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Prepared for:

United States Army Corps of Engineers, New York District

The Built Environment along Long Island's South Shore

HISTORIC RESOURCE STUDY

US Army Corps of Engineers

FIRE ISLAND TO MONTAUK POINT
REFORMULATION STUDY
&
ENVIRONMENTAL
IMPACT
STATEMENT

Prepared by:

URS

Burlington, New Jersey

THE BUILT ENVIRONMENT ALONG LONG ISLAND'S SOUTH SHORE

HISTORIC RESOURCE STUDY

FIRE ISLAND TO MONTAUK POINT REFORMULATION STUDY & ENVIRONMENTAL IMPACT STATEMENT

Prepared for:

United States Army Corps of Engineers,
New York District

Prepared by:

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ABSTRACT

URS conducted this historic resource study as part of the Fire Island to Montauk Point Reformulation Study (FIMP), a broad and complex study concerning hazard-prone sites along Long Island's South Shore and barrier island in New York, sponsored by the U.S. Army Corps of Engineers (USACE) and multiple project partners. The FIMP study identifies areas subject to hazard-related damage and evaluates multiple structural and non-structural alternatives that may reduce damage. As part of this evaluation, the USACE is identifying a wide range of potential environmental considerations through an ongoing environmental impact statement (in compliance with the National Environmental Policy Act) and cultural resource considerations (in compliance with both the National Historic Preservation Act and the National Environmental Policy Act). This historic resource study represents a phased approach to compliance, as specific structural and non-structural alternatives have not been finalized. This study also incorporates earlier cultural resource projects conducted for FIMP, and identifies issues for future phases of cultural resource work. The non-federal sponsor for the project is the New York State Department of Environmental Conservation (NYSDEC), as stated on page 1.1. There is only one non-federal sponsor, but many interested parties.

The historic resource study defines an approximate area of potential effects (APE) based upon known project alternatives; it includes a survey of representative and unique aboveground historic resources found within the APE, including landscape features, resort and recreational features, and residential development. Basing a survey methodology upon preliminary research and National Park Service standards, the study uses specific integrity criteria to identify both individual resources and districts that indicate a higher likelihood of eligibility for listing on the National Register of Historic Places. Fieldwork and research revealed a significant concentration of residential suburbs, dating from the early to mid-twentieth century. As part of the phased approach to compliance, this study also identifies likely adverse effects to historic resources from typical implementation of various structural and non-structural alternatives. In addition, this study develops a decision-making framework to evaluate both programmatic and site-specific alternatives in avoiding, minimizing, or mitigating adverse effects. As part of a phased approach to compliance, this study does not contain finalized conclusions regarding eligibility or effects assessment, but instead provides the foundation for further cultural resource consultation and decision-making.

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I. INTRODUCTION

FIRE ISLAND TO MONTAUK POINT REFORMULATION STUDY PROJECT GOALS

The Fire Island to Montauk Point (FIMP) Reformulation Study seeks to evaluate a wide variety of hazard mitigation alternatives for the barrier island and South Shore of Long Island. The purpose of the study is to identify, evaluate, and recommend long-term solutions for hurricane- and storm-damage reduction in regard to the homes and businesses within the coastal floodplain from Fire Island Inlet to Montauk Point. This area is particularly vulnerable to hazard events, including coastal storms, hurricanes, and associated flood events. The southern portion of Long Island is a complex balance between human occupation and natural geology. The substantial population increase on Long Island occurred rapidly in the early to mid-twentieth century. The resulting population base is not only vulnerable to hazard-related damage, but is also a vibrant and established community. In addition to analyzing long-term damage reduction alternatives, the FIMP study seeks to bolster other social goals, such as economic vitality. Also, the FIMP study seeks to preserve, maintain, or enhance natural resources. The New York State Department of Environmental Conservation (NYSDEC) supports the reformulation study and serves as the United States Army Corps of Engineers' (USACE) non-federal partner. It is hoped that the FIMP reformulation study will serve as a model for addressing similar coastal issues elsewhere along Long Island, in the Northeast, and across the United States as a whole.

Encompassing the floodplain along 83 miles of ocean and bay shorelines, the project area encompasses some of Long Island's most densely populated communities, such as Lindenhurst, Bay Shore, Patchogue, and the Mastics, as well as the entire south fork. It also contains some of the most remarkable environmental communities, providing a unique natural resource for the entire metropolitan region and the nation. Congress recognized the importance of this resource in 1964, when it designated the Fire Island National Seashore.

The FIMP study is taking an innovative approach in using the best available analysis tools for addressing coastal storm-risk reduction and pre- and post-storm shoreline management along both barrier and mainland shorelines. The USACE and the State of New York, in their lead project-planning and cost-sharing roles, are developing innovative management and restoration measures in collaboration with a wide range of stakeholders to establish comprehensive, consensus-based solutions. The final plan will recommend measures for implementation by federal agencies, New York State, Suffolk County, and local governments through the exercise of all applicable governmental authorities to the maximum extent practical to achieve national, state, and local objectives.

- No plan can reduce all risks; therefore, ongoing monitoring will evaluate the effectiveness and impacts of implemented policies. The monitoring results will serve as the basis for adaptations and adjustments to improve the project's effectiveness and respond to the dynamic nature of the FIMP study area.

- Collection, analysis, and independent technical review of scientific data will be conducted to improve understandings of complex and dynamic regional hydrologic, geomorphic, and ecological factors and interrelationships. At the same time, this data will facilitate the building and sharing of an integrated scientific, economic, and social knowledge base.

- Efforts will be undertaken to reduce mainland and barrier-island flooding through site-specific measures that address the variety of flood causes throughout the study area, consistent with applicable agency laws and missions.

- Priority will be given to measures that reduce risks and provide protection to human life and property, restore and enhance coastal processes and ecosystem integrity, and are environmentally sustainable, while continuing to accept and embrace governmental responsibility and accountability under the law.

- Dune and beach replenishment will be optimized to balance storm-damage reduction and environmental considerations. Sand nourishment will be considered where it will create conditions suitable for restoration of natural processes and where appropriate to protect important uses. Active intervention will be considered where it is possible to achieve balance and synergy between human development, economic activities, and natural systems.

- Existing shore stabilization structures, inlet stabilization measures, dredging practices, and other coastal modifications, past and present (including those affecting bay and estuarine shorelines) will be assessed to examine their impacts and, as appropriate, will be subjected to recommendations of alteration, mitigation, or removal to help restore important physical and biological processes.

This particular study and report identifies, analyzes, and recommends planning actions for historic and cultural resources within the FIMP study area. Specifically, the study summarizes previous historic and cultural resource studies undertaken in support of the FIMP study, identifies and evaluates a representative sample of aboveground historic resources along the South Shore, and evaluates a series of planning actions that would avoid, minimize, or mitigate adverse effects to historic and cultural resources. This report is undertaken in support of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and for use in an ongoing Environmental Impact Statement (EIS) undertaken in support of compliance with the National Environmental Policy Act of 1970. Due to the complexity of the FIMP study, this report represents a phased approach to cultural resource management.

The focus of this Cultural Resource report is on standing structures alone, and not terrestrial and maritime archaeological sites. The goal of this report is not to identify specific individual structures for inclusion on the National Register of Historic Places, although some recommendations are presented. Rather, it is to identify overall areas, types, and styles that will require further analysis, in the future, as part of the evaluation process. As stated, this report is envisioned as a “phased” approach (starting point) in which to focus this large-scale project in

terms of cultural resource issues. Once more specific plans and locations are identified a more detailed analysis of the particular areas in question will be possible.

STUDY AREA DESCRIPTION AND BACKGROUND

The study area comprises some 70 percent of the total ocean frontage of Long Island and lies entirely within Suffolk County. It includes low-lying mainland and Bay Shore areas, as well as the barrier islands and ocean coastlines. The majority of the study area is susceptible to damage from storm erosion or inundation.

Since the end of World War II, heavy development has taken place along Suffolk County's South Shore. Regional Planning Board studies have identified more than 17,000 residential structures, more than 1.5 million square feet of commercial and industrial space, and numerous public buildings within the existing flood-hazard area along the mainland of Long Island. In addition, there are more than 5,000 structures on the barrier islands, including Fire Island National Seashore and various state and county park facilities. The number of structures at risk is only expected to increase with rise in sea level and erosion of the ocean shoreline.

The increased urbanization within the study area has lead to the potential for increased damages during storm events. Barrier islands play an important role in protecting the heavily developed mainland communities and the diverse ecosystems of the bays. The barriers deflect the impacts of waves and lessen storm surges in the bays. When a severe storm breaks through (or breaches) barrier islands, the impacts may include increased water levels in the bays and a resulting increase in storm damages to the mainland communities. The most recent breach at Westhampton in 1992 contributed to the widespread flooding during the March 1993 "Blizzard of the Century."

This increased development has also resulted in increasing intervention after major storm events. This local intervention has been undertaken with no overall planning and has included widespread beach scraping, beach nourishment, relocation of structures, bulkheading, and other small-scale protection measures. The FIMP project will create a unified approach to storm-damage control based on environmental, scientific, and socioeconomic studies.

FIMP PROJECT HISTORY

The FIMP study occurred in its earliest forms in the late postwar era. The River and Harbors Act of 1960, with modifications in 1962, authorized early studies; authorization continued under the Water Resources Development Acts of 1974, 1986, and 1992. Because environmental planning was a more limited field of analysis, early versions of FIMP planning documents retained a sole focus on large-scale structural alternatives concentrating on coastal geology, such as the construction of jetties to prevent erosion. The Council for Environmental Quality rejected the first Environmental Impact Study for FIMP in 1978; reformulation was subsequently initiated in 1980 and later suspended. Subsequent studies and updates of data were undertaken in support of

the reactivation of reformulation in the early 1990s. An initial study plan for reformulation was developed in 1993, and subsequent studies for the 83-mile area have been initiated. These studies include beach profile surveys, coastal processes modeling, storm-damage assessments, building inventories, environmental data collection, and analysis of potential hazard mitigation measures. An Interagency Reformulation Group was developed in addition to several Technical Management Groups to handle specific aspects of the study. The Project Study Plan was revised in 1996 and later in 2000, including input from cooperating agencies (such as the State of New York and the U.S. Department of the Interior). This revised approach expands the scope and breadth of hazard mitigation alternatives under consideration. In addition, several interim studies and projects were also conducted for coastal erosion threats to the barrier island.

The entire study area, which includes the mainland, estuaries/bays, inlets, barrier islands, and offshore locations, operates as an integrated system subject to the influence of global-scale processes. It is a dynamic sandy coastal system that must be able to move and respond to winds and waves, as well as major storms and long-term sea-level rise. On a large scale, these processes drive the net transport of sand along the shore, while hurricanes and nor'easters—through the processes of breaching and overwash—influence the gradual south-to-north movement of the barrier islands and the exchange of ocean water with the bays. These processes maintain a shifting mosaic of interrelated ecosystems, such as Atlantic Ocean nearshore areas, barrier islands, bluffs, beaches and dunes, salt marshes, sand and mud flats, and eelgrass beds. The ecosystem(s) contained within the study area are therefore adapted to frequent change. The resilience and sustainability of the essential ecosystem depends upon the perpetuation of important coastal processes. Therefore, the FIMP study will take an ecosystem approach to maintain and restore essential physical coastal processes, particularly the hydrological and geomorphological regimes.

Development and shoreline alterations over the last 75 years have affected the South Shore's coastal system. It is now recognized that the ability of the system to sustain itself and its important natural protective capabilities over time have been compromised. Jetties, groins, seawalls, bayside bulkheads, barrier island infrastructure, shoreline, and other human activities associated with development have directly and indirectly resulted in adverse effects on coastal processes, water quality, natural habitats, and fish and wildlife abundance and diversity. Creating the conditions for landscape-scale restoration and self-sustainability entails correcting these causes of degradation. The five key physical processes that need to be sustained, restored, or enhanced to reestablish protective features are:

1. Longshore sediment transport;

2. Cross-shore sediment transport;

3. Dune growth and evolution;

4. Bayside shoreline processes; and

5. Circulation and water quality

Fact sheets for each of the five key processes are under preparation.

PUBLIC INVOLVEMENT

The USACE and its study partners encourage public participation. Accordingly, they have developed a plan to provide opportunities for the public to learn about the FIMP reformulation study and to participate in the process. Developed by an interagency committee, the public outreach plan calls for the participation of local residents; local government representatives; business, labor, and environmental organizations; civic groups; and interest groups involved with bays and beaches.

The objectives of the outreach plan are:

1. To inform and educate the public about the FIMP project and its significance to stakeholders.

2. To convey the FIMP messages and Vision Statement to appropriate stakeholder groups in an effective and timely manner.

3. To obtain meaningful contributions from interested parties and develop meaningful communication with interested parties as inclusively as possible.

4. To enable stakeholders to understand the natural processes of the project area and the opportunities to reduce flood erosion risks while enhancing natural resource values. The outreach plan should identify the potential improvements in environmental quality, the reductions in long-term risk, and the potential improvements in property values and tourism.

5. To enable stakeholders to understand the constraints and limitations of the project along with its benefits, so that they understand why specific project approaches are taken. The plan should also describe the nature and extent of the project area risks, as well as long-term management strategies.

To accomplish these goals, the FIMP study team will meet with local stakeholders beginning in the spring of 2004 to share concerns, explain the Vision Statement and the study process, and—ultimately—present plans and projects for storm-damage reduction.

II. METHODOLOGY

This section explains basic information regarding the methodology of fieldwork and the integration of a phased approach to Section 106 compliance in field methods.

This fieldwork exercise focused on the identification of aboveground historic resources and landscape features. This field survey did not include the formal identification of (belowground) archaeological resources. While the primary focus of this survey was on individual buildings, surveyors also included districts, landscape features, historic sites, objects, and structures.

Surveyors utilized a computerized version of New York State Office of Parks, Recreation and Historic Preservation's "Blue Form," which is used to gather reconnaissance-level information on historic features. The Blue Form was also modified to gather information regarding districts, landscape features, historic sites, and objects—these modifications were based upon information in *National Register Bulletin 16A: How to Complete the National Register Nomination Form*. Because of the similar design of many of the surveyed properties, a written description and statement of significance was omitted; in its place, an extended contextual narrative with character-defining features of property types is included within this report. In addition to standard Blue Form criteria, surveyors also recorded basic information useful in analyzing the hazard vulnerability of historic properties. Furthermore, surveyors noted the absence or presence of the seven integrity criteria and National Register of Historic Places Criteria A, B, C, and D, as described in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.*

Field data was collected using ERSI's *ARCPAD* software with a database add-on, which ran on a handheld IPAQ 5150 computer. The use of the *ARCPAD* software (which interfaces with ERSI's *ArcView*) allowed surveyors to enter survey data in "real time" into the project global information system (GIS), thus eliminating error due to mismapping. The IPAQ screen displayed a scaleable aerial photograph, which was geo-referenced to other survey data, including street names, tax parcel information, places listed in the National Register and information regarding 10-year floodplain properties gathered in previous planning undertakings for the USACE. In addition, the NY SHPO provided locational data for previously surveyed properties (which may not have been evaluated). Surveyors were able to integrate most of this data into the GIS (although non-addressable points were omitted). When an entry for a historic resource was on or directly proximate (20 feet) to a previously identified flood-prone building, historic resource data and previous building data were automatically linked. Each surveyor was able to zoom into or out of the aerial photograph and, upon selecting the geographic point of a historic feature, mark that spot on the computer screen using a stylus. A database—based on a Microsoft *Access* platform—would then appear, containing multiple fields of survey data in pull-down box or check-box fields. Additional notes were made by hand. Boundaries for districts were drawn as polygons or squares and adjusted later. Survey photographs were taken on Nikon Coolpix 3.1 megapixel cameras and saved in jpeg format. Each photograph number or identifier was entered into the field database.

GLOBAL INFORMATION SYSTEM

The use of the *ARCPAD* data collection strategy served two primary purposes: it streamlined field data collection procedure and produced an integrated GIS. The utilization of an integrated data set will prove important to the USACE in future decision-making. The larger GIS was created for this project by combining geo-referenced data from 150 separate CADD files, which contained data for approximately 40,000 flood-prone buildings. The GIS also utilized other available geographic information, as described above. The GIS provides the USACE with a useful decision-making tool, in which data for multiple environmental fields is easily cross-referenced. In addition, the GIS data will be made available to the NY SHPO for inclusion in ongoing database inventory programs.

LEVEL OF EFFORT AND PHASED APPROACH

The early consideration of historic resource issues in the environmental planning process is specifically encouraged by the governing regulations, in which, according to 36 CFR 800.8(a), "agencies should consider their Section 106 responsibilities as early as possible in the NEPA process."

According to 36 CFR 800.4(b)(2):

> Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts. The agency official shall take into account past planning, research and studies, the magnitude and nature of the undertaking and the degree of Federal involvement, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects [APE]….

This project provides specific information regarding previous survey efforts and past research. Given the potential magnitude of the FIMP project and the degree of federal involvement, this project reflects a detailed level of research and identification of historic properties. The APE for this project has been developed with the understanding that specific FIMP projects have not yet been fully identified. The nature and extent of potential effects on historic properties include the potential for direct and indirect effects; therefore, it is appropriate to document individual properties within the APE. However, the aboveground historic resources are primarily historic residential properties located in close proximity to each other. According to 36 CFR 800.4(b)(2):

> The process should establish the likely presence of historic properties within the area of potential effects for each alternative or inaccessible area through background research, consultation and an appropriate level of field investigation, taking into account the number of alternatives under consideration, the magnitude of the undertaking and its likely effects, and the views of the SHPO/THPO and any other consulting parties. As

> specific aspects or locations of an alternative are refined or access is gained, the agency official shall proceed with the identification and evaluation of historic properties…

The methodology for identification and evaluation has established the likely location of historic resources through background research, consultation, and field investigation for aboveground historic resources based upon a numeric "sampling" methodology. This sampling is appropriate based upon both the large project area and the undefined nature and timeline of future FIMP site-specific projects. In addition, many of the aboveground historic resources are part of residential districts and share general historic character-defining features. Field investigations were also limited to properties visible from a public right of way (ROW). As more specific project alternatives are identified in the FIMP plan, the level of investigation, evaluation, and decision-making may be refined as warranted by the specific nature of the property and the views of the USACE and consulting parties. This level of documentation provides the USACE and consulting parties with an adequate understanding of historic resources that may be potentially impacted by the FIMP project—the early integration of historic resources into the planning process means that these potential impacts may play a meaningful role in decision-making, even though not all historic resources have been identified or thoroughly evaluated. According to 36 CFR 800.11(a), "when an agency official is conducting phased identification or evaluation under this subpart, the documentation standards regarding description of historic properties may be applied flexibly." This level of documentation and decision-making is beneficial in promulgating the intent of the Section 106 process to be integrated into larger planning efforts. Therefore, the use of a phased methodology allows the USACE to meet the directive in 36 CFR 800.11(a)(1) that "agencies should consider their section 106 responsibilities as early as possible in the NEPA process." The methodology was also designed in consultation with the NY SHPO, which reviewed the project work plan, scope of work, and APE, in addition to reviewing this report and findings herein.

COORDINATION WITH THE NEW YORK STATE OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION (NYSOPHRP)[1]

Although consultation with the State Historic Preservation Office in any Federal undertaking is mandated in Section 106, in this particular instance the coordination between the USACE, URS and the State went beyond the required act of notification. Several months before fieldwork commenced, phone calls, emails and meetings between the three groups began. Christopher Ricciardi was the Point of Contact (POC) for the District. Jim Warren, from the Field Service Bureau section of NY SHPO, was designed as the POC for the State. Caleb Christopher and Molly Sheehan served as the POCs from URS.

Approximately one and a half years prior to commencement of this aspect of the FIMP Project, coordination began in May 2002, with Mr. Ricciardi inviting Mr. Warren to a pre-project meeting that was held in Stony Brook, NY. At this meeting the concept of the initial Historic

[1] At the request of the NYSOPRHP, the acronym NY SHPO will be used throughout the report to identify the agency.

Structural Survey Report were discussed. In the ensuing year and a half before fieldwork began, several meetings, and dozens of phone calls and e-mails between the three groups occurred.

Issues and topics discussed included:

a. An overall review of the Project to date
b. NY SHPO review of the Scope of Work for the Historic Structure Project
c. What should be considered the Area of Potential Effect (APE)
d. The use of NY SHPO "blue" forms for structures
e. The creation of new GIS database formats to house the information gathered
f. The structure of the Report itself
g. The percentage of structures to be investigated
h. The methodology of investigation
i. NY SHPO review of URS pre-field work outlines

Together, it was determined early on in the process that this report would be the first stage of a larger Phased Approach to the overall Cultural Resource Process. As it would be difficult to individually analysis every structure within the 280 square mile project area, all agreed that it would be best to use a sampling method (described in detail later in this report) to gather a sense of what is in the general area and what problems/issues may arise in the future.

An example of the coordinated efforts is with regard to the Fifty Year guideline. According to the guidelines put forth in the Section 106 regulations, any structure that is older than fifty years must be evaluated for its potential inclusion on the National Register. Knowing that this would "pre-quality" the majority of structures in the project area, it was agreed that structures in that fifty-year time frame would be not surveyed. Further coordination on how to deal with the "fifty"-year issue is still to be determined.

This report was manageable because of the coordinative efforts between the three organizations. Without working together, this Phased Approached Report could not have been produced.

OTHER FIMP CULTURAL RESOURCE CONCERNS RAISED BY THE NY SHPO NOT ADDRESSED

Aside from standing structures, the Cultural Resource process also covers both terrestrial and maritime archaeological reconnaissance. However, this report will not address these two aspects.

There has been several previous terrestrial and maritime Cultural Resource Reports undertaken on as part of FIMP Project and of the Fire Island National Seashore, as well as numerous local and private undertakings. A sampling of these studies includes:

Barber, Russell J., Michael E. Roberts and C.C. Lamberg-Karlovsky.
1980 A Survey of Archaeological and Historical Resources, Fire Island Beach Erosion

and Hurricane Protection Project, Westhampton Beach, New York. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

Greeley-Polhemus Group, Incorporated and Dolan Research, Incorporated.

1997a Interim Report #2: Cultural Resource Study - Fire Island to Montauk Point, Suffolk County, New York Reformulation Study: Phase 1 Archaeological Survey. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

1997b Remote Sensing Survey: Cultural Resource Study - Fire Island to Montauk Point, Suffolk County, New York Reformulation Study: Reach 2: Interim Project West of Shinnecock Inlet. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

1998 Research on Shipwrecks in the Near Shore Area - Fire Island to Montauk Point, Long Island, Suffolk County, New York – Reach 1: Interim Project - Fire Island to Moriches Inlet. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

John Milner and Associates.

2000 Cultural Resource Baseline Study - Fire Island Inlet to Montauk Point, Suffolk County, New York - Reformulation Study Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

Panamerican Consultants, Inc.

2003 Remote Sensing Survey, Tidal Zone and Near Shore Project Area, Atlantic Coast of Long Island, Fire Island Inlet to Moriches Inlet, Fire Island, Suffolk County, New York – Interim Project. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

Reiss, Warren, WCH Industries, Inc. and Boston Affiliates, Inc.

1994 Atlantic Coast of Long Island, Fire Island to Montauk Point – Westhampton Beach Interim Protection – Plan Remote Sensing Survey of Two Borrow Areas. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

Tidewater Atlantic Research, Incorporated.

2001 Remote Sensing Archaeological Survey of Borrow Areas 2A, 2B, 2C, 3A, 4A, 4B, 5A, 5B, 6A, 7A, and 8A - Atlantic Coast of Long Island, Fire Island Inlet to Moriches Inlet, Suffolk County, New York - Reformulation Study. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

Vetter, John F. and Bert Salwen.

1974 Report on an Archaeological Reconnaissance of Fire Island, Suffolk County, New

York. Report on file with the U.S. Army Corps of Engineers - New York District. New York, New York.

Since this report only deals with an initial survey of standing structures, these topics are not discussed. All previous Cultural Resource undertakings by the District have been coordinated and approved by the NY SHPO (see list above). As more definitive project alternatives are announced terrestrial and/or maritime archaeological issues will be addressed and coordinated as required.

PUBLIC PARTICIPATION

The USACE designed a program for public participation in which interested public parties could provide input into the identification and evaluation process. As noted in 36 CFR 800.2(d)(2), the "views of the public are essential to informed Federal decision-making in the section 106 process."

The USACE maintains an ongoing informal database of approximately 30 individuals, organizations, and agencies that have a stated interest in historic resources in the general project area, known formally as the FIMP Cultural Resources Technical Management Team (CR-TMG). The CR-TMG includes historical societies and non-profit regional heritage organizations. The CR-TMG received notice of both an initial public meeting and an additional public meeting towards the conclusion of the project to discuss potential historic resources within the greater project area.

Information regarding historic resource identification was also highlighted on the FIMP project web site. This information contained a letter of introduction and information on project results. A dedicated USACE contact was listed to receive any comments.

In addition, field surveyors distributed, upon request, a letter of introduction and a list of answers to frequently asked questions that provided clearly written information about the historic resource and Section 106, including links to the FIMP project web site and NPS publications that further discuss historic resources.

A special edition of the *FIMP Focus* was prepared, which highlighted historic resource identification efforts and the Section 106 process. This issue of *FIMP Focus* was mailed in April 2003 to approximately 4,000 individual parties included on the USACE mailing list.

It is anticipated that further public participation regarding historic resource issues will be included in the larger forthcoming EIS process. This participation may include, but is not necessarily limited to, public hearings and opportunities for formally recorded comments.

TRIBAL CONSULTATION

As outlined in 36 CFR 800.2(2)(ii), the USACE initiated consultation regarding properties to which tribal nations may attach cultural or religious meaning. The USACE consulted appropriate tribal nations regarding historic properties on tribal lands and reservations that may experience adverse effects. Neither the Shinnecock nor Unkechaug tribal nations have a designated tribal preservation officer (THPO); neither tribe is federally recognized. Accordingly, these tribes are considered consulting parties because of their demonstrated interest in the area's history. In the event of federal recognition, a designated tribal representative may be consulted regarding these issues concurrently with the NY SHPO, as outlined in 36 CFR 800.2(2)(i)(b), until a THPO is appointed. Initial written and verbal consultation regarding the identification and evaluation of these properties is consistent with the project's phased approach; additional consultation may take place as project alternatives become more defined and specific. In February 2004, project archaeologist Christopher Ricciardi and project architectural historian Caleb Christopher met with representatives from the Shinnecock Tribal Council to discuss the FIMP project, the nature of the historic resource survey, and other completed or anticipated cultural resource efforts. The location of historic tribal resources was also discussed.

DETERMINATION OF THE AREA OF POTENTIAL EFFECTS

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the USACE is required—prior to expenditure of funds or issuance of a license or permit for the undertaking—to take into account the effects the project may have on any property listed or eligible for listing on the National Register. Taking into account the effect an undertaking may have on properties listed or eligible for listing on the National Register begins with the identification of the undertaking's APE.

According to 26 CFR 800.16(d), APE:

> …means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

An APE for historic resources is further defined as the area within which there is a potential for a change in the character and use of National Register-listed or eligible resources as a result of an undertaking. Such changes are further described in 36 CFR 800.5(1) and may include (but are not necessarily limited to):

- the destruction of all or part of a resource;
- the isolation of the resource or changes in its setting;
- the introduction of visual, audible, and atmospheric elements that affect those characteristics that make the resource eligible for or listed in the National Register; or
- the transfer, lease, or sale of the historic resource.

While it is ultimately the USACE's responsibility to determine the APE, this determination may be made in consultation with the NY SHPO.

PROPOSED PRELIMINARY AREA OF POTENTIAL EFFECTS

The FIMP study area generally extends from Fire Island Inlet easterly to Montauk Point along the Atlantic Coast of Suffolk County, spanning a distance of approximately 83 miles, comprising about 70 percent of the total ocean frontage of Long Island (Figure 2.1).

General Definition

The project APE will include areas on both the bay side and the barrier island, stretching from the western boundary of the Fire Island Inlet to Long Island's western terminus at Montauk. More specifically:

- *Barrier island*: the entire width of the island and the length reaching from the Fire Island Inlet to the eastern terminus.
- *Bay side*: areas south of the Montauk Highway.

Because the reformulation study is in the early stages of planning, and because the study includes the evaluation of a range of project alternatives (including structural measures, non-structural alternatives, and regulatory recommendations), it is appropriate for the APE to focus on a broad project area. However, for the purposes of this historic resource survey, the APE is further refined to more specific geographic locations that more closely follow the nature of specific effects.

Area of Potential Effects: Specific Definitions

Barrier Island. The APE on the barrier island will be limited to sites, districts, and other resources that may experience direct effects from structural project alternatives and/or erosion-control projects. The exact addresses or locations may be more closely identified with assistance from project engineers. The APE may further be defined as historic resources that could experience indirect effects (such as an alteration in setting or the loss of a contributing resource); that are in the immediate proximity of historic buildings; and that could reasonably be expected to experience indirect effects. This category would include historic properties within the immediate view shed of the resource and/or nearby properties that have a thematic relationship to the resource (such as a district). Historic architectural resources close to the beach side or the

Figure 2.1 Fire Island to Montauk Point Reformulation Study Area of Potential Effects.

barrier island (identified in the 2001 John Milner Associates, Inc. [JMA] report) fall under this heading, in addition to erosion-prone structures situated on the bay side of the barrier island. However, even though structural project alternatives and/or erosion-control projects would afford protection to buildings along the South Shore from future flooding events, the APE for structural project alternatives and/or erosion-control projects would be limited to the barrier island and would exclude properties along the South Shore, as these alternatives only have the potential to alter character-defining features for properties within the footprint or immediate viewshed.

> *Ground Disturbance*: Project alternatives that feature a potential for ground disturbance may have a direct effect upon belowground archaeological features (including marine archaeological sites). Recent previous studies (including the JMA report) discuss archaeological features along the barrier island. Additional evaluation and consultation may also take place as specific project alternatives become more defined. However, a baseline discussion of previous studies may be included within the final report of this historic resource survey. This approach is consistent with a phased identification and evaluation, per 36 CFR 800(4)(b)(2).

Bay Side: 10-Year Floodplain. Structures and sites included within the 10-year floodplain are the primary targets for non-structural alternatives. Although the larger FIMP study will evaluate the use of non-structural alternatives for several delineations of the floodplain, it is anticipated that properties within or proximate to the 10-year floodplain will prove to be the most cost-effective candidates for non-structural alternatives. This category includes a primary targeted number of approximately 4,000 structures. While the current USACE delineation of the 10-year floodplain is based on preliminary hydrodynamic data and is in the process of being updated, it is not anticipated that the 10-year floodplain boundaries will undergo a substantial change.

> *Ground Disturbance*: Project alternatives that feature a potential for ground disturbance may have a direct effect upon belowground archaeological features. Because no specific individual project alternatives have been identified by USACE, site-specific identification and evaluation will not be featured in this historic resource survey and may be delayed until such time as more specific individual projects have been identified. However, a broad, baseline discussion of likely potential effects to historic archaeological resources, and items for potential programmatic consultation, may be included within the final report of this historic resource survey. This approach is consistent with a phased identification and evaluation, per 36 CFR 800(4)(b)(2).

Bay Side: Areas Outside of the 10-Year Floodplain. Areas within the Bay Shore boundary but outside of the 10-year floodplain may be included within the APE. Specifically:

(a) The APE may further be defined as historic resources that could experience indirect effects (such as an alteration in setting or the loss of a contributing resource), that are in the immediate proximity of historic buildings, and that could reasonably be expected to experience an indirect effect. This category would include historic properties within the immediate viewshed of the resource and/or nearby properties that have a thematic relationship to the resource, such as a district (including areas

outside of the 10-year floodplain that may experience an effect as related to USACE regulatory suggestions for local ordinances).

(b) The APE may be further defined as properties that are not within the 10-year floodplain, but are directly proximate to the 10-year floodplain and may experience direct effects. An example may be a house with a slightly higher first floor elevation surrounded on either side by houses within the 10-year floodplain.

(c) No ground-disturbing activities are presently anticipated outside of the 10-year floodplain, with the exception of buildings listed in (b) above.

While general background research—and a limited number of representative field forms—will be undertaken for areas outside of the 10-year floodplain that may experience an effect as related to USACE regulatory suggestions for local ordinances, this historic resource survey will not be a complete or comprehensive site-by-site survey of this larger area. However, the historic resource survey final report may include a broad and baseline discussion of potential effects to these areas. Further identification and evaluation, if needed, may be undertaken at a later date following consultation with NY SHPO. This approach is consistent with a phased identification and evaluation, per 36 CFR 800(4)(b)(2).

In addition, the direct effect by one property within a larger historic district (with boundaries exceeding the 10-year floodplain) may have an indirect effect to other resources within that district. The historic resource survey will undertake documentation of these districts on a broad scale, but may not identify specific contributing properties or exact boundaries. However, the historic resource survey final report may include a broad and baseline discussion of potential effects to these areas. Further identification and evaluation, if needed, may be undertaken at a later date following consultation with NY SHPO. This approach is consistent with a phased identification and evaluation, per 36 CFR 800(4)(b)(2).

ADJUSTING THE AREA OF POTENTIAL EFFECTS

In consultation with the NY SHPO, USACE may refine and adjust the APE as specific, individual project alternatives are identified and prioritized. This approach is consistent with a phased identification and evaluation, per 36 CFR 800(4)(b)(2). This APE is considered to be useful for broad planning purposes outlined in this report. As more specific project alternatives are defined, the APE may also be refined accordingly.

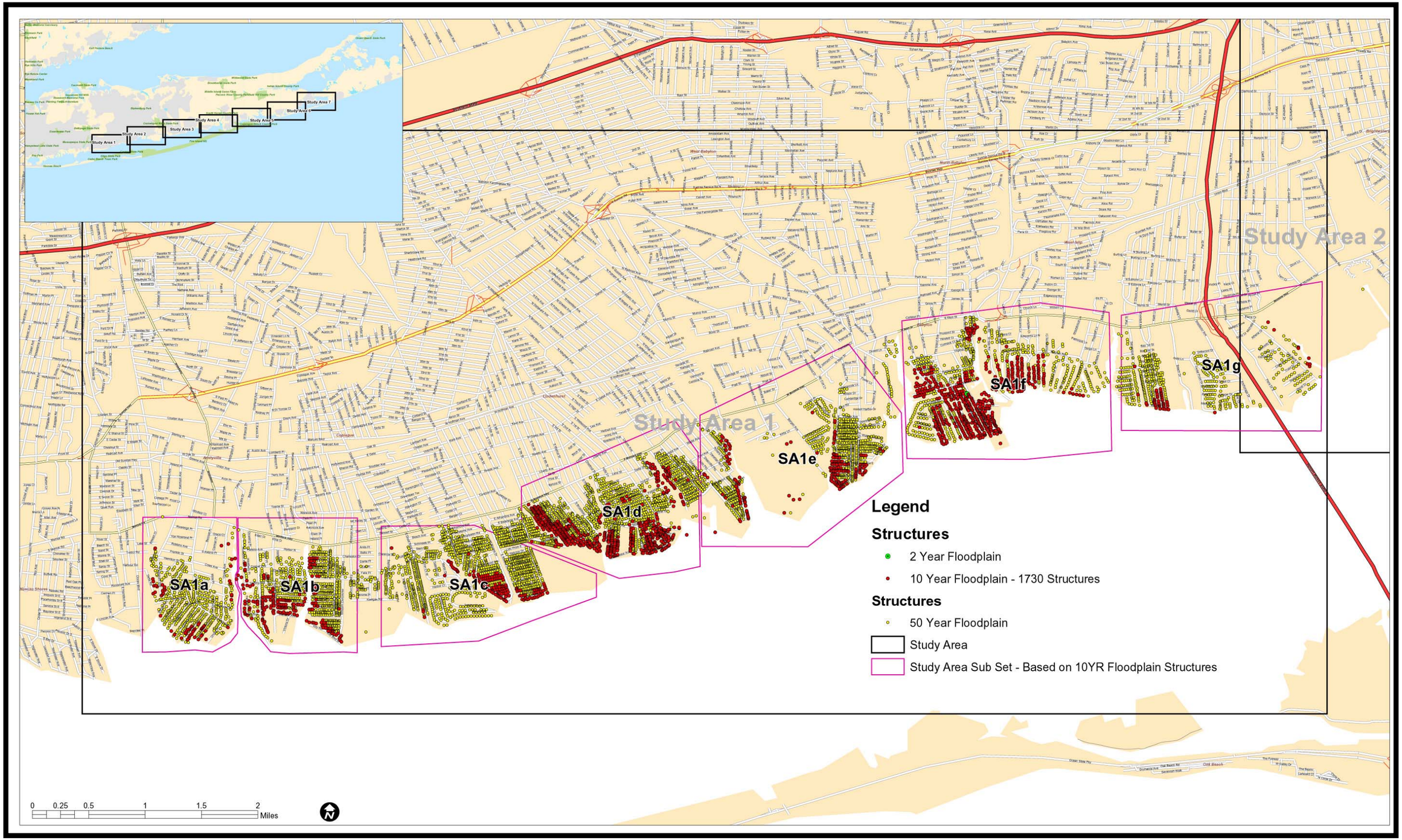


Figure 2.2 Floodplain Structures in Study Area 1.

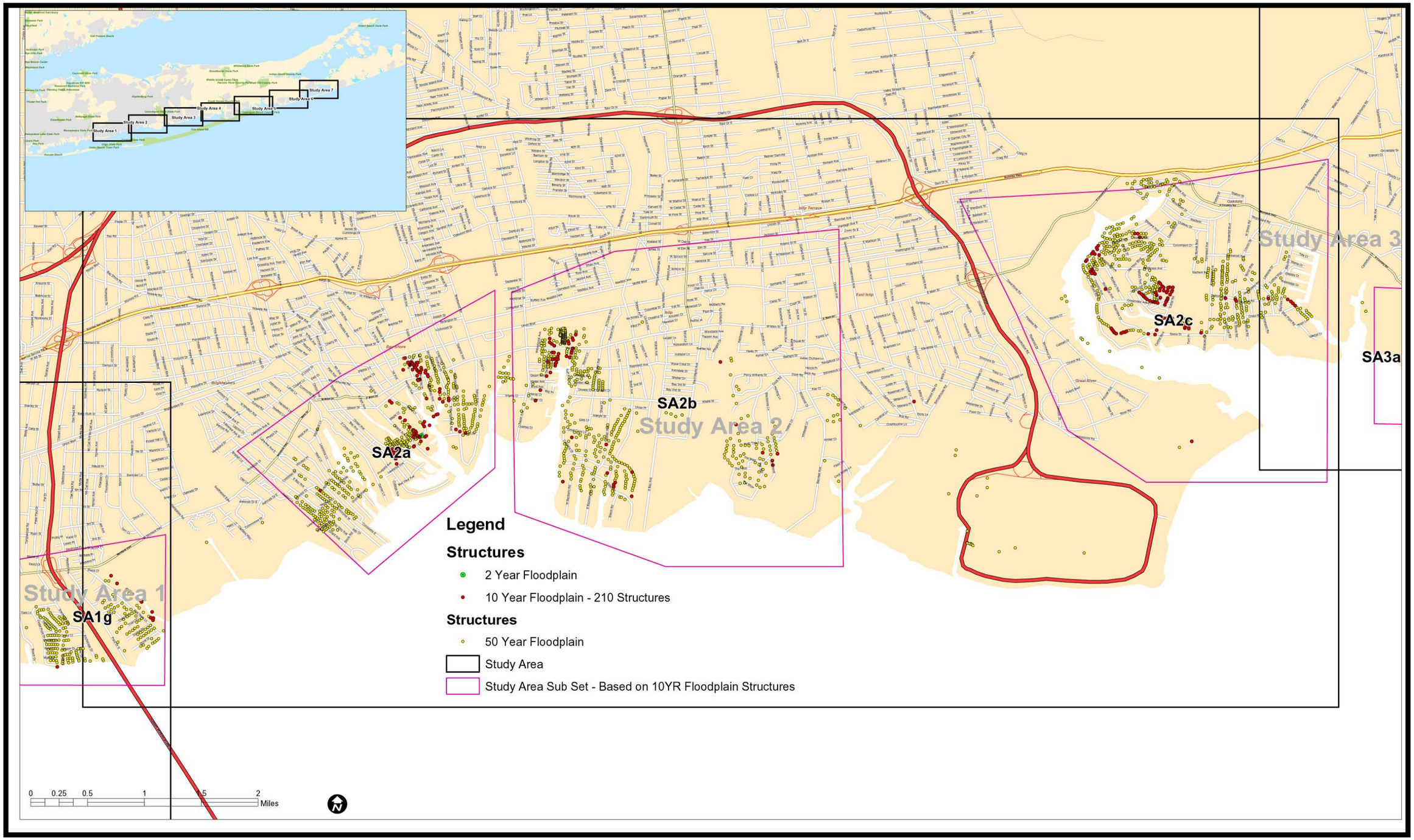


Figure 2.3 Floodplain Structures in Study Area 2.

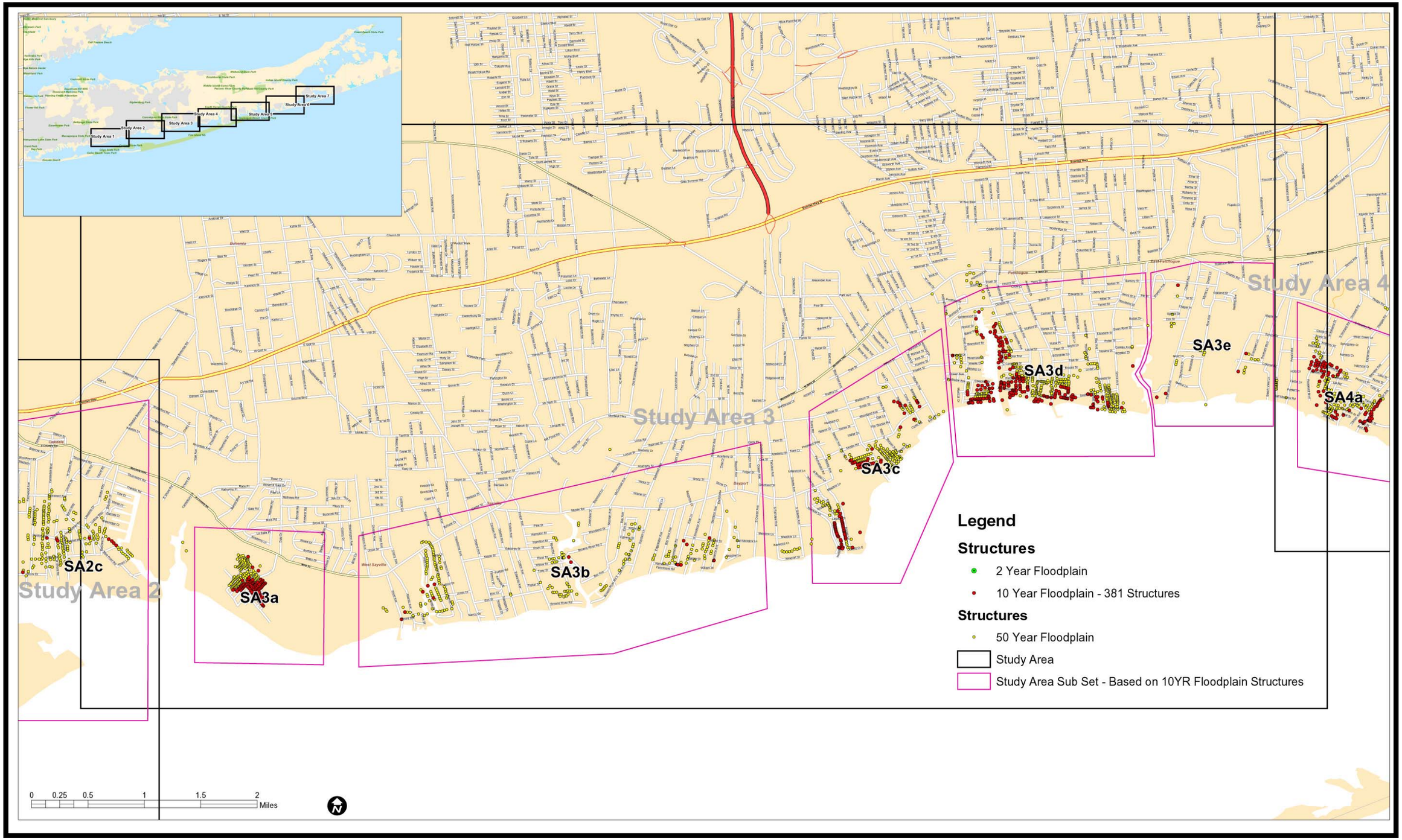


Figure 2.4 Floodplain Structures in Study Area 3.

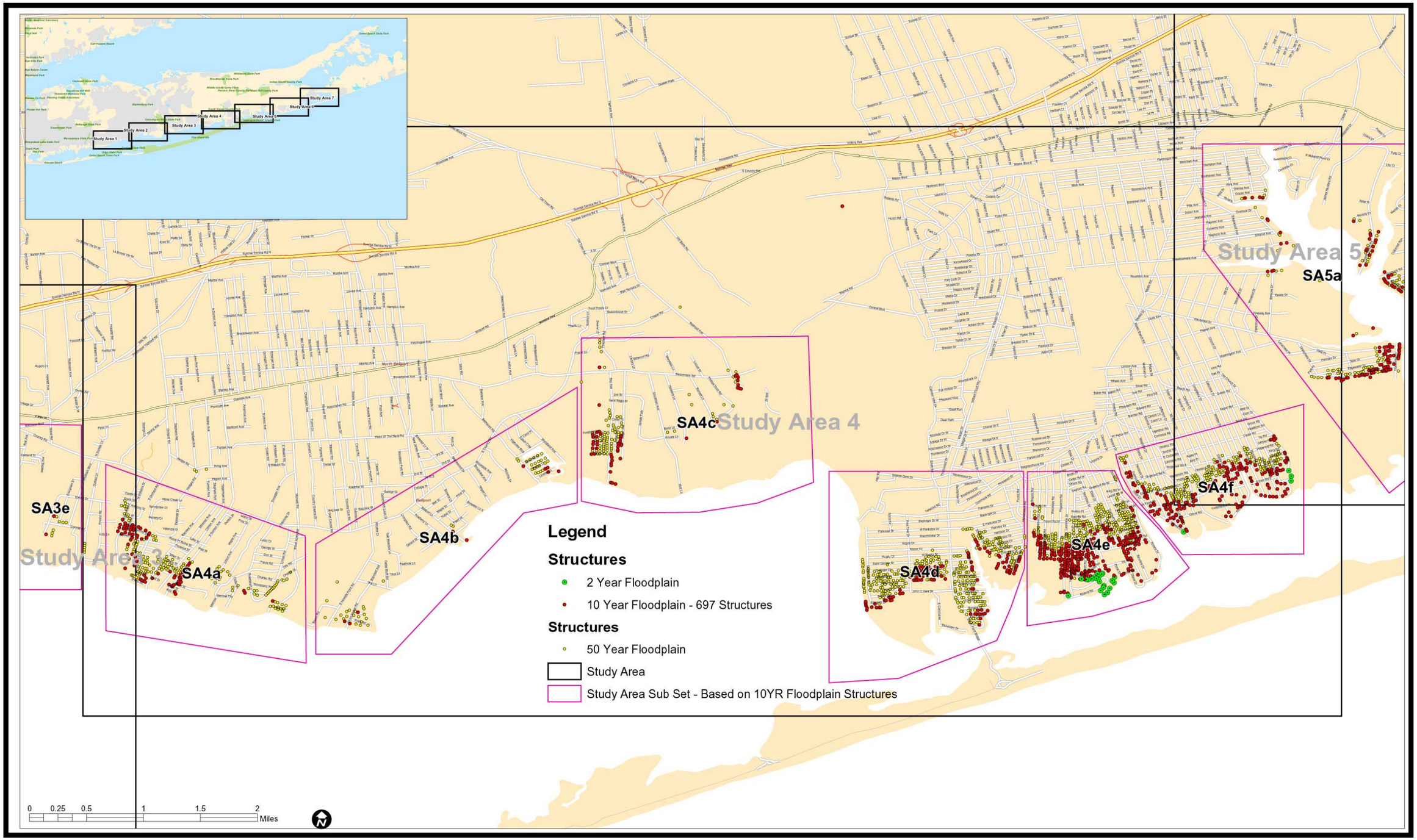


Figure 2.5 Floodplain Structures in Study Area 4.

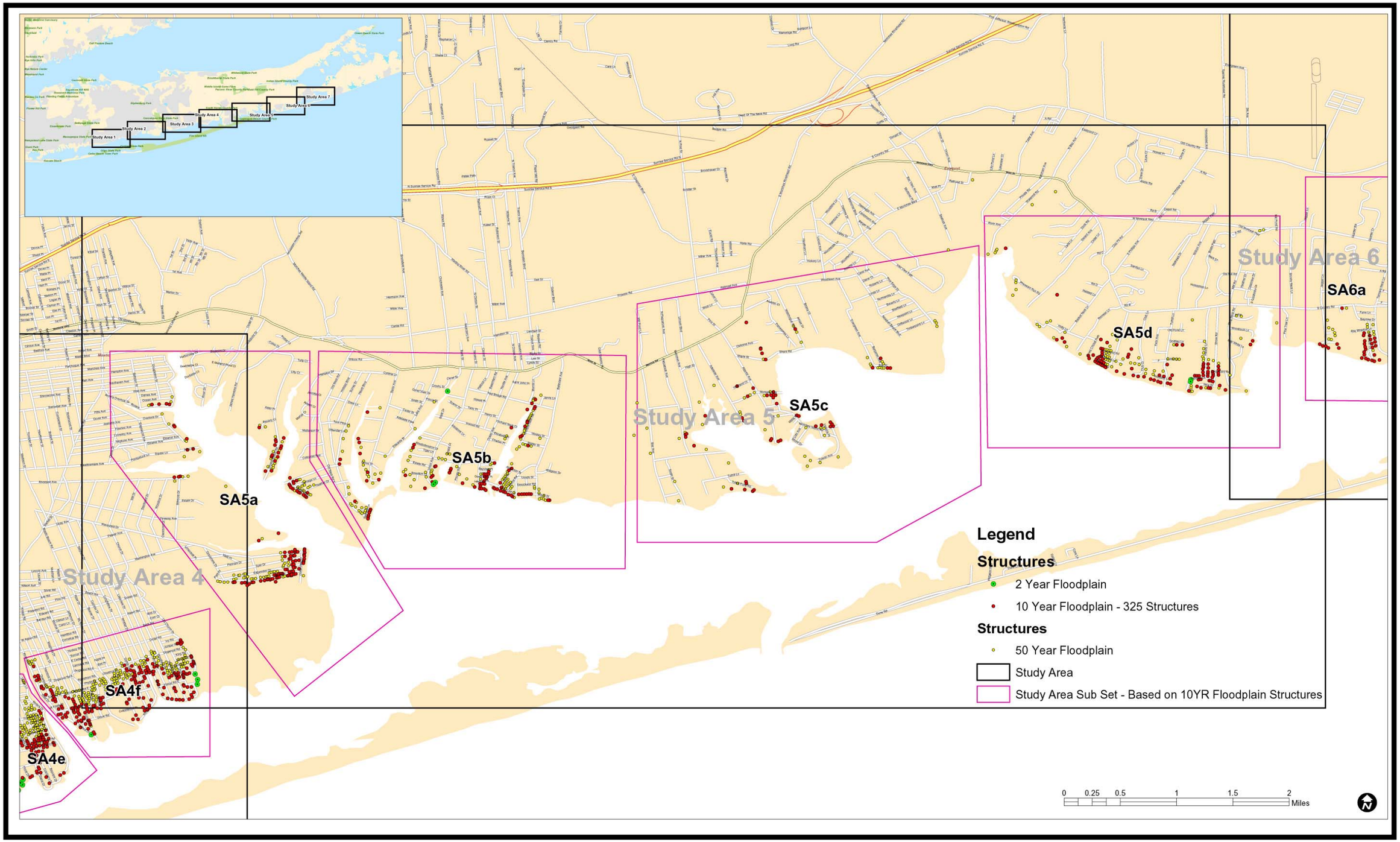


Figure 2.6 Floodplain Structures in Study Area 5.

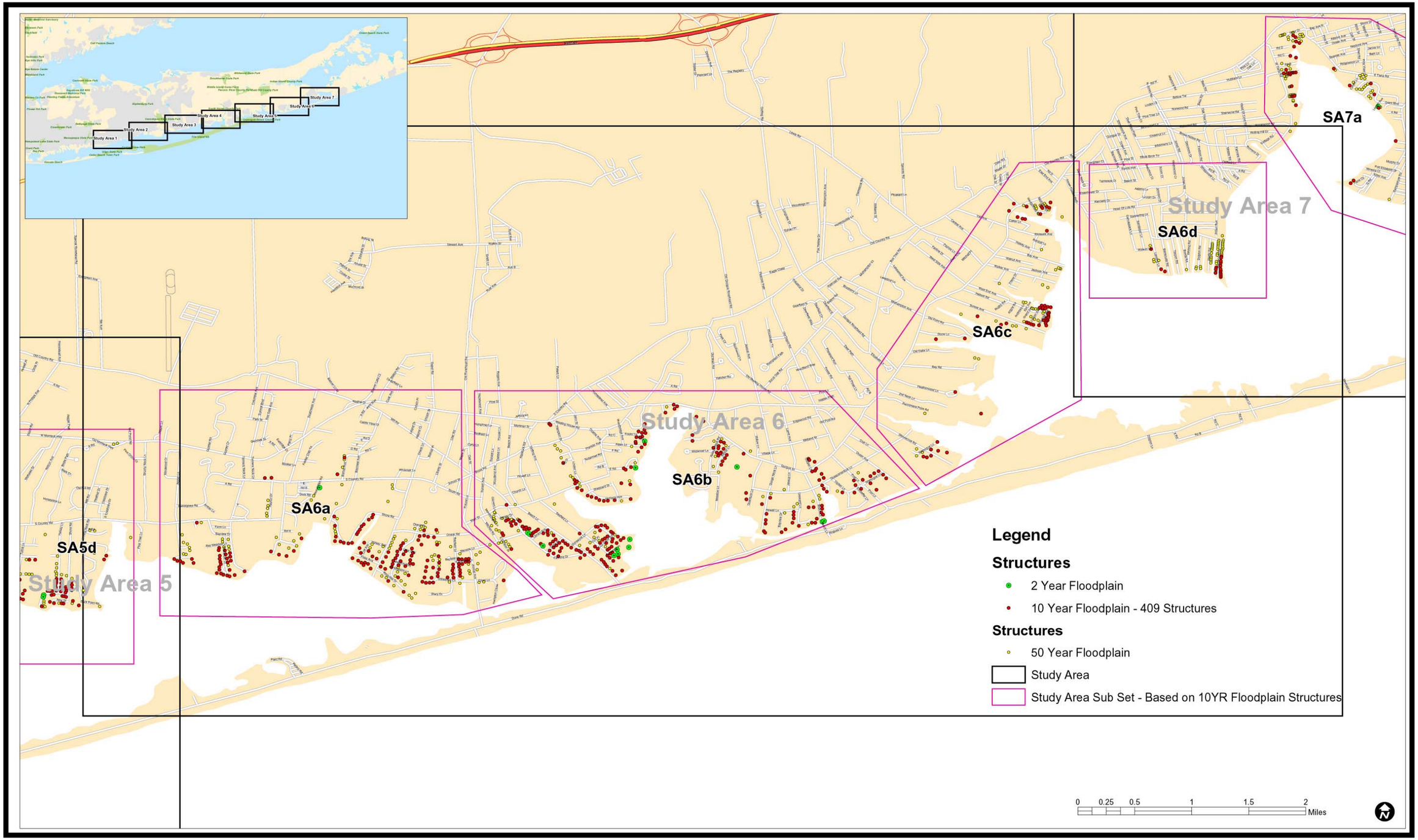


Figure 2.7 Floodplain Structures in Study Area 6.

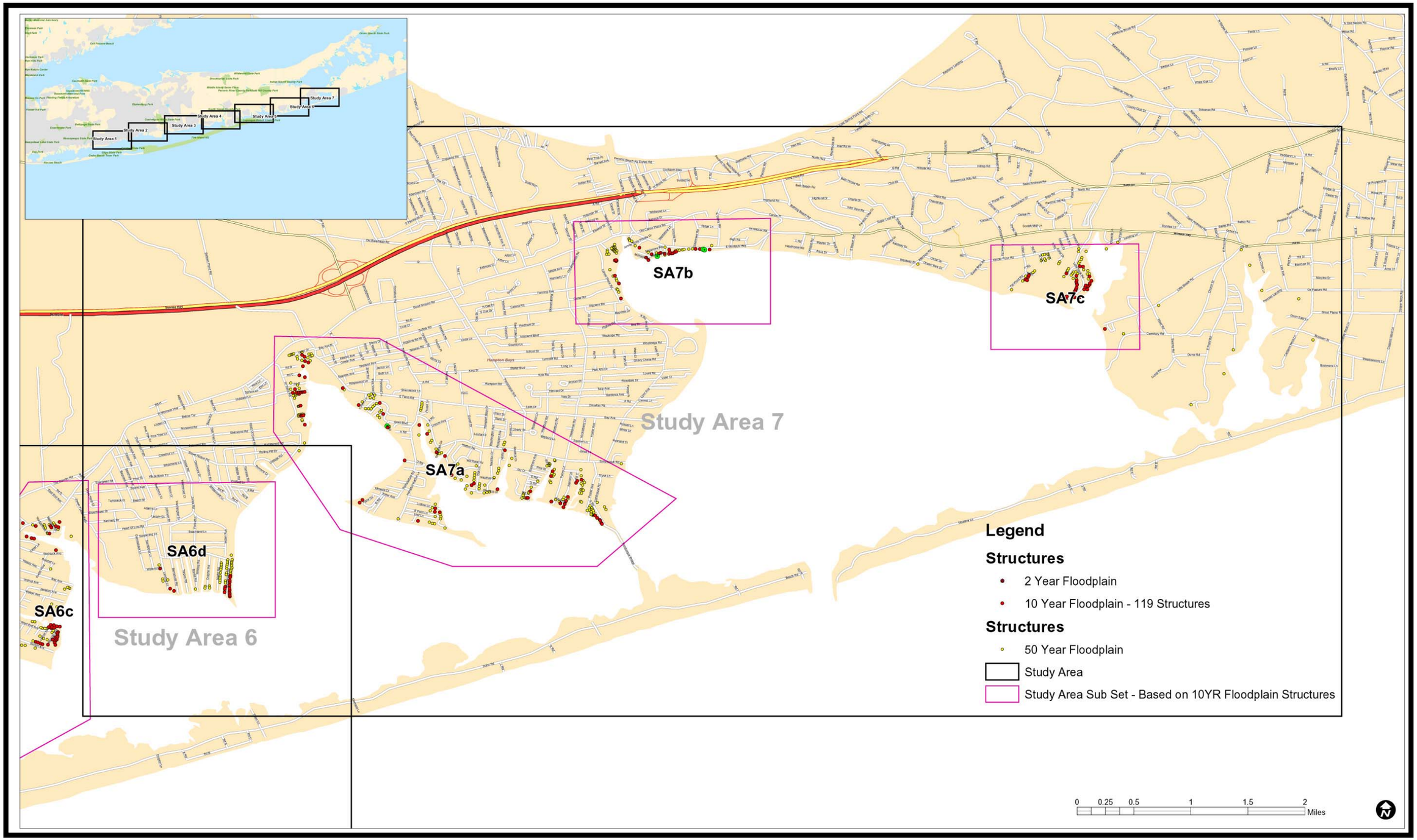


Figure 2.8 Floodplain Structures in Study Area 7.

III. PREHISTORIC AND HISTORIC CONTEXT

PRE-CONTACT LONG ISLAND

The Native Americans of Long Island are believed to have arrived more than 10,000 years ago. During that period, the East River, the Hudson River, and the Long Island Sound existed merely as shallow, grassy swamps traversed by nomadic hunters following caribou and other large game (Wick 2004b). The Native Americans arriving to Long Island at this point in time were arriving from points north and west—present-day Manhattan and Connecticut.

Environmental conditions during the Paleo-Indian period (11,000 to 10,000 B.P.) were characterized by a dramatic reduction in sea level (300 feet) that left present-day coastal New York 120 miles inland from the paleo-coast. The Paleo-Indians were highly mobile hunters and gatherers, moving about the landscape exploiting available food and lithic resources. They did not build permanent villages or stay in one place long enough for substantial archeological deposits to accumulate. As a result, these sites tend to be shallow and ephemeral (Cantwell and Wall 2001). High mobility among Paleo-Indian groups, the rise of coastal waters during the late Holocene, and extensive urban development of riverine and coastal settings all contribute to the rarity of Paleo-Indian sites.

Despite the rarity of sites, artifacts indicate that Paleo-Indians inhabited the New York area. A total of 21 fluted projectile points—as well as 120 other stone tools—were recovered from the general vicinity of Port Mobil and surrounding beaches on Staten Island (Cantwell and Wall 2001). Several other Paleo-Indian projectile points were recovered from various sites on Long Island; three of these were made from local lithic materials, indicating intensive occupation of the area (Saxon 1978 in Strong 1997:37).

The Archaic period (10,000 – 3700 B.P.) was characterized by changes in social organization and technology. Sea level was rising throughout this period as the glaciers melted and receded; thus, much of the information concerning settlement of the coastal plain has been lost to inundation. Few sites dating to the Early Archaic period have been documented on Long Island. However, possible Early Archaic components have been documented at the Wading River, Jamesport, and Stony Brook sites (Ritchie 1959). The Wards Point Site, at the southern end of Staten Island, is one example of an Early Archaic site; the site consisted of hearth features, diagnostic projectile points, and numerous cutting tools (Ritchie 1994, Cantwell and Wall 2001).

Changes in the environment during the Middle Archaic led to a seasonal pattern of migratory land use. People moved from resource base to resource base, exploiting seasonal runs of fish, stands of nuts, and migrations of fowl. A shift to more intensive exploitation of estuaries and bays occurred. Large shell middens have been identified along the coastal bays of Long Island (Dogan Point is an example of a massive shell midden with a well-defined Middle Archaic component on the Hudson River, north of New York City (Brennan 1974 and Classen 1994, 1995). Technological changes during the Middle Archaic included the introduction of ground-stone tools and stemmed projectile points. A variety of projectile point types local to the Long

Island area, including Wading River, Bare Island, Sylvan Lake and Lamoka, are reflective of this expanding range of material culture.

Increased social complexity, larger seasonal camps, and more intensive exploitation of riverine settings characterized the Late Archaic. The increase in numbers of sites and their distribution in a larger variety of environmental settings may be interpreted as indicating an increase in population during the Late Archaic. The technological changes from this period were marked by the introduction of steatite cooking vessels, as well as greater diversity of projectile point types. People used a variety of small projectile points, as well as a number of large bifacial blades.

The period of transition between the Archaic and Woodland periods saw an increase in social complexity marked by greater emphasis on mortuary traditions. An adoption of a more sedentary way of life occurred during this transitional period, corresponding to the commencement of horticultural practices and the introduction of pottery. A palisaded burial was excavated at the Aqueduct Site, near the Aqueduct racetrack adjacent to Kennedy Airport (Cantwell and Wall 2001). Four of the most prominent Transitional Archaic sites were recorded in Brown's Hills near Orient Point, near Jamesport and Sugar Hill, near Shinnecock Hills. Three sites have been recorded in the vicinity of Fire Island (Greeley-Polhemus Group and John Milner Associates 1998: 21).

Increasing sedentism and reliance on plant food sources, characteristic of the Late Archaic, continued during the Woodland period. The most distinctive and important technical innovations that is diagnostic of the onset of the Woodland period is the advent of pottery manufacture and its use. It is apparent that Woodland period inhabitants of the coastal New York region relied heavily on the abundant shellfish resources of coastal bays (Black 1981: 10). Shell midden sites are particularly common in coastal zones of the lower Hudson Valley (Harrington 1909; Schaper 1989). Extensive shell midden sites, many of them multi-component, have been reported in the Pelham Bay Park area, as well as at Throgs Neck. Woodland ceramics typical of the coastal region are described in the Milo Rock Shelter report, where they were found along with well preserved remains of shellfish (oyster, clam, and whelk), sturgeon, white-tailed deer, box turtle, and small mammals.

It is thought that these original people belonged to separate and distinct tribes. Some confusion over the classification of these peoples is rooted in the misunderstanding of the meaning behind different classifications (Wick 2004b). The Native-American people of Long Island are considered Algonquian, a linguistic categorization, meaning that historically they spoke one of the languages from the Algonquian family of languages (JMA 2001: 33). Although the Native Americans of the East End of Long Island existed in distinct bands, it is thought that most spoke Mohegan with a Montauk dialect. Due to the obvious language barrier between the first European travelers and Native Americans, much of this information has been historically confused.

The East End Long Island Native Americans were industrious people who wholly lived off the land and utilized all that nature provided. As hunters, gathers, and small-scale subsistence farmers of crops such as squash and maize, these people wasted no part of what they found, killed, or grew. Additionally, they subsisted on fish and shellfish along the coast. Shells from

Whelks and Quahogs were turned into colorful beads used for currency, known as *wammans* or *wampum*. The journals of early European explorers record that native onshore whaling had been observed far earlier than the advent of the whaling industry in areas along the Massachusetts coast and islands (Gish 1998). Native Americans, either taking advantage of whales beached along shores or of those that ended up in the shallower waters of the Peconic or Great South Bay, paddled out to seize them in their dug out canoes.

The shelters of these native peoples were most similar in form to what is commonly referred to as a wigwam; that is, shelters made from tree limbs and branches secured into the ground and fastened at their tops to create a dome-like shape. These ribbed structures were then covered in bark, reeds, and earth with small ventilation holes at the pinnacles to release smoke from interior fires (Wilson 1902: 14). Animal skins were often used to cover the open entrances to these shelters.

EUROPEAN INTRUSION: 1600–1640

The first European on Long Island is a disputed designation. Whether this distinction goes to Thorwald Eriksson in 1003, Giovanni Verrazano in 1524, or Estavan Gomez in 1525, it was Henry Hudson, sailing from the Netherlands in 1609, who actually landed and explored the island and encountered its native inhabitants (Bailey 1949, v.I: 25). Long Island was commonly believed to be a peninsula jutting from the mainland until sometime around 1613, when the Dutch sent Adrian Block to explore and map the region (Bailey 1949, v. I: 27). Block discovered Long Island Sound and the North Shore of the island.

At the same time that Block went to convince the Dutch to lay claim to the area between Virginia and New France, Captain John Smith was urging Prince Charles of England to do the same (Bailey 1949, v.I: 29). Both countries claimed the area of Manhattan, its boroughs, and Long Island as their own. England remained steadfast in its claim to the land of the New World, a claim staked by father and son explorers John and Sebastian Cabot for Henry VII between 1497 and 1498, when they explored the lands between New Foundland and the Chesapeake Bay (Bailey 1949, v.I: 31).

Although England's imperialistic claim to New England came earlier, the Dutch were the first to colonize the area along the Hudson River and its southern mouth, present-day Manhattan. A charter established the Dutch West India Trading Company in 1621 (Bailey 1949, v.I: 32). The company served as the Netherlands' international trade and colonization agency. Between 1624 and 1626, the company organized and constructed forts along important trade routes in the Northeast and Middle Atlantic regions. The first, Fort Orange, was positioned along the Hudson River at present-day Albany. In 1626, the fort at New Amsterdam was constructed (Bailey 1949, v.I: 32). England at this time did not challenge the settlements developing in the New World on lands they claimed as their own, being already involved in the war with France against Spain.

In June 1636, Wouter Van Twiller, then current director-general of the Dutch West India Company, purchased a considerable amount of real estate, including one of three large tracts on

Long Island, from the Native Americans. This tract would later to be known as Nieu Amersfoort and is now part of Kings County (Bailey 1949, v.I: 33). Western Long Island was becoming settled, and in 1638, the West India Company under Director-General William Kieft allowed foreigners the right to occupy land. This new system would grant anyone bringing at least five adults to the province 200 acres of the company's land to cultivate (Bailey 1949, v.I: 36). As a result, the western end of Long Island began to take on a multicultural character, featuring Dutch, French-speaking Walloons, Belgians, Germans, French Huguenots, and native backgrounds (Bailey 1949, v.I: 37). English settlers, however, were not welcome in the area. In 1639, a group of Puritans from Lynn, Massachusetts, attempted to settle at Matinecock (Glen Cove), located on the westernmost perimeter of the Dutch-claimed lands. The Dutch turned the Puritans away.

Taking a page from the book of the English colonists at Jamestown, Virginia, the Dutch began almost at once cultivating tobacco as a cash crop in order to ensure the economic viability of the settlement. Tobacco was first grown on Long Island in 1639. It had already been widely grown in New Netherland, and laws had been in place when cultivation began on Long Island. One of the first cultivators of tobacco was Pietro Caesar Alberto, the island's first Italian settler (Bailey 1949, v.I: 37). Pietro Caesar Alberto's home and tobacco plantation were located in the borough of Brooklyn, between present-day Clermont and Hampden Avenues (Pyrke 1943: 9).

The homes of these earliest Dutch settlers to New Amsterdam were simple, linear-planned constructions, typically of a single story, but in some cases consisting of one and a half stories. According to Virginia and Lee McAlester, the early Dutch settlers of New Amsterdam constructed homes utilizing building traditions from their homeland and English building traditions due to the proximity to English Colonial settlement (McAlester 1984: 114). The early Dutch residences in New Amsterdam and western Long Island were constructed with timber frames and weatherboard as exterior finish material instead of stone, as seen in other early Dutch Colonial residences (McAlester 1984: 114). The earliest houses had steeply pitched side-gable roofs, but the design of the roofs began to change into the mid-eighteenth century as the pitch became less steep, the eaves became flared, and the gambrel shape took popularity because of the additional space it provided on second stories (McAlester 1984: 114). An example of this Dutch Colonial with English influence hybrid is the Schenk House in Brooklyn, New York, a structure dated to circa 1676, with later alterations (McAlester 1984: 119). The house has a steep-pitched side-gable roof with a chimney that pierces the roof spine on one side of the house. The Schenk House is wood framed and clad with weatherboard. Alterations from a later period have incorporated dormers on the second level and a roof extension over the front façade (creating a full façade-width porch) and wood double-hung windows (McAlester 1984: 119).

At the same time the Dutch were establishing themselves in New Amsterdam and the western portion of Long Island, the English continued to maintain the belief that the lands belonged to the British Crown. In 1636, King Charles I gave Sir William Alexander, the Earl of Sterling, a Plymouth Colony patent granting all of the land of Long Island (Venturini 2004: 1). In turn, the earl selected James Farrett to serve as his American agent in the distribution of his lands on Long Island (Venturini 2004: 1). Shortly thereafter, English settlement on Long Island began.

The first two individuals to arrive and establish themselves on the eastern end of Long Island in 1639 and 1641, respectively, were Lionel Gardiner and Stephen Goodyear (Venturini 2004:1). Gardiner acquired his land—known by the Native Americans as Manchonat and which Gardiner renamed the Isle of Wight—through trade with the Montauk Indians and through Farrett's approval (Venturini 2004: 1). The Isle of Wight, which would later be renamed Gardiner's Island, today remains a private property owned by Gardiner's descendents in the town of East Hampton (Figure 3.1). Goodyear bought his land grant from Farrett, who had negotiated the trade of the land with the natives for himself in 1639 (Venturini 2004: 1). Goodyear, like Gardiner, traveled south from Connecticut, having previously been a merchant in New Haven. The property Goodyear received was the 8,000-acre Shelter Island in the Peconic Bay, between the North and South Forks of the East End (Venturini 2004: 1). Ten years later, Goodyear sold his island to a group of English merchants involved in the Barbados sugar trade (Shillingburg 2002).

EARLY COLONIAL PERIOD: 1640–1775

In 1640, two settlements—Southold and Southampton—occurred at the East End of Long Island, within months of one another (Venturini 2004: 1). The settlement at Southold, founded by the Puritan reverend John Youngs, is said to have been the earlier of the two (Venturini 2004: 1). Youngs brought religious pilgrims from Southwold and Hingham, England, over to the New World in search of the freedom to practice their sect of Christianity as they deemed appropriate.

Before coming to Long Island, the Puritans first sailed to New Haven, Connecticut, where they stayed for two years before proceeding southward across the Long Island Sound. At almost the same time, the group of Puritans whom the Dutch turned away at Matinecock arrived 80 miles west of Glen Cove at Southampton (JMA 2001: 47). They purchased land from the indigenous people of the area, the Shinnecock (Venturini 2004: 1). These two groups created the first European settlements; however, some evidence suggests that these were not the first white people to have lived at the East End of Long Island.

Primarily, Protestantism was the sect of Christianity practiced in the lands of Suffolk County from the time of the first Puritan settlement at Southold until the last quarter of the eighteenth century (Fischer 1989: 38). One of the country's first Presbyterian congregations remains in Southold. Quaker meeting houses were constructed in the late seventeenth century; however, these were built in the western end of the island, in towns and villages such as Matinecock and Jericho (Venturini 2004: 1). Protestants and Quakers alike tried to bring religion to the Native Americans through evangelization (Wick 2004a). The Shinnecock reservation has its own Presbyterian Church dating back to the seventeenth century (Shinnecock Indian Nation 2004).

Settlement on Long Island began to primarily spread into the island in both the north and west directions from the earliest English settlements in the east (JMA 2001: 35). However, East Hampton was incorporated in 1648 and would later become an important whaling center. Many people came from the southern shore of Connecticut and began communities along the North

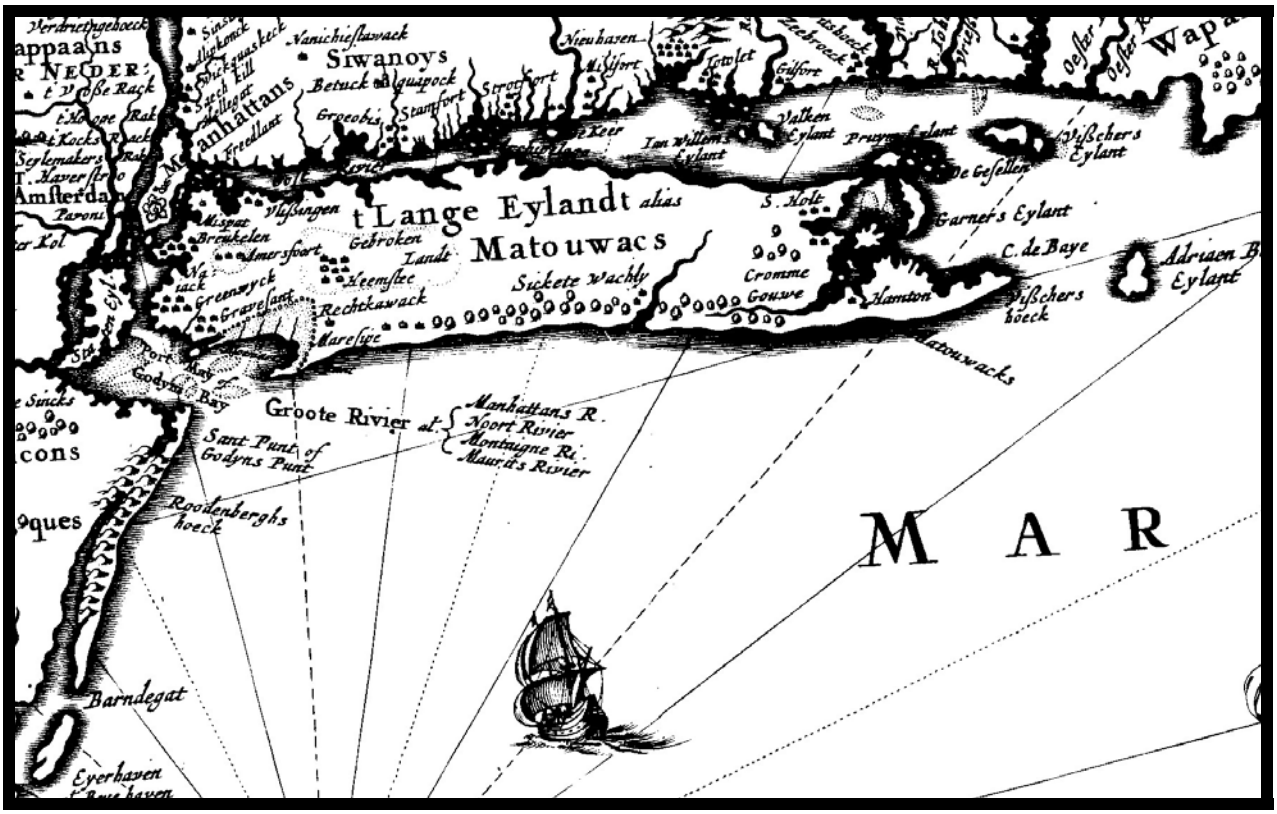


Figure 3.1 1656 Visscher Map of New England and New Belgium. Note Gardiner's Island in Peconic Bay (Source: New York State Library Manuscripts and Special Collections).

Shore in areas such as Old Field, Stony Brook, Babylon, Eaton's Neck (today a part of Northport), Northport, and Lloyd's Neck (today a part of Huntington)(JMA 2001: 35). In 1655, some of the members of the original Southold settlement set out on their own and founded Setauket, a village around Stony Brook in Brookhaven (Venturini 2004: 1). The Unkechaug people resided in the vicinity of Brookhaven. The East End of Long Island fell under the jurisdiction of the colony of Connecticut, as many of the settlers originated from there and received land grants from the governors of New Haven (JMA 2001: 52).

For a quarter century—1652 through 1678—the English and Dutch struggled for supremacy in the world (Wilson 1957: ii). This hostility between the two brought about the Anglo and Dutch Wars, which consisted of three wars over a 26-year period, and a fourth and final war between the two almost a century after the end of the third war. The first of the series of wars occurred over Oliver Cromwell's 1651 Navigation Act. The Navigation Act required that only English ships transport goods into England from outside of Europe and that, in regard to goods from Europe, only English ships and ships from the originating country could bring in goods to England for trade (Wilson 1957: 58–59). These laws crippled the Dutch, who had built a successful industry of nautical trade. The first war was entirely fought at sea between the two navies. The second of the wars most impacted the colonies in 1664. This war entailed two fronts. The first front was in North Africa, where the English, led by Robert Holmes, took over Dutch trading posts because they believed the Dutch were undercutting their slave trade (Wilson 1957: 113). The second front was New Amsterdam, where Richard Nicolls took the Dutch fort at New Amsterdam without bloodshed and declared British supremacy over the areas making up New York and New Jersey (Wilson 1957: 116–117) (Figure 3.2).

Battles continued in Europe between the English and the Dutch and their allies, until a temporary peace was negotiated in 1667 (Wilson 1957: 120). After the English suffered a humiliating attack and defeat on their own soil at the hands of the Dutch, via the Thames, the two sides drew up a treaty. The Treaty of Breda modified trade laws in favor of the Dutch and gave Suriname to the Netherlands. It was agreed that lands consisting of the Dutch colony New Netherland were to now be recognized as English colonies. New Netherland included parts of Connecticut, New York (including all of Long Island), New Jersey, Pennsylvania, Delaware, and Maryland (Wilson 1957: 130–135).

After Nicolls successfully commandeered the fort at New Amsterdam, Charles II granted to his brother, the Duke of York, the land making up New England, New York, New Jersey, and part of Delaware. The grant contains the following description of the territory given to the Duke of York:

> …all that tract of land adjacent to New England, in the part of American, and lying and being to the westward of Long Island, and Manhattas Island, and bounded on the east part by the main sea, and part by Hudson river, and hath upon the west Delaware bay or river, and extendeth southward, to the main ocean, as far as Cape May, at the mouth of Delaware bay, and to the northward, as far as the northernmost branch of said bay or river of Delaware, which is one and forty degrees, and forty minutes of latitude, and crossing over thence in a straight line to Hudson's river, in one and forty degrees of latitude (New Jersey State Library 2004).

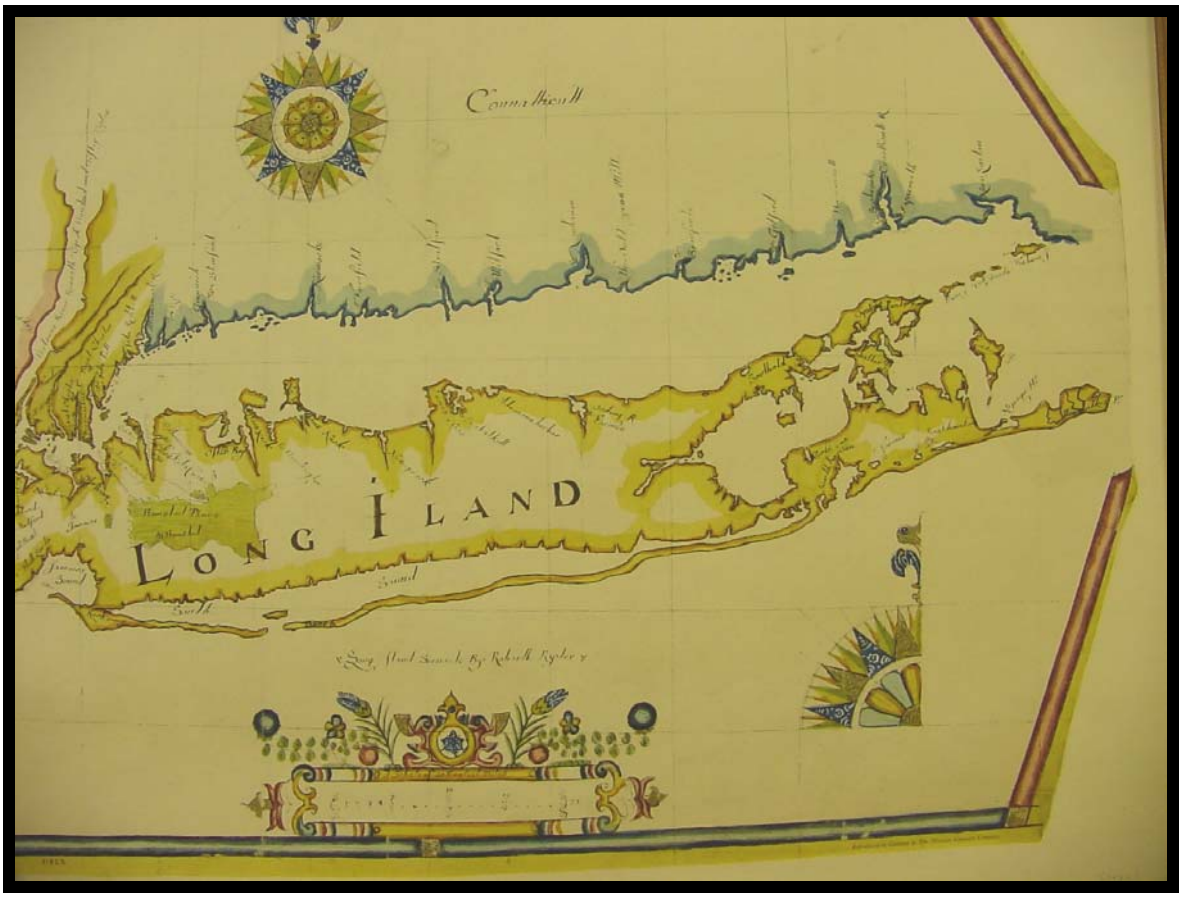


Figure 3.2 1675 Robartt Ryder Map of Long Island (Source: New York State Library Manuscripts and Special Collections).

The Duke of York made Richard Nicolls the governor of New York. Nicolls adopted the Charter of New York that made the Duke of York the absolute master of the lands making up New York, whereby removing any possibility of popular involvement of the colonists in their own government (Venturini 2004: 2). Long Island became recognized as a part of the colony of New York in 1666.

The struggles between the Dutch and English over the colonies did little to impact most of the population of the East End of Long Island, if at all (Venturini 2004: 2). The colonists at the East End and along the northern shore primarily traded with Connecticut, Boston, and Rhode Island, due to proximity and the shared commonalities between the peoples (most of those who settled these areas of Long Island originated from Massachusetts and Connecticut). Merchants were the most effected, as they had direct contact with the events occurring in New Amsterdam/Manhattan. The East End Long Island colonists were isolated from the mainland and preoccupied with settling their rural landscape. Their efforts included clearing and cultivating the land, constructing permanent structures, and establishing a system of trade amongst themselves, the neighboring Native Americans, and with the colonists across the Long Island Sound.

Additionally, the building techniques and designs of the early colonists to eastern Long Island are more closely related to English traditions and practices occurring in the New England colonies than those associated with Dutch Colonial construction in nearby Manhattan (Ferris Van Liew 1974: 6). The permanent housing that replaced the earliest crude log-hewn structures was consistent in form and style with Connecticut and Massachusetts residential buildings. According to Barbara Ferris Van Liew, the typical house forms were Cape Cods and Lean-to or Saltboxes: "…wood-frame one-room or two-room end-chimney plan of one or two stories" (Ferris Van Liew 1974: 6). The roofs were side gabled, but, unlike Dutch colonial residences, the eaves were not as deep (creating overhangs), nor did they flare upward. In addition to housing, some of the earliest buildings the colonists constructed were windmills, sawmills, and churches—all stylistically simple and related to contemporary examples throughout New England.

Early farming on the East End of Long Island was primarily subsistence based, with grains serving as the principle crops. Among the earliest grains cultivated on seventeenth-century farms were corn, rye, and wheat. Later, oats, flax barley, buckwheat, and—in some places—potatoes and tobacco were grown (Moss 1993:6). In addition to crops, livestock farming was important to the livelihood of many of the East End settlers. Salt hay—growing along the south shore and on the barrier island between the Great South Bay and the Atlantic Ocean—was used to feed herds. The barrier island was also used as a livestock highway. The herdsmen moved the livestock across the flat island to bring the surplus stock westward for sale. Although there were temporary shelters constructed for overseers of herds and for settlers who did their shellfishing off the barrier island, it took some time for any permanent construction to occur.

Long Island colonists utilized slave labor in their efforts to develop and farm the land. The keeping of slaves was prevalent on Long Island. The number of enslaved Africans remained small throughout the first half of the seventeenth century; however, by the end of the century, Long Island settlers owned more enslaved Africans than colonists elsewhere in New York (Moss

1993:3). The increase resulted from the growing demand for farm labor on western Long Island during this time (Moss 1993:7). By 1698, slaves made up approximately 20 percent of Suffolk County's population. The British government promoted the use of slaves for hard labor. Long Island slaves were not only of African heritage; Native Americans were subjected to the practice. As labor requirements grew, the demand far exceeded the number of foreign servants, thus Native Americans began to be enslaved on Long Island (Moss 1993:10). New York State established a law in 1679 making it illegal for the slavery of Native Americans, but it seems that colonists ignored the law to some extent. Slavery was not made completely illegal in New York until the 13th Amendment was added to the Constitution after the Civil War.

Once they had become established, the colonists wanted to have a voice in the manner in which they were governed. Royal taxation impacted Long Islanders' whaling profits. The colonists petitioned their Governor Edmund Andros for the right to form an assembly, which he agreed to in 1682. The first New York Assembly was elected in 1683, the same year that Suffolk County was established. The first assembly was short lived. The Duke of York became King James II, making New York a royal colony (Figure 3.3). The king refused to sign the Charter of Liberties, which provided for the right of the assembly to have consent on matters of taxation, and disbanded the assembly. The king consolidated the colonies of New England, New York, and New Jersey, along with six others, into a single colony and appointed Governor Andros and seven other councilmen to oversee it (Fischer 1989: 809). James II was soon ousted from the throne during the English Revolution of 1688. Andros and the councilmen were removed from power and the colonies were restored to their previous state, including establishment of a popularly elected assembly (Fischer 1989: 809).

INDUSTRIALIZATION, URBANIZATION, AND AGRICULTURAL DEVELOPMENT: 1775–1860

As the colonists became stronger and more established in America, the British government attempted to assert more authority over its interests through increased taxation, laws, and the presence of the British military in the major colony centers (Coles 1973: 3–4). More British troops were sent to places like Boston and Manhattan, while the presence of the British Navy became threatening and a nuisance at the eastern end and South Shore of Long Island (Coles 1973: 3). British naval troops were said to come on land and steal produce from the farmers along the coast of Long Island. Long Islanders played a critical role in the American Army spy ring leading up to the Revolution (Coles 1973: 5). Farmers and merchants from the East End were involved in transporting important strategic information regarding the location of British troops from Manhattan out to the east of Long Island and across the Long Island Sound to Connecticut, where the information would be delivered to General George Washington. General Washington placed troops in Long Island to ensure that the people there would not join the Royal Army or aide them in any way; additionally, he had whale boats armed and hired privateers to defend the south shore from the British navy anchored off the coast of the island (Jones 1879: 106–107). Only one battle of the Revolutionary War was fought here: the Battle of Long Island, waged on August 27, 1776. With the loss of Boston to the American army, the British were determined to gain control of Manhattan. The two armies met at the western end of the island at

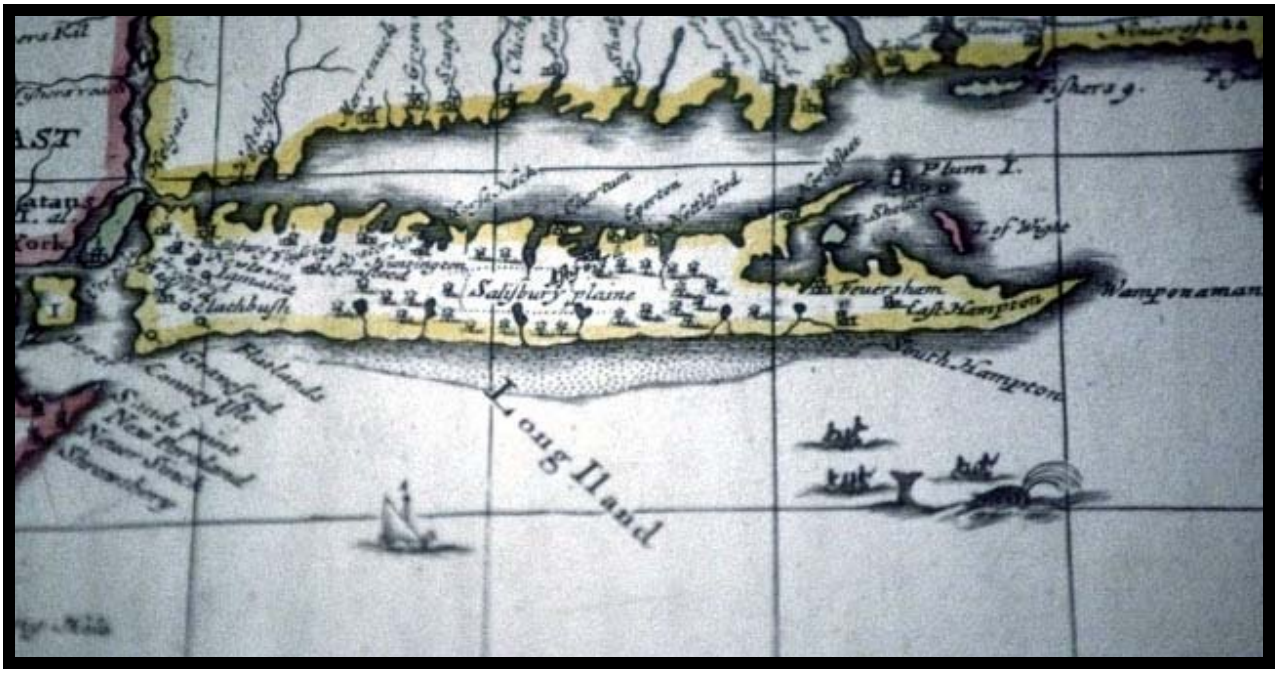


Figure 3.3 1690 Robert Morde Map of the English Empire in America (Source: New York State Library Manuscripts and Special Collections).

Brooklyn. The British troops outnumbered the American troops by more than two to one (Jones 1879: 112). General Washington's troops were decisively beaten after a bloody battle with the British. For the duration of the war, British troops occupied the expanse of Long Island.

After the end of the Revolutionary War, East End Long Islanders came into their own with the growth of industries that capitalized on the natural resources available to them. These industries included lumbering and paper production at local mills in Patchogue and on the Orowoc Creek, the production of charcoal (particularly during the 1840s), and shipbuilding. Between 1835 and 1855, it was estimated that an average of 30 boats weighing 20 tons each were constructed annually on the South Shore (Havemeyer 1996: 21). Mostly the products of these industries were sold on the island to the expanding population for the development of town and village centers.

Long Islanders continued to expand their interests on the island, and most towns were self-sufficient agrarian communities with smaller satellite villages. The townships and villages grew, and new settlements sprang up when individuals sought more land for their agricultural endeavors. Farming methods changed little over the years leading up to the end of the eighteenth century (Bailey 1949, v.II: 25). By the late 1700s, the soils in the western part of the island were nearly depleted due to poor cultivation techniques; however, the East End retained its fertile ground (*Newsday* 2004). The event impacting farming on Long Island the most during this time period was the opening of the Erie Canal, which allowed the grains grown and processed in the bread basket of the county to more economically supply the market demand in Manhattan. This meant that farmers out on Long Island had to rethink what they grew and supplied. The East End farmers made the transition from grain farming to produce farming. East End farmers supplied Manhattan with their fresh fruits and vegetables in part because their quality soil supported this type of farming, but also because the proximity of these farms to the city allowed for quick transport of fresh produce.

The wharves at Sag Harbor were the earliest and busiest at the end of the island. Produce from farms and cordwood cut down from the Pine Barrens region just west of the Hamptons were loaded here onto paddleboats and steamboats to reach markets in Manhattan and New London, Connecticut. Beginning in the mid-eighteenth century, Sag Harbor became the center of the whaling industry with its own customhouse (Gish 1998: 2). Whaling was not new to the area; the earliest settlers learned how to trap whales on shore or just off shore from the Native Americans (Gish 1998: 1). But now the industry had moved off shore, creating the need for the construction of sturdy and fast whaling ships for the tracking, killing, and trafficking of these great mammals. The shipbuilding industry for whaling interests primarily flourished on the North Shore.

Shellfishing had begun centuries before with Native Americans and expanded in the early 1800s as settlers dug oysters and clams from shallow water using open boats and long, iron-toothed rakes known as tongs. About 1847, baymen began to use the east bay as a source of seed oysters they transplanted to the west bay. At this time, Brookhaven Town officials began to lease two-acre underwater lots for $2 per year. To prevent poaching and the taking of undersized oysters, the towns began issuing licenses and appointed inspectors known as "toleration officers" (Bleyer 2004b). Shellfishing was locally important at this point, but by the mid to late nineteenth

century, it would become an important part of the Long Island economy when shellfish could be sold to hotels, restaurants, and markets in New York City following improved access to the metropolitan area through the railroad (Radcliffe 1950: 1).

Advances in all modes of transportation technology and the construction and improvement of road systems over the course of history dramatically impacted the growth of Long Island. The earliest roads in Long Island were little more than worn-down dirt paths along the old Native-American routes. The early colonists continued to use these paths and to create crude roads for travel to one another's farms. As early as 1732, the South Shore Road had been laid out in plan. Dirt roadways, originally known as the "king's highways," were transformed in the early 1800s into planked roadways with improved drainage (Havemeyer 1996: 18). The barrier island itself was also used as an early "highway" for moving animals and goods, as noted above. Roadway improvements made it possible for East Enders to travel west to Manhattan, changing the markets they sold to and were able to buy from on a regular basis. Mostly wares and produce grown out on the East End were transported via sloops to both the port of Manhattan and the ports along the southern shore of Connecticut.

In 1834, the construction of the railroad was begun on Long Island. In concept, it was intended that the Long Island Railroad—with its tracks running through the center of the island—would serve as a direct route from New York City to Boston for carrying mail: the Charleston-Boston Trade and Passenger Route. Passengers were to start from Brooklyn, travel the 96 miles across Long Island to Greenport, where they would change for a ferry to Stonington, Connecticut, and then board another train to Boston (JMA 2001: 70). It took several years to build the tracks running from Brooklyn out to Greenport. In 1837, the tracks reached Hicksville; in 1841, Farmingdale; and, in finally in 1844, the tracks were complete out to Greenport. The initial ties for the railroad tracks were made of wood transported the length of the island by boat and unloaded at the Long Island Railroad docks (Havemeyer 1996: 20–21). The railroad plan ended in failure when the Long Island Railroad Company lost the contract for mail delivery to another company offering a mixed rail-steamer transport route. The original tracks for the Long Island Railroad could not profitably be used for providing passage for people traveling between Manhattan and destinations on Long Island, as their location in the center of the island was not close to villages and towns along the shores (Andersen 2004). Once the railroad tracks were laid through Connecticut—making a direct passage between New York City and Boston—the Long Island Railroad tracks were made obsolete, as they served little function for the people who primarily lived on the north and south coasts of the island, as oppose to the island's center, where the tracks were located (Andersen 2004). The tracks were laid approximately four to five miles north of the South Shore; there were few roads from the train stations to the shore destination points that stage coaches crossed over easily. The Long Island Railroad Company would not reach its full profitable potential until routes to the North and South Shores were constructed and consolidated into a single rail system.

However, by 1850, the Long Island Railroad was coping with a nearly lost market and debts approaching $500,000. Dealing with competition from direct inland routes to Boston, which circumvented ferry service, was difficult at best for the Long Island Railroad. In its report to stockholders, several months before it went into receivership, the line pinned its hopes on the future growth of Long Island: "The time is not far distant when all the advantages of

healthfulness, proximity to the city, and convenience of access will increase the population of Long Island; the beneficial effects of which will be felt in the increased revenue of the railroad" (*Newsday* 2004). The subsequent resurrection and expansion of the railroad to the South Shore in 1859 demonstrated a substantial shift in the Long Island Railroad's market strategy. Rather than acting as a mere conduit for travel to Boston, or only as a means to get agricultural goods to market (although this would continue to be important in the South Shore's development), the South Shore of Long Island became a destination for New York City's masses.

At this point in time on Long Island, a great disparity in wealth became apparent. There were successful merchants, whale ship captains, shipbuilding yard owners, and successful plantation owners who accumulated great amounts of money through the expansion of their businesses. At the same time, many served as laborers in these industries and were paid meager wages for arduous work. Large homes finely finished and decorated with goods, fabrics, and furniture from abroad began to be constructed on Long Island. The expansion of the shipping industry meant that a wider offering of goods was accessible to the wealthy in America. America's first architects began practicing during this time period, and architecture in the New World began to reflect political sentiments, a desire for independence from British traditions, and refinement not experienced during the early colonization of American. Prevalent styles used in building construction during this period included Georgian (characterized by the symmetry in design and projecting pavilions with large columns and piers), Federal (characterized by lowly pitched roofs, the use of elliptical fanlights, and geometric forms), and Roman Classicism (invocative of classical temple forms and the use of the Roman Orders).

AGRICULTURAL, INDUSTRIAL, IMMIGRATION, COMMERCIAL, AND URBAN EXPANSION: 1850–1920

The late part of the nineteenth century through to the first quarter of the twentieth century marked a period of substantial change for Long Island. This period saw the transition of a mostly rural island with its economy primarily dependent on agriculture, whaling, and shipbuilding, to an economy diversified and impacted by new industries such as tourism, defense, and new types of manufacturing. Developments in the transportation system along the South Shore had a fundamental impact on the region. These new systems, while originally intended as conduits to move farm goods from the South Shore's small, isolated communities to the larger city, became the reverse—a pathway that sold the South Shore itself as an idealistic natural commodity to a dramatic rise of new visitors and residents coming out from the city. Additionally, the expansion of European immigration to the United States impacted the island both in the overflow of immigrants moving out to the island and via the pressure this surge of population put on urban centers, creating the desire for more open space located outside of the city.

During this period, Long Island Railroad President Austin Corbin's plan of constructing an underwater tunnel connecting Manhattan with Long Island was realized through the Pennsylvania Railroad (Lightfoot, Martin, and Weidman 1984: 97). It became unnecessary to cross the East River by ferry and then board a train for points east in Brooklyn. Additionally,

this period brought about the rise in industrialization on Long Island with lace production and lumber mills in Patchogue, sand and gravel suppliers and brickyards in Huntington, the defense industry blossomed on the island as result of the United State's involvement in World War I and II, and the early aeronautics industry located on the South Shore in Amityville, Copiague, and Bayshore. While still predominantly rural, the developed areas of Long Island became commercial centers with specialized industries. These commercial centers were less isolated from the mainland and particularly Manhattan via the expansion of the railroad.

By the end of the nineteenth century, the whaling industry was coming to a close. The fleets leaving from Sag Harbor and ports of Massachusetts depleted the supply of whales in the Atlantic. The decline in the whaling industry directly impacted the shipbuilding industry on Long Island. The South Shore had not been a primary whale shipbuilding center, and was not dramatically affected like Northport on the North Shore. The boats built on the South Shore were primarily constructed for recreation and the transportation of goods. During this period on the South Shore, the demand for steam-powered ferries increased, as the barrier island (Fire Island) grew popular as a vacation destination. In Amityville, Frank Wicks built the bay ferryboats *Atlantic* and *Columbia*. Amityville was also home to the *Narrasketuck*, which the Ketcham Brothers originally built in 1934 as a high-performance sailboat (Niemi 2002/2003: 165).

While whaling declined, the shellfish industry was just reaching its peak, as it now became possible to harvest oysters, process them, and ship them to market in New York City in a relatively short period of time. Shellfishing expanded into a large industry for the South Bay and, as such, efforts were made to speed up the time needed to rake out shellfish and deliver them to market. Early baymen used rowboats, which later gave way to faster sloops to transport their catches. Shellfish processing occurred on Long Island; the oysters were shucked and sent in wooden barrels to the city, first by boat and then, in the late 1860s, via the Long Island Railroad. By 1890, 25 oyster-processing factories (known as "shanties") existed in Bay Shore, Oakdale, Sayville, Blue Point, and Patchogue.

Reaching its peak production in the late nineteenth century, the South Shore's aquaculture industry was among the largest in the nation. While Sag Harbor was the nucleus of the eastern shore whaling industry, the South Shore was the center of shellfishing. Once one of the South Shore's most prevalent laborers, baymen cultivated oysters, clams, and scallops. Areas near Sayville—notably Blue Point—were known for oysters in particular. Immigrants from Poland and Portugal—as well as African Americans—received low wages for the shucking and cleaning of the vast quantities of oysters caught in the bay. The Blue Point oyster, considered a delicacy, demanded a high market price and was featured on the menus of New York City's finest restaurants.

Not all of Great South Bay was equal when it came to supporting shellfish. Oysters and clams would set (or reproduce) better in the eastern part of the bay, but would grow faster and fatter in the western part. The key was that the western end was saltier. Not only did the seed oysters grow better in the fresher water, but also this setting discouraged the oysters' enemies, such as drills and starfish.

Agriculture in Long Island had become specialized to meet the market demand in Manhattan, Connecticut, and Boston. With improved transportation, agricultural products could be sent farther faster, therefore expanding the reach of the Long Island farmer's produce. Potatoes and cauliflower became important cash crops for Long Island, and duck farming rose to prominence in the late nineteenth century (see below).

Potato farming was a successful industry in Long Island for a number of reasons: one was the moderate climate of the area; another was the improvement of farm equipment that allowed for faster harvesting with a machine called the "apron-chain," which dug the potatoes out of the ground and left them on the surface to be collected by hand; and, finally, because there was a new group of immigrants in the area from Poland who had experience in potato farming from Europe (Lightfoot, Martin, and Weidman 1984: 35).

The cauliflower seed was introduced to Riverhead farmers in 1872; cauliflower became the second most important crop on Long Island for more than 100 years. The Long Island Cauliflower Association was a consortium of Long Island cauliflower growers who banded together at the turn of the century to stop the produce dealers in New York City from robbing them of profits made on produce sales. Rather than individual farmers selling their cauliflower to dealers for market sale, the association brought several farmers together, transported the cauliflower at a reduced rate, and oversaw the unloading of the cars in the city. Eventually, the association held their own cauliflower auctions (Lightfoot, Martin, and Weidman 1984: 35).

Duck farming became a profitable industry on Long Island soon after the introduction of the Peking duck, which Edward McGrath brought over from China in 1873 (Coles 1973). Mr. McGrath, a merchant, had seen the ducks on a trip in Peking and was taken by their size. Long Island had its own population of ducks before the import of the Peking duck, but the indigenous flocks were sport for hunters as early as the 1840s. By 1924, 1.5 million ducks were being raised on Long Island's south shore by farmers (McHugh 1991: 48). The conditions and climate of the South Shore at the East End of Long Island provided a suitable environment for the white ducks to thrive and reproduce. One substantial hurricane in the late 1930s did have horrendous repercussions on duck farming, wiping out an entire farm in Speonk that had at one time 1,000,000 ducks. Although duck farming was found to cause substantial problems for the ecosystem of Long Island (particularly in regard to the shellfish beds of the Great South Bay due to associated runoff waste), it has remained an important industry on the island (McHugh 1991: 48).

Industrialization on Long Island, particularly in Suffolk County, began when farmers and baymen started to yield a surplus of crops and shellfish. Means to preserve these products had to be developed so that they had a longer commercial life. For produce, this meant the pickling and jarring of excess quantities of cauliflower and other vegetables not sold fresh at market; for shellfish, it meant canning oysters and clams. In 1865, James H. Doxsee opened the first clam-processing plant in Islip (Solomon 2004). Shellfishing reached its pinnacle of success on Long Island during this period. According to Jeffrey Kassner and Donald Squires, there are three periods in the evolution of shellfishing on the Great South Bay of Long Island: the period prior to 1850, concerned with subsistence shellfishing and supporting the local population's shellfish needs; the second period, from 1850 to 1920s, when oysters became an item of commerce and

significant component to the South Shore's economy; and finally, the period after World War I, when oyster beds after years of pollution and over-harvesting were no longer producing the quantities necessary for the industry to continue being profitable, and a transition was made into seeding and harvesting clam beds (McHugh 1991: 66).

By the end of the nineteenth century, industrialization on Long Island was changing; lace making had become a thriving industry in Patchogue. Patchogue early on had become an important textile-manufacturing center, beginning with its twine mill built in the eighteenth century. The lace mill in Patchogue originally began as a finishing facility for lace curtains and crinoline used under women's skirts. Eventually the production of lace occurred in the mill, and it became the third largest manufacturer of lace curtains in the United States (Lightfoot, Martin, and Weidman 1984: 66). The owners of the mill installed looms and recruited skilled weavers that emigrated from the British lace center of Nottingham to work in the mill (Lightfoot, Martin, and Weidman 1984: 66). The lace mill building still stands in Patchogue, but has been converted for other uses today. The harnessing of water for power made industrialization on the South Shore possible; this ability to generate power made Patchogue an important industrial center.

The next evolution in industrialization on Long Island involved early aeronautics and the defense industry. Initially, with the United States involvement with World War I, the shipbuilding industry of Long Island was revived along the North Shore with the demand for iron-sided naval defense ships. Wartime ship production created a spike in the economy of Northport that furnished the Navy with its new ships. But this brief influx of business was not sustained, and the northern shipbuilding ports were once again abandoned. The South Shore experienced a different type of growth relative to defensive industry needs. The complex shoreline of inlets provided secured areas ideal for testing defense systems. The South Shore was utilized as an area to build and test proprietary defensive equipment and boats, such as submarines. The growth of the defense industry—along with being dubbed the "cradle" of early aeronautics—created the most dramatic shift in the economy away from the traditional industries associated with Long Island's history (Walker 1951: 286).

In addition to the advances and changes in the manufacturing and agricultural industries, a new industry developed on the South Shore of Suffolk County: tourism. By the 1840s, inns and sporting clubs began to dot the coastline of the Great South Bay. Initially, duck hunting in the salt marshes attracted visitors; sailing, which attracted wealthy sportsmen from New York City, was also an early attraction. These wealthy sportsmen eventually brought their families and, in the early 1840s, a few families with year-round residences in New York City built summer cottages out on the island between Oakdale and Babylon (Havemeyer 1996: x–xi). These original summer families were the Johnsons, the Lawrances, and the Wilmerdings (Havemeyer 1996: 32). In addition to their individual summer homes, the families constructed their own Episcopalian church. By 1847, Felix Dominy and his wife started their own inn, Dominy House, on Fire Island (Havemeyer 1996: 27–28). Visitors arrived via ferry from Babylon. In 1856, David S. S. Sammis' construction of the Surf Hotel on Fire Island marked a transition in resorts and summer vacationing (Havemeyer 1996: 28). Sammis had the idea that city dwellers would be interested in the opportunity to get away from the over-crowded urban center during the hot summer months to enjoy the tranquil pleasures of sunbathing, fishing, hunting, and sailing out on the Great South Bay of Long Island (Havemeyer 1996: 28). Sammis initially built the Surf Hotel

to accommodate 100 guests and enjoyed success. Following the construction of the Southside railroad in 1867, the Surf Hotel became even more popular, requiring Sammis to add accommodations for another 1,400 guests.

While summer resorts and spas were initially privileges extended to the wealthiest Americans in the early to mid-nineteenth century, a democratization occurred in the late part of the nineteenth century for Americans seeking refuge from hot and uncomfortably crowded cities in the summer (Havemeyer 1996: 28–30). This democratization expanded with the railroads and trolley routes, as well as with the industry of hotels and inns along beaches, ponds, and lakes all over the country. Long Island was able to continue its tradition of exclusivity for the wealthiest coming to its shores for play through the construction of sporting clubs. While the hotels and inns in principal offered the same access to the beaches and waterfront recreation to all, the clubs required membership. The Olympic Club, the Great South Bay Angler's Club, the Southside Sportsmen's Club, the South Shore Rod and Reel, and the Suffolk Club were just a few of the exclusive clubs along the South Shore for the wealthy (Havemeyer 1996: 31). Often, particular groups already established in New York City social life determined membership in these sporting clubs (Havemeyer 1996: 31).

After the Civil War, change and progress occurred quickly on Long Island. This period of time saw a rapid rise in industrialization and ingenuity by Long Islanders in fully utilizing the natural resources available to them. This period also saw a change in the economic class system. While a select number of the population became wealthy through its association with the railroad, steel and iron production, lumbering, and essentially through industries that provided the materials necessary for building and expanding the nation, increasing numbers of immigrants coming to America from Europe and other laborers were paid low wages and lived in urban slums ridden with disease, garbage, and overcrowding. By the mid-nineteenth century, the shores of Long Island became the playground for the exceptionally wealthy. Eventually, with the emergence of the middle class and leisure time, Long Island would become a summer vacation destination for middle-income families from Brooklyn, Queens, and Manhattan. Essentially, this period in time laid the groundwork for the incredible growth in development and population experienced all over Long Island starting in the late nineteenth century through to the mid-twentieth century.

SUBURBANIZATION: 1840–1960

Suburbanization on the South Shore of Suffolk County began with the development of small vacation cottage communities. While residential development had occurred, it was primarily along the main road of a town or village or, in the case of farmhouses, on large tracts of land. The earliest country cottages built on the shores of Long Island were the large estates of the wealthiest society families, who oftentimes had large homes in Manhattan and other wealthy playgrounds like Newport, Rhode Island. This type of vacation residence development was in a sense a springboard for suburban development of Long Island's South Shore. Small communities were built around a central feature—manmade canals, beaches, or clubhouses that attracted buyers to build small cottages, almost in clusters. Initially, these developments were constructed for seasonal use, but as travel from Long Island to Manhattan became more efficient

and as the ownership of automobiles became more prevalent, families winterized these early summer cottages and began to live year round on Long Island.

The development of the Long Island Railroad South Shore branch in 1867 opened the Great South Bay to visitors eager to escape the heat and cramped tenements of industrialized urban areas such as New York (Havemeyer 1996: 20–21). The South Shore offered open space, fresh air (a real concern in the age of tuberculosis), and swimming within a tranquil natural setting. Clubs expanded and the South Shore experienced a developmental boom with the advent of large Victorian hotels overlooking the bay. These hotels were often placed near large municipal beaches and swimming piers.

At the turn of the century, as automobiles became more affordable and with the construction of improved roadways like William K. Vanderbilt Jr.'s Long Island Motor Parkway, Long Island became increasingly accessible. The automobile would not only increase the level of tourist traffic, but would open up the South Shore to suburban settlement.

As agricultural spaces declined in value, or were unable to compete with rising residential suburban land values, larger tracts of farmland were divided up into smaller parcels and sold to developers and residents. Early suburbanization would be marked by subdivisions, a collection of planned residential property types laid out in deliberate patterns. The growth and evolving form of subdivisions would parallel the rise in automotive travel. In the first stage, suburbanization was relatively modest in scale. Early residential subdivisions served as precursors for the larger interwar and postwar settlements. Early suburbanization, from the late nineteenth century to the 1940s, was marked by the development of belts of proximate but lower density residential communities dependant upon urban development.

David L. Ames, an Urban Planning professor at the University of Delaware, along with his colleagues Susan Chase and Rebecca Siders have been pivotal in the last ten years in developing a framework by which to study the rise of suburban development in the United States. The three have been responsible for developing the context and guidelines by which to evaluate historic residential neighborhoods in American suburbs for the National Register of Historic Places. In their publication, *Suburbanization in the Vicinity of Wilmington, Delaware*, they state that early suburban development required close proximity to established urban areas and creating centers offering services to support residential occupation was just beginning to be explored, "In this stage, the rate of suburbanization was modest and the central city remained dominant. It was in this stage that the subdivision was developed and refined" (Chase et al. 1992: 2). Ames defines this early automobile-driven suburbanization in a larger context of transportation-related settlement (and distinguishes between rail and automotive transportation systems), noting that:

> [this] stage of suburbanization was launched by the introduction in 1908 of the mass-produced automobile by Henry Ford. Its rapid adoption by Americans led to the creation of the automobile-oriented suburb of single-family houses sited in subdivisions that became the quintessential American landscape of the twentieth century (Ames 1996: 6).

Industrial processes influenced even the earliest suburban dwellings. Their designs were often adapted from widely published plans. Much of the actual craftsmanship that characterized

suburban and semi-rural dwelling of the late nineteenth and early twentieth centuries was in fact machine-made. The use of industrial processes was critical in the development of suburban residential communities. Not only did mass-transportation and mass-produced automobiles transport residents to the emerging suburbs, but the dwellings of these residents were examples of industrial product. According to Gwendolyn Wright:

> By the late 1870s, most of the supposedly individualized craftsmanship on a Victorian house consisted of ornament that had been made in a factory, shipped to the site along the railroad routes, and then tacked or glued into place by a carpenter. The new industrialism did encourage extravagant, even garish, display, as many architects charged, because it made abundant ornament accessible to American builders and homeowners of all classes (Wright 1981: 102).

Developers, railroads, and financing agencies frequently drew upon naturalistic images, which promised domestic freedom from urbanized (and standardized) society in their published promotions. However, such individualism promised in both late Victorian-era housing and later associated residential property types was created using "templates":

> In many ways, the Victorian dwelling embodied both an ideal and its antithesis. These supposedly individualized and expressive homes depended on industry for their naturalistic effect and their wide availability. New machinery accelerated and systemized the production of construction materials. Using exacting templates, factory workers now cut flat, recessed panels or rough blocks of stone for foundations and façades. Brick workers also shifted to machine production (Wright 1981: 100).

Builders and promoters of early suburban settlement used rural landscapes (much of it former agricultural land) as a means of promising individual freedom to a mass audience. Early Victorian-era suburbs—and their later twentieth-century successors—were sold as natural and healthy antidotes to a crowded and urbanized industrial life:

> Builders claimed that architecture could assert almost as much natural imagery as the landscape itself. They considered the irregular shape of a house as a sign of organic complexity, and writers of popular literature echoed that sentiment. Rough limestone, wide clapboards, cedar shingles, green patina on slate tiles, all used for a single façade, gave the look of natural materials and venerable aging to a new house... Porches too were being handled in a new way to accentuate the house's relationship to the natural environment (Wright 1981: 106).

The open space and natural resources of the South Shore, in addition to the proximity to the city, were important features directly related to its resort and suburban development. The idealized pastoral life, sold to city audiences as an antidote for urban-industrial stress, is best illustrated in the lyrics of the song "A Bungalow in Quogue," written by famous Broadway composer P. J. Wodehouse for producer Jerome Kern's 1917 Broadway musical, *Riviera Girl*. The song describes how the resort communities along the South Shore offered "the simple life," which included "the scented breeze," "room to exercise the dog," and even a colloquial "Farmer Brown next door"—all "free from all this care and strife" (Wodehouse 1917).

As the automobile grew in popularity and affordability—and as infrastructure improvements continued to shorten the distance and distinction between urban and suburban space—the earlier suburban building boom continued to expand upon previous development forms and property types:

> The early 1940s marked the prelude of a suburban building boom that would house veterans returning from World War II and was continued by post-war economic and population growth. This building in the periphery of American cities produced a far-reaching change in American urban settlement patterns by creating a distinctive, dispersed suburban landscape… The growth of suburbia after World War II reflected significant cultural, social and economic trends in twentieth-century American society (Wright 1981: 102).

Furthermore, the development in later suburban property types may be directly associated with transportation improvements:

> The fourth and largest surge of suburbanization in the United States came after World War II and was fueled by advances in transportation technology and a demographic event, the Baby Boom, coupled with a housing shortage. This most rapid spread of suburbs in the nation's history was facilitated by freeway construction culminating in the interstate highway system. The post-World War II suburban housing, manifested in the so-called freeway or bedroom suburbs, were further creations of rubber tire transportation, as trucks joined cars to support growing commercial and even industrial activities at the city fringes. In this period, federally subsidized housing mortgages, especially for veterans, greatly spurred the growth of homeownership (Wright 1981: 101).

Mortgage companies, developers, and later federal housing programs played an important role in encouraging suburban growth as funding was made more readily available through the development of a formalized credit system. A series of opportunities and developments made it possible for families to afford home ownership on Long Island after World War II, which ultimately resulted in the population and development explosion of the island. The first development in the timeline was the adoption of plans for the Long Island Expressway, which provided a direct roadway from the East End all the way to the river crossings. The second development was the construction of the Queens Midtown Tunnel in 1940, which provided underwater access for vehicles from Manhattan into Queens. The fourth advent was the 1944 G.I. Bill that provided housing loans to World War II veterans through the Veterans Administration at low rates of interest and waived the requirement of a down payment. Finally, the return of veterans from World War II created a population surge referred to as the Baby Boom, when more babies were born in history than at any other time. All of these factors played important roles in the increased development activity of Suffolk County. Between 1930 and 1970, Suffolk County's population increased by 700 percent (Whitehouse 2001/2002: 88). The greatest period of growth in population occurred in the decade between 1950 and 1960.

Suburbanization, and the relationship of later suburbs to both automotive travel and other technological standardization, had a profound impact upon domestic life. As the automobile collapsed previously distant space between the domestic and commercial spheres, it also changed the way in which domestic duties were performed and recreation was allocated.

Suburbanization along the South Shore was also related to the role of its natural resources as a formal attraction. In 1924, Robert Moses became chairman of the New York State Council of Parks. At that time, there was one state park on Long Island, on a remote part of Fire Island accessible only by boat. This first park was started in 1898 to quarantine cholera victims. Moses was responsible for opening up Long Island to visitors and tourists, despite protest from the wealthy landowners of the time. Coupled with the increase in automobiles for the general public and the growing interest in pleasure driving, the newly formed state parks and parkways drew visitors from all over the country (McCarthy 1964). Robert Moses, a Connecticut native, first saw Babylon in the early 1920s, when friends invited him and his wife Mary out for summer weekends. Moses fell in love with Babylon and the entire South Shore, renting a bungalow in the summer of 1922 and eventually buying a home on Thompson Avenue. Many of Moses' grand ideas, like Jones Beach, were hatched on drives or boat rides around his new hometown (*Newsday* 2004).

In general, ready-made clothing, canned food, washing machines, radio, the automobile, and the electric light changed the nature and the method of home activities. In a 1949 retrospective on the history of modern housing, the influential *Architectural Forum* observed:

> In our specialized, mass-production culture, home is no longer the center for both work and relaxation. Factory or office has long-claimed the master of the house for most of his waking hours. How, with the increased speed of electrical housekeeping, the mistress, too, may hold at least a part time job. Daughters no longer need to stay at home to help with the spinning, weaving and baking; they go to business school, college or start immediately to work. The supermarket and the department store, supplying food, clothing and furniture which formally took long hours to make at home, have created more leisure time for all. But again, modern mass entertainment, from movies to baseball games, from the juke joint to the Lion's club dance lure families away from the home to enjoy this leisure. The automobile, symbol of the twentieth century, speeds the family into town or away from town for an evening or a weekend (Baxandall and Ewen 2000: 18).

Although the automobile and other technological improvements were uniquely modern, the style and form of suburban residential properties continued to recall traditional lifestyles through visual association and repetition of "revival styles."

> [Architectural critic Lewis] Mumford claimed that Americans, rather than celebrating the modern machine miracle and looking to the new technological landscape for aesthetic inspiration, were flagrantly "imitating certified brands of European or early American culture" and building "the whited sepulchres that began to parade as the seal and hall of sound aesthetics, the dull porticos, the feeble massive pillars that support nothing and

> express nothing… and the French chateau in New England and the Spanish palace in the midst of the prairie (Baxandall and Ewen 2000: 20).

Although twentieth-century suburban residential architecture was thoroughly modern in practice, exterior design and style implied a traditional association with these new technological freedoms.

Italian ethnicity also played an important role in Long Island's suburbanization. Despite early attempts to prevent Italian immigrants from settling on Long Island around the turn of the twentieth century, Italian Americans became the largest single nationality group on Long Island (Lagumina 1988:1). Most Italian Americans on Long Island can trace their roots to the major immigration wave at the turn of the century and after World War II (LaValle 1996:1). At present, Italians make up more than a quarter of the residents of Nassau and Suffolk Counties (LaValle 1996:43).

Domestic architecture of the twentieth-century suburbanization theme was also founded upon progressive—and anti-urban—notions of reform. Industrialization was judged to be successful only if it resulted in what was viewed as an enhanced, sanitary, and convenient lifestyle.

Suburbanization in the twentieth century was a primary goal of progressive reform, and a continuation of nineteenth-century efforts to correct perceived flaws in urban tenement housing. Such new settlement patterns were ultimately built upon a mixture of social reform, industrial technology, and the promise of traditional agrarian independence. Accordingly, the design of early suburban housing often recalled traditional forms while reflecting new technological advances (such as the automobile).

According to local accounts, Prohibition in the 1930s did not stop residents from keeping stills and making their own liquors. Speakeasies were common, as were homemade stills. Bootlegged whiskey was kept hidden under potato sacks and transported all over Long Island, creating a lucrative business for those who could keep their actions covert (Bleyer 2004: 1). The largest still on the island was just north of Bridgehampton; it was producing about 1,000 gallons of liquor a day when federal agents stopped the operation. During this time, the Montauk Highway became known as Moonshine Lane. The island's coastline, with harbors and various jogs, provided ample places for smugglers from Canada and other places to hide (Peiffer 1997).

On September 21, 1938, Long Island experienced a substantial hurricane without warning. The hurricane, known as the "Long Island Express," was a category three storm that caused substantial damage to the project area, in addition to over 70 deaths (*Southampton Press* 1938). In Westhampton alone, over 150 houses were destroyed and the downtown area, one mile inland, experienced a six-foot flood due to the storm surge. Winds of 120 miles per hour and 50-foot waves were reported on Fire Island (Hall 1939: 1).

It was estimated that the total property damage cost from Jones Inlet to Montauk Point equaled $6.2 million in 1938 (Morris and Bleyer 2003: 4). It has been estimated that if the same hurricane were to hit Long Island today, the property damage would be somewhere near $6 billion (Morris and Bleyer 2003: 4).

On March 6, 1962, another large-scale coastal storm caused substantial damage to the south shore of Long Island—the "Ash Wednesday Storm," the Nor'Easter of 1962. Westhampton Beach and Fire Island were especially hard hit. Tides three to five feet above normal and winds of 75 miles per hour caused damage all along the South Shore from East Rockaway in Nassau to Westhampton Beach in Suffolk (Magnani 2003: 17). The high water mark in Freeport fell six inches short of the high water mark of Hurricane Donna in September 1960.

REGIONAL HISTORY

Babylon

Babylon was officially founded on January 3, 1873, but houses and farms sprang up in the area well before that, at least as early as 1700. The town was made up from land originally considered as the southern portions of Huntington: Amityville, Babylon, and Breslau, which has been renamed Lindenhurst, as it is known today. The populations in these southern villages sought identities of their own, particularly as they grew much faster than the populations in the northern Huntington villages. The southern villages petitioned for secession from the larger town and became the town of Babylon. The town got its name from the Nathaniel Conklin family, which had settled in the area in 1803 (Long Island Studies Institute Library, Town of Babylon History Vertical File).

Babylon experienced two watershed moments in its developmental history. The first moment occurred in the late 1860s with the construction of the South Side Railroad. The railroad opened in 1867, connecting Jamaica to Babylon. It was extended farther east in coming years, but the initial opening inspired real estate speculators to begin developing Babylon as a summer resort with hotels, beach clubs, cottages, and bungalows. In 1902, a historian noted that while a few decades earlier, the shore was only used for hay cultivation, the

> …shore is now lined with pretty villas and mansions. Babylon and Lindenhurst and other places have become popular centers for the "summer boarder" business, vast hotels have sprung up, some of them among the most perfectly fitted up and most beautifully attractive of any near the metropolis, golf links have been laid out, sporting clubs of all sorts have been organized, and even the sandy wastes of Oak Island and Muncie Island have been adapted to the uses of man and been transformed into health or pleasure resorts; but still the track of all this excitement is bounded pretty much by the lines laid down in 1881. Then, too, it lasts only for about four months in each year, and for the rest of the time, except for its oystering and clamming industry, Babylon Township, as a whole, resumes its old-time quietness and solitude (Ross 1902).

The second pivotal moment in Babylon's development history came with the improvement and construction of infrastructure in the late 1930s–1940s, making it possible for New York City workers to commute daily by automobile from the island into the metropolitan area. The town today is made up of 13 villages and hamlets.

Village of Amityville. Known originally as Huntington West Neck South, Amityville attracted its earliest settlers at the beginning of the eighteenth century with its abundant supply of salt hay

growing in the marshlands (the salt hay was used for animal feed). The village was incorporated in 1894. Amityville was an early commercial center serving the needs for goods and services of the nearby villages and hamlets. Amityville experienced a boom in development early in the twentieth century with the popularization of the Great South Bay of Long Island as a summer vacation destination. Hotels, beach clubs, and summer homes appeared in the village that had become the favored seasonal retreat for celebrities like Will Rogers, Annie Oakley, and notorious criminal Al Capone (*Newsday* 2004). In the late nineteenth century, Amityville was also home to the Waukewan Canoe Club, another attraction for urban dwellers.

Village of Lindenhurst. Lindenhurst was one of the sparest settled villages in the town of Babylon by the early 1800s. It did not become incorporated until 1923. Real-estate speculator Thomas Welwood purchased much of the land of the village in the late 1860s. Mr. Welwood and his partner Charles Schleirer, a German immigrant, developed a residential community geared towards attracting other German immigrants and called it the city of Breslau. The area became a manufacturing center focused around trades rooted in the German industrial tradition, such as tailoring, cigar production, and Swiss embroidery (*Newsday* 2004). The village's name was changed when the business partnership between the two speculators soured right before the turn of the century; it was decided to limit the association of the village with the well-known controversial battle of land and profit rights between Wellwood and Schleirer in court (*Newsday* 2004). Lindenhurst today is the largest incorporated village of Suffolk County.

Village of Babylon. The village of Babylon is the southeasternmost village in the town of Babylon. Although incorporated only about a century ago (in 1894), the lands of the village have been settled and developed for at least two centuries. Most white settlers migrated to the area from northern Long Island villages. Babylon experienced its densest period of development between the late 1930s and 1960s. One the village's most famous former residents was New York City Parks Commissioner Robert Moses. Commissioner Moses was responsible for the construction and improvement of the highways, tunnels, and bridges connecting New York City to the boroughs and the island. Although *New York Times* articles promoted the suburban development of the western portions of Suffolk County as early as 1903, the boom in construction would not reach its pinnacle until after World War II. The transition of the island from a place of rural farming and resorts into a collection of suburban bedroom communities for the city occurred over a 65-year period. Babylon was also known for its association with Marconi's first wireless radio relay.

Islip

In 1683, wealthy New York politician William Nicoll purchased land, confirmed in a patent, which would become Islip. Nicoll built a large mansion, Islip Grange, along the South Shore and served as an elected member of the state assembly for 21 years, before dying in the 1720s. While settlers were initially slow to relocate to the Nicoll patent (and surrounding grants to Mowbray and Van Courtland), by the mid-eighteenth century the village had several dozen freeholders. Fishing and timber were the primary industries, until a massive spike in resort-oriented development accompanied the construction of the railroad in the 1880s. The small villages making up Islip—including Sayville, Oakdale, Bayport, Bay Shore, Islip, and Central Islip—were transformed into summer communities that catered to both elite and middle-class vacationers (and, later, suburban settlers). In 1902, a historian noted:

> Its coast, on the Great South Bay, is an exceedingly beautiful one, while the waters of the bay itself afford aquatic sport of all kinds. Its shores are lined with pleasant cottages and huge hotels, summer boarding places of all descriptions, while here and there rise veritable palaces, and now and again we encounter enclosures of private property almost rivaling in size baronial manors and certainly exceeding most of such old-time relics in the elegance of their equipment and the extent of their resources (Ross 1902).

Bay Shore

John Mowbray, a tailor and teacher from Southampton, is said to have paid the fish-dependent Secatogue Indians "several eel spears" for the Bay Shore-Brightwaters land. Sagtikos Manor, to the west of the hamlet, is traditionally considered part of Bay Shore, but its original patent in 1693 went to Stephen Van Courtlandt, a Dutch merchant related by marriage to William Nicoll, who received the earliest royal grants for land that is now Islip, as noted above.

In the mid-nineteenth century, hotels began to spring up; by the 1880s, rail service and summer visitors expedited change. This period was a gentle time of gaslight and horse-drawn carriages, summer estates and bicycle riding, sailboats and steam trains. Southside Hospital, begun in Babylon in 1913, was moved to Bay Shore in 1923. The hamlet had a brief fling as a movie production center in 1915 and 1916 (*Newsday* 2004).

Sayville

Sayville was part of the huge royal grant given to William Nicoll. After the American Revolution, mainly because of the British ravaging of the land, William Nicoll IV was in debt and successfully petitioned the new state legislature—a requirement at the time—for the right to sell off some land to pay bills.

As a result, in 1786, in the first sale of the original Nicoll holdings, John Edwards of East Hampton (who had already settled in the area in 1761) bought what is now the eastern part of Sayville for about $3 an acre. It stretched from Great South Bay to about a mile north of present-day Montauk Highway.

By 1830, New York City's growth had created a market for wood; the cutting and shipping of locally abundant pine soon became a very important part of Sayville's economy. Its economic history also became tied to that of West Sayville, notable as a stronghold of Dutch settlers who came to dominate the regional fishing industry. By 1912, Dutch oystermen, led by John Ockers, established the famed Blue Point Company at the foot of Atlantic Avenue in West Sayville, which long reined as the world's largest producer and shipper of oysters.

Meanwhile, the South Side Railroad had reached Sayville in 1868, and summer tourism opened wide the gates of change. In the succeeding five decades, 30 hotels were built in the area. One of the lures for visitors was Fire Island, across Great South Bay. The period between 1880 and 1930 is also remembered as the era of Sayville's greatest beauty, with its grand Victorian homes, wide, tree-canopied streets, and vibrant shopping (*Newsday* 2004). An account in the early twentieth century notes that "the proximity of excellent bathing privileges [sic] and fine boating opportunities on the Great South Bay would alone account for its popularity."

Brookhaven

Brookhaven is located in the middle of Long Island, bordered by Southampton and Riverhead to the east, Islip and Smithtown to the west, and extending from the Long Island Sound to the north and the Atlantic Ocean to the south. The name Brookhaven was probably adopted in 1664 or 1665 at the assembly in Hempstead; previously, the town had gone by the names of Cromwell Bay, Setauket, and Ashford (Bailey 1949, v.I: 255–256). The town of Brookhaven includes the villages of Belle Terre, Bellport, Old Field, Patchogue, Poquott, Shoreham, Center Moriches, and Port Jefferson, as well as Great South Beach (Fire Island National Seashore) and several other unincorporated villages. Carmans River (the second largest on Long Island), sometimes known as the Connecticut or East Connecticut River, runs through Brookhaven (Bailey 1949, v.I: 247–249).

Mastic Beach

By the early 1700s, the Floyds, the Nicolls, the Woodhulls, and the Smiths had carved huge estates out of the ragged-edged peninsula jutting into Moriches Bay. One of the principal landowners, Colonel William Tangier Smith, died in 1705 and left his property to his descendants (*Newsday* 2004). The house, now a historic site, is located well outside of the project area. The expansive estate of the Lawrence family controlled the land within the project area.

Starting in 1926, the Home Guardian Company, in cooperation with the *Brooklyn Citizen* newspaper, offered inexpensive and small lots within a large subdivision known as both Mastic Park and Mastic Beach. Purchases also received a free newspaper subscription, part of a ploy to boost subscription rates while settling the area. While the lots were affordable, they also drastically changed the character of the previously unpopulated area. Properties were set around both the South Bay and a large interior lagoon, which also featured a community boat club. Many small bungalows were built to accommodate the narrow lots; also, many of the properties were built within hazard-prone areas. While the popular development had 1,000 residents and 4,000 summer residents by 1940, the 1938 hurricane had destroyed over 250 bungalows. However, advertisements claimed that this land, much of it in the present-day 10-year floodplain, was "high and dry." Historian Janice Schaefer states: "It was a way for the working guy to have a slice of the good life" (1994). Advertisements for the subdivision touted "unlimited bathing," as well as free membership in the boating club for all owners. The community continued to operate as a middle-class summer resort through the 1970s.

Quogue

Even before John Ogden purchased lands in the Quogue area from the Indian sachem Wyandanch in 1659, settlers from Southampton traveled there to harvest hay from its broad meadows. They loaded the hay onto barges or rafts and poled them back to their farms in Southampton. By the 1790 census, there were only 12 families said to be living in Quogue, a shortened version of Quaquanantuck, an Indian word denoting a cove or estuary.

Once railroad service reached Riverhead in 1844, summer boarders began pouring into ocean-side communities such as Quoque. Locals refer to it as the "boarding house era," when wealthy New Yorkers came east once the weather warmed and rented rooms at hotels and rooming houses. That era lasted well into the early 1900s and also ushered in a building boom of sorts when the regular summer boarders began building homes of their own (*Newsday* 2004).

Southampton

When it was founded, Southampton was a wilderness; it was transformed by the mid-twentieth century into a "town of beautiful homes and prosperous farms, a haven where commerce and industry flourish" (Bailey 1949, v.I: 205). Game inhabited the woods and the nearby ocean was home to numerous sea creatures, including whales. The Shinnecock Indians lived on the shores of the bays, hunting and fishing there; the natives are said to have been excellent whalers (Bailey 1949, v.I: 205).

The original settlers of Southampton—who on March 10, 1639 signed "The Disposal of the Vessel," which allowed the permanent formation of a settlement—had come from Lynn in England. Their names were Edward Howell, Edmond Farrington, Josias Starborough, George Welbe, Job Sayre, Edmond Needham, Henry Walton, and Daniel How. Later, these settlers were joined by John Cooper, Allen Bread, William Harker, Thomas Halsey, Thomas Newell, John Farrington, Richard O'Dell, Philip Kyrtland, Thomas Farrington, and Thomas Terry (Bailey 1949, v.I: 208).

In April 1640, these settlers landed at Manhasset Bay in current Nassau County (Bailey 1949, v.I: 212). When the Dutch learned of the arrival of the English settlers, they arrested them and brought them to trial in New Amsterdam. Once freed, the settlers were told not to return. On June 12, 1640, they received a deed from James Farrett, an agent of the Earl of Sterling, which granted them "all those lands lying and being bounded by the Peaconeck and the eastern-most point of Long Island, with the whole breadth of said island from sea to sea…" (Bailey 1949, v.I: 213). The boats entered the North Sea Harbor and anchored at Conscience Point, so named because the first woman to step ashore allegedly exclaimed, "For conscience sake, we're on dry land" (Bailey 1949, v.I: 213). The settlers proceeded over the old native trail (now North Sea Road) and down to Old Town Pond, near the site of the Southampton Hospital. They lived here until 1648, when the town moved to present-day Main Street (Bailey 1949, v.I: 213,215).

Edward Howell was the proprietor of the first gristmill in Southampton, located on the east side of Benedict's Creek, north of the present-day railroad track (Bailey 1949, v.I: 214). Reverend Abraham Pierson was ordained minister of Southampton in November 1640, although he was regularly at odds with settlers because he felt that only church members should be allowed to vote, whereas the settlers felt that all landowners should have the right. The reverend's son Abraham Pierson Jr. was the first president of Yale College (Bailey 1949, v.I: 214).

On July 7,1640, the settlers received confirmation of their patent to Southampton, its boundaries described as beginning at

> …a place westward from Shinnecock, entitled the name of the place where the Indians draw over their canoes out of the North Bay over to the south side of the island, and from there to run along that neck of land eastward the whole breadth between the bays aforesaid to the easterly end of an island or neck of land lying over against the island, commonly known by the name of Mr. Farrett's Island (Bailey 1949, v.I: 216).

Additional land purchases extended the boundaries of Southampton to Eastport in present-day Westhampton (Bailey 1949, v.I: 218). Southampton was becoming more densely populated, and the towns of Water Mill (named for Edward Howell's mill) and Bridgehampton were settled (Bailey 1949, v.I: 219). Jeremiah Culver bought a tract of land at Canoe Point, where he erected a house that later became the Canoe Place Inn, which subsequently burned but was rebuilt and called by the same name (Bailey 1949, v.I: 221). West of Canoe Point is Hampton Bays, previously known as "Good Ground" in the town records of 1728. The Ponquogue Point lighthouse (built 1857 and first lighted January 1, 1858) stands at Hampton Bays. The settlers tolerance of religious differences and openness to the oppressed helped the town grow peacefully (Bailey 1949, v.I: 221).

IV. PROPERTY TYPES

This section contains information regarding historic property types typically found within the project area. Due to the size of the geographic area, a wide variety of property types could be expected to be located. However, as part of a phased cultural resource investigation, typical or commonly found property types are described here in greater detail. This section is intended to provide general descriptive information that may prove useful in understanding eligibility for listing in the National Register of Historic Places. Future phases of cultural resource work may undertake a more detailed, site-specific investigation of property types, to the degree necessary for further definition of eligibility requirements. This section, rather, is intended to serve as a preliminary guide.

Limited development occurred within the APE in the pre-1880 period. Surviving pre-1880 property types would include topographic features (such as walls), landscape features associated with farmsteads, and pre-1880 domestic residential building types (such as Italianate, Greek Revival, Federal, and Colonial/Vernacular styles).

The sections below detail some typical post-1880 features.

RESIDENTIAL PROPERTIES

With several notable exceptions, the vast majority of historic resources within the APE are residential properties associated with the time period of 1820–1960. These properties may be more specifically categorized within the years 1820–1880, 1860-1900, 1880-1940, and 1935–1960. In many of the later examples of residential architecture, the individual buildings were part of larger subdivisions. Accordingly, these dwellings were documented for both their individual traits and their ability to contribute to streetscapes.

Districts

Residential districts include a variety of common housing types arranged on common street plans. Certain unifying elements, such as landscape features, street plan, and repeated housing styles are typical of residential districts.

Ames notes that early residential suburban settlement is identifiable as being visually distinctive from the character of an urban setting. "Thus historical suburban development is defined by its locational relationship, when constructed, to the built-up city, not the legal city, and by the character of its landscape in contrast to that of the city" (Ames 1996: 2). Development began to appear upon the fringe of urban growth:

> …as the town's populations grew, so did their physical size, resulting in new residential neighborhoods… Property types associated with this period include powder and chemical factories, planned residential communities, bungalows, trolley lines, paved roads, gas

> stations, removal of hedge rows, resort hotels and breakwaters (Chase et al. 1992: 51–52).

Early suburbanization is defined by the development and evolution of suburban residential subdivisions. The subdivision itself may be considered a distinct property type. However, subdivisions may also consist of a collection of distinguishable residential property types. Subdivisions themselves may be defined as a property type by assessing and identifying four characteristics that relate to overall spatial form:

In defining subdivisions as a property type, four characteristics were developed from the fieldwork:

- The degree to which streets in the subdivision are straight or curving;
- Whether the subdivision is made up of only one or two streets or three or more;
- Whether the access is limited to a single road into the subdivision; and
- The degree of architectural variety among subdivision dwellings (Chase et al. 1992: 13).

Subdivisions, indicative of suburbanization, evolved in response to the city. Earlier subdivisions simply repeated the urban linear grid across a more expansive (and formally agricultural) landscape. "By the turn of the century, however, improved technology had lowered both transportation and building costs, thus enabling ordinary wage earners to relocate to the suburbs and still hold city jobs" (Chase et al. 1992: 18). The early suburban setting was somewhat more analogous in general form to urban life. At first, subdivisions did not feature the unified planning that is often associated with their development.

> In the opening decades of the century, once the land had been divided into lots, prospective residents purchased land on which to build and fully paid for the land before proceeding to arrange with a contractor for the construction of their houses. At the same time, some contractors themselves, who were ordinarily a different group from the land developers, acquired land on which to erect houses not for their own occupancy but for sale. This enterprise was frequently on a small scale… During later decades, the roles of land developer and building contractor began to merge (Chase et al. 1992: 24).

As the developer and contractor began to become more alike, developers also sought to impose restrictive covenants, aesthetic, and social controls. In the late 1920s, subdivisions began to look and act more distinctive than urban forms, evolving as a distinctive property type (Chase et al. 1992: 19). New restrictions and the introduction of unified design and construction provided another distinctive characteristic of subdivisions. Lot size was standardized, though lots ranged in size. While the smaller, grid suburbs peaked in the early 1910s, the increased use of automobiles—in addition to market demand for residential spaces more responsive to their rural or agrarian settings—contributed to the curvilinear street plans that began to define the residential subdivision. While the earliest subdivisions featured only one or two streets, usually without controlled entrances, the evolving subdivisions of the 1920s and onward featured more streets with scenic characters. "The increased use of curving rather than straight streets may be at least partially explained as a method of providing a more scenic appearance for a subdivision

and of insuring that motor traffic moved through residential areas at a suitably slow pace" (Chase et al. 1992: 27). Such early traffic-calming measures are another indication of the strong ties between property type characteristics of subdivisions and automotive transportation.

It is therefore possible to define subcategories of suburban streets through a matrix that analyzes overall form and plan, as well as the variety of architectural types found within the subdivision. Accordingly, suburban subdivisions with multiple straight streets and a high architectural variety were the most typical variation Chase surveyed in over 150 suburban subdivisions in the vicinity of Wilmington, Delaware. Often, these subdivisions were built according to one of three plans:

- Multiple straight streets/multiple access roads/high architectural variety was the most common of the property types found among the subdivisions [featuring an urban linear grid, built over a long period of time];

- Multiple straight streets/multiple access roads/moderate architectural variety was the second most common subdivision property type [featuring a grid pattern, shorter construction time]; or

- Multiple curving streets/multiple access/moderate architectural variety [less common] (Chase et al. 1992: 33).

Many early subdivisions were platted or started but never completed for decades. As developers assumed the role of builders and the market for subdivisions expanded, the length of construction time decreased considerably. While later subdivisions were built faster and featured more distinctive street patterns, earlier subdivisions featured a greater variety of housing property types:

> There has been a general decline in the variety of architecture found in all the hundreds over the half-century examined. Due to the limited availability of financing for construction, dwellings in the earliest subdivisions were constructed over a long period of time, in many cases over several decades. This resulted in a high degree of variety, since houses from different periods tended to follow changing fashion (Chase et al. 1992: 30).

Important regional features include the integration of canals into street plans and house site plans, common landscape features (such as beaches) and small-scale design elements (such as markers).

Chronology of Residential Architectural Styles Along Suffolk County's South Coast

The various styles and types of residences within the APE have been broken down according to the time period typically associated with the articulation of the particular aesthetic. Within the APE the more common types and style residences represented go as far back as the 1820s. The majority of the dwellings surveyed appeared to be constructed between two distinct periods, the Eclectic Movement that spanned approximately six decades beginning in the 1880s, and the Modern Period, which began in the late 1930s and stretched to the early 1960s.

Romantic Period (1820-1880)

The Romantic Period in architecture occurred in America as the newly independent country was experiencing early industrialization, urbanization, and agricultural development. Following the War of 1812, the sentiment in the United States at the time was to break all ties with England, which included aesthetic preferences, which shifted to physical representations of a new republic and democratization. As such, classical Greek architecture was elected to physically embody the notion of independence and strength. By mid-century Andrew Jackson Downing's pattern book, *Cottage Residences* introduced Americans to a variety of architectural styles based on principals and elements that came from historical periods that could be adapted to create modest residences. The pattern book permitted choice in the articulation of building style. Along the south coast of Suffolk County, primarily residential architecture survives from this period. The favored styles from this period within the APE included the Greek and Gothic Revivals, and the Italianate.

GREEK REVIVAL 1825-1860

The Greek Revival was referred to as the National Style following the War of 1812. The style has recognizable elements such as low pitched hipped or gabled roof; wide bands of trim emphasizing the cornice line; doorways with simple entablatures and elaborate surrounds often times with sidelights and transom; frieze band windows; and pilasters or columns either across a front porch, at the corners of the front façade or across the full width of the front façade (Plate 4.1). Most Greek Revival style buildings were constructed using light colored materials such as limestone or painted white to emulate the ruins of temples in Greece, at the time it was not known that Greek temples when constructed were typically ornately colored.

Based on what remains from this period of the Greek Revival style in the APE, three forms of the style are more predominant: the less than full height entry or absent entry porch form, the front-gabled roof form, and the gable front and wing form. Most examples of Greek Revival residences observed were clad with wood clapboards and had recessed front entrances either positioned to the left or right side of the front facade.

GOTHIC REVIVAL 1840-1880

The Gothic Revival style was used to a lesser degree than the other prevailing styles of the period because of the complexity of the decorative elements of the style; however, there are examples of the aesthetic within the APE heralded from this period. The Gothic Revival style is identifiable by the use of steeply pitched roofs, often with cross gables; single-story porches running the full width of the front elevation; at least one prominently located window with a pointed-arch; double-hung windows capped with drip molds; oriel windows; and at least one prominent front gable. The Gothic Revival style house from this period is rarely seen in urban areas because in the Downing pattern book, it was recommended that this type house and its decorative details suited the countryside better, and because the house form with its extensive full width porch and high gables were not easily accommodated on narrow urban lots (McAlester 1984: 200). The Gothic Revival houses observed in the project area were typically clad with either clapboarding or replacement siding intended to mimic wood clapboarding.

Plate 4.1 Representative Greek Revival Residence in the Project Area.

ITALIANATE 1840-1885

The typical features of the Italianate style residence from this period would include a low-pitched roof with decorative brackets supporting the overhanging eaves; tall double-hung windows with either one light in the upper and lower sash or two lights in the upper and lower sash; windows typically have crowns ranging from simple cornices to ornate full arches with carved detailing; and Italianate residence typically are two to three stories with a simple square plan, the single-story example is rare (Plate 4.2)

Victorian Period (1860-1900)

The Victorian Period occurred while America was reinventing itself with the rise of industrialization, the expansion of the railroad, and new technology in construction materials and techniques. These culminating events and achievements meant that architectural form was no longer restricted to box-like structures. The development of balloon framing and the introduction of wire nails allowed for new shapes, not possible earlier, to be explored by artisans. Although balloon framing was introduced in Chicago by the mid-1830s, it took some time for carpenters in the Northeast to learn the techniques and feel comfortable utilizing them in their own construction. Mass production of building materials and the ease of transporting these materials by rail made construction less expensive, as both the number of skilled laborers necessary for construction and the unit price of building materials decreased. Materials being mass-produced could be more ornate than the traditional building elements that had been hand sawn by builders on site. Windows became less expensive and more diverse in style; they therefore became a more intricate element in the overall design of buildings.

Several architectural styles were explored during this period, but all were chiefly variants on ideas and principles from Medieval prototypes. The styles that emerged during the Victorian Era in America were termed as Second Empire, Stick, Queen Anne, Shingle, Richardsonian Romanesque, and Folk Victorian. The styles found popularity in different regions through the country. The Queen Anne and Shingle styles found favor as seashore resort buildings, largely because of their large porches and windows maximizing enjoyment of the seascape.

SECOND EMPIRE 1855-1885

The Second Empire style is associated with highly recognizable design elements, such as Mansard roofs (with dormers positioned on the low, steeply pitched run of such roofs) featuring highly ornate surrounds and pediments. Often, ornate brackets are found in the eaves of these roof overhangs. The buildings are typically symmetrical, and have long windows with large glazing on the first stories (Plate 4.3)

QUEEN ANNE 1880-1910

Queen Anne buildings were also distinguishable for their differences in the shapes and patterns of decoration (Plate 4.4). By employing detailing devices (including texture variations, porches, towers, surrounds, and decorated gables), Queen Anne residences avoided flat wall surfaces wherever possible (McAlester 1984: 264).

Pate 4.2 Representative Italianate Residence in the Project Area.

Plate 4.3 Representative Second Empire Residence in the Project Area.

Plate 4.4 Representative Queen Anne Residence in the Project Area.

SHINGLE 1880-1900

The Shingle style gained popularity when well-known architects from New York and Boston used it to constructed large vacation estates for wealthy clients along the east coast shores. Typically the Shingle style can be characterized by an exploration of the use of wood shingles as a seamless material covering the roof and exterior walls without the traditional breaks associated with housing construction, typically Shingle style buildings do not have corner boards. The Stick style building is complex in that it is characteristically includes an asymmetrical façade with steeply pitched cross-gables, a variety of rooflines and dormers, multiple levels, and dominant intricate porches (Plate 4.5)

FOLK VICTORIAN 1880-1900

The Folk Victorian house is considered an imitation of the High Victorian style integrating decorative elements with a more simplified symmetrical plan. The examples of Folk Victorian residences observed within the APE were typically one or two stories in height, clad with clapboards, with decorative elements typically applied to porch rails, beneath roof eaves, and in the pediments of gables. Folk Victorian house plans tend to be simple either box-like or "L"-shaped. The style essentially takes a simple folk or vernacular type house and applies ready-made ornate decorative elements that reference details seen in High Victorian buildings (Plate 4.6).

Eclectic Movement (1880-1940)

The Eclectic movement had its beginning late in the nineteenth century when European-trained architects were commissioned to design the homes of wealthy patrons. As symbols of wealth and social standing, the houses designed for well-to-do patrons were small-scaled reproductions of major works of architecture seen throughout the world. The Eclectic movement was later the chosen mode of design at the 1893 World's Fair in Chicago for notable architects like George Post, Richard Hunt, McKim, Mead, & White, and Adler & Sullivan, among others. So many visited the Columbian Exhibit and were awed by what had been achieved, if only temporarily in the great White City, that what had been created was viewed as an ideal to be achieved in city planning and design, ushering in the City Beautiful movement. The elements associated with historic styles were pared down and became pervasive in domestic architecture as materials were simplified to be more economical, while retaining the appearance of traditional materials.

The Eclectic movement borrowed from historically established styles associated with various parts of the world and mixed elements of the styles, creating unique interpretations of what had come before in architectural tradition. This practice was used in designing domestic architecture across America, and can be seen within the APE. Described below are the aesthetics that have survived from this period within the APE.

Plate 4.5 Representative Shingle Style Residence in the Project Area.

Plate 4.6 Representative Folk Victorian Residence in the Project Area

ANGLO-AMERICAN AND FRENCH REVIVALS

Colonial Revival 1880-1955

The Colonial style was revived in the late nineteenth century with an emerging sentiment of nostalgia for simpler times in America's history. The Colonial Revival has been the most pervasive articulation of style in American residential architecture, and has never truly fallen out of favor. Characteristic design elements commonly seen in the Colonial Revival style are accentuated front entrances with applied ornamentation; entry porches; typically symmetrical front facade features; double-hung windows with multiple panes of divided glazing; paired windows on primary floors; decorative elements taken from the classical vocabulary; and side gable roofs (Plate 4.7). Most often these houses are sided in clapboards and consist of two stories.

Tudor 1890-1940

The Tudor Revival as a residential design built upon the Queen Anne and Stick Styles popularized in the late Victorian era. The style is characterized typically by steeply pitched side gable roofs with at least one intersecting gable dominating the front facades (Plate 4.8) The windows are long, containing many panes, and occur in multiple groups. The main entrances are usually inset with rounded arches, or the door itself has a rounded top. The chimneys are massive and normally constructed in brick or stone, capped with multiple decorative clay chimney pots. Over time, several variations and subtypes developed out the original Medieval design principles, and the style became proliferate due to its appearance in several house catalogues, particularly the Sears catalog. In the project area, examples of the Tudor Revival style are typical seen with stucco as the primary exterior material and occasionally half timbering has been incorporated into the exterior finish.

MODERN HOUSES

Craftsman 1905-1930

Craftsman style houses are often located in small settlements or along transportation corridors (Plate 4.9). This style house was frequently constructed with mail-order kits, mass-produced plans, and pre-cut building materials often delivered by train. Commonly, these style house are set low to the ground and featured open interior plans and wide front porches (both of which accentuated simplicity of design and facilitated the flow of fresh air, believed, again, to promote good health). The buildings also symbolized the era's progressive, reform-minded ideals.

The bungalow is easily identified based on its distinctive characteristics. A one or one-and-a-half story house with ground hugging outline, it may be constructed of any material—frame, brick, stone, concrete block—and may be clad in wood siding, or any combination of these materials. The low-pitched roof may be a side-gable with the line of the roof-oriented parallel to the street, a front-gable roof with the line of the roof perpendicular to the street, or a hipped roof. Regardless of the roof style, it will have deep, over-hanging eaves usually supported by simple, substantial brackets. The bungalow characteristically is graced by a broad porch across the front

Plate 4.7 Representative Colonial Revival Residence in the Project Area.

Plate 4.8 Representative Tudor Residence in the Project Area.

Plate 4.9 Representative Craftsman Bungalow in the Project Area.

façade and anchored by corner pillars (Chase et al. 1992: 50).

Within the project area, typically the Craftsman style applied to a housing form called the bungalow. Bungalows and side-gable cottages were frequently marketed in mail-order catalogues and are found primarily in subdivisions, although some were also located on farmsteads and rural settings (Plate 4.10). The term bungalow is used in a broader application to include front- and side-gabled cottages that feature open floor plans, although often confused and used as a reference to an architectural style, interchangeably with Craftsman. The side-gable cottage expresses its functionality through its lack of applied ornament. The massive production scale and plain geometric symmetry make this house representative of the rise of American mass consumer culture in the early to mid-twentieth century.

Cape Cod Revival 1931-1960

Although Colonial Revival designs had been popularized in the late nineteenth and early twentieth centuries, the Cape Cod form was overlooked in both academic studies and popular revival design (Plate 4.11). Interest in the Cape Cod revival began to gather at the end of the 1920s. It first appeared in Sears Roebuck's modern homes catalogue in 1931, and began to be featured in other home design magazines in the 1930s. One of the largest early champions of Cape Cod Revival design was architect Royal Barry Wills of Boston. Wills understood that the design offered modern amenities while being marketable by drawing upon the design's "pre-industrial" scale and setting. Wills' design philosophy proved successful.

> For example, in 1938 *Life* magazine and *Architectural Forum* joined forces in a competition for moderately priced houses, with a choice of modern and traditional designs in each price bracket. In the category of homes for people with $5,000 to $6,000 incomes, the two winners were a modern design by Frank Lloyd Wright and a traditional one by Royal Barry Wills. Since these designs were intended for a real client, the client had to choose which he would build-and Wills received the nod over Wright. Needless to say, the Wills design was a Cape Cod with a wide wing and garage (Massey 2003).

Like Wright's Usonian designs, Cape Cod Revivals relied upon mass-produced materials and designs that were affordable and small in scale, but also responsive to modern needs. However, the Cape Cod Revival style drew upon the visual familiarity of historic forms, and was clearly a safer investment than the unfamiliar modernism published in the era's architectural journals. Cape Cod Revivals were able to meet the nation's postwar shortage of building materials, as well as the small budgets of young urban families in the 1940s and early 1950s. By the early 1960s, the Cape Cod Revival had largely passed from popularity.

Common examples feature a one- or one-and-a-half story construction that is fairly small in scale and within a picturesque setting. Representative examples would also feature a steep-pitched end-gable roof, often punctuated by dormer windows. Roofs are typically covered with asphalt shingles. Common siding material includes clapboard, wood shingles, and cement/asbestos tiles. Brick veneer walls are found in isolated examples. Later examples are faced with metal siding. Floor plans usually follow a five-room pattern. Cape Cod Revivals were by no means faithful reproductions, but also featured design elements that were distinct to the postwar or interwar

Plate 4.10 Representative Vernacular Bungalow in the Project Area.

Plate 4.11 Representative Cape Cod Revival Residence in the Project Area.

eras. These features include garages integrated or set close to the house, a larger scale than original Cape Cods, and side or rear wings that provided additional space. In addition, façades often feature bow, bay, or picture windows. Later examples feature other modern variations, including carports, low roof pitches, and larger steel picture windows.

Modern Period (1935-1955)

The Modern Period in American architecture began during the post war boom years when affordable single-family housing was in high demand, and developers were creating vast subdivisions of modest housing based on standards and examples that came from the Federal Housing Authority's Principles of Planning Small Houses technical bulletins from 1936.

MINIMAL TRADITIONAL 1935-1950

Minimal Traditional houses are more often situated in small subdivisions or along transportation routes (Plate 4.12). As with other similar housing types, including the gable-front cottage, Minimal Traditional houses reflected the simplicity in design and the mass-market efficiency in production that are characteristic of the mid-twentieth century.

> With the economic depression of the 1930s came this compromise style, which reflects the form of traditional Eclectic houses, but lacks their decorative detailing. Roof pitches are low or intermediate, rather than steep… Eaves and rake are close, rather than overhanging as in the succeeding Ranch style… These houses were built in great numbers in the years immediately proceeding and following World War I; they commonly dominate the large tract-housing developments of the period… They were built of wood, brick, stone or a mixture of these wall-cladding materials (McAlester 1984: 478).

RANCH 1935-1975

Ranch houses are frequently found in subdivisions (Plate 4.13). While the evolution of sprawling ranch houses retained the overall stylistic simplicity of earlier twentieth-century housing types, the Ranch house expressed the impact of the automobile, which made the use of larger lots within subdivisions easier. The footprint of Ranch houses was sometimes more complex than that of earlier twentieth-century housing types.

> [Ranch houses] gained popularity during the 1940s to become the dominant style throughout the country during the decades of the '50s and '60s. The popularity of "rambling" Ranch houses were made possible by the country's increasing dependence on the automobile. Streetcar suburbs of the late nineteenth and early twentieth centuries still used relatively compact house forms on small lots because people walked to nearby streetcar lines. As the automobile replaced streetcars and buses as the principal means of personal transportation in the decades following World War II, compact houses could be replaced by sprawling designs on much larger lots. Never before had it been possible to be so lavish with land, and the rambling form of the Ranch house emphasizes this by maximizing façade width… Asymmetrical one-story shapes with low-pitched roofs

Plate 4.12 Representative Minimal Traditional Residence in the Project Area.

Plate 4.13 Representative Ranch Residence in the Project Area.

dominate. Three common roof forms are used: the hipped version is probably the most common, followed by the cross-gabled, and finally, side-gabled examples. Builders frequently add bits of traditional detailing… Ribbon windows are frequent as are large picture windows in living areas. Partially enclosed courtyards or patios, borrowed from Spanish houses, are a common feature (McAlester 1984: 479).

Split-level 1955-1975

The Split-level design became emblematic of postwar suburbanization, and grew first in popularity in Long Island in the early to mid-1950s. The Split-level was within keeping of the general tradition of divided residential space and traditional style, as well as reflective, in form, of new technology (Plate 4.14). Specifically, the Split-level represents the culmination of auto-influenced suburban development. Not only had cars now brought families to new residential neighborhoods, families could now bring cars literally into their new homes.

Within the APE the examples of Split-level style home is varied based on the width of lots which restrict the horizontality of the house and the topography of the lot on which the house is constructed seems to be indicative of how the plan of the house is arranged.

CONTEMPORARY 1940-1980

The Contemporary style houses are subdivided into two groups based upon their roof types, gabled or flat. Contemporary style houses with flat roofs tend to more resemble the design principles of the International style. These houses tend to have large bays of windows, which makes them an attractive style house for areas with scenic views, particularly in the APE these house are seen in larger volume, when near the shore. The examples observed in the APE tend to be clad with stone or flush wood siding, with large rectangular windows, typically spanning the full height of room. In the APE, the Contemporary style houses tend to appear as an arrangement of geometrical volumes with steeply pitched shed roofs (Plate 4.15).

Post-1960 Residential Buildings

Buildings within the APE are primarily pre-1960 structures. However, exceptions include both additional residential subdivisions built in the 1960s and 1970s, as well as replacement or infill residential construction within historic suburbs. These buildings are most often later variations of Split Level and Ranch houses. While these buildings do sustain the general residential character of their neighborhoods, they are also generally considered to be non-contributing features to respective historic districts.

The 2001 JMA report notes the presence of post-1960 residences that would likely meet Criterion Consideration G for their exceptional significance as architectural masterpieces of the "New York Five" architects, including Charles Gwathmey. The New York Five is a term applied to late modernist designs by an elite group of New York architects built in the late 1960s and 1970s. Some of these residences are included on the barrier island and may be in or near Westhampton Beach, although they were not identified in the JMA report. The architecture of

Plate 4.14 Representative Split Level Residence in the Project Area.

Plate 4.15 Representative Contemporary Residence in the Project Area.

the New York Five is widely considered to be an important trend in the history of American residential architecture. More detailed research would better identify these structures, and could be conducted in future phases of cultural resource work, if necessary.

COMMERCIAL PROPERTY TYPES

Resorts: Hotels and Boarding Houses

Vacation/resort resources relate to the seasonal use of natural and architectural resources by tourists (often hailing from urban areas).

Resources may include communities of seasonal cottages, landscape features (such as beaches and swimming areas) used by tourists, recreational and sporting clubs, bathhouses, summer boarding houses, restaurants, convenience stores, hotels, and motels. The earliest accommodations for tourists on the South Shore were generally wooden shacks constructed to provide short-term shelter for sport hunters and fishermen whom traveled to shore from New York City for short periods. Eventually, as tourism became an industry in the United States, the South Shore was quickly developed with expansive resorts that evoked a sense of grandeur and opulence by creating grand properties loosely quoting high styles of architecture. Some such examples include the Montauk Manor designed in the Tudor Revival style and the Manhasset House, which referenced the French Eclectic style. Many of these earlier seasonal type properties were replaced by modern year round development; however, out in the more eastern sections of the APE where tourism is still a thriving industry some these type properties still exist, but nowhere near the number from the late nineteenth and early twentieth century. Additionally, many of the original boarding houses were initially single-family residences that have since been restored to single-family housing.

There is also an important relationship between the development of transportation infrastructure and the construction of vacation and resort resources. In addition, there is a defined overlap or interrelationship between these resources and the suburbanization of Long Island. The early suburbs along the South Shore were often promoted to prospective buyers in reference to their natural setting and proximity to sports clubs—the same qualities that attracted tourists to the region. In addition, several subdivisions were sold as both seasonal and permanent residential communities. It appears that seasonal houses were often quickly converted to year-round residences. Therefore, in many instances, the vacation/resort theme and the suburbanization theme overlapped and were discussed concurrently.

It is important that these resources be evaluated carefully with respect to setting. Specifically, the amount of information these resources reveal is dependant upon the absence or presence of contributing features, such as beaches and other recreational areas. Although feeling is considered a more subjective integrity criterion, the cumulative effect of other integrity criteria may help to better define significant or important examples of these resources.

The use of nature and natural settings in early suburbs was an important feature in selling these spaces to an urbanized audience. First and foremost, the availability of settlement areas with a lower population density and natural features (in particular, ventilation from ocean breezes) was very attractive to a population struggling with tuberculosis. The history for tuberculosis reveals that in the early to mid-twentieth century, tuberculosis treatments focused on not only biological cures, but exposure to natural elements and positive mental health. Public buildings were designed to have increased ventilation in the belief that this would reduce the risk of transmission of tuberculosis. Sanatoriums were situated in natural areas. The public began to seek "fresh air" not only as a source of recreation but also as a means to avoid tuberculosis. The cramped urban tenements in New York did not feature the natural ventilation offered by eager developers. For many residents, moving to the early suburbs along the South Shore was not only considered a social improvement, but also a medical necessity.

There is also a fundamental relationship between the development of transportation resources and the growth of suburbs. The eastern portion of the South Shore remained isolated from New York City until the construction of the railroad in 1859. Not only did the advent of the railroad afford an increased capacity to export goods and products into the larger city, it also allowed for the importation of urban visitors seeking an escape from the rapidly industrializing city. The railroad signaled the first serious growth in the South Shore's tourism base.

To initially accommodate the influx of visitors to the area, often area residents would open up their homes as seasonal boarding houses. The personal experience of a seasonal boarding house, while being economically beneficial to the host, also fulfilled the "rustic" desires of urban visitors (who increasingly lacked such contact). Boarding houses were concentrated towards town centers (and railroad stops). They often were larger examples of nineteenth-century residential property types, and would be expected to retain materials, design, and form. Boarding houses later transformed into more formalized hotels to accommodate the increasing number of visitors. These buildings were often located close to swimming areas, and were commonly erected in large-scale Italianate or revival styles. An important or character-defining feature for a hotel or boarding house is the front porch.

Resorts: Recreational Facilities

Recreational facilities are roughly divided into two categories: large, municipal piers and small beaches belonging to summer colonies. Large municipal piers were often attached to larger beaches. Piers were often narrow, wooden-planked structures that extended well into the bay. Some piers may have also featured changing rooms on the mainland. Piers were well-advertised features, and were often located near boarding houses and hotels. Many piers were either abandoned or replaced with wide, filled structures featuring surface parking.

Small beaches are often attached to residential subdivisions. These subdivisions typically featured at least some percentage of seasonal residents. Formal access is often limited to those belonging to a residents' association. These beaches are often less than 100 feet in length and feature few (if any) improvements, such as picnic tables. A small patch of beach grass commonly remains.

Recreational facilities are more likely to be contributing (as opposed to primary) resources, andare associated with both the resort and suburbanization trends, in the time periods of 1880–1920, 1920–1945, and 1945–1960.

Institutional

Institutional properties include hunting, fishing, and boating clubs. The South Shore was first popularized as a center for the exclusive outings of New York City sportsmen in the mid-nineteenth century. Relatively few organized facilities existed before that time. However, as the South Shore's reputation and access increased with the construction of the railroad, the area began to see an increased number of visitors (and began to construct properties accordingly). As recreational clubs expanded to serve the growing population of seasonal tourists, they also formed the base of early suburban communities, often providing an added attraction to investors. These clubs were usually placed close to the water and provided an important thematic link between the transition between "vacation" and "settlement." In general, these recreation clubs retain a close relationship to the landscape and surrounding watershed. While exterior materials may have been replaced, these buildings generally retain their original form and design. Some buildings also have contributing landscape features, including small beaches and associated outbuildings.

In addition, this category also contains public structures, such as schools and churches, which surround and contribute to residential communities (Plate 4.16). Several churches were observed in the APE as oppose to public buildings such as libraries, schools, and government offices. These type buildings tend to be located further away from the waterfront in village centers.

Institutional facilities are primarily associated with the time periods of 1880–1920, 1920–1945, and 1945–1960.

Maritime Industrial

Maritime resources relate to fishing cultivation and production trends, as well as agricultural production (including fish and shellfish cultivation, duck farming, larger-scale "truck farming" of agricultural goods, and floral cultivation). Many of the buildings that were associated with the early maritime industries have been replaced by residential development. In the beginning of the twentieth century along the shore of Patchogue the view consisted of mostly commercial properties which included several smoke stacks for the lumber mills and waterfront storage type facilities that had no windows and typically were constructed in a similar fashion to barns. Other commercial type buildings that would have been dotted along the South Shore would include small vernacular buildings that would provide services such as convenience stores and ice cream shops for summer tourists.

The examples of maritime commercial properties that were observed within the APE included boat repair shops along piers, dock gas stops for boats, convenience stores along slips, and winterizing businesses also located along piers. These properties tended to be small in size, one story, clad with wood shingles, most had a large garage-type bay (Plate 4.17-4.19).

Plate 4.16 Representative Institutional Building (Library) in the Project Area

Plate 4.17 Representative Maritime Commercial Building in the Project Area.

Plate 4.18 Representative Maritime Commercial Building in the Project Area.

Plate 4.19 Representative Maritime Commercial Building in the Project Area.

It is important that maritime and agricultural resources be evaluated carefully with respect to setting. The presence or absence of contributing landscape features—such as waterways, outbuildings, and agricultural fields—is important in conveying information about such resources. In addition, the integrity of association and feeling are closely related to the continued or ongoing use of these resources. While the abandonment or reuse of maritime/agricultural resources alone does not disqualify these resources from eligibility, it does diminish the amount of information that these resources convey. Continued use often reveals important information about how these resources were used in the past. Maritime industrial properties retain a relationship with the surrounding landscape. In some cases, exterior materials may have been replaced, although these buildings should generally retain their historic design and form. There is also an important relationship between a building and current use; maritime industrial spaces which are still associated with ongoing aquaculture retain the integrity of feeling and association. Those maritime properties no longer retaining their original use convey less information about their historic role.

Fishing and maritime "bay houses" are small-scale shed and huts, often of simple wood-frame construction, which are associated with maritime production and processing. Some bay houses are also associated with recreational fishing. These buildings were constructed on a very small scale, and are most easily distinguished because of their setting and proximity to the water rather than by architectural characteristics. These sheds were used often by independent fisherman for both commercial and recreational purposes, and were also used by fisherman for oystering, clamming, fishing, and crabbing activities, as well as duck hunting. Although the date range for these structures varies, many examples from the early twentieth century seem to be more prevalent. These bay houses are often one story tall and feature gable front or end gable roofs. They are commonly found on raised pier foundations, and are often sided with horizontal or vertical wood clapboard. Bay houses were also used for recreational purposes. Bay houses are primarily located on small islands in the South Shore Bay and exist within the APE. Other maritime structures include large-scale processing houses and marinas, which typically date from the early to mid-twentieth century (Long Island Traditions 2003).

Industrial properties are primarily associated with the maritime context, in the time periods of 1880–1920 and 1920–1945.

AGRICULTURAL PROPERTY TYPES

Properties that relate specifically to maritime cultivation are more specifically discussed in the section on maritime industrial properties above.

Agricultural properties should also be evaluated for the potential relationships remaining between landscape features and built structures. A significant property would retain landscape features that convey information regarding the property's role in local or regional agro-economic development. Specifically, *National Register Bulletin 30: Guidelines for Documenting and Evaluating Rural Historic Landscapes* (McClelland et al. 1999), further defines typical character-defining features for historic farmsteads located within larger rural areas:

> Eligibility for significance in agriculture on a local level depends on several factors. First, the characteristics must have served or resulted from an important event, activity, or theme in agricultural development as recognized by the historic contexts for the area.

Second, the property must have had a direct involvement in the significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. Third, through historic landscape characteristics, the property must cogently reflect the period of time in which the important events took place (McClelland et al. 1999).

In addition, the bulletin provides specific guidance for evaluating integrity for rural farmsteads.

> No landscape will appear exactly as it did fifty or one hundred years ago. Vegetation grows, land use practices change, and structures deteriorate. The general character and feeling of the historic period, however, must be retained for eligibility. Historical vistas that have remained open often provide a general vantage point for evaluating change.
>
> Geographical factors, including proximity to natural resources, soil fertility, climate, and accessibility, frequently determined the location of rural settlements. In some places, these factors have continued to spur growth and development. In others, they have insulated communities from change, fostering the preservation of historic characteristics, practices, and traditions. A rural landscape whose characteristics retain their historic location has integrity of location.
>
> Design results from conscious and unconscious decisions over time about where areas of land use, roadways, buildings and structures, and vegetation are located in relationship to natural features and to each other. Design also relates to the functional organization of vegetation, topography, and other characteristics, for example, upland pastures bounded by forested hillsides and windbreaks sheltering fields or orchards.
>
> Large-scale features, such as bodies of water, mountains, rock formations, and woodlands, have a very strong impact on the integrity of setting. Small-scale elements such as individual plants and trees, gateposts, fences, milestones, springs, ponds, and equipment also cumulatively contribute to historic setting.
>
> Materials within a rural property include the construction materials of buildings, outbuildings, roadways, fences, and other structures… Original plant materials may enhance integrity, but their loss does not necessarily destroy it.
>
> Workmanship is exhibited in the ways people have fashioned their environment for functional and decorative purposes. It is seen in the ways buildings and fences are constructed, fields are plowed, and crops harvested.
>
> Alterations dating from the historic period add to integrity of feeling while later ones do not. New technology, practices, and construction, however, often alter a property's ability to reflect historic associations (McClelland et al. 1999).

Some areas within the APE were cultivated for hay. A specific historic and physical relationship between a salt marsh used for cultivation and a larger farmstead would need to be demonstrated in order for such a site to be specifically defined as an agricultural property.

Another regionally important agricultural property is a duck farm. Duck farms would be distinguished from other agricultural properties due to their relationship with aquaculture.

Flower production was also a significant agricultural trend. Such greenhouses would be distinguished by their relationship with the roadway.

Because of the high rate of growth in the project area, relatively few agricultural properties still remain along the South Shore. Accordingly, any agricultural remains or sites would be carefully evaluated due to their rarity and corresponding historical role.

TRANSPORTATION PROPERTY TYPES

Early roadways are an important property type associated with transportation. Often built upon earlier pathways, roadways featured steeper grading and sharper curves than those commonly associated with modern roadways. Early roadways from this time period were narrower and intended for a slower rate of travel (though one that must have seemed very fast at the time of construction). Earlier landscape features, preceding this time period, were sometimes retained in early roadways. Earlier alignments were also more likely to closely link residences.

In addition, transportation corridors along the South Shore include the use of the water itself. Intersections between small waterways and towns or ports are particularly significant. In addition, portions of the barrier island beach were also used as transportation routes. Although much of the open water within the APE was used as a transportation route, specific sites and structural elements (such as piers, marinas, and wharfs) that demonstrate deliberate human use and design will be evaluated for National Register eligibility. Other historic features, such as landscape elements, may be considered contributing elements (as appropriate) to larger districts or structures. For example, a waterway or canal could be significant under multiple contexts (such as residential subdivision or maritime) and would be a contributing element to other nearby features with which it shares a thematic historical relationship—such as a canal dug for a residential subdivision.

Transportation facilities are primarily associated with the periods of 1880–1920, 1920–1945, and 1945–1960.

RESIDENTIAL PROPERTIES AND DISTRICTS: EVALUATION CRITERIA

In identifying a preliminary list of properties that would be more likely for National Register eligibility, it is important to establish both the level or degree of significance (what role in history or architecture is played by a property) and integrity (how well that property is able to

convey information about the past). The degree of significance is ascertained from the contextual history of the area; generally, resort, residential, and maritime property types have been identified as playing a significant role in the growth and development of Long Island. The National Register examines seven integrity criteria in determining if a particular property has sufficient integrity. A general discussion of the criteria (setting, location, materials, feeling, workmanship, design, and association) is included in *National Register Bulletin 15: How to Apply the Criteria for National Register Evaluation* (Andrus 2002). Each inventoried property was evaluated for the presence or absence of these criteria. More specific information regarding the evaluation of historic residential properties is included below.

Significance

The National Park Service (NPS) notes that aspects of site-design (including spatial organization, street layout, and arrangement of lots) may be as important as the style or design of housing. Overview aerial photographs are useful indicators of the absence or presence of original or historic site-design elements.

The NPS further notes that the relationship to larger historic development factors should be recognized early in the process (for example, in the research design). Some of these factors include relationship to transportation corridors, cohesive planning principles, socioeconomic conditions, real-estate trends, and architectural character. These factors should be used to *distinguish* the subject neighborhood from surrounding areas. Neighborhoods and subdivisions within the APE were identified as having many or all of these characteristics. Features—such as small design elements (including street markers), landscape features, and clusters of older housing types—were located in the field to define approximate boundaries of subdivisions or neighborhoods that were readily distinguished from their surroundings. Because of the large number of subdivisions in Long Island, this step was particularly important. NPS further notes that:

> Historic districts meeting the definition of a historic residential suburb may consist of one or a group of subdivisions, or they may occupy a small portion of a large subdivision. Decisions about significance, integrity, and boundaries, therefore, should take into consideration factors concerning social history and community development of large areas of residential development that broadly meet the definition of "historic residential suburb," as well as the architecture and site planning of individual subdivisions (Ames and McClelland 2002).

The NPS also noted that the significance of suburbs depends heavily upon trends identified in local and regional contexts. However, the following trends may be considered general indications of significance:

> • The neighborhood's **planning and construction** related to the expansion of local industry, wartime industry, important stages in metropolitan development, or broad national trends such as returning GIs, the Better Homes movement, and the bungalow craze.

• The neighborhood—through its site plan, overall landscape design, and house design—**reflects historic principles of design or achieved high artistic quality** in the areas of community planning, landscape architecture, or architecture.

• The **subdivider and site planners** responsible for the platting and construction of the subdivision **figured prominently in the suburban development** of the locality or region and made substantial contributions to its character and the availability of housing.

• The neighborhood's **design represents the work of one or more established professional designers—**site planners, landscape architects, architects, or engineers.

• The subdivision design resulted from the **collaboration of professionals** representing several fields of design, such as landscape architecture and architecture.

• The neighborhood **exemplifies the role that a certain type of developer** (subdivider, home builder, community builder, operative builder, or merchant builder) played in the growth and development of the locality or metropolitan region.

• The neighborhood was designed to conform to **FHA-standards and represents one of the "earliest," "most successful," "largest," "finest," or "most influential" examples locally**.

• Historic neighborhoods possessing **a high degree of integrity** and exhibiting distinctive elements of design in the subdivision plan, landscape architecture, or domestic architecture.

• Historic neighborhoods **reflecting important advances, established principles, or popular trends in community planning** or landscape architecture.

• Neighborhoods containing homes in a **variety of period styles**, or representing the work of one or a number of **noted architects**.

• Neighborhoods whose housing **represents one or more locally important housing types** (e.g., bungalows and foursquares).

• Residential neighborhoods associated with important local industries or local events and activities that are known to have **stimulated suburban growth** and development.

• Neighborhoods historically associated with important events in the Civil Rights movement to provide **equal access to housing**.

• Neighborhoods associated with important patterns of **ethnic settlement** that contributed to local growth and development.

• Neighborhoods with homes that **received recognition** or awards from professional organizations, trade organizations, architectural journals, popular magazines, or housing research foundations.

• Neighborhoods that introduced or **established patterns of subdivision design**, housing, financing, or building practices that became influential in the local community, metropolitan area, or elsewhere (Ames and McClelland 2002).

Criterion A. The NPS notes that "Historic residential suburbs typically reflect the outward spread of metropolitan areas and the growth and development of communities" (Ames and McClelland 2002). Residential districts are often evaluated for their association with patterns in community history.

Criterion B. The NPS insists that individuals associated with a resource "must have exerted important influence on the neighborhood's sense of community or historic identity and they must have gained considerable recognition beyond the neighborhood" (Ames and McClelland 2002). Suburbs may be evaluated under Criterion B for their association with developers. However, suburbs representing the work of important architects and site planners are better evaluated under Criterion C.

Criterion C. Subdivisions considered for eligibility as districts under Criterion C should demonstrate character-defining features, including street patterns and communal, common spaces that clearly distinguish the settlement from surrounding features or residences. Typically, later subdivisions will have a more curvilinear plan but feature less diversity in architectural style. General design characteristics within the subdivision need to remain intact.

> The overall design and organization of space within a suburb's design may be defined by the arrangement of streets, the size and location of housing lots, the siting of dwellings within a building lot, and the disposition of common spaces such as walkways, playgrounds or parks. These design features may reflect picturesque naturalistic style, elements of the garden city or county club movements, or curvilinear patterns distinctive of the 1940s and 1950s. Distinctive architectural design may be present in a variety of building types, primarily dwellings, but also garages, carriage houses, community buildings, gatehouses and sheds. Buildings may reflect a cohesive architectural type and style with some variation (e.g., Cape Cod or foursquare) or they may reflect a variety of period styles such as revival or bungaloid. Information about the developer and the various architects and landscape architects and their interrelationship is important to understanding the evolution of the suburb and its design significance; it is also important for placing the suburb in the overall history of suburban development in the United States… Significance under Criterion C will generally be based on design characteristics and require that distinctive design features remain intact (Ames 1996: 42).

The NPS notes that:

> Historic residential suburbs often reflect popular national trends in subdivision design, such as the Picturesque style of the nineteenth century or FHA-recommended curvilinear plans. They may also reflect popular architectural styles, housing types, and principles of landscape architecture (Ames and McClelland 2002).

In particular, districts within the APE which demonstrate an important design relationship to water (such as canals and small beaches) should be evaluated as distinct from their surroundings.

The NPS also specifies that:

> Qualifying physical characteristics, under Criterion C, may be present in the overall plan, the architectural design of dwellings and other buildings, and the landscape design of the overall subdivision or of individual homes, parks, or parkways. Significance under Criterion C requires that the features that mark distinction in planning, architecture, and landscape design remain intact and recognizable (Ames and McClelland 2002).

It is therefore important that eligible districts in the APE demonstrate "intact and recognizable" planning features: street layout, landscape elements (foliage and water, as well as small-scale design features or markers), and architectural elements (e.g., individual houses) that would have sufficient integrity to be readily associated as examples of their property types. Suburbs may have a single, common property type or a variety of property types:

> Buildings may reflect a cohesive architectural type and style with some variation (e.g., Cape Cod or Ranch) or they may reflect a variety of period or regional styles such as Tudor Revival, Colonial Revival, or Mediterranean. Homogeneity or diversity of housing types and style may be an important architectural characteristic and be an important indicator of the overall design intent of the suburb as well as its period of development (Ames and McClelland 2002).

The NPS also asserts spatial organization as a particularly important planning feature. This factor defines the relationship between the subdivision (often a generic or geometric design) and the specific characteristics of the site topography, as evidenced through the arrangement of streets and house lots, the setback or arrangement of features on lots, and common spaces (such as beaches, walkways, etc). Landscape features also contribute to an understanding of site planning. In particular, scenic vistas and natural features, as well as unified plantings, are important.

Criterion D. Criterion D refers to features that are significant because they have potential to yield important information. While often applied to collections of archaeological material, Criterion D may also apply to landscape features, sites, and buildings or structures. NPS notes that Criterion D may often apply to pre- or post-contact sites that predate land subdivision. In particular, farmstead and agro-industrial contexts may be present as archaeological or site features within the APE. The NPS also states that "historical archeology of home grounds may provide important information about the organization of domestic grounds, vernacular house types,

gardening practices, or patterns of domestic life" (Ames and McClelland 2002). Further work in defining both pre-subdivision contexts and archaeological contexts for suburban features may be required as project alternatives are refined. Due to the many twentieth-century subdivisions within the general Long Island region, which have provided information important in understanding the past, suburban standing structures will not be evaluated under Criterion D.

Integrity

In addition to meeting specific criteria for age and design elements, National Register-eligible properties should also be expected to retain key character-defining features specific to each property type and site, as well as general integrity features. Below are summarized integrity criteria for property types related to residential subdivisions:

- Location–defined by location to transportation and periphery of urban areas;
- Design–a large subdivided parcel, housing as single family detached dwellings, planned variation of house types, self-contained interior road system, park-like landscaping;
- Setting–open, low-density, park-like appearance;
- Materials–whenever built, the great majority of dwellings in the subdivision must retain the key exterior materials;
- Workmanship–reflected in the attention to detail in the infrastructure of the subdivision; and
- Feeling–later automobile suburbs show lower density, more architectural uniformity, and features reflecting the automobile (Ames 1996: 40).

Ames provides further guidance for the interpretation of Criterion Consideration G in regard to resources less than 50 years old. Ames suggests, "As a general rule, a majority of resources (more than 50 percent) must have achieved fifty years of age before the district as a whole can be considered to meet the fifty year requirement" (1996: 43). Property types that may appear to possess exceptional significance should be evaluated in specific regional contexts, alongside other comparable properties.

Figure 4.1, an excerpt from the NPS bulletin on historic residential suburbs, summarizes typical criteria used in recognizing and evaluating twentieth-century historic residential neighborhoods, as already touched on above.

Many study areas within the project area exhibit potential eligibility under Criterion C. They reflect several principles of design that are important in the history of community planning; more specifically, they demonstrate the integration of automobiles with daily residential life, the relationship between natural elements and residential settlement, and the promotion of a suburb or vacation settlement as an antidote to urban-industrial stress (a common theme in early-

twentieth-century suburban settlement). However, many of the study areas do not retain sufficient integrity to retain eligibility for listing in the National Register.

Criterion A
• Neighborhood reflects an important historic trend in the development and growth of a locality or metropolitan area. • Suburb represents an important event or association, such as the expansion of housing associated with wartime industries during World War II, or the racial integration of suburban neighborhoods in the 1950s. • Suburb introduced conventions of community planning important in the history of suburbanization, such as zoning, deed restrictions, or subdivision regulations. • Neighborhood is associated with the heritage of social, economic, racial, or ethnic groups important in the history of a locality or metropolitan area. • Suburb is associated with a group of individuals, including merchants, industrialists, educators, and community leaders, important in the history and development of a locality or metropolitan area.
Criterion B
• Neighborhood is directly associated with the life and career of an individual who made important contributions to the history of a locality or metropolitan area.
Criterion C
• Collection of residential architecture is an important example of distinctive period of construction, method of construction, or the work of one or more notable architects. • Suburb reflects principles of design important in the history of community planning and landscape architecture, or is the work of a master landscape architect, site planner, or design firm. • Subdivision embodies high artistic values through its overall plan or the design of entrance ways, streets, homes, and community spaces.
Criterion D
• Neighborhoods likely to yield important information about vernacular house types, yard design, gardening practices, and patterns of domestic life.
• In certain cases, a single home or small group of houses in a residential subdivision may be eligible for National Register listing because of outstanding design characteristics (Criterion C) or association with a highly important individual or event (Criterion A or B).

Figure 4.1 How Residential Suburbs Meet the National Register Criteria for Evaluation (Ames and McClelland 2002).

Because subdivisions were typically constructed over a period of many years, it is not uncommon to encounter a subdivision where streets and utilities were laid out and home construction begun more than 50 years ago, but where construction continued into the recent past. According to the NPS guidelines, as a general rule, when a neighborhood as a whole was 50 years in age, a case for exceptional importance is not needed. In such cases, the period of significance may be extended a reasonable length of time (e.g., five or six years) within the less-than-50-year period to recognize the contribution of resources that, although less than 50 years in age, are consistent with the neighborhood's historic plan and character. While the overall street plan—and some early examples—may date from the pre-1954 period, many neighborhoods in the project area also feature infill or replacement houses that, in some instances, date between 1954 and 1965. Other neighborhoods within the 10-year floodplain feature larger percentages or concentrations of post-1965 construction (Ames and McClelland 2002).

The evaluation criteria for listing in the National Register of Historic Places is intended only as a suggestion for further detailed criteria that more accurately reflect regional contexts and characteristics.

Therefore, at a minimum, residential property types *individually* eligible for listing under Criteria C (for association with subdivision construction) and Criteria A (for association with suburbanization) will demonstrate all seven integrity criteria, as well as sufficient distinction from their surroundings to be considered *individually important* examples of property types. In many cases, the property would have to be readily identified as a very early property within the subdivision, indicating an unusual degree of integrity. The mere presence of a generally intact example of a suburban-style house within a greater subdivision would not typically qualify the property for listing in the National Register. When examined for both historical and architectural significance, the property would not likely be considered distinguishable or distinctive from the greater subdivision. This is not to say that the property is devoid of historic significance, but rather that the significance lies in the historic and architectural role the property played in the construction of the greater subdivision.

An example of an individually eligible property within a larger subdivision would be 16 SA4f, a residential property in Mastic Beach. This property is readily identified as a very early example of a "split level" style. The property dates to the 1920s, while the Split Level style was most popular in the 1950s (accordingly, it is considered an early and important example). The double garage door is fully integrated into the rest of the house. This property, while also contributing to an understanding of the development of the larger subdivision, is individually distinctive, and it demonstrates the physical integration of automobiles with daily residential living (a historic trend that would become most apparent in the postwar era).

Accordingly, a low percentage of suburban structures will be considered individually eligible for listing in the National Register of Historic Places. Many of the buildings have experienced superficial exterior changes (primarily the replacement of materials) but retain important character-defining features that contribute to an understanding of the planning, construction, and settlement of the subdivision, including landscape features, setback, streetscape (relationships between buildings), and overall design or form. Therefore, a higher percentage of buildings would be considered contributing elements to a potential district (even when those buildings are

not individually eligible). As this is a phased approach, an individual building-by-building inventory within the APE was not undertaken. Rather, representative buildings were documented. However, three methods were used to identify potential districts in which buildings retained sufficient integrity to be considered eligible:

- A windshield survey;
- Streetscape forms that noted the approximate percentage of contributing buildings within a given block or neighborhood; and
- A statistical analysis retention of integrity criteria of representative buildings surveyed.

In addition to the extensive guidance provided by the NPS, the integrity criteria detailed below are specific to the project area.

Materials

The integrity of materials is problematic in the evaluation of postwar and early suburban property types. First, research in the field has produced a general understanding of common materials but has not produced a detailed dating chronology of exterior materials. Many materials experienced an overlap in usage. For example, a building could have been built in 1945 with metal siding that was replaced in 1960 with wood shingles. It is just as likely that a building would have been built in 1945 with wood shingles and replaced in 1960 by metal siding. Third, many postwar building materials were designed for rapid mass production to meet a material shortage. The longevity of the material (particularly in areas prone to coastal storms and salt air) was not a factor. Fourth, the replacement of materials was also an opportunity to personalize a standard, mass-production house.

For these reasons, field surveyors evaluated the integrity of materials to indicate the presence of materials that were incompatible with those known to have generally been in use during the historic period of significance. For example, a Ranch house with metal siding was evaluated to retain integrity of materials because metal siding was commonly found on Ranch houses in the era. That particular house could have had the siding added as a replacement in the mid-1960s (after the period of significance) or in the mid-1950s (during the period of significance). The particular date of the replacement material is not easily obtained (if at all), and does not have a fundamental bearing on other integrity criteria. However, if the 1945 Ranch had vinyl siding, a material often installed post-1980, this would indicate that the property did not retain integrity of materials. Therefore, integrity of materials is, for the purposes of this survey, linked to an understanding of the integrity of association. Specifically, a suburban building will be considered to retain integrity of materials if those materials do not prevent the building from displaying the integrity of association.

Design

Integrity of design demonstrates that the building is readily recognizable as an example of a property type. Therefore, integrity of design is determined by the absence or presence of large-scale additions or alterations that prevent or allow identification with the general form or design

of a defined property type. For example, a one-story vacation cottage with a non-historic second-story addition would lack the integrity of design because it would not be able to be readily identified as an example of its property type. However, a one-story vacation cottage with a non-historic rear-kitchen addition could still be readily identified as an example of its property type.

Association

Association is considered to be the direct link between the property and its past. Association relies upon the cumulative absence or presence of factors such as materials, design, and setting. Buildings that retain both integrity of materials and design, for example, often retain integrity of association.

Feeling

The NPS notes that feeling is a relatively subjective integrity criteria. Feeling is considered to be the "high bar" of integrity for historic residential properties. Small-scale features, such as landscape features, outbuildings, and fixtures contribute to the evaluation of feeling. For example, it would be unlikely that a building with vinyl replacement windows would retain its integrity of feeling—even if those windows were within the original fenestration.

Workmanship

Workmanship includes both small-scale design elements, such as fixtures and landscape elements, and the degree of remaining detail in exterior siding.

Location

Nearly all of the properties surveyed are expected to retain their location.

Setting

A high degree of buildings within a twentieth-century subdivision in the APE are likely to retain their setting. The setting would be altered through large-scale alterations in the subdivision (such as the alteration of a roadway grid or curvilinear plan) and the removal or introduction of incompatible, non-original uses.

V. PREVIOUSLY IDENTIFIED PROPERTIES

This section contains information on other cultural resource studies and investigations that have occurred in the project area and previously identified historic properties within or proximate to the area of potential effects (APE). The project area has not undergone a comprehensive survey of aboveground or belowground historic and cultural resources. A review of printed information from the New York State Office of Parks, Recreation, and Historic Preservation (NY SHPO) database revealed that very few properties directly within the APE had been inventoried.

Several investigations have been conducted and reports produced for the Unites States Army Corps of Engineers (USACE) concerning the cultural resources along the Atlantic Coast of Long Island since the project for erosion control and hurricane protection was authorized in 1960 through the River and Harbor Act. Most of these reports have focused on submerged resources. In one of the earliest investigations, the existence of remnants from multiple shipwrecks was confirmed through scan sonar survey. Additional archaeological investigations locating submerged shipwrecks off the Atlantic Coast; other buried resources along the coastline of Suffolk County have been the focus of the cultural resource investigations of this area.

In 1980, two reports for the USACE were produced concerning the cultural resources along the southern shore of Suffolk County. The first report, *Cultural Resources Reconnaissance in Moriches Inlet Navigation Project,* by Henry W. Moeller and R. Joseph Murphy, investigated the cultural resources aboveground and underwater within the Moriches Inlet to mitigate the impacts associated with the Federal Navigation Project's modifications of the coast. The second report, prepared by the Institute for Conservation Archaeology (ICA) of the Peabody Museum of Archaeology and Ethnology at Harvard University, details archaeological and historic resources along the barrier island, east of Moriches Inlet. The two reports created a base for future investigations into submerged resources along the Atlantic Coast of the project area.

The following investigations and reports focused on locating shipwrecks and other buried resources off and along the Atlantic Coast of Suffolk County: *A Survey of Archaeological and Historical Resources, Fire Island Beach Erosion and Hurricane Protection Project, Westhampton Beach, New York,* prepared by the ICA, Peabody Museum, Harvard University, authored by Russell J. Barber; *Atlantic Coast of Long Island Fire Island to Montauk Point Westhampton Beach Interim Protection Plan Remote-Sensing Survey of Two Borrow Areas,* prepared by Boston Affiliates, Inc., and WCH Industries, authored by Warren C. Ripps; *Atlantic Coast of Long Island Fire Island Inlet to Montauk Point Fire Island Inlet Interim Suffolk County, New York,* prepared by Ocean Surveys, Inc., and Moffat & Nichol Engineers; *Remote-Sensing Survey: Fire Island Inlet to Montauk Point Long Island, Suffolk County, New York, Reach 2: Interim Project West of Shinnecock Inlet* and *Research on Shipwrecks in the Near-Shore Area Fire Island Inlet to Montauk Point Long Island, Suffolk County, New York, Reach 1: Interim Project Fire Island Inlet to Moriches Inlet,* prepared by Dolan Research, Inc., and the Greeley-Polhemus Group, Inc., authored by Lee Cox; *Remote-Sensing Survey, Tidal Zone and Near-Shore Project Area, Atlantic Coast of Long Island, Fire Island Inlet to Moriches Inlet, Fire Island, Suffolk County, New York Interim Project,* prepared by Panamerican Consultants, Inc., and authored by Michael C. Tuttle; *Cultural Resources Baseline Study Fire Island Inlet to*

Montauk Point Suffolk County, New York Reformulation Study (also the study that takes a cursory look at the historic architecture), prepared by John Milner Associates, Inc. (JMA), for the Greeley-Polhemus Group, Inc.; *Remote-Sensing Archaeological Survey of Borrow Areas 2A, 2B, 2C, 3A, 4A, 4B, 5A, 5B, 6A, 7A, and 8A Atlantic Coast of Long Island, Fire Island Inlet to Moriches Inlet Suffolk County, New York Reformulation Study*, prepared by Tidewater Atlantic Research, Inc., for URS Consultants, Inc., and Moffat Nichol Engineers; and an *Archeological Overview and Assessment of the Fire Island National Seashore, Suffolk County, New York*, prepared by Gray & Pape, Inc. for Vector Resources, Inc..

The ICA's study identifies settlement patterns, shipping patterns, and marine transportation; also it includes an integrated model of predicted archaeological potential. The ICA researchers concluded that because of massive disturbance "from both natural and human agencies," the "archaeological potential of this area is deemed extremely low to nil" (ICA 1980). However, the report also notes that, for a proposed offshore borrow area (where fill would be gathered for structural berms and beach widening):

> …marine transgression models, settlement models, and remote-sensing data point to the conclusion that some former land surfaces probably have survived inundation by rising sea levels over the last several thousand years. Settlement is predicted to have been dense in some of these zones and archaeological potential is high. In addition, shipwrecks are known to have occurred in the area and their preservation is likely (ICA 1980: 182-vii).

Aside from this investigation and report, one other produced between 1999 and 2001 had a component specifically focusing on the historic architecture; however, JMA's cursory investigation was limited in depth and in breadth to the properties "visible from the beach," as opposed to the larger historic architecture APE of the reformulation project area described in Chapter I of this report (JMA 2001: 1).

JMA, on behalf of the Greeley-Polhemus Group, conducted a Phase IA archaeological survey and reconnaissance-level aboveground historic resource investigation along the South Shore of Suffolk County on Long Island. In addition to these investigations, JMA conducted a more in-depth Phase IB archaeological investigation on one section of the coast just west of the Shinnecock Inlet. JMA's investigation was intended to identify locations within the project area for the Fire Island to Montauk Point Reformulation Study, the study intended to make recommendations for the reduction of storm damage and beach erosion along the southern coast of Suffolk County, where archaeological and aboveground historic resources exist. The JMA report identified 110 archaeological sites within the project area and recommended additional investigation to include survey of the tidal zone and a near-shore remote-sensing survey to locate submerged cultural resources. The aboveground reconnaissance survey within the project area identified five individual properties and six districts that have been previously determined eligible for or listed on the National Register. Additionally, the survey identified 29 individual properties and seven districts recommended for further investigation, as they potentially could be eligible for the National Register. As the report states, these properties "…appear to meet the age and integrity criteria of the National Register" (JMA 2001: 192). JMA's report does not make recommendations relative to National Register eligibility of aboveground resources, but

does recommend that should reformulation activities occur in the proximity of previously identified historic resources or near the properties identified with the potential to be associated with the historical contexts of the project area, further investigation should be conducted, as well as efforts be made to avoid adversely impacting the character of the historic architecture.

The following structures and sites were listed in the National Register prior to the JMA study (151–184):

- Fire Island Light Station (Town of Islip)
- Southampton Village Historic District (Village of Southampton)
- Beach Road Historic District (Village of Southampton)
- Dr. Wesley Bowers Residence (Village of Southampton)
- East Hampton Village Historic District (Boundary Increase) (Village of East Hampton)
- Hayground Windmill (Windmill Lane, Village of East Hampton)
- Montauk Association Historic District (Ditch Plains, Town of East Hampton)
- Montauk Point Lighthouse (Montauk Point, Town of East Hampton)

The following structures and sites were formally determined eligible for listing in the National Register prior to the JMA study:

- Ditch Plains Artillery Fire Control Stations (Ditch Plains, Town of East Hampton)
- Wainscott Historic District (Wainscott, Town of East Hampton)
- Bluff Road Historic District (Town of East Hampton)

The JMA report reveals that there is a low probability for archaeological deposits along the beach and dunes of the area they investigated because of the coastline's tendency to continuously change:

> Analysis of the entire Reformulation Study area reveals continuous dunes and beaches from Fire Island Inlet to Montauk Point. Given the dynamics of beach and dune migration and the lack of stable surfaces, *the potential is low for preserved good-context archeological deposits within the beaches or dunes of the Reformulation Study area* (JMA 2001: 202, emphasis added).

Concerning shipwreck sites and other underwater cultural remains, the JMA report notes that:

> Background research of documented shipwrecks in the near-shore and off-shore vicinity of Fire Island Beach, between Fire Island Inlet and Montauk Point, confirmed the presence of 453 documented ship wreck episodes. There are no recorded locational coordinates for any of the near-beach wrecks… Most of the wreck sites have not been located or identified.
>
> Of the 155 documented shipwreck sites in the vicinity of Fire Island, at least four are potentially eligible for inclusion in the NRHP because of their association with historical events: Dutch ship PRINS MAURITS (1657), sloop WOODCOCK (1814), steam packet

> SAVANNAH (1821), and steamer GREAT WESTERN (1876). Since none of the four sites have been located an evaluation of the surviving structure(s) would be required to determine the status of their integrity before receiving further consideration for the NRHP. Pending evaluation, other wrecks may be eligible for inclusion to the NRHP on the basis of architectural qualities. Two other wrecks, the FRANKLIN (1854) and the GATE CITY (1900), both located near Fire Island, were previously evaluated in 1980 and determined to be not eligible for the NRHP (JMA 2001: 203).

The 1999 JMA investigation was limited in scope relative to historic architecture to reconnaissance survey of architecture visible from the beach along the reformulation study area. The scope of work for the historic architecture investigation required JMA to generate a list of properties requiring further investigation and survey to determine if—individually or as part of a district—these properties meet the Secretary of the Interior's Criteria for National Register eligibility:

> Visual inspection suggests that the following properties, each more than 50 years of age, may possess the requisite integrity to be eligible for the National Register. Further research is necessary to determine whether the properties possess significance under one of the defined contexts for the project area (JMA 2001: 198–201).

The following properties were identified in the JMA report as part of a "study list" of potentially eligible resources in need of further analysis:

- House, Marine Boulevard, east of Atlantic Avenue Beach (East Hampton Village)
- House, east of Atlantic Avenue Beach driveway (Amagansett vicinity, Town of East Hampton)
- Beachfront, east of Maidstone Club (East Hampton Village)
- The Maidstone Club (East Hampton Village)
- Georgica Association District (Town of East Hampton)
- Jobs Lane House, circa-1910 Shingle Style house (Village of Southampton)
- Dune Road Bungalow #1 (Bridgehampton vicinity, Town of Southampton)
- Dune Road Bungalow #2 (Bridgehampton vicinity, Town of Southampton)
- Pyramidal roofed house, Dune Road (Bridgehampton vicinity, Town of Southampton).
- L-plan house, Dune Road (Bridgehampton vicinity, Town of Southampton)
- Flying Point Road house (Water Mill vicinity, Town of Southampton)
- Water Mill Beach Club (Water Mill vicinity, Town of Southampton)
- 840 Beach Road (Southampton Beach)
- 880 Beach Road (Southampton Beach)
- Tiana Beach buildings (Tiana Beach)
- Cottages, east of Triton Lane (Tiana Beach, Town of Southampton)
- Cottages, west of Dolphin Lane (Tiana Beach, Town of Southampton)
- Wood-framed house, east of Quogue Beach (Village of Quogue)
- Gabled roof, wood-framed cottages, east of Quogue Beach (Village of Quogue)
- Westhampton beach house (Village of Westhampton Beach)

- House, west of Westhampton Beach (Village of Westhampton Beach)
- House, west of Westhampton Beach (Village of Westhampton Beach)
- Former Quogue Coast Guard Station, south side, Dune Road (Village of Quogue)
- Robert Moses State Park Tower (Fire Island)
- Colonial Revival house (Corneille Estates, Ocean Beach vicinity, Fire Island)
- Hip-roofed house (Corneille Estates, Ocean Beach vicinity, Fire Island)
- Dutch gable, wood-framed house (Ocean Bay Park, Fire Island)
- Gable-roofed house with shed dormers (Seaview, Fire Island)
- Former Point O'Woods Life Saving Station; present Fire Island Hotel and Resort (Ocean Bay Park, Fire Island)
- Point O' Woods (District)
- Gable-front bungalow (Cherry Grove, Fire Island)
- Eaves front bungalow (Cherry Grove, Fire Island)
- One and one-half story, eaves front house (Cherry Grove, Fire Island)
- Gable and hip-roofed house (Cherry Grove, Fire Island)
- Eaves front bungalow (Cherry Grove, Fire Island)
- Eaves front house (Fire Island Pines)
- Andy Warhol compound (Montauk vicinity)

A majority of the 110 documented terrestrial archaeological sites noted in the JMA report exist within the general vicinity of the APE, "most of which are situated in the back bay areas of the Great South Bay or the interior uplands of the Long Island South Shore. The barrier island contains 12 historic and two prehistoric previously documented sites" (JMA 2001: 201). The report specifies that portions of two sites were within the known APE. Site A103-05-000605, the site of a twentieth-century recreational facility for handicapped children, and Site A103-02-1579, a complex of Coast Guard structures from the late nineteenth century, are both located on dunes bordering the Great South Beach, and "both have been determined potentially eligible for listing in the NRHP" (JMA 2001: 201). The report also notes that, "given the dynamics of beach and dune migration and the lack of stable surfaces, the potential is low for preserved good-context archaeological deposits within the beaches or dunes" (JMA 2001: 201).

A high volume of maritime activity, dating to the early sixteenth century, is documented in the JMA report. Through a literature search, it was discovered that 453 recorded shipwreck losses along the barrier island's Atlantic coast occurred (although numerous wrecks were not recorded). Although exact geographic coordinates are not known for many of these wrecks, the JMA researchers noted, "the proposed placement of sand in the near-shore tidal zone may potentially threaten any potentially significant submerged cultural resources that have been deposited in this region" (JMA 2001: 191). Additionally, as the report states, "in most cases, waves and tidal currents eventually broke up the vessels' hulls and buried the portions that survived intact" (JMA 2001: 191).

Concerning the probability for buried archaeological deposits, the results of the JMA investigation led to the conclusion that there is the potential for the existence of buried deposits in the study area:

> …the potential for buried, intact archaeological deposits in the area as a whole is relatively high. However, specific areas of high potential are probably quite localized and impossible to define precisely without further investigation. Mechanical coring and geomorphological analysis in specific locations would be required to pin-point areas of high archaeological potential (JMA 2001: 191).

In the area west of Shinnecock Inlet, on the barrier island, JMA found that there is no potential for archaeological deposits (2001: 192). The report documents at least four significant shipwreck sites within or proximate to the APE, and includes a recommendation for further remote-sensing survey activities.

The report contains an assessment of historic architectural resources within the APE and notes that, along the barrier island, five properties and six historic districts were either listed in or had been previously determined eligible for listing in the National Register. The report also states that "a total of 29 additional individual properties and seven districts located within the study area [the barrier island] were identified that appear to meet the age and integrity criteria of the National Register" (JMA 2001: 192). However, the report notes that "no recommendations have been made concerning National Register eligibility of most of these resources," but that the Point O'Woods district on Fire Island "appears clearly National Register eligible and is recommended as such" (JMA 2001: 7).

The report discusses identification and evaluation criteria for a variety of maritime architectural property types, including lighthouses and keepers' residences, lifesaving stations, fishing facilities (including piers and processing plants), vessels, and shipwrecks. The report notes the presence of two lighthouses listed in the National Register (the Montauk Point and Fire Island lighthouses). The report also specifies that the lifesaving stations have been largely abandoned or converted to adaptive use. The report further details that "although fishing and fish processing continue to be a significant part of the Suffolk County economy, many of the facilities formerly located within the project area have been displaced by resort/vacation uses" (JMA 2001: 124). The report defines general "registration requirements" for those resources. Specifically, the report notes that maritime resources eligible under Criterion A:

> …might include the wreck of a prominent ship or a shipwreck that constituted an important event in local history; a life saving station that played an important role in a significant maritime rescues or had a role in a series of maritime rescues; and lighthouses for their long-term role in providing maritime navigation signals. It is possible that surviving life stations might be eligible as individual components of a multiple resource, a resource that reflects the history of maritime rescues on Long Island's South Shore (JMA 2001: 128).

Concerning Criterion C, the report states:

> …it is suspected that lifesaving stations are becoming a rare building type on Long Island's South Shore due to new development and destruction by coastal storms. Therefore, individual examples of lifesaving stations are potentially eligible as embodying the distinctive characteristics of a type. Because most or all have been

> converted to other uses, eligibility would be dependent on the integrity, that is, the ability to convey associations with its original use (JMA 2001: 128).

The finding of the JMA investigation was that there were no extant architectural property types falling under the resort/vacation context, which included summer cottages, vacation homes, and bath houses in addition to "amusement and park facilities, hotels, club buildings and churches serving nearby summer communities" (JMA 2001: 118). The report notes that some residences represented the work of important architects, including Shingle Style and Colonial Revival Style designs by McKim, Mead and White and Harrie Lindberg, as well as the more recent modernist designs of Gwathmey, Siegel, and Richard Meier. The report states that resources for this context eligible under Criterion A would include:

> …landmarks in the development of the vacation/resort industry. Potentially eligible resources might include an early oceanfront summer home or group of homes, or an early example or a modernistic vacation home. Other potential eligible resources might include an early and well-preserved bathhouse or a well-preserved example of a social club catering to summer vacationers (JMA 2001: 118).

The report notes that resources eligible under Criterion B would be associated with individuals who played an important role in the development of the vacation/resort industry. Resources eligible under Criterion C would include "well-preserved, little altered examples of Shingle Style summer houses." The report specifies that "properties less than 50 years old are also potentially eligible under Criterion C," specifically discussing "pioneering examples of modernistic architectural vocabulary, vocabulary later adapted and copied by less original or less talented practitioners," but that "examples have not been identified during the present investigation." The report also suggests that "a number of properties because of their oceanfront location may have been moved" (JMA 2001: 118).

In addition to the reports conducted for the USACE, several local level surveys have sought to identify historic architecture in Suffolk County—including the Society for Long Island Antiquities' sponsored investigation of historic architecture in Islip and the Southampton Cultural Resources Survey conducted by GAI Consultants, Inc. (GAI), with Fanning, Phillips & Molnar (FP&M). All of these reports were reviewed and utilized in URS' efforts in identifying aboveground historic resources within the APE in the reformulation project area.

GAI and FP&M together studied, surveyed, and assessed the historic resources of 16 of Southampton's unincorporated hamlets from June 1999 to July 2000. The survey was designed to accomplish the following goals: conduct a comprehensive survey of historic resources in 16 unincorporated hamlets of Southampton; develop a historic thematic statement for Southampton ranging from 1640 to 1949; determine the eligibility of properties within Southampton's 16 unincorporated hamlets for the National Register; and, finally, to make recommendations for future investigations of the historic resources of Southampton and for the continual preservation of historic resources within the town. The survey and report included the documentation of 300 resources. The consultants determined that of the 300 surveyed resources, 11 historic districts and 94 individual resources were eligible for the National Register.

The following resources were identified among those potentially eligible for National Register listing and proximate to the APE:

- Canoe Place Historic District (approximately 20 historic resources located on Montauk Highway, Canal Road, and Canoe Place Road), significant under Criterion A "for its association with the important settlement, transportation and religion themes in the Canoe Place area."

- Remsenburg Historic District (approximately 30 historic resources located along South Country Road in Remsenberg), eligible under Criterion A for association with the settlement and history of Speonk/Remsenberg and Criterion C "for its buildings in the Federal, Greek Revival, Italianate and Romanesque Revival styles."

- East Quogue Historic District (approximately 38 historic resources from Montauk Avenue south to Tiana Bay), eligible under Criterion A for its association with the summer resort theme and "under C for its collection of Queen Anne style buildings."

- Quiogue Historic District (approximately 16 historic resources along Main Street, Meetinghouse Road, Woodbridge Avenue and several side streets south of Montauk highway), eligible under A for association with the Quiogue Homestead Association and as a summer resort, as well as under C as an important collection of well-preserved Shingle and Queen Anne style residences (Henry 1999: 70).

The report concludes with recommendations to perform additional survey and research to identify the town's historic resources, as many resources were inaccessible to surveyors; to nominate the identified 11 districts and individual resources as local town landmarks, including the multiple resources within Water Mill, which should be part of a multiple resource area with a common context; to nominate the eligible identified resources and districts to the National Register of Historic Places; and to nominate the National Register-eligible Sagaponack Historic District for listing as a Southampton historic landmark district. The consultants also recommend that the 1999 architectural survey of Sagaponack be integrated into the town's cultural resource database, making its data accessible for integration into the town's GIS; and it is recommended that Southampton take the steps to become a certified local government and identify available funding sources for additional investigation into the historic resources within the town.

Gray & Pape, Inc., on behalf of Vector Resources, Inc. and the National Park Service, conducted an archaeological overview and assessment of the Fire Island National Seashore in Suffolk County (Fugate and McDonald 2005). The overview and assessment included background research that gathered data on know archaeological resources that had been previously recorded in the park. This was followed by a walkover survey and visual inspection of the 13 previously recorded sites. The report concluded that large areas of the park have not been surveyed and possessed a high potential for the presence of archaeological resources, both terrestrial and underwater.

CURRENT REPORT

Unlike previous reports, this one is part of a phased approach to addressing issues relative to Section 106 of the National Historic Preservation Act. Accordingly, later phases of cultural resource work may utilize other cultural resource reports (including those in current or future production) that have not yet been identified. The review and incorporation of these reports will provide an opportunity to refine data analysis and methodology.

Although the property is proximate to, rather than within, the APE, the Brightwaters Historic District (ID # 10364.000002, determined eligible for listing in the National Register) provides a useful example in evaluating other properties within the APE. Developer Thomas Benton Ackerton built Brightwaters between 1908 and 1916; it features a wide range of bungalows and revival houses, which surround a large dredged canal. The district also features some later infill construction, including Cape Cod and Ranch homes. Although some exterior alterations have been made, the majority of the homes feature historic or compatible siding. Many homes have replacement windows. However, the district clearly retains its "sense of place," as well as features such as overall plan and integration with natural elements.

VI. INDIVIDUAL PROPERTIES ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER: PRELIMINARY STUDY LIST

The historic resources surveyed within the APE were intended to represent the full spectrum of existing types and styles in aboveground resources, 50 years old or older, associated with the historical contexts of the project area. One thousand four hundred and ninety historic resources were surveyed; of those, 49 were identified as being potentially eligible for the National Register of Historic Places as individual resources.

The majority of the 49 properties were located in the easternmost parts of the APE; 11 are in Quogue and eight in West Hampton Bays. Only one resource of those surveyed was identified as being built prior to 1840; this property is in Babylon. The prevailing primary context of the potentially eligible resources was early suburbanization, for which the period of significance falls between 1890 and 1920. More than half of the individual resources on the potentially eligible list are residential properties.

These properties have been identified through fieldwork and general contextual research as retaining sufficient integrity and demonstrating significance as outlined in both this report and *National Register Bulletin 15: How to Apply the Criteria for National Register Evaluation* (Andrus 2002). These properties may be further evaluated (based upon more intensive research and/or fieldwork) as the FIMP's proposed actions and priority areas are further developed and refined. Other properties not inventoried and/or not included below may also exhibit potential for listing in the National Register. This list is intended as a baseline collection of significant properties. As part of the phased approach to Section 106 compliance, this list is intended to serve as a preliminary decision-aiding tool rather than as a definitive authority. The following list of properties have been determined to be associated with one or more the relevant historical contexts of the APE and are thought to fulfill at least one of the Secretary of Interior's established criteria necessary for listing on the National Register.

SURVEY_ID	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID
44_SA1f	Cedar		babylon	residence	residence	early suburban	residential	1890-1920	DSCN0221.jpg	Folk Victorian	SA1f	105_671.00
SURVEY_ID	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID
23_SA1f	Willow	St	babylon	residence	residence	early nationhood	residential	1800-1840	DSCN0197.jpg	Colonial Revival	SA1f	105_569.00
SURVEY_ID	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID
111_SA1f	yacht club	Rd	babylon	commercial	institutional	postwar suburban	Resort	1945-1960	DSCN0307.jpg	Hotels / Motels	SA1f	106_764.10

SURVEY_ID	STREET_NAM	STREET_SUF	Village/ Hamlet	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
138_SA1f	sequams lane east		islip	institutional	institutional	early suburban	Resort	1890-1920	DSCN0342.jpg	Landscape features /	SA1f	105_1084.00
137_SA1f	sequams lane east		islip	maritime	maritime	early suburban	Resort	1890-1920	DSCN0343.jpg	Recreation	SA1f	105_1085.00
SURVEY_ID	STREET_NAM	STREET_SUF	Village/ Hamlet	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
29_SA1f	fire island	Ave	babylon	institutional	institutional	postwar suburban	institutional	1945-1960	DSCN0205.j	Modern	SA1f	106_731.00
SURVEY_ID	STREET_NAM	STREET_SUF	Village/ Hamlet	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
161_SA1f	Eaton		islip	residence	residence	early suburban	Residential	1920-1945	DSCN0371.jpg	Colonial Revival	SA1f	109_1110.00

SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
65_SA2a		mowbray		bay shore	residence	early suburban	Resort	1890-1920	DSCN0508.jpg	Vacation home - Cott	SA2a	
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
64_SA2a		mowbray		bay shore	residence	early suburban	Residential	1920-1945	DSCN0510.jpg	Craftsman	SA2a	116_390.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
16_SA2a		cottage		bay shore	residence	early suburban	Residential	1920-1945	DSCN0452.jpg	Folk Victorian	SA2a	117_289.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
49_SA2a		homan		bay shore	residence	industrialization	Maritime/ind	1865-1890	DSCN0488.jpg	Folk Victorian	SA2a	116_179.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
76_SA3d	4	leo		patchogue	residence	early suburban	Residential	1920-1945	DSCN0632.jpg	Craftsman	SA3d	153_984.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
36_SA3d		maiden	la	patchogue	residence	industrialization	Residential	1865-1890	DSCN055	Italianate/2nd empir	SA3d	153_1009.00

SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
29_SA3d	41	maiden	la	patchogue	residence	early suburban	Residential	1890-1920	DSCN0544.jpg	Folk Victorian	SA3d	153_655.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
39_SA3d	556	ocean		patchogue	commercial	early suburbanizatio	commercial	1865-1890	DSCN0554.jpg	19th c Commercial	SA3d	
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
25_SA3d		brightwood	St	patchogue	residence	early suburban	Residential	1890-1920	DSCN0540.jpg	Colonial Revival	SA3d	153_642.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
26_SA3d		brightwood	St	patchogue	residence	early suburban	Residential	1890-1920	DSCN0539.jpg	Craftsman	SA3d	153_648.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
33_SA3d	23	maiden	la	patchogue	residence	early suburban	Residential	1890-1920	DSCN0548.jpg	Colonial Revival	SA3d	153_659.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
147_SA4e		riviera		mastic beach	residence	early suburban	Residential	1920-1945	DSCN0618.jpg	Vacation home - Cott	SA4e	186_1119.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
235_SA4e		huntington		mastic beach	residence	early suburban	residential/resort	1920-1945	DSCN0713.jpg	Vacation home - Cott	SA4e	179_1071.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
225_SA4e	16	astoria	Rd	mastic beach	residence	early suburban	Residential	1920-1945	DSCN0701.jpg	Vacation home - Cott	SA4e	179_1200.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
36_SA4f		laffayette		mastic	residence	early suburban	Residential	1920-1945	DSCN0423.jpg	Modern	SA4f	185_230.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
34_SA5b	112	senix		moriches	residence	early suburban	Residential	1890-1920	DSCN0835.jpg	Colonial Revival	SA5b	189_300.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
63_SA5b		bay		moriches	residence	early suburban	Resort	1920-1945	DSCN0871.jpg	Vacation - Cottage	SA5b	194_480.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID

50_SA5b				moriches	institutional	early suburban	Resort	1890-1920	DSCN0855.jpg	Shingle / Stick	SA5b	194_156.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
46_SA5b	11	convent	la	moriches	institutional	early suburban	institutional	1890-1920	DSCN0850.jpg	Shingle / Stick	SA5b	194_362.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
18_SA5c	70	watchogue		east moriches	residence	early suburban	Residential	1890-1920	DSCN0897.jpg	Folk Victorian	SA5c	200_84.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
9_SA6a		jagger	la	westhampton beach	residence	early suburban	Residential	1920-1945	DSCN0130.jpg	Colonial Revival	SA6a	207_176.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
30_SA6a	10	lott	Ave	westhampton beach	residence	early suburban	Residential	1890-1920	DSCN0161.jpg	Shingle / Stick	SA6a	210_112.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
31_SA6a	24	lott	Ave	westhampton beach	residence	early suburban	Residential	1890-1920	DSCN0162.jpg	Colonial Revival	SA6a	210_110.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
28_SA6a	8	lott	Ave	westhampton beach	residence	early suburban	Residential	1920-1945	DSCN0157.jpg	Beaux Arts	SA6a	210_106.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
29_SA6a	5	lott	Ave	westhampton beach	residence	early suburban	Residential	1920-1945	DSCN0158.jpg	Colonial Revival	SA6a	210_109.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
12_SA6a		jagger	la	westhampton beach	residence	early suburban	Residential	1890-1920	DSCN0133.jpg	Colonial Revival	SA6a	207_181.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
24_SA6b	35	beach	la	quogue	residence	early suburban	Resort	1890-1920	DSCN0265.jpg	Shingle / Stick	SA6b	215_21.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
54_SA6b		sunswyck		west hampton	residence	early suburban	Residential	1865-1890	DSCN0985.jpg	Colonial Revival	SA6b	
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
16_SA6b		ocean	Ave	quogue	residence	early suburban	Resort	1890-1920	DSCN0255.jpg	Folk Victorian	SA6b	219_23.00

SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
941_SA6b		library		west hampton	residence	early suburban	Residential	1890-1920	DSCN0941.jpg	Folk Victorian	SA6b	213_191.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
17_SA6b	21	quogo neck	la	quogue	residence	early suburban	Resort	1920-1945	DSCN0258.jpg	Vacation home - esta	SA6b	215_112.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
15_SA6b	40	odean	Ave	quogue	residence	postwar suburban	Resort	1945-1960	DSCN0254.jpg	Modern	SA6b	
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
27_SA6b	28	beach	la	quogue	residence	postwar suburban	Residential	1945-1960	DSCN0269.jpg	Modern	SA6b	215_26.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
24_SA6c		sunset	Ave	east quogue	residence	early suburban	Residential	1890-1920	DSCN0228.jpg	Shingle / Stick	SA6c	218_101.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
999_SA6c	29	shinnecock	Rd	quogue	residence	early suburban	Resort	1890-1920	DSCN0238.jpg	Vacation - estate	SA6c	219_80.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
986_SA6c		shinnecock	Rd	quogue	residence	early suburban	Resort	1890-1920	DSCN0243.jpg	Vacation estate	SA6c	219_76.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
969_SA6c	31	shinnecock		quogue	residence	early suburban	Resort	1890-1920	DSCN0244.jpg	Colonial Revival	SA6c	219_59.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
752_SA6c		bayside		east quogue	residence	early suburban	Residential	1945-1960	DSCN0215.jpg	Minimal Traditional	SA6c	222_178.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
998_SA6c	26	shinnecock	Rd	quogue	residence	early suburban	Resort	1890-1920	DSCN0239.jpg	Colonial Revival	SA6c	
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
9_SA7b	296	mountauk hwy		hampton bays	residence	early suburban	Resort	1920-1945	DSCN0191.jpg	Colonial Revival	SA7b	230_115.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID

5_SA7b		tepee		hampton bays	residence	early suburban	Residential	1920-1945	DSCN0186.jpg	Vacation home - Cott	SA7b	230_105.00
SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
16_SA4f	118	riveria	Rd	mastic	residence	early suburban	Residential	1920-1945	DSCN0400.jpg	Split Level	SA4f	185_747.00

DISTRICTS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER: PRELIMINARY STUDY LISTS

According to *National Register Bulletin 15: How to Apply the Criteria for National Register Evaluation* (Andrus 2002), a district "results from the interrelationship of its resources, which can convey a visual sense of the overall historic environment or be an arrangement of historically or functionally related properties." In addition, the bulletin notes that a district "may even be considered eligible if all of the components lack individual distinction, provided that the grouping achieves significance as a whole within its historic context."

Within the APE, 10 historic districts were identified. The districts are primarily residential; however, one in Lindenhurst is associated with the maritime and fishing industry. The majority of the residential districts are associated with the primary contexts of early or postwar suburbanization, spanning almost 70 years in history. The district identified in Mastic has a considerable number of vacation or seasonal homes, and the West Hampton district has 13 properties of the 31 associated with the secondary context of resort development. Although resort and vacation community construction historically occurred in the western portion of Suffolk County along the South Shore, today it seems as though more properties associated with seasonal use and resort activities are located further east.

The following study areas feature districts that are likely to be eligible for listing in the National Register of Historic Places. Within the APE, 10 areas stood out as being potentially eligible historic districts. These properties have been identified through fieldwork and general contextual research as retaining sufficient integrity and demonstrating significance as outlined in both this report and *National Register Bulletin 15*. These properties may be further evaluated (based upon more intensive research and/or fieldwork) as the FIMP's proposed actions and priority areas are further developed and refined. Other properties not inventoried and/or not included below may also exhibit potential for listing in the National Register. However, this list is intended as a baseline collection of significant properties. As part of the phased approach to Section 106 compliance, this list is intended to serve as a preliminary decision-aiding tool rather than as a definitive authority; accordingly, some of the properties below may be later determined as non-contributing properties. This list is intended primarily to show the probability for eligible districts, and includes portions of subarea 1C and 1E, as well as subareas 1F, 3D, 4A, 4F, 5B, 6A, 6C, and 7B. The following individual properties are located within the above district areas.

Maritime/Fishing District Area – 1C

SURVEY_ID	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID	Setting
98_SA1c	Lindenhurst	maritime	maritime	early suburban	maritime/ind	1920-1945	DSCN0167.jpg	Maritime - Fishing p	SA1c	99_1126.00	1
SURVEY_ID	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID	Setting
90_SA1c	Lindenhurst	maritime	residence	early suburban	maritime/ind	1920-1945	DSCN0156.jpg	Maritime - Fishing p	SA1c	99_1128.90	1
97_SA1c	Lindenhurst	maritime	maritime	early suburban	maritime/ind	1920-1945	DSCN0163.jpg	Maritime - Fishing p	SA1c	99_1128.20	1
SURVEY_ID	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID	Setting
93_SA1c	Lindenhurst	maritime	maritime	early suburban	maritime/ind	1920-1945	DSCN0159.jpg	Maritime - Fishing p	SA1c	99_1128.60	1
SURVEY_ID	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID	Setting
94_SA1c	Lindenhurst	maritime	maritime	early suburban	maritime/ind	1920-1945	DSCN0160.jpg		SA1c		1
SURVEY_ID	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Building Type/Style:	Subarea	USACEID	Setting
95_SA1c	Lindenhurst	maritime	maritime	early suburban	maritime/ind	1920-1945	DSCN0161.jpg		SA1c		1

Residential District Area – 1E

SURVEY_ID	STREET_NAM	STREET_SUF	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Subarea	USACEID
26_SA1e	Venetian	Rd	babylon	residence	residence	early suburban	residential	1920-1945	DSCN0014.jpg	SA1e	

Residential District Area – 1F

SURVEY_ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
25_SA1f	129	prospect	St	babylon	early nationhood	residential	1800-1840	DSCN0200.jpg	Colonial / Vernacula	SA1f	105_502.00
165_SA1f	188	eaