1	dk bn cl st	
	5	50	dist	lt bn cl st	
32	0	5	A0/A1	dk bn sd lm	
	5	34	dist	ob cl st	
	34	60	dist	dk gb cl st	
33	0	35	dist	mo rb cl st w/cb	
34	0	46	dist	mo md bn cl st w/pb&gv	
35	0	50	dist	mo rb cl st w/cb	
36	0	40	dist	mo rb cl st w/pb&cb	
37	0	5	A0/A1	md bn sd lm	
	5	40	dist	rb st w/pb&gv	

South Avenue/Bloomfield Road Site Examination 1x1 Meter Units

Unit I

Level	SD	ED	Stratum	Soils	Cultural Material
1	0	7	A0/A1	dk bn sd lm	recent trash (bottle glass, light bulb part, plastic, slag)
2	7	16	dist	md bn lm sd	recent trash (bottle glass, brick, plastic, battery, coal, slag)
3	16	26	dist	mo ob sd	1 chert tert flake, recent trash (bottle glass, coal, slag)
4	26	36	dist	mo ob sd	recent trash (bottle glass, plastic, slag)
5	36	46	dist	mo ob sd	1 jasper tert flake, 1 chert tert flake, 1 shale tert flake, 3 eroded prehist pottery, recent trash (bottle glass)
6	46	56	dist	mo ob sd	1 chert tert flake
7	56	66	dist	mo ob, md bn sd w/bl asphalt lens	recent trash (glass, asphalt, metal)
8	66	76	dist	mo ob, md bn sd w/bl asphalt lens	recent trash (glass, asphalt, slag)
9	76	86	dist	mo ob, md bn sd	recent trash (bottle and light bulb glass, asphalt)
10	86	96	bur A	md bn sd	recent trash (light bulb glass, 1 whiteware)

Unit II

Level	SD	ED	Stratum	Soils	Cultural Material
1	0	6	A0/A1	dk bn sd lm	recent trash (bottle glass, hairbrush, toothpaste tube, plastic), goose long bone, 1 square cut spike
2	6	10	dist	md bn lm sd	recent trash (glass, plastic, razor blade, screws)
3	10	20	dist	mo ob sd	1 jasper tert flake, recent trash (metal)
4	20	30	dist	mo ob sd	1 whiteware, slag
5	30	40	dist	mo ob sd	1 earthenware, 1 oyster
6	40	50	dist	mo ob, md bn sd	1 jasper pri flake, 1 chert tert flake, 1 earthenware, 3 metal, slag
7	50	60	dist	mo ob, md bn sd	2 shale tert flakes, 1 stoneware drain pipe, coal
8	60	70	dist	mo ob, md bn sd w/bl asphalt lens	recent trash (glass, metal, asphalt)
9	70	80	bur A	md bn sd	recent trash (bottle glass, light bulb)
10	80	90	bur A	md bn sd	1 dark green bottle glass
11	90	111	B2	ob sd	(hit water)

Unit III

Level	SD	ED	Stratum	Soils	Cultural Material
1	0	6	A0/A1	dk bn sd lm	3 whiteware, recent trash (bottle glass, asphalt, slag)
2	6	16	dist	md bn lm sd	recent trash (bottle glass, 2 wire nails, 1 bolt, plastic, asphalt)
3	16	26	dist	mo ob lm sd	1 shale pointed biface
4	26	36	dist	mo ob lm sd	1 earthenware, 1 glass, 1 metal
5	36	46	dist	mo ob sd	1 glazed stoneware
6	46	56	dist	mo ob, md bn sd	1 jasper tert flake, recent trash (glass, brick, metal)
7	56	66	dist	mo ob, md bn sd	recent trash (glass, plastic, asphalt)
8	66	76	bur A	md bn sd	recent trash (metal)
9	76	84	bur A	md bn sd	recent trash (glass)
10	84	94	B2	ob sd	
11	94	120	B2	ob sd	(hit water)

APPENDIX C: Correspondence

REVISED Survey

FORM A - CULTURAL RESOURCE SURVEY CHECKLIST (DATE SUBMITTED 4-14-06)

PIN X096.18.101
P.R. #:
REGIONAL PRIORITY: 2
Number of copies needed:

PROJECT LOCATION
Hamlet/ Village/ City: STATEN ISLAND
Town: NYC
County: RICHMOND

ROLL-OVER PROJECT? (Y/N) N
DATE OF PREVIOUS REQUEST
CHANGE IN PROJECT SCOPE N
PREVIOUS SURVEYS? (Y/N) Y
IF YES, SURVEY DATE

TYPE & LEVEL OF SURVEY REQUESTED

PHASE I - RECONNAISSANCE SURVEY X or ADDENDUM SURVEY
PHASE II - SITE EXAM (Indicate Site Name and USN)
PHASE III - DATA RECOVERY PLAN DATA RECOVERY (Indicate Site Name & USN)
HABS/HAER (I,II, III) (Indicate BIN or Bldg Name/ Address & USN)

UNIQUE SITE NUMBER(S) (USN):

PROJECT DESCRIPTION & PROPOSED WORK: ACCESS & SAFETY IMPROVEMENTS - PROJECT WILL PROVIDE SAFETY AND ACCESS IMPROVEMENTS ON RAMPS, SERVICE ROADS, AND INTERSECTIONS WITHIN FIVE INTERCHANGES -
FROM: EDWARD CURRY AVE. TO: BLOOMINGDALE ROAD
INCLUDES: Temporary easement and access areas ROW acquisition X On-site detours Other

PROJECT AREA BOUNDARIES FOR CRS (see attached plans): Rte/ Highway Name ROUTE 440 - WEST SHORE EXPRESSWAY
FROM: EDWARD CURRY AVE. TO: BLOOMINGDALE ROAD
* (SEE FIGURE 10-6 OF SUBMITTAL FOR SPECIFIC LOCATIONS)

ESTIMATED LENGTH (FT./M. OR MILES) 626 m
ESTIMATED WIDTH (FT./M)

ESTIMATED NO.OF BUILDINGS IN PROJECT AREA 9
ESTIMATED NO.OF BUILDINGS TO BE ACQUIRED/ REMOVED 0

FEDERAL FUNDING (Y/N) N
CURRENT PROJECT PHASE: I-IV - PRELIMINARY DESIGN
FEDERAL PERMITS (INCL. NATIONWIDE): YES
SCOPE CLOSURE DATE:

BIN Year Built Type:

RESULTS OF 2002 HISTORIC BRIDGE INVENTORY
Eligible Not Eligible X National Register Listed Unevaluated Individual Evaluation Needed: (Y/N) N

ADDITIONAL COMMENTS or SPECIAL INSTRUCTIONS:
* PHASE IB SURVEY FOR: "AREAS RECOMMENDED FOR ARCHAEOLOGICAL TESTING" (SEE FIGURE 10-6 OF SUBMITTAL)

ELECTRONIC MAPS AVAILABLE (Y/N) Y

REGIONAL CONTACTS
1. WILLIAM MAUSLING
2. ROBERT LARAVIE

PHONE/ EMAIL: (718) 482-4058 wmausling@dot.state.ny.us
PHONE/ EMAIL: (718) 482-6726 rlaravie@dot.state.ny.us

Form A Package:
- 4 copies Form A - (2 SED, 1 SHPO, 1 EAB)
- 4 copies Location Maps – USGS Quad or DOT Planimetric w/ survey limits
- 4 copies Project Plans w/ cultural resource survey limits
- 4 copies WinBolts Screen
- 4 copies Cultural Resource Screening Results
- 4 copies Documentation for cultural resource identification prior to current SED work request

1/06

due Sept 30, 2006

c. Energy

Energy in the forms of manual labor and fuel/oil would be consumed in the construction of the WSE access improvements. Once constructed, the primary elements of the alternatives to improve access (e.g., extended service roads, new/improved intersections, new on/off ramps) along the WSE would require no additional energy. Operationally, the only elements that would require electrical energy would be new signals, and or other illuminated improvements proposed as part of the alternatives. These energy requirements would be minimal.

5. Cultural Resources Survey

This survey has been prepared as a supplement to the cultural resources assessment provided in the EPP. The purpose of this survey is to identify areas of historic architectural and archaeological sensitivity that may be impacted by implementation of the proposed action. In addition, this survey provides recommendations for subsequent cultural resources investigations that may be conducted as part of the WSE Access and Safety Improvements project.

a. Methodology

This cultural resources survey involved background research and a reconnaissance-level walkover survey of the areas of potential impact associated with Alternatives One - Four. The areas of potential impact are defined as areas of proposed paving/repaving and potential subsurface disturbance; areas of potential impact do not include the five proposed staging areas, located within paved or previously disturbed areas, which will not incur subsurface disturbances.

The project corridor for the four alternatives forms an approximate 305 m [1000 ft] radius around the WSE, stretching from Edward Curry Avenue on the south to Bloomingdale Road on the north. The project corridor is divided into five study areas that coincide with the proposed locations of interchange improvements. These five study areas are: South Avenue; Victory Boulevard; Arden Avenue; Arthur Kill Road; and Bloomingdale Avenue.

Background Research

Background research conducted in 2003 for the EPP included a preliminary literature search to identify cultural resources within the project corridor. A review of the site files of the New York SHPO was conducted to identify cultural resources listed in or eligible for listing in the National Register of Historic Places. In addition, the files of the New York City Landmarks Preservation Commission (NYCLPC) were reviewed to identify resources in the project corridor designated as NYC Landmarks. Furthermore, documentation at the SHPO and NYCLPC was consulted to determine whether previously identified cultural resources whose National Register eligibility and/or NYC Landmark status has not yet been evaluated, exist within areas of potential impact.

Additional background research for the DAD was conducted in 2005 to gain a better understanding of the prehistory and history of the area, and to determine the potential for cultural resources to be present in the proposed project corridor. This research effort included a review of

historic maps and aerial photos from local libraries and map suppliers, NYSDOT as-built plans, and files previously collected from the SHPO and NYCLPC.

Background research facilitated preparation of the following:

- Prehistoric and historic context for the area surrounding the project corridor;
- Identification of historic architectural resources that meet National Register eligibility criteria within areas of potential impact;
- Historical overview of land use and previous ground disturbances within areas of potential impact; and
- Initial assessment of archaeological potential within areas of potential impact.

Cultural resources identified through background research, including the SHPO and NYCLPC site file reviews, are presented in Section C, organized by the designation status of the resource.

Field Survey

A reconnaissance-level archaeological walkover survey of the areas of potential impact within the project corridor was conducted in June 2005 in order examine and refine areas of archaeological potential and areas of prior ground disturbance. During the reconnaissance-level walkover survey, photographs were taken and general observations were made concerning the potential for archaeological sensitivity. In addition, historic architectural resources identified during a reconnaissance-level historic architectural survey in the EPP in 2003 were also field checked.

The results of the survey are presented in Section C. Recommendations for potential archaeological resources, based on background research and the reconnaissance-level archaeological walkover survey, are presented Section D.

Regulatory Guidelines

This cultural resources survey has been conducted in compliance with NEPA, Section 106 of the National Historic Preservation Act (NHPA), New York State Historic Preservation Act of 1980 (SHPA), the State Environmental Quality Review Act (SEQRA), and City Environmental Quality Review (CEQR), which require state, county, and local government agencies to take into consideration the effect of their actions upon cultural resources (e.g., buildings, structures, sites, objects, and districts) listed or eligible for listing in the State or National Register of Historic Places.

According to National Park Service guidelines, historic buildings, structures, sites, objects, and districts that are over 50 years old are eligible for listing in the National Register if they possess historic significance as defined by National Register criteria and possess architectural integrity. Table 10-10 and Table 10-11 present guidelines for architectural significance and integrity.

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their actions on any district, site, building, structure, or object included

in, or eligible for inclusion in, the National Register of Historic Places. Implementing regulations for Section 106 established by the Advisory Council on Historic Preservation (ACHP) are contained in 36 CFR Part 800; Protection of Historic Properties, as amended in 2000.

Table 10-10
Criteria for Historic Significance

36 CFR 60.4, Part I
The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and: A. That are associated with events that have made a significant contribution to the broad patterns of our history; or B. That are associated with the lives of persons significant in our past; or C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or D. That have yielded, or may be likely to yield, information important in prehistory or history.
36 CFR 60.4, Part II
Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories: A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or C. A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or D. A cemetery which derives its primary significance from graves or persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or G. A property achieving significance within the past 50 years if it is of exceptional importance.

Table 10-11
Architectural Integrity Aspects Defined

Aspect of Integrity	Property Attributes
Location	Must not have been moved.
Design	Must retain historic elements that create the form, plan, space, structure, and style of the property.
Setting	Setting must retain its historic character.
Materials	Must retain the key exterior materials dating from the period of its historic significance.
Workmanship	Methods of construction from its time of significance must be evident.
Feeling	Physical features must convey its historic character.
Association	Must be the actual place where a historic event or activity occurred and must be sufficiently intact to convey that relationship to an observer.

Source: US Department of the Interior, 1991: 44-45.

b. Prehistoric and Historic Context

The following section provides a summary of the Prehistoric and Historic Context, including brief profiles of the Travis, Greenridge and Rossville neighborhoods within the project corridor. More in depth contexts are included in Appendix N

Prehistoric Context

The period of prehistory in Staten Island extends for more than 10,000 years. The many Native American occupations for which remains have been identified in this area are divided into four major cultural periods based on changing adaptive strategies and environmental conditions. These periods are: the Paleo-Indian, Archaic, Woodland, and Contact.

The Paleo-Indian Period began approximately 12,000 years ago following the retreat of the Wisconsin Glacier and the emergence of a cold dry tundra environment. Paleo-Indian remains have been recovered along the west shore of Staten Island well outside of the areas of potential impact, such as the Port Mobil Site, located southwest of the project corridor. It has been recognized by archaeologists that rising sea levels caused evidence of Paleo-Indian occupations to be lost in coastal regions (NYCDOS and NYSDEC, 2001).

This Archaic period (ca. 10,000-3000 years before present [BP]) is marked by the gradual development of a more complex, localized land use strategy focusing on a wider resource base than that of the preceding period. Identified Archaic sites on Staten Island are typically small sites, usually situated on or at the head of tidal inlets and at freshwater ponds. An example of an Archaic Period site located within the project corridor is Harik's Sandy Ground. Situated along a series of low, sandy knolls, this site was interpreted as a hunting and butchering activity area (NYCLPC, 2003).

The Woodland Period (ca. 3000-500 BP) demonstrates a continuation of the shift from generalized hunting and gathering to the more specialized exploitation of wild resources, including marine shellfish and annual fish runs. A number of Woodland Period sites have been reported within the project corridor, identified largely as camps from which lithics and pottery were recovered, and where firepits were encountered (NYCLPC, 2003).

During the Contact Period (ca. 1500-1700 AD) there was a continuation of Woodland Period settlement patterns established by the coastal Algonquians living in Staten Island. During the 17th century, the Dutch settlers of New York were in frequent contact with the Native American population. An example of a Contact Period site within the project corridor is the Travis Site, which was reportedly occupied from as early as the Archaic Period (NYCLPC, 2003).

Historic Context

Richmond County was formed as the sole county on Staten Island in 1683. In 1688, Staten Island was divided into four townships. The southwestern portion of Staten Island became part of the town of Westfield and the mid- and northwestern portion became the town of Northfield (Morris,

1900). During the 18th century, many communities developed along the west shore including those within the study area. These communities are currently known as Greenridge and Rossville (within the former town of Westfield), and Travis (within the former town of Northfield).

During the 18th century, the west shore of Staten Island was characterized by sparse agricultural development. While the earliest European villages on the island were Dutch, French Huguenots were among the first to settle along the west shore. After the Revolutionary War (1775-83), settlers cleared more land for agricultural and community development (Morris, 1900). From the 1780s through most of the 19th century, the mainstays of Staten Island's economy included the oyster industry, agriculture, and salt hay cultivation.

By the mid-19th century, there was increasing industrial growth on Staten Island. Staten Island was also a popular place for summerhouses and resorts in the early- to mid-19th century (NYCDCP, 2005)

In the last decade of the 19th century, Staten Island became a borough of New York City. By the 1920s, the population on the island was heavily concentrated in its northern and eastern portions. The shorelines of the Arthur Kill and the Kill van Kull became increasingly industrialized, although the western and southern parts of the island still maintained an agricultural economy (Department of City Planning, 2005).

The construction of the Goethals and Bayonne bridges and the Outerbridge Crossing in the early 1930s enabled vehicular traffic to pass between Staten Island and New Jersey, thus creating new opportunities for development and commerce. However, growth remained slow during the Great Depression (1929-39). The economy was boosted temporarily during World War II, and the island resumed gradual growth throughout the 1940s-50s. Southern and western Staten Island remained largely rural, however, with pockets of industry. The Fresh Kills Landfill, occupying nearly 3,000 acres of the central western shore, located northwest of Rossville and Greenridge, and south of Travis, started operation in 1948 and expanded during the 1950s, and eventually become the largest landfill in the world (Answers.com/Wikipedia, 2005).

The opening of the Verrazano-Narrows Bridge linking Staten Island and Brooklyn in November 1964 had a profound effect on the development of the borough. Richmond County became one of the fastest growing counties in the state, and many parts of the island acquired a distinctly suburban character.

During the 1960s-70s, Staten Island, and the study area in particular, were further transformed by the construction of the WSE (New York [NY] 440). Completed in 1976, it was one of the last major highway projects in New York City and the only major road to run almost the entire length of Staten Island. Upon completion, the Expressway linked the Staten Island Expressway (Interstate [I]-278), the Goethels Bridge, and the Outerbridge Crossing. This vital connection facilitated travel between New York City and New Jersey, and also promoted increased development on Staten Island's west shore (New York City Roads, 2005).

Now home to roughly half a million people, Staten Island is still the least densely populated and the fastest growing borough of New York (Department of City Planning, 2005). The Fresh Kills

Landfill was closed in 2002 due to the pressure of environmentalists and local residents. Plans are now underway to transform the site into the largest public park in New York City.

c. Results of Cultural Resources Survey

Impacts of implementation of Alternatives One - Four on cultural resources in the five study areas in the project corridor are outside the scope of work for the DAD. The purpose of this cultural resources survey was to collect data on previously identified cultural resources within the project corridor, determine previous disturbances within the study areas, determine the potential for yet unidentified cultural resources within the areas of proposed impact, and recommend future actions. A description of this work is presented below as follows:

- National Register-listed and eligible Resources;
- NYC Landmarks;
- Previously Identified, Unevaluated Resources;
- Potential Cultural Resources; and
- Study Area Disturbances.

Figure 10-5 (Location of Cultural Resources) indicates the location of historic architectural resources and previously identified archaeological resources. Table 10-12 summarizes known and potential historic architectural resources in the project study areas.

National Register-Listed and Eligible Resources

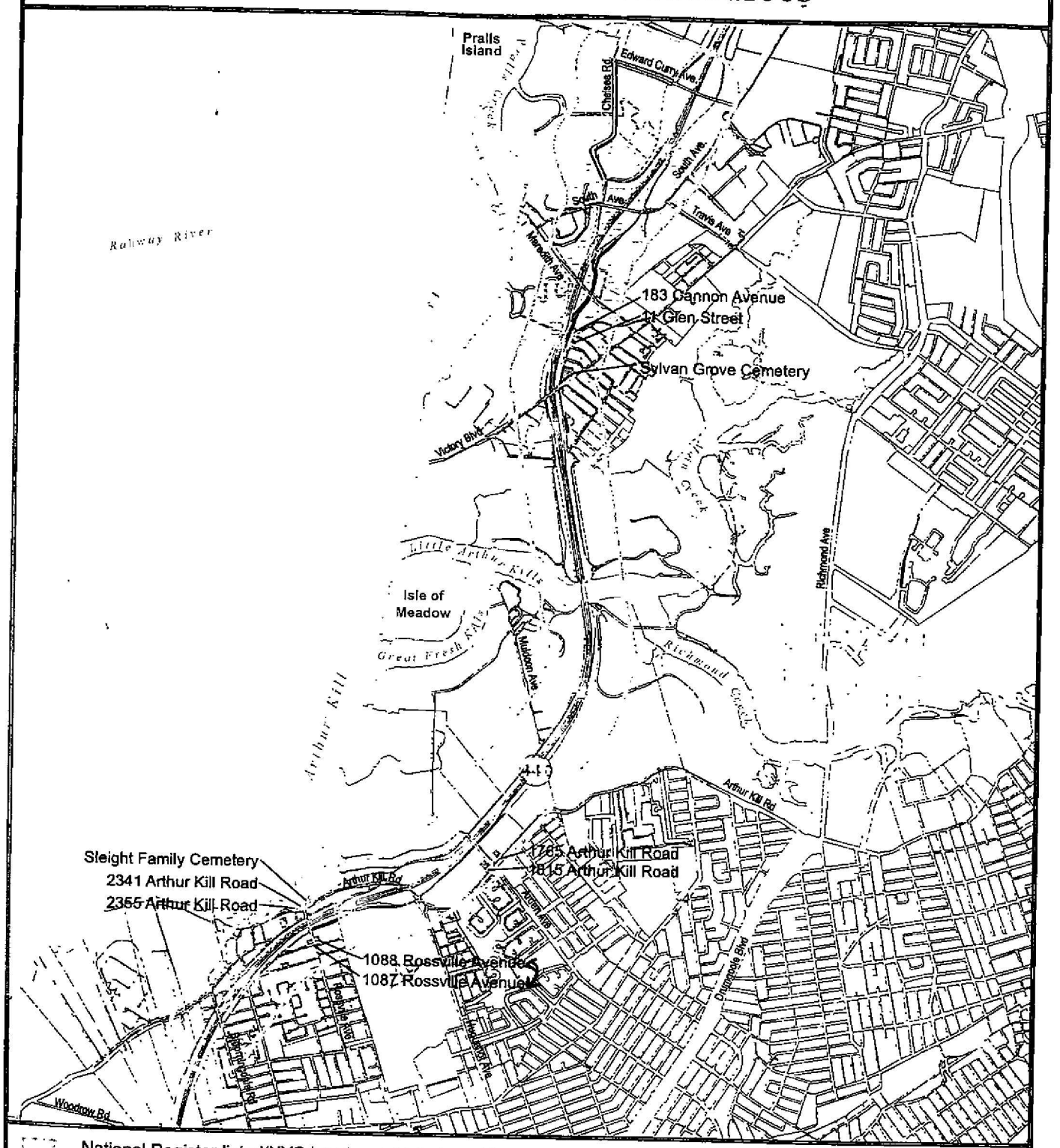
One National Register-listed resource is located within the project corridor, the Sleight Family Cemetery, located near the intersection of Arthur Kill Road and Rossville Avenue in the Arthur Kill Road Study Area (Figure 10-5).

There are no National Register-eligible historic architectural resources within the project corridor. There are also no National Register-listed or eligible archaeological resources within the project corridor.

NYC Landmarks

One NYC Landmark is located within the project corridor, the Sleight Family Cemetery (see above). There are no locally designated archaeological sites in the project corridor.

Location of Cultural Resources



National Register-listed/NYC Landmark historic architectural resource

Potential National Register-eligible historic architectural resource

Surveyed, unevaluated historic architectural resource

Project Corridor

Previously identified archaeological resource (approximate location)

Areas of proposed impact

Figure 10-5

Table 10-12
Historic Architectural Resources in Areas of Potential Impact

Resource Address	Resource Name/Type	Description	Status
Victory Boulevard Study Area (Travis)			
183 Cannon Ave (at Parish Ave, NW)	Residence	Single-story vernacular dwelling, circa (c.) 1910.	Undetermined
11 Glen Street (at Parish Ave, SE)	Residence	Late 19th century Queen Anne-Style dwelling.	Undetermined
Glen St between Victory Blvd & Melvin Ave	Sylvan Grove Cemetery	Wooded 18th century cemetery owned by NYCDPR.	Undetermined
Arden Avenue Study Area (Greenridge)			
1765 Arthur Kill Road (at Arden Ave, NW)	Residence	A flat-roofed, two-story dwelling, c. 1920.	Undetermined
1803 Arthur Kill Rd (at Arden Ave, SW)	Sunoco Station	Colonial Revival-Style gas station with cupola, c. 1950.	Undetermined
1815 Arthur Kill Rd (at Arden Ave, SSW)	Garden Center/ Residence	Queen Anne-Style dwelling with wood shingle siding, multiple gables, and decorative detailing, c. 1900.	Undetermined
Arthur Kill Road Study Area (Rossville)			
Arthur Kill Rd at Rossville Ave, NW	Sleight Family Cemetery	Eighteenth century burial ground.	NR*; NYCL**
2341 Arthur Kill Rd (at Rossville Ave)	Residence	Two-story 18th century vernacular dwelling.	(Surveyed, but unevaluated)
2355 Arthur Kill Rd (at Rossville Ave)	Former Firehouse	Former firehouse with cupola, bay window, and hipped dormer, c. 1900.	(Surveyed, but unevaluated)
1087 Rossville Ave (between Veterans Rd East & Morris)	Residence	Large two-story, five-bay dwelling with central chimney; originally a double house, c. 1890.	Undetermined
1088 Rossville Ave (between Veterans Rd East & Poplar)	Residence	One-and-a-half-story dwelling clad in wood shingles and clapboards, c. 1920.	Undetermined

*=National Register-listed
**=NYC Landmark

Previously Identified, Unevaluated Resources

Multiple historic architectural and archaeological resources have been previously identified according to the records of SHPO and NYCLPC. However, these resources have not been evaluated for National Register eligibility and very little information has been provided on survey forms. Furthermore, previously identified archaeological resources documented by both

amateur and professional archaeologists have likely been destroyed by development over the past several decades. These resources are summarized by resource type below.

Historic Architectural Resources

The following is a summary of the information gathered at SHPO and NYCLPC on previously identified, unevaluated historic architectural resources located within the project corridor:

- A survey of historic architectural resources in a portion of southwestern Staten Island was conducted by the Staten Island Institute of Arts and Sciences in 1978. Two structures included in this survey fall within the project corridor in the Arthur Kill Road Study Area: the residence at 2341 Arthur Kill Road, and the former firehouse at 2355 Arthur Kill Road; and

- A follow-up reconnaissance-level survey was completed by NYCLPC in 2004 to update and verify the locations of historic architectural resources identified in previous Staten Island surveys. This survey confirmed that 2341 Arthur Kill Road and the former firehouse at 2355 Arthur Kill Road survive (Tara Harrison, pers. comm., June 2005).

Archaeological Resources

The following is a summary of the information gathered at the SHPO and NYCLPC on previously identified, unevaluated archaeological resources located within the project corridor:

- SHPO consultation indicates that twelve previously identified archaeological sites have been documented in the project corridor. Eight of these sites are ships located in a "boat graveyard" along the Arthur Kill, north of Rossville; the remaining four sites have prehistoric elements, one of which may also contain historic elements;

- The New York State Museum (NYSM) documented 17 previously identified archaeological sites discovered between the early 1900s-70s. Most of these sites are presented on NYSM maps as large polygons encompassing areas up to 186 square m (2,000 square ft) in size. These sites range from isolated artifacts to prehistoric shell heaps and large areas of archaeological sensitivity. The sites primarily date from the Archaic to Woodland periods, though one site yielded historic period components; and

- NYCLPC has documented 16 prehistoric sites or stray finds within the project corridor. In addition, five cultural resources surveys conducted within the project corridor are on file at NYCLPC, and resulted in the identification of six archaeological sites. Many of these sites have most likely been documented by NYSM and/or SHPO although this cannot be determined from the available data.

Potential Cultural Resources

Historic Architectural Resources

The reconnaissance-level survey completed for the EPP in 2003 identified eight potentially eligible historic architectural resources that may be impacted by implementation of the proposed action (Figure 10-5 and Table 10-12). These resources have not been previously surveyed or evaluated and are clustered in the following three locations:

- Vicinity of Glen Street and Cannon Avenue north of Victory Boulevard in the Victory Boulevard Study Area;
- Intersections of Arthur Kill Road and Arden Avenue in the Arden Avenue Study Area; and
- Intersection of Rossville Avenue and WSE in the Arthur Kill Road Study Area.

Archaeological Resources

Background research and a review of historic maps confirm that both prehistoric and historic activities took place within and around the project corridor. The presence of favorable environmental conditions such as well-drained soils, protected, level land surfaces, and access to fresh water, wetlands, and a wide variety of food sources are strongly correlated to prehistoric site location. The documentation of structures on historic maps in similar topographical conditions is also a clear indication of historic activity within the project area corridor (Borough of Richmond, 1913). These conclusions are further supported by the numerous previously identified archaeological sites within the project corridor (discussed above) that have been mapped by the SHPO and NCYLPC as a series of overlapping polygons and scattered points. The combined area of these polygons and points is indicated on Figure 10-5, and encompasses the entire northern and southern thirds of the project corridor, and a portion of the central third.

However, as will be discussed in the following section, ground disturbances due to installation of subsurface and surface utilities, commercial and residential development, and disturbances associated with construction of the WSE and other nearby roadways would have had a negative effect on site preservation. As noted above, the prehistoric and historic environmental settings also determine the potential for archaeological sensitivity and site preservation. In such areas defined on historic maps as wetlands, artifacts found would probably be stray finds of limited research value. Considering the overall low to moderate archaeological sensitivity of the areas of potential impact and the varied potential for site preservation, the five study areas were stratified into two levels of relative archaeological potential:

- Areas of moderate archaeological potential; and
- Areas of low-to-no archaeological potential.

These rankings are solely relative to the areas of potential impact as a whole, and do not reflect the area's significance as compared to other portions of Staten Island.

Areas identified as having moderate prehistoric potential have well-drained soils, are located in the immediate vicinity of wetlands or other water resources, are on level to slightly sloping topography, and appear undisturbed. A ranking of moderate historic potential can also be based on similar topographical settings and coupled with documentation of historic structures in the vicinity. Areas of low-to-no archaeological potential either have poorly-drained or mucky soils, such as the wetlands areas themselves, or have clearly been disturbed.

This cultural resources survey defined three areas of moderate potential for prehistoric and historic archaeological sensitivity. These areas are described in Section D.

Study Area Disturbances

Study area disturbances were evaluated through a literature search and cartographic review, and a reconnaissance-level archaeological walkover survey. Earth Tech reviewed the following types of documents as part of the background research effort:

- Sanborn fire insurance maps from the years 1898, 1917, 1937, 1950, 1962, 1977, 1981, 1989, and 1996;
- Aerial photographs from the years 1943, 1944, 1954, 1966, 1972, 1984, 1995, and 2002;
- Historic atlases and topographical maps from the years 1867, 1874, 1891, 1898; and
- As-built plans of WSE from the years 1969, 1972, 1973, and 2002.

The reconnaissance-level archaeological walkover survey focused on defining both areas of archaeological potential and areas of ground disturbance within the study areas. The results of this research are presented by study area below.

South Avenue Study Area

Along Chelsea Road/Bloomfield Avenue and Edward Curry Avenue where up to 0.6 m (2ft) of widening is proposed (SA-1B), large portions of land have been developed and disturbed. While most of this study area has low-to-no potential for archaeological sensitivity, a section has been identified to have moderate potential for archaeological sensitivity where impacts are proposed.

Edward Curry Avenue was recently graded and paved, and new sidewalks and landscaped traffic islands constructed. In addition, underground utilities were installed in the late 20th century along the road, extending to its intersection with Chelsea Road/Bloomfield Avenue (NYCDEP, n.d.). This newly graded and paved area has low-to-no potential for archaeological sensitivity.

Much of the land immediately surrounding Chelsea Road/Bloomfield Avenue section of the study area was categorized as wetlands prior to 20th century filling activities (USGS, 1891). In addition, this area has undergone numerous other ground disturbing activities, which include:

- Construction of crossings over Saw Mill Creek during the 19th and 20th centuries;
- Installation of rip-rap along the banks of the creek;

- Drainage ditch along the west side of Chelsea Road/Bloomfield Avenue, north of the creek;
- Overhead utilities along the east side of Chelsea Road/Bloomfield Avenue;
- Twelve inch wide water main extending from Bloomfield Avenue to South Avenue (extending in a straight line, bypassing the bend in the road) (NYCDEP, 2002); and
- Development along both sides of Chelsea Road/Bloomfield Avenue north of the creek during the 19th and 20th centuries, including a schoolhouse, junkyards, and paved parking lots.

Most of the Chelsea Road/Bloomfield Avenue section of the study area has low-to-no potential for archaeological sensitivity However, selected areas along the southern portion of Chelsea Road/Bloomfield Avenue where historic maps appear to show well-drained conditions and where ground disturbance is not apparent, there is moderate potential for archaeological resources to be present. The remainder of this study area was determined to have low-to-no archaeological potential.

Victory Boulevard Study Area

The location of the proposed service road extension from Glen Street north to South Avenue (AA-1 and AA-2) traverses a largely flat wetland area that was disturbed by 19th and 20th fill activities. As explained below, there is low-to-no potential for archaeological sensitivity within the area of proposed impact.

The study area crosses a number of water resources. Historic and modern maps depict the proposed service road and exit and entrance ramps to be situated within a wetland, which is traversed by Neck Creek (USGS, 1891). Background research and the site walkover revealed that this wetland area has been extensively altered and filled during the 20th century. During the second half of the 20th century, a gas pipeline was installed at ground level and covered, creating an earth berm approximately 1m (3.3ft) above the existing grade; the footprint of the proposed service road (VB-2B) follows the route of this gas pipeline. Additional ground disturbances include linear channels cutting through the wetlands, as depicted on modern aerial photographs and maps, and the construction of culverts for Neck Creek to pass below Meredith Ave and WSE.

Based on the location of the area of proposed impact within a historically documented wetland and the areas of disturbance, it has been determined that this study area has low-to-no potential for archaeological sensitivity.

Arden Avenue Study Area

The proposed service road and WSE northbound entrance ramp near Arden Avenue (AA-1 and AA-2) are located in areas that have been heavily disturbed during 20th century transportation and utility construction activity. While most of this study area has low-to-no potential for archaeological sensitivity, a section with moderate potential for archaeological sensitivity was identified where impacts are proposed.

Background research (and the site walkover confirmed the installation of electric cables parallel to the WSE north of Arden Avenue where the service road and WSE northbound entrance ramp are proposed (NYCDEP, 1973). During construction of WSE and the extension of Arden Avenue, the land north of the Arden Avenue extension was completely graded and used as a staging ground (EDR, 1966, 1972). South of Arden Avenue was also utilized as a staging ground.

However, aerial photographs document undisturbed areas that may remain south and east of the staging ground that was located south of Arden Avenue. This area has been determined to have moderate potential for archaeological sensitivity for prehistoric resources based on nearby water resources, and historic resources associated with 19th century farmsteads located in the vicinity.

Arthur Kill Road Study Area

The location of the proposed service road extension east from Rossville Avenue (AKR-5) is comprised of dense tree cover interspersed with wetlands on apparently both disturbed and undisturbed ground surfaces. While most of this study area has low-to-no potential for archaeological sensitivity, a section with moderate potential for archaeological sensitivity was identified where impacts are proposed.

The intersection of Huguenot Road and Arthur Kill Road where lane widening is proposed (AKR-1 and AKR-2) was heavily disturbed. Past disturbances include installation of underground utilities (water pipes) from 1962-77, and creation of a traffic island (Sanborn, 1962, 1977). Reports on file at the NYCLPC note that construction at this intersection extensively disturbed the prehistoric archaeological site reported at this location, by either completely stripping or truncating potential remains (NYCLPC, 2003:2).

Immediately adjacent to the WSE, the land has been graded to slope down away from the expressway. At the base of the embankment, situated 61m (200ft) north of Rossville Avenue, is a drainage area that forms part of a wetlands to the east. Between this and a graded are to the north, there is a section of level to slightly sloping apparently undisturbed land. A historic map depicts a structure in the vicinity of this area (Borough of Richmond, 1913). This section of land has moderate potential for historic archaeological sensitivity.

Bloomingdale Road Study Area

On both sides of Bloomingdale Road, southwest of Veterans Road West (the southbound service road), land has been graded and paved. The area of proposed repaving (BR-1) on the west side of the road has been significantly altered by commercial development and parking lots. Previous disturbances have shown there to be low-to-no potential for archaeological sensitivity within this area of proposed impact.

d. Recommendations

Recommendations for Historic Architectural Resources

In compliance with Section 106 of NHPA and other federal, state, and local regulations, it is recommended that an impact analysis be conducted to assess the potential direct and indirect effects that implementation of the proposed action may have on historic architectural resources in the three areas noted earlier in the Potential Cultural Resources subsection. Historic architectural resources that may be affected, could potentially be eligible for National Register listing, but have not yet been determined eligible by the SHPO, should also be formally evaluated. Resources that meet National Register eligibility criteria indicated in Table 10-11, and retain integrity as noted in Table 10-12, would be recommended eligible via preparation of a New York State Historic Resource Inventory Forms for NYSDOT Projects ("blueform") and submitted to the SHPO for concurrence.

Based on the existing conditions identified in this cultural resources section, it is recommended that up to ten blueforms be prepared on potential historic architectural resources in the WSE areas of potential impact. In addition, an analysis of the effects of the proposed action on up to ten of these resources, and up to one National Register-listed resource, should also be prepared.

Recommendations for Archaeological Resources

Background research identified areas that have been previously disturbed and areas of archaeological potential. The reconnaissance-level walkover survey refined this assessment leading to identification of the following three areas of moderate archaeological potential for prehistoric and historic sensitivity.

- Within the South Avenue Study Area, there is moderate potential for prehistoric resources to be present and impacted by potential lane widening along the west side of a short section of Chelsea Road/Bloomfield Avenue (SA-1B).

- Within the Arden Avenue Study Area, there is moderate potential for both prehistoric and historic archaeological resources to be present and impacted by the proposed service road extension south of Arden Avenue (AA-2).

- Within the Arthur Kill Road Study Area, there is moderate potential for both prehistoric and historic archaeological resources to be present and impacted by the proposed service road extension east of Rossville Road (AKR-5).

All other areas in which impacts would occur have been determined to have low-to-no potential for archaeological sensitivity based on their setting or extent of prior disturbances.

In order to determine the presence or absence of archaeological resources in the three areas possessing archaeological potential defined during this survey, subsurface testing is recommended (Figure 10-6, Areas Recommended for Archaeological Testing). Subsurface testing would involve excavation of a limited number of shovel test pits within areas of potential

Areas Recommended for Archaeological Testing

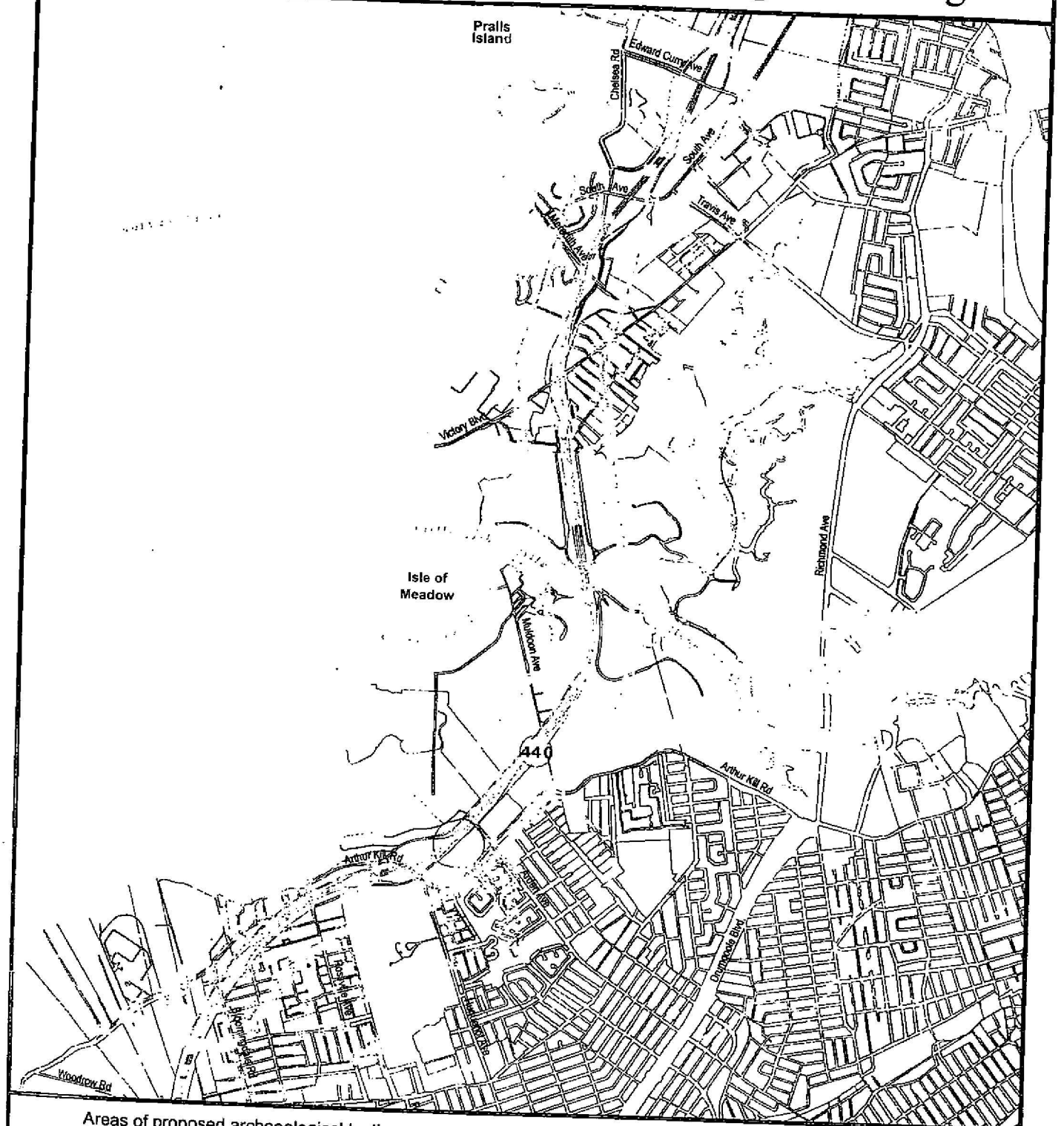


Figure 10-6

sensitivity. Test pits would be spaced at 10 m (33 ft) intervals along linear transects or judgementally placed based on field conditions. These tests would be 40 by 40 cm (15 by 15 in) in size, and excavated stratigraphically to sterile soils. Recommendations for each of the three areas are noted below.

- In the South Avenue Study area, it is recommended that up to ten judgmentally placed shovel test pits be excavated in this area in order to determine the presence or absence of archaeological resources.
- In the Arden Avenue Study Area it is recommended that approximately four shovel test pits be excavated across an approximately 75 m (246 ft) area spaced at 10 m (33 ft) intervals to determine the presence or absence of archaeological resources.

- In the Arthur Kill Road Study Area it is recommended that up to 20 shovel test pits be excavated across a 200 m (656 ft) area spaced at 10 m (33 ft) intervals in order to determine the presence or absence of archaeological resources.

The Victory Boulevard and Bloomingdale Road Study Areas do not appear to have archaeological sensitivity based on subsurface or surface conditions.

6. Water Quality, Ecology, Permitting

a. Surface Waters and Wetlands – Existing Conditions

Surface Waters

Both tidal and fresh waterbodies were identified in the study areas during ecological field investigations in summer 2005. Figure 10-7 displays the primary surface waters in the study area.

Tidal Waters

The Arthur Kill is a 16 km (10 mi) long tidal strait that flows along Staten Island's west shore and is the largest tidal water body in the vicinity of the study area. The water quality of the kill is affected by heavy industrial uses on both the New York and New Jersey shorelines. Connected to the Arthur Kill are several meandering east-west flowing tidal creeks that drain inland marshes. The Saw Mill Creek and Neck Creek are two tidal creeks in the study area that may be affected by proposed activities. The marshes that are drained by these tributaries are criss-crossed by numerous man-made mosquito ditches and channels that flow into the tidal creeks.
NYSDEC Tidal Waters Classification - The NYSDEC classifies tidal (saline) bodies SA through SD and identifies their best use and conventional standards (NYSDEC, 2005a):

- Class SA saline surface waters – The best usages of Class SA waters are shell fishing for market purposes, primary and secondary contact recreation, and fishing. These waters shall be suitable for fish propagation and survival;

FORM A - CULTURAL RESOURCE SURVEY CHECKLIST (DATE SUBMITTED 11-9-06)

PIN X096.18.101
P.R. #: _____
REGIONAL PRIORITY: 2
Number of copies needed: _____

PROJECT LOCATION
Hamlet/ Village/ City: STATEN ISLAND
Town: NYC
County: RICHMOND

ROLL-OVER PROJECT? (Y/N) N
DATE OF PREVIOUS REQUEST 3-27-04
CHANGE IN PROJECT SCOPE N
PREVIOUS SURVEYS? (Y/N) Y
IF YES, SURVEY DATE 9-19-06

TYPE & LEVEL OF SURVEY REQUESTED

PHASE I - RECONNAISSANCE SURVEY _____ or ADDENDUM SURVEY _____
PHASE II - SITE EXAM X (Indicate Site Name and USN)
PHASE III - DATA RECOVERY PLAN ____ DATA RECOVERY _____ (Indicate Site Name & USN)
HABS/HAER (I,II, III) _____ (Indicate BIN or Bldg Name/ Address & USN)

UNIQUE SITE NUMBER(S) (USN):

PROJECT DESCRIPTION & PROPOSED WORK: ACCESS & SAFETY IMPROVEMENTS - PROJECT WILL PROVIDE SAFETY AND ACCESS IMPROVEMENTS ON RAMPS, SERVICE ROADS, AND INTERSECTIONS WITHIN FIVE INTERCHANGES.

INCLUDES: Temporary easement and access areas ____ ROW acquisition ____ On-site detours _____ Other _____

PROJECT AREA BOUNDARIES FOR CRS (see attached plans): Rte/ Highway Name NYS RTE 440 - WEST SHORE EXPRESSWAY
FROM: BLOOMFIELD AVE. -- NORTH SIDE
TO: @ STP 8 (area).

ESTIMATED LENGTH (FT./M. OR MILES) _____
ESTIMATED WIDTH (FT./M) _____
AS PER DARIA MERWIN - PROPOSAL - 9-19-06

ESTIMATED NO.OF BUILDINGS IN PROJECT AREA 0
ESTIMATED NO.OF BUILDINGS TO BE ACQUIRED/ REMOVED 0

FEDERAL FUNDING (Y/N) N
CURRENT PROJECT PHASE: I-II PRELIMINARY DESIGN
FEDERAL PERMITS (INCL. NATIONWIDE): YES
SCOPE CLOSURE DATE: _____

BIN ~ Year Built ~ Type: ~

RESULTS OF 2002 HISTORIC BRIDGE INVENTORY
Eligible ____ Not Eligible X National Register Listed ____ Unevaluated ____ Individual Evaluation Needed: (Y/N) ____

ADDITIONAL COMMENTS or SPECIAL INSTRUCTIONS:
SCOPE OF ARCHAEOLOGICAL WORK AS PER 9-19-06, END-OF-FIELD LETTER - INSTITUTE FOR LONG ISLAND ARCHAEOLOGY, DARIA MERWIN.

ELECTRONIC MAPS AVAILABLE (Y/N) Y

REGIONAL CONTACTS

1. WILLIAM MAUSLING
2. ROBERT LARAVIE

PHONE/ EMAIL: (718) 482-4058 wmausling@dot.state.ny.us
PHONE/ EMAIL: (718) 482-6726 rlaravie@dot.state.ny.us

Form A Package:

- 4 copies Form A - (2 SED, 1 SHPO, 1 EAB)
- 4 copies Location Maps – USGS Quad or DOT Planimetric w/ survey limits
- 4 copies Project Plans w/ cultural resource survey limits
- 4 copies WinBolts Screen
- 4 copies Cultural Resource Screening Results
- 4 copies Documentation for cultural resource identification prior to current SED work request

1/06

due June 30, 2007

STONY BROOK
STATE UNIVERSITY OF NEW YORK

Department of Anthropology

MEMORANDUM – transmission via email

TO:	Bill Mausling, Region 11 NYS Department of Transportation Christina Rieth, Cultural Resource Survey Program, NYS Museum
FROM:	Daria Merwin, Institute for Long Island Archaeology
RE:	PIN X096.18.101, New York State Route 440, Staten Island, Richmond County End-of-Field Letter and Cost Estimate
DATE:	19 September 2006

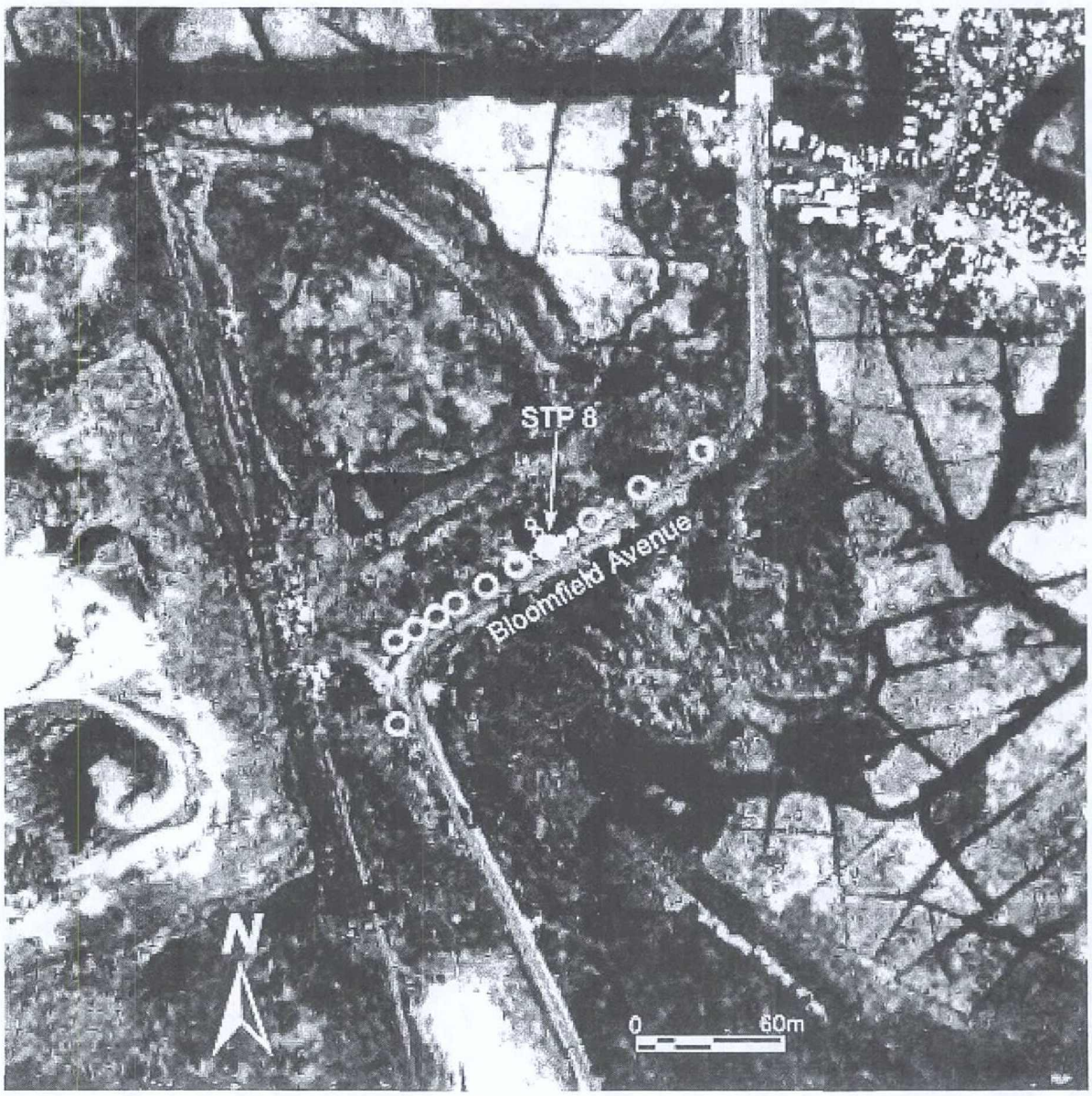
This memo serves as an end-of-field letter for PIN X096.18.101, Route 440 (West Shore Expressway) on Staten Island, Richmond County. The cultural resource survey was conducted in late July 2006 at three locations (north to south): Bloomfield Avenue just east of Chelsea Road, the east side of Route 440 north of Huguenot Avenue, and the east side of Route 440 north of Rossville Avenue.

No prehistoric or historic period archaeological materials were encountered in the southern two sections of the project area. A small prehistoric deposit was identified on the north side of Bloomfield Avenue (see attached map). This area is mostly wooded, and abuts New York State parkland (Sawmill Creek preserve). Initially, a single transect of shovel test pits was established along the north side of Bloomfield Avenue, 3 meters (9.8 feet) north of the edge-of-pavement, and 10 to 30 meters (33 to 98 feet) apart based on the degree of ground disturbance. One of the original test pits (STP 8) yielded three chert and jasper flakes, waste products of prehistoric stone tool manufacture and/or resharpening. Additional test pits were dug at 1 and 5 meters (3.3 and 16 feet) from STP 8, resulting in two more positive test pits with one flake each. Soils in the shovel test pits appeared to be disturbed, but the nature and extent of the disturbance is difficult to assess in a small exposure like a shovel test pit.

Based on the results of the reconnaissance survey, if the vegetated strip immediately north of the edge-of-pavement on the north side of Bloomfield Avenue is slated for impact, then a small site examination is recommended to determine the bounds, integrity, and research potential of the identified prehistoric deposit. The site examination would entail the excavation of less than 10 additional shovel test pits and three or four 1x1 meter units. Field work could begin immediately, and the results of the site examination could be combined with the archaeology reconnaissance survey results to expedite review.

If you have any questions or comments, please feel free to call me at (631) 632-7618 or e-mail <dmerwin@notes.cc.sunysb.edu>.

Aerial photograph showing archaeological survey along Bloomfield Avenue on Staten Island. STP 8 and two test pits to the east (1 and 5 meters from the original find) contained chert and jasper flakes.



SITE FILE SEARCH RESULTS

CONFIDENTIAL- NOT FOR PUBLIC DISTRIBUTION

CONFIDENTIAL; Not for Public Release
NYS OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION
Field Service Bureau Files Search

DATE: June 2006
CONDUCTED BY: B Ross
Project: PIN X096.18.101, Route 440 (West Shore Expressway)
Minor Civil Division (MCD): Villages Chelsea, Travis, Rossville, Staten Island, NYC (08501)
County: Richmond
USGS Quadrangle: Arthur Kill

1. Archaeological Sites (within 3.2 km / 2 mi radius):

   Refer to attached table.

2. Surveys and Reports within immediate or adjacent MCDs: (selected in 3.2-6.4 km radius, with possible exception of Stage IA):

   OPR Report #2. *Stage IB Inventory and Assessment of Archaeological Potential of Distrigas Property, Rossville, Staten Island, NY,* 6/74. Three sites, A08501.000074-76. NOTE: lies near proposed project area.

   OPR Report #9. *Stage IB Archaeological Survey of 700 MW Fossil Plant, Staten Island, NY,* Susan Karda, et al., 2/81. No sites. AND Addendum, 10/81; no sites. NOTE: lies near proposed project area.

   OPR Report #10. *Cultural Resource Survey for Sandy Ground and Sharrott Estates Project, Staten Island, NY,* JoAnn Cotz, 1983 and 1985. No sites for survey in Rossville vicinity.

   OPR Report #11. *Preliminary Archaeological Reconnaissance for Cultural Resources in Kill Van Kull and Newark Bay Channel Widening and Deepening, Staten Island, NY,* Susan Kardas, et al., 6/76. Twelve sites: A08501.000030, 116-125 and A06101.000490.

   OPR Report #12. *Cultural Resource Survey for Sandy Ground and Sharrott Estates Project, Staten Island, NY,* JoAnn Cotz, 1980, 1982 and 1985. Fiftytwo sites identified: A08501.002259 D03 to A08501.002310 D03.

   OPR Report #13. *Stage I Archaeological Survey for Oakwood Beachwater Pollution Central Project, PW-136, Contract Ek-19, C-36-392-02, Staten Island,* Ralph Solecki, 5/77. AND Addendum; 1980; A08501.000002-5 and 000108-114 (includes Item 1, Sites 21, 32, 33, 34, 36, 37 and 38).

   OPR Report #16. *Stage IB Cultural Resource Survey at the East Side Project, Staten Island Industrial Park, Bloomfield, NY,* Edward Lenik, 2/83. No sites. NOTE: lies near proposed project area.

   OPR Report #20. *Stage IB Letter Report Assessment for Arlington Homes Development, Staten Island, NY,* Greenhouse, n.d. No sites.

   OPR Report #21. *Cultural Resource Reconnaissance Survey for PIN X096.08.101; West Shore Expressway Service Roads, Bloomingdale Avenue to Clay Pit Road, Woodrow Road to Bloomingdale Avenue, Rossville, Staten Island, Richmond County, NY,* NYS Museum, 7/85. AND Addendum Stage II, 2/85. No new sites, but new information on Sandy Ground Historic Archaeological District. Therefore second report details the work effort to evaluate the midden. NOTE: survey lies near/adjacent to proposed project area.

   OPR Report #24. *Stage IB Archaeological Survey for Mayflower Avenue Pump Station and Force Main at Oakwood beach Water Pollution Control Project, Staten Island, C-36-392-10, NY,* Joan Geismar, 2/85. No sites. Survey related to OPR #13 and 26. NOTE: lies near proposed project area.

OPR Report #26. *Stage IB Cultural Resource Survey for Oakwood Beach Water Pollution Control Project, Hylan Boulevard-Arthurkill Road, WP-136, Staten Island, NY,* Pickman and Yamin, 10/84 for EPA. Fourteen sites: A08501.000011, 12, 14, 15, 17-19, 22-26, 29, 79 (Arthur Kill).

OPR Report #27. *Stage IA Archaeological Survey for Clay Pit Ponds State Park Preserve, Staten Island, NY,* Pickman and Yamin, 1/86. AND Stage IB; 5/86; 250 acres; fifteen sites: A08501.000080-38, 116, 118, 120, 121, 123, 124 , 130, 131, 878-880 (Arthur Kill). NOTE: lies near proposed project area.

OPR Report #30. *Stage IA/B Cultural Resource Survey for Howland Hook Marine Terminal Expansion, Staten Island, NY,* Maar Associates, 1986 for CORPS. Two prehistoric sites: A08501.002364 and 2366 and ten historic sites: A08501.002365, 2367-2375 (Arthur Kill) within 93 acres. NOTE: lies near proposed project area.

OPR Report #33. *Stage IA Cultural Resource Survey for New Harbor Collection and Removal of Drift (Elizabeth, New Jersey and Shooters Island),* Kardas and Larrabee, 4/80 for CORPS.

OPR Report #35. *Stage IA/B Report on Investigations of Archaeological Potential of the Bloomingdale Woods Project, Staten Island, NY,* New York University, 9/86 for SEQRA. No sites.

OPR Report #40. *Stage IA/B Archaeological Survey for Salamander Court Development, Staten Island, NY,* Greenhouse, 1/88. One historic/prehistoric site: A08501.002378 (Arthur Kill) within 5.1 acres.

OPR Report #42. *Stage II Archaeological Survey for Woodvale-by-the-Sea, Tax Lots 188, 184 and 181, Block 8005, Tottenville, Staten Island, NY,* 7/88. One historic site, A08501.002381 (Arthur Kill). NOTE: lies near proposed project area.

OPR Report #43. *Stage IB Archaeological Survey for Southbridge Development Project, Staten Island, NY,* Greenhouse Consultants, 6/88. No sites within 11.3 acres.

OPR Report #45. *Stage IA/B Cultural Resource Survey for Arthurkill Correctional Facility Proposed Expansion Area, Phase I Buildings 46 and 34, Westfield, Staten Island, NY,* NYS Museum, 9/87 for DOCS. No sites; one acre.

OPR Report #46. *Stage IA/B Archaeological Investigations for St. Michael's Project Site, Staten Island,* Joan Geismar, 12/89 for NAVY. No sites within 79 acres.

OPR Report #51. *Stage IA/B Historical and Archaeological Survey for Liberty Pipeline, Staten Island,* Berger Associates, 4/92 for FERC. No sites within 4.3 acres. NOTE: lies near proposed project area.

OPR Report #57, 95PR1101. *Cultural Resource Reconnaissance Investigations for Kill Van Kull, NY Reach, NY Harbor Collection and Removal of Drift Project, Staten Island,* Raber Associates, 4/95 for CORPS.

OPR Report #58, 96PR0084. *Stages IB and II Archaeological Testing Report, 60 Harris Lane, Staten Island, NY,* Greenhouse, 7/96 for DEC. One historic site; A08501.002264 (Arthur Kill) within 3.5 acres. AND Stage III.

OPR Report #59, 95PR2004. *Phases I/II/III; PS 56R School Site, Staten Island, NY,* Historical Perspectives, 11/96 for NYCSCA. One prehistoric site, A08501.002569 (Arthur Kill) within 2.7 acres; 1731.5 sq ft.

OPR Report #63, 94PR2305/95PR1101. *Stages IB and II Cultural Resource Survey for NY Harbor Collection and Removal of Drift Project, Arthurkill, NY Reach, NJ Reach, Kill Van Kull, Staten Island,* Panamerican, 199 for CORPS. 101 historic sites; A08501.002601-2703 (Arthur Kill and Elizabeth, includes Item 1, Sites 43-44). NOTE: portions lies near proposed project area.

OPR Report #65, 92PR2047. *Stage IA/B Archaeological Survey for Proposed Thermo Energy Systems Corporation, SI Cogeneration Project, Staten Island,* University Stony Brook, 12/91 for DEC. Two unidentified prehistoric sites within five acres.

OPR Report #67. *Stage IA/B Archaeological Survey for Clay Pit Ponds State Park Preserve, Staten Island, NY,* Pickman and Yamin, 1/86 for OPRHP. No sites within 250 acres.

OPR Report #70, 02PR0065. *Stages I and II Archaeological Investigations for Bricktown Centre at Charleston, Staten Island,* Milner, 3/00 for DEC. Two prehistoric, A08501.0002766-2767 and on prehistoric/historic; A08501.000073 (Arthur Kill) within 120 acres; 117 sq ft.

OPR Report #75, 01PR3599. *Stage IB Cultural Resource Survey for Arthur Kill Power Plant Lateral, Staten Island, NY,* Hunter Research 11/03 for CORPS. No sites within 16.7 acres. NOTE: lies near proposed project area.

3. National Register eligible and listed properties within, adjacent or within view shed of project area:

NRL: None near.
NRE: possible – see Item 4

4. Inventoried structures within, adjacent or within view shed of project area for West Shore Expressway (Route 440), Bloomfield Road, Chelsea Road, South Avenue, Travis Avenue, Meredith Avenue, Victory Boulevard, Wild Avenue, Arden Road, Arthurkill Road, Rossville Avenue, Winant Avenue, Bloomingdale Road, Edward Curry Avenue, Glen Street and Veterans Road.

Chelsea Road

08501.002759, 291-295

South Avenue

08501.000632, 18
08501.000633, 29
08501.000634, 39
08501.000635, 46
08501.000636, 57 ½
08501.000637, 74
08501.000638, 86
08501.000639, 88-90
08501.000640, 95
08501.000641, 109
08501.000642, 116
08501.000643, 117
08501.000644, 130-132
08501.000645, 131
08501.000646, 142
08501.000647, 202
08501.000648, 237-239
08501.002812, 700 (Not eligible)
08501.002757, 1900

Victory Boulevard

08501.001185, Alcoa Building 19
08501.001186, Alcoa Buildings 24 & 25
08501.001184, Alcoa Building 27
08501.001125, Golf House at Silver Lake
08501.001188, Lyons Pool
08501.001181, residence
08501.001187, restaurant
08501.002388, Tompkinsville Play Center (NRL)
08501.001173, 1-6
08501.001175, 101
08501.001176, 113
08501.001177, 115
08501.001178, 119
08501.001179, 121
08501.002727, 1581, PS 29 (NRE)
08501.001544, 1694
08501.001545, 1696-1698
08501.001183, 17
08501.002572, 1731 (Not eligible)
08501.001546, 1765
08501.001180, 203
08501.001547, 2187
08501:001548, 2401
08501.001563, 2760, Administration I Willowbrook Developmental Center
08501.001568, 2760, Auditurim #3
08501.001567, 2760, Female Ward #21
08501.001571, 2760, Garage
08501.001570, 2760, Kitchen and Dining Room #2
08501.001569, 2760, Male Ward #6
08501.001564, 2760, Old Halloram Hospital
08501.001566, 2760, Staff Apartments
08501.001565, 2760, Staff Residence
08501.001182, 285
08501.000785, 293
08501.000786, 295
08501.002750, 307 (Not eligible)
08501.002758, 4435
08501.000462, 590
08501.001174, 61
08501.002736, 700 (Not eligible)
08501.002751, 800 (Not eligible)
08501.002738, 961
08501.002786, 1818-1830 (Not eligible)
08501.002800, 4108 (Not eligible)

Rossville Avenue

08501.000979, 1063
08501.000980, 1099
08501.001588, 851
08501.001589, 855

Bloomingdale Road

08501.002308, Feature F, Bogardus' Corner (NRL)
08501.000072, 135
08501.002084, 34
08501.002295, 414 (NRL)
08501.002294, 431 (NRL)
08501.002296, 455 (NRL)
08501.002269, 540, Copper House (NRL)
08501.002310, 540, SGS Features M and N (NRL)
08501.000063, 559, Cooper
08501.002268, 559, S. Copper House (NRL)
08501.002267, 565, SGS-9 (NRL)
08501.000064, 565, J. Drew, Inc.
08501.000065, 569
08501.002266, 570 (NRL)
08501.002271, 575 (NRL)
08501.000066, 575, Payne
08501.002265, 579.5, Collins House (NRL)
08501.002270, 584 (NRL)
08501.002304, 585 (NRL)
08501.000067, 587, Payne
08501.002264, 587, Pedro (NRL)
08501.000068, 591, Henry
08501.002263, 591, SGS-5 (NRL)
08501.002262, 599 (NRL)
08501.002261, 610 (NRL)
08501.002260, 624 (NRL)
08501.000085, 69
08501.002290, 718 (NRL)
08501.002306, Clay Pit and Bloomingdale Road corner lot (NRL)

5. National Register staff comments and concerns:

Knows of no current local concerns or nominations in progress

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NYSOPRHP Site File Search Results

(sites within 3.2 km/2 mi radius from project area)

June 2006

Item 1. Archaeological Site Table. PIN X096.18.101, West Shore Expressway, Staten Island, Richmond County (08501). Arthur Kill Quadrangle. Page 1 of 8.

Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
1) prehistoric NYSM 746 A08501.000135 (Site 10 below)	Chelsea: Burning Ground; Std 20-3			Possible Archaic, possible Transitional Village and burials	Lodges, graves, grooved axes	Documented by A. Skinner 1909
2) prehistoric & historic NYSM 4596	ACP RICH-6			Possible Late Archaic, Late Woodland and Historic (Native American or Euroamerican?) camps and traces of occupation	Abundance of artifacts including projectile points, bannerstones, steatite beads, incised clay bead, possible plummet, grooved axes, Iroquois pottery, pipes, probable gun flint of jasper	Documented by Parker
3) prehistoric? NYSM 4597	ACP RICH-7A			Unidentified prehistoric? Burials	Graves reported; several with grooved axes	"
4) ??? NYSM 6496				Wrong # on GIS – probably a site location though		
5) prehistoric NYSM 7216	ACP RICH			Unidentified prehistoric Traces of occupation	No information	Documented by Parker
6) prehistoric NYSM 7324				Transitional	Perkiomen projectile points found under swampland c. 1940	None
7) prehistoric NYSM 8501				Unidentified prehistoric Camp	No information	None
8) prehistoric NYSM 8503				Unidentified prehistoric Camp	"	None
9) prehistoric NYSM 8504				Unidentified prehistoric Traces of occupation	"	None
10) prehistoric A08501.000135 NYSM 746 (Site 1)	Chelsea-Skinner's Site 6 & 7, Std 20-3	Approx 152 m (500 ft) from Sawmill Creek	3 m (10 ft); flat	Unidentified prehistoric Burying ground	1903: Skinner excavated lodges (Skinner 6) 1909: Skinner excavated graves (Skinner 7)	None
11) NYSM ?				Error on GIS – site location?		
12) prehistoric NYSM 8502				Unidentified prehistoric Traces of occupation	No information	None
13) ???? A08501.002634				Form missing		
14) prehistoric NYSM 4627	ACP RICH			Unidentified prehistoric Camps – possibly three	No information	Documented by Parker
15) prehistoric NYSM 8323	ACP RICH-7B			Unidentified prehistoric	Relics found	"
16) prehistoric NYSM 4598	ACP RICH-8	Very lg general area adjacent to PA & beyond / at least 134 m (440 ft) W of Freshkill	3-12 m (10-40 ft); flat-gentle	Unidentified prehistoric Possible camps, possible hamlets, possible middens Scattered lodges and small shells	No information	"
17) HNA? NYSM 4600	ACP RICH-10	Lg general area 1.8 km (1.1 mi) E / wetlands & Corson's Brook	6-12 m (20-40 ft); flat-gentle	Possible Historic Native American Burials and shell midden	Shells and graves, iron projectile point. Many reports of "Indian" implements found	"

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Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
18) prehistoric NYSM 4599	ACP RICH-9	Lg general area adj to PA + / N + Freshkills	4.5-6 m (15-20 ft); flat-gentle	Unidentified prehistoric Middens and traces; possible hamlets	Shell heap, relics	Documented by Parker
19) prehsitoric NYSM 4626	ACP RICH	General area 0.5 km (0.3 mi) E / Adj + Main Creek	3-12 m (10-40 ft); flat-gentle	Unidentified prehistoric Camp	No information	"
20) prehistoric NYSM 4602	ACP RICH-12	General area 0.6 km (0.4 mi) W / between Little & Great Fresh kills	1.8-4.5 m (6-15 ft); flat-gentle	Unidentified prehistoric (early) Small village, shell midden	Early relics and projectile points	"
21) prehistoric? A08501.000110	Lakes Island Site	0.6 km (0.4 mi) W / adj W Great Fresh Kills & marsh area	4.5 m (15 ft); flat	Unidentified prehistoric ?	Skinner; 1903. Solecki Survey 13 – suffered major destructive activity since 1940s	None
22) prehistoric NYSM 4625	Lakes Island Area	General area 0.4 km (0.2 mi) + W / adj Great Fresh Kills	"	Unidentified prehistoirc Possible camps, possible village, possible middens.	Possibly same site as NYSM 4602 (Site 20 above); ACP RICH-12. Skinner excavated 1909	None
23) prehistoric NYSM 8322	ACP RICH	Adj + W / S Little Fresh Kills	6-9 m (20-30 ft); flat-gentle	Unidentified prehistoric Camp	No information	Documented by Parker
24) prehistoric NYSM 8498		Adj W / 213 m (700 ft) + SE of Great Fresh Kills	9-11 m (30-35 ft); flat-gentle	Unidentified prehistoric Traces of occupation	"	None
25) prehistoric NYSM 745	Greenridge Site; Std 19-3	General area 1.1 km (0.7 mi) E / 396 m (1300 ft) SW Richmond Ck	15 m (50 ft); flat	Unidentified prehistoric (early) Camp	Skinner excavated 1909	none
26) prehistoric A08501.000005	Fiddler's Green Site; Std-3	1.6 km (1 mi) E / approx 610 m (2000 ft) from water	17 m (55 ft); flat	Unidentified prehistoric Camp	"	C-36-392-02 Stage IA; 1978
27) prehistoric NYSM 737	Smoking Point; Std- 14-3	Adj to PA / adj + E + Fresh Kills	3-15 m (5-50 ft); flat-gentle	Archaic, Transitional, possible Woodland shells middens & camps	No information	None
28) ??? A08501.002602		Approx 0.5 km (0.3 mi) W / adj E Fresh Kills	3 m (5 ft); flat	Form missing		
29) ??? A08501.002689		Approx 0.2 km (0.1 mi) W / adj E Fresh Kills	"	Form missing		
30) prehistoric NYSM 4616	ACP RICH-26	Lg general area 1.6 km (1 mi) E / 160 m (525 ft) N creek	6 m (20 ft)	Unidentified prehistoric Large camp	Grooved axes and other relics No shells or pottery found	Documented by Parker
31) prehistoric NYSM 8321	ACP RICH	Lg general area 1.9 km (1.2 mi) E / wetland	4.5 m (15 ft)	Unidentified prehistoric Traces of occupation	No information	"
32) prehistoric A08501.000109	Richmond Hill	1.9 km (1.2 mi) E / 61 m (200 ft) S of creek	"	Archaic Complex of three sites	Surface & units	OPR Report #13
33) historic A08501.000112	Burial Hill	1.9 km (1.2 mi) E / 30 m (100 ft) S of creek	"	Euroamerican Headstones on top of Ketchums Hill	No information	"
34) historic A08501.000114	Ketchum's Mill	1.9 km (1.2 mi) E / adj creek	"	Pre 1896 foundation and raceway	Surface	"
35) prehistoric? NYSM 749	Richmond Hill: Arthurkill Site ?	2.6 km (1.6 mi) E / 457 m (1500 ft) from creek	7.5 m (25 ft)	Prehistoric? No information	No information	None
36) historic A08501.000002	Whitlock Brothers Factory	2.6 km (1.6 mi) E / 91 m (300 ft) N creek	"	Concrete block factory foundation	"	OPR Report #13

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NYSOPRHP Site File Search Results

(sites within 3.2 km/2 mi radius from project area)

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Item 1. Archaeological Site Table. PIN X096.18.101, West Shore Expressway, Staten Island, Richmond County (08501). Arthur Kill Quadrangle. Page 3 of 8.

Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
37) historic A08501.000113	Old Fort-Richmond Redoubt	2.6 km (1.6 mi) E / 183 m (600 ft) N of creek	7.5 m (25 ft)	Surface traces of 18th century British fort	Surface (1977) & units (1945)	OPR Report #13
38) prehistoric A08501.000114		2.6 km (1.6 mi) E / 137 m (450 ft) N of creek	"	Unidentified prehistoric Stray finds	Artifacts reported found near former mill pond	OPR Report #13
39) prehistoric NYSM 4601	ACP RICH-11	2.3 km (1.4 mi) W / 914 m (3000 ft) S Richmond Creek & wetland	12 m (40 ft); gentle	Unidentified prehistoric Early camp	Early relics	Documented by Parker & Skinner
40) prehistoric NYSM 8495		0.4 km (0.2 mi) W / adj Arthurkill	3 m (10 ft)	Unidentified prehistoric Shell middens	No information	None
41) prehistoric NYSM 4624	ACP RICH	Adj/within PA / 549 m (1800 ft) S Arthurkill	15 m (50 ft)	Unidentified prehistoric Possible camp or possible village	"	Documented by Parker-Skinner
42) prehistoric A08501.000119	Rossville Site	"	"	Unidentified prehistoric Shell heap & euroamerican stray	Some units by NYU in 1976: quartz and chert chips and euroamerican glazed ceramic sherds	none
43) historic A08501.002601	Arthurkill and Kill Van Kull Vessel V-12	Adjacent west of A08501.002602 (Site 28 above)		Euroamerican Ship remains	No information	OPR Report #63; 94PR2305 95PR1101
44) historic A08501.002677	Vessel V-43	Adjacent west of A08501.002689 (Site 29 above)		"	"	"
45) prehistoric A08501.002426	SICF-Area C-1	Adjacent/within / 46 m (150 ft) S of Arthurkill	9 m (29 ft); flat	Late Woodland (Bowman's Brook) Shell midden and camp. Also possibly includes some Early Woodland (North Beach)	Surface, 1 stp, 4 units: lithic tools and debitage, pottery sherds, and some ground stone and fire cracked rock	CEQR-88-071R Staten Island Correctional Facility, 1992
46) historic A08501.002427	Winant Homestead Cottage Site	Adjacent / within / 61 m (200 ft) from water	3.6 m (12 ft); flat	Pre 1850 foundation, domestic site	Stps, 1 unit, backhoe trench: faunal, floral, domestic and personal artifacts, brick floor, cutstone foundation with mortar	"
47) prehistoric? NYSM 772	Rossville Shell Heap	Within / 366 m (1200 ft) S of Arthurkill		Unidentified prehistoric? Shell midden	No information	None
48) prehistoric NYSM 738	Pottery Farm Site	Approx 0.5 km (0.3 mi) W / 366-610 m (1200-2000 ft) S Arthurkill		Refer to Site 53 – Woodland Probably same site	"	Reported by NYU; Salwen
49) prehistoric NYSM 742	Port Socony North Site	"		Paleoindian Possible camp	Fluted projectile point found	"
50) prehistoric NYSM 7323	Chemical Lane; Locus North	"		Late Archaic, Transitional and possible other component Refer to Site 52 below – another loci	Hearth with Perkioman ppts and Vinette 1 pottery. Also found: atlatl weights, Bare Island, Poplar Island and other projectile points	" " 1967
51) prehistoric NYSM 8494		"		Unidentified prehistoric Traces of occupation	No information	Documented by Parker
52) prehsitoric A08501.000074	Chemical Lane: CL Ultra-Marine Site	"		Archaic and possible Woodland Two loci	Units 1960s: A) Pennsylvania Broad ppts, Vinette I pottery vessel in-situ with Perkiomen ppts, B) 2 stone atlatl weights, variety Archaic ppts	Reported by NYS; Salwen; 1960s

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Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
54A) prehistoric A08501.000075	*Pottery Farm* Site	*Approx* 0.5 km (0.3 mi) W / 366-610 m (1200-2000 ft) S Arthurkill	9-12 m (30-40 ft)	Possible Woodland	Units: lg quantity pottery recovered	None
54B) prehistoric NYSM 8471	ACP RICH-19C	3.2 km (2 mi) S / 244 m (800 ft) S of Mill Creek		Unidentified prehistoric Traces of occupation, possible middens and/or scattered camps	No information	Documented by Parker
55) prehistoric NYSM 5701	New Site 1	Within 3.2 km (2 mi) of the south end of the Project Area		Unidentified prehistoric Possible camp, possible workshop	Finds include 3 side scrapers, 2 end scrapers, hammerstone, chert debitage	None
56) prehistoric NYSM 8494		"		Unidentified prehistoric *Traces of occupation*	No information	Documented by Parker
57) historic? NYSM 5702	New Site 2	"		Possible 19th-20th century trash midden	"	OPR Report #26
58) prehistoric NYSM 4603	ACP RICH-13A	"		Unidentified prehistoric Traces of occupation. Fields?	Relics found. Series of Indian fields up Sandy Brook	Documented by Parker
59) prehistoric NYSM 744	Charleston Beach Site	"		Archaic, Transitional?, Early Woodland?, Middle Woodland	10 fluted projectile points reported in area of eroding peatbed	Reported Bert Salwen
60) prehistoric NYSM 4623	ACP RICH	"		Unidentified prehistoric Village or camp	No information	Documented by Parker
61) prehistoric NYSM 733	Rossville Camp	"		Unidentified prehistoric Camp	"	"
62) prehistoric & historic NYSM 735	Wort Farm Site	"		Late Archaic, Woodland camp and Euroamerican	"	Reported by Skinner & Salwen
63) historic NYSM 747	Sandy Ground: Woodrow: Harrisville	"		19th century village and *middens*	"	None
64)HNA NYSM 4604	ACP RICH-14A	"		Possible Historic Native American Villages	Stone mortars, iron trade axes, abundant quantity glass beads	Documented by Parker
65) prehistoric NYSM 4623	ACP RICH	"		Unidentified prehistoric Village or camp	No information	"
66) prehistoric? NYSM 771	Kreischev Site	"		Possible prehistoric	"	None
67) prehistoric? NYSM 770	Canada Hill Site	"		Possible prehistoric	"	None
68) prehistoric NYSM 8493	ACP RICH-16B	"		Unidentified prehistoric Camp	"	None
69) prehistoric NYSM 4606	ACP RICH-16A	"		Unidentified prehistoric Early shell middens and traces	"	Documented by Parker
70) prehistoric A08501.000120	Gericke Farm Site	"		Unidentified prehistoric	Surface, stps:	OPR Report #27

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Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
71) historic A08501.002264 D03	SGS6; Pedro House Lot Site	Within 3.2 km (2 mi) S of S end of project area		Extant 1887/1898 house	Surface: 20th century household material	OPR Report #12
72) prehistoric A08501.000083	Winant Site	"		Unidentified prehistoric	Stps	OPR Report #27
73) historic A08501.002258 D03		"		House site Form missing	Form missing	OPR Report #12
74) prehistoric & historic A08501.002378	Salamander Historic Site	" 335 m (1100 ft) from water	35 m (116 ft); gentle	Unidentified prehistoric stray find and late 19th-early 20th century	79 stps: 1 quartz flake, 3 chert flakes (1 with cortex), 2 possible fire cracked rock and historic	OPR Report #40
75) historic A08501.000082	Porzio House Site	Within 3.2 km (2 mi) S of S end of project area		House site	No information	OPR Report #27
76) prehistoric & historic A08501.002767	Site A7-MCB-1	"	Small knoll	Unidentified prehistoric Workshop and euoramerican material	26 stps (4 positive): 1 chalcedony flake, 1 chert flake, 1 quartzite hammerstone, 1 fire cracked rock. And 4 units: prehistoric and historic material	OPR Report #140; 02PR00065
77) prehistoric A08501.002766	Site C4-MCB-1	"	Small knoll	Unidentified prehistoric Workshop	40 stps (4 positive), 4 units: 3 argillite flakes, 1 chert flake, 1 quartz flake, quartz biface, chert flakes & block, jasper block	"
78) prehistoric & historic A08501.000073	Canada Hill Site	"		Unidentified prehistoric & historic	5 stps: quartz & chert chips, fire cracked rock, kaolin pipe frag on surface, glazed ceramic sherds, light scatter of shell frags (mostly clam) on surface. Numerous collections.	STPs dug by NYU 1967
79) historic A08501.000079	Liss House Site	"		Extant house	No information	OPR Report #27
80) prehistoric A08501.000121	Clay Pit Pond East Site	"		Unidentified prehistoric	Surface & stps	"
81) prehistoric A08501.000118	T & J Site	"		Unidentified prehistoric	Surface & stps	"
82) prehistoric A08501.000124	Clay Pit Road Site	"		Unidentified prehistoric	Surface: 4 fire cracked rock, 2 pottery sherds, 1 ground stone, flakes (1 jasper, 7 chert, 1 quartz, 31 argillite)	"
83) prehistoric A08501.000131	Junkyard Site	"		Woodland	Surface, stps: 2 Madison ppts, 1 biface, 2 ground stone, 36 fire cracked rock, 6 jasper & 3 chert flakes	"
84) prehistoric A08501.000878	Abraham's Pond Locus A	"		Unidentified prehistoric	Surface: 15 fire cracked rock, 2 ground stone, flakes (1 unidentified material, 2 quartz, 1 jasper, 1 argillite, 9 chert)	"
85) prehistoric A08501.000880	Abraham's Pond Locus C	"		Unidentified prehistoric	Surface: 1 chert flake	"
86) prehistoric A08501.000879	Abraham's Pond Locus B	"		Unidentified prehistoric	Surface: 26 fire cracked rock, flakes (1 quarts, 1 unidentified material, 19 chert, 3 argillite)	"

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NYSOPRHP Site File Search Results

(sites within 3.2 km/2 mi radius from project area)

June 2006

Item 1. Archaeological Site Table. PIN X096.18.101, West Shore Expressway, Staten Island, Richmond County (08501). Arthur Kill Quadrangle. Page 6 of 8.

Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
87) historic A08501.000080	Dubois House	Within 3.2 km (2 mi) S from S end of project area		Euroamerican House foundation	No information	OPR Report #27
88) prehistoric A08501.000130	Park Headquarter's	"		Unidentified prehistoric	Surface & stps: 82 fire cracked rock, 4 ground stone, 1 jasper flake, 1 quartz flake	OPR Report #27
89) historic A08501.002604	Vessel V-58	"		Euroameican ship remains	No information	OPR Report #63
90) historic A08501.002615	Vessel V-57	"		"	"	"
91) historic A08501.002672	Vessel V-75	"		"	"	"
92) historic A08501.000079	Anderson Brick Works Site	"		Factory foundation	"	OPR Report #13
93) historic A08501.002621	Vessel V-120	"		Euroamerican ship remains	"	OPR Report #63
94) historic A08501.002642	Vessel V-135	"		"	"	"
95) historic A08501.002619	Vessel V-179	"		"	"	"
96) historic A08501.002643	Vessel V-160	"		"	"	"
97) historic A08501.002636	Vessel V-193	"		"	"	"
98) historic A08501.002633	Vessel V-195	"		"	"	"
99) historic A08501.002606	Vessel V-62	"		"	"	"
100) historic A08501.002672	Vessel V-75	"		"	"	"
101) historic A08501.002699	Vessel V-76	"		"	"	"
102) historic A08501.002676	Vessel V-102	"		"	"	"
103) historic A08501.002675	Vessel V-100	"		"	"	"
104) historic A08501.002603	Vessel V-81	"		"	"	"
105) historic A08501.002696	Vessel V-82	"		"	"	"
106) historic A08501.002697	Vessel V-83	"		"	"	"

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NYSOPRHP Site File Search Results

(sites within 3.2 km/2 mi radius from project area)

June 2006

Item 1. Archaeological Site Table. PIN X096.18.101, West Shore Expressway, Staten Island, Richmond County (08501). Arthur Kill Quadrangle. Page 7 of 8.

Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
107) historic A08501.002695	Vessel V-78	Within 3.2 km (2 mi) S of S end of project area		Euroamerican ship remains	No information	OPR Report #63
108) historic A08501.002674	Vessel V-84	"		"	"	"
109) historic A08501.002673	Vessel V-76	"		"	"	"
Elizabeth	**Quadrangle**					
110) prehistoric NYSM 729	Arlington Place Sites	From 2.3-3.2 km (1.4-2 mi) N of N end of project area		Late Archaic, Transitional, Early and Late Woodland camps and villages	"	Documented by William Ritchie & Bert Salwen
111) prehistoric NYSM 730	Arlington Station site	"		Woodland and possible other component. Shell middens	"	Documented by Skinner Salwen
112) prehistoric NYSM 732	Goodrich Site	"		Early Archaic, possible Middle Archaic, Late Archaic	Projectile points include Stanley Kirk complex	Documented by Salwen, NYU
113) prehistoric NYSM 4593	ACP RICH-3	"	Low knoll	Woodland Village, ca. 6 shell & bone middens	Middens 4-6 feet deep and wide. Algonkian pottery, grooved axe, pipes, projectile points	Documented by Parker
114) prehistoric NYSM 4594	Bowman's Brook?: Newtons Creek: Deharts; ACP RICH-4	"		Woodland Village and cemetery and ossuary	Abundant pottery sherds, mostly Algonkian, some Iroquois. Cemetery with flexed burials	"
115) prehistoric NYSM 4630	ACP RICH	"		Unidentified prehistoric Camp	No information	"
116) prehistoric? NYSM 7321	Bowman's Brook:Milliken	"		Probably prehistoric No information	"	Documented by Salwen 1967
117) prehistoric NYSM 7811	ACP RICH	"		Unidentified prehistoric Camp	"	Documented by Parker
118) prehistoric NYSM 8506		"		Unidentified prehistoric Camp	"	None
119) prehistoric NYSM 8507		"		Unidentified prehistoric Camp	"	None
120) prehistoric NYSM 8505		"		Unidentified prehistoric Traces of occupation	"	None
121) ?? NYSM 4595	ACP RICH-5	"		Possible prehistoric, possible Historic Native American and euroamerican. Village, burials, possible middens	Large village with shell heaps and fire places, brass projectile point, gun flints	Documented by Parker
122) prehistoric NYSM 7215	Old Place; Loci 1-8	"		Early Archaic, Middle Archaic, Transitional, possible Early Woodland, Middle Woodland, Late Middle Woodland, possible LW	Finds include Stanley/Neville and corner-notched ppts, Bare and Poplar Island ppts, Snook Kill, Levanna ppts, steatite and Vinette I pottery sherds	None

Parker, Arthur C "History of the Archaeology of New York State," NYS Museum Bulletins 238-239: 1920-22.

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NYSOPRHP Site File Search Results

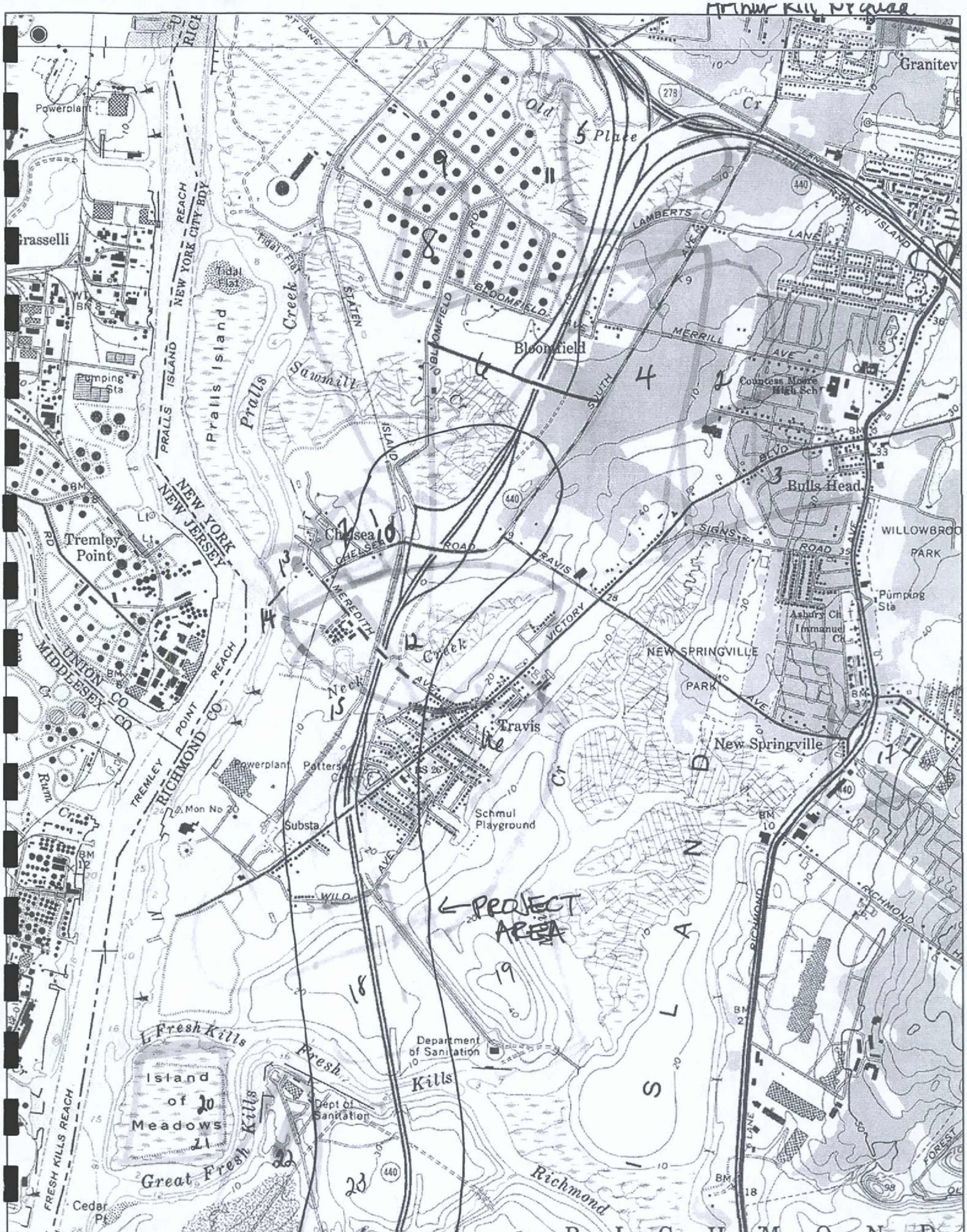
(sites within 3.2 km/2 mi radius from project area)

June 2006

Item 1. Archaeological Site Table. PIN X096.18.101, West Shore Expressway, Staten Island, Richmond County (08501). Elizabeth Quadrangle. Page 8 of 8.

Site Number	Site Name	Distance from project area / distance from water source	Elevation amsl Slope	Cultural Affiliation / Site Type	Testing / Artifacts	Report
123) prehistoric A08501.000138	Arlington Station Site	From 2.3-3.2 km (1.4-2 mi) N of N end of project area / approx 610 m (2000 ft) Kill Van Kull	Low sandy knoll	Unidentified prehistoric	Stps (Skinner 1902): Skinner opened ca 6 shell pits – all bowl shaped & 4-6 ft deep and wide – included bone, oyster shell, bone & antler tools, Algonkian pottery, projectile points, scapers, hammerstones. On surface in vicinity: celts, grooved axes, bannerstone frags	Documented by Skinner & NYU (Salwen) 1967 survey
124) prehistoric A08501.000139	Arlington Place Site	"		Archaic and some Late Woodland Scattered sites	Units (1961): pottery and projectile points	None
125) prehistoric A08501.000134	Old Place	" near Old Place Creek	Higher ground extending into marsh	Early Archaic	8 Snook kill ppts, bannerstone, Poplar Island & Bare Island ppts	Funk & Ritchie, 1971 NYSM Bulletin
126) prehistoric A08501.002366	Old Place Amerindian Sites; Locus 9	"		Archaic, Transitional, Early & Late Woodland Possible camps	Surface & stps: Snook kill, Bare Island and Poplar Island ppts, Vinette I & later pottery sherds	Howland Hook Marine Terminal Expansion; Rochester Museum 1986
127) historic A08501.002367	Whalen Trucking; Locus 10. "Old Place"	"		No visible evidence of foundation of c. 1790 domestic building. By 1878 Haughwout House	Surface:	"
128) historic A08501.002368	Whalen Trucking Co; Locus 11	"		No visible evidence of foundation – site is in general area of a structure	surface	"
129) historic A08501.002372	Whalen Trucking Co; Locus 16	"		No visible evidence of foundation of c. 1790 domestic building "Old Place". By 1878 MT Jones	Surface	"
130) historic A08501.002373	Whalen Trucking Co; Locus 17	"		No visible evidence of foundation – general area of a structure – possibly associated with Locus 16	Surface	"
131) historic A08501.002374	Tunissen's Site; Whalen Trucking Co; Locus 18	"		No visible evidence of 1680 domestic building. Location of the first "Old Place" House	Surface	"

Arthur Kill, NY quad



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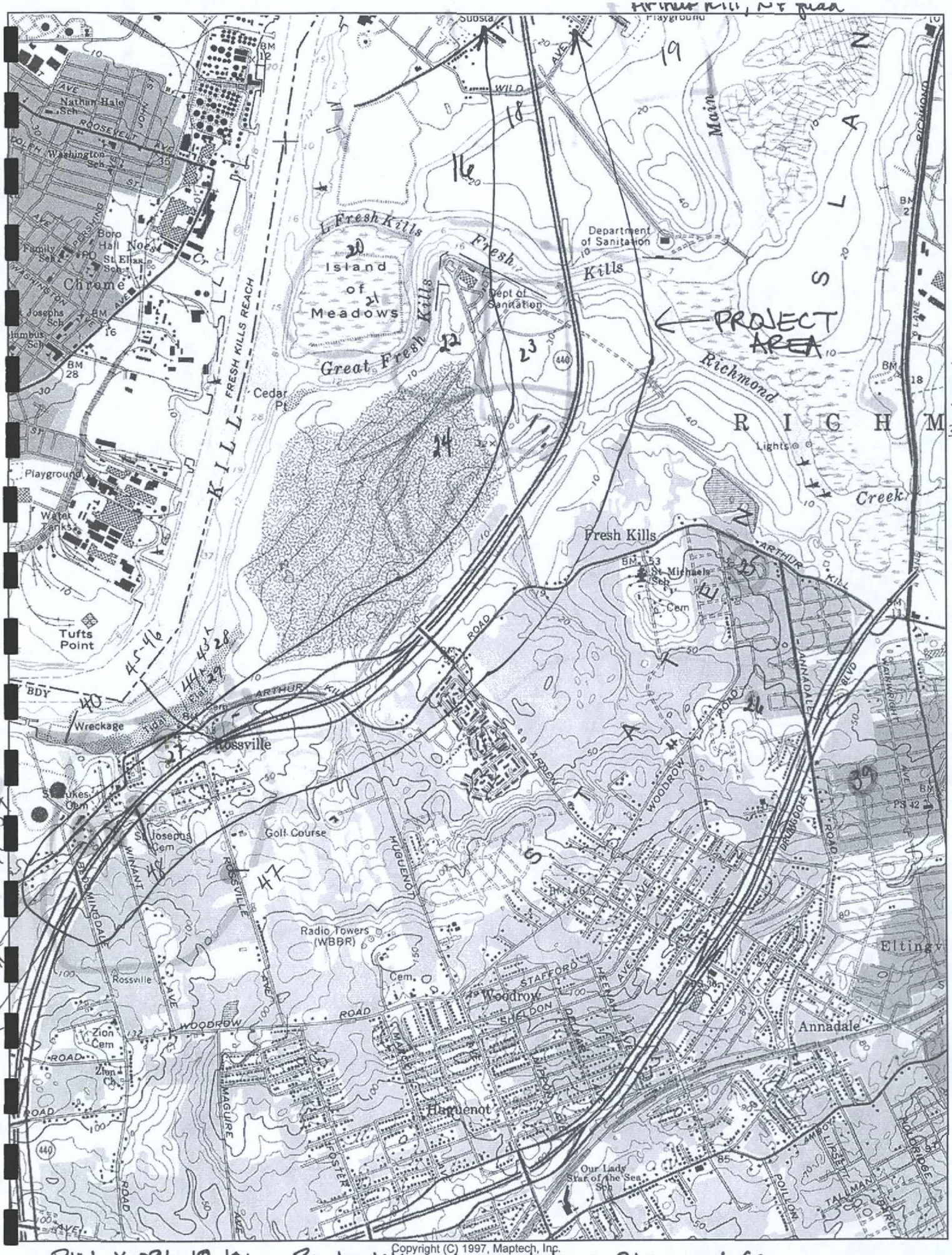
PIN X096.18.101 Route 440, Staten Island. Richmond Co.



PIN X096.18.101 Route 440. Staten Island. Richmond Co.

APPENDIX D: Project Map

Figure 3, Sheet 1. Project Map
PIN X096.18.101, New York State
Route 440, Staten Island
South Avenue Study Area
Stony Brook University, 2007

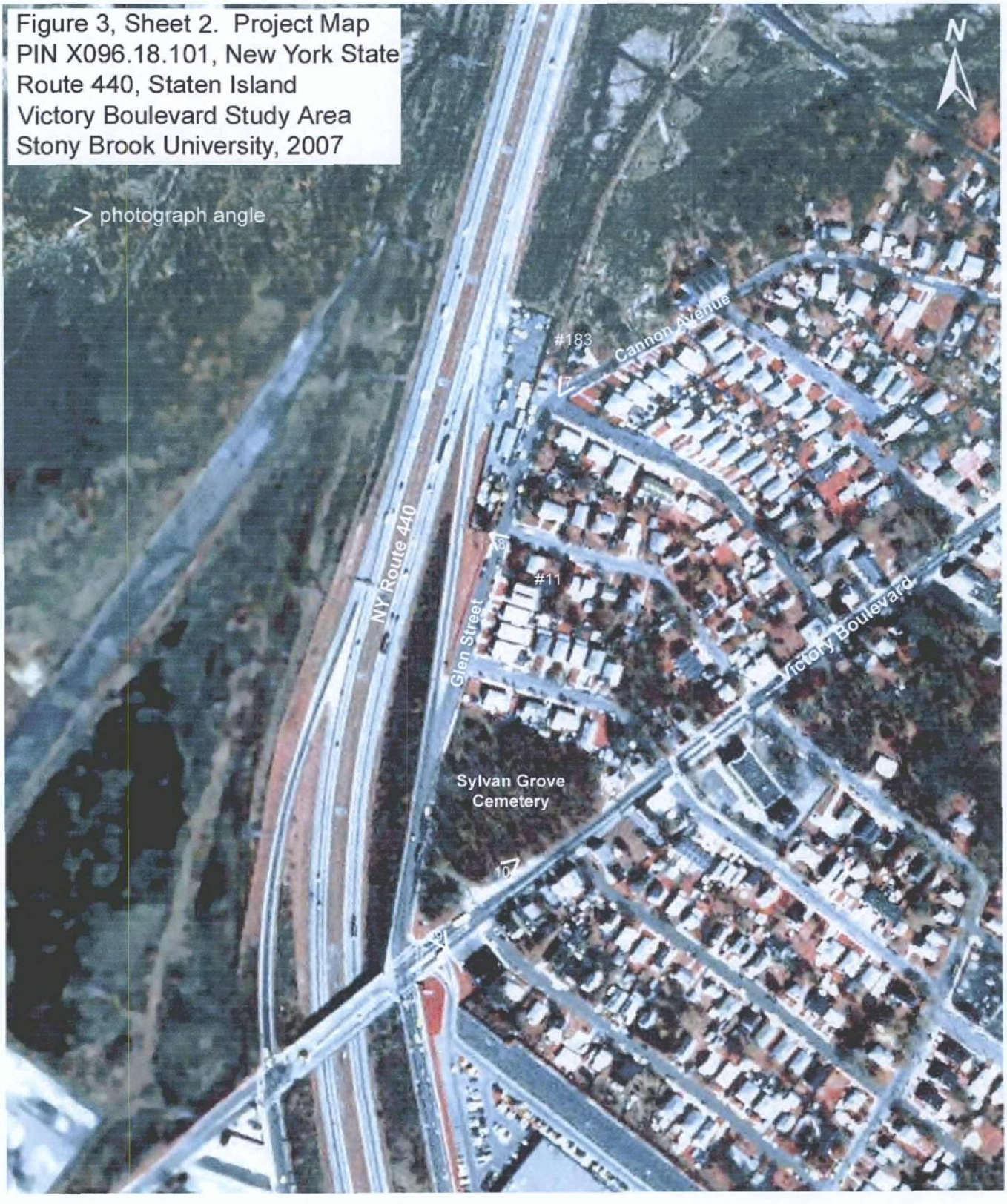


Figure 3, Sheet 2. Project Map
PIN X096.18.101, New York State Route 440, Staten Island
Victory Boulevard Study Area
Stony Brook University, 2007
> photograph angle
N
#183
Cannon Avenue
#11
Glen Street
NY Route 440
Victory Boulevard
Sylvan Grove Cemetery

Figure 3, Sheet 3. Project Map
PIN X096.18.101, New York State Route 440, Staten Island
Arden Avenue Study Area
Stony Brook University, 2007

Figure 3, Sheet 4. Project Map
PIN X096.18.101, New York State
Route 440, Staten Island
Arthur Kill Road Study Area
Stony Brook University, 2007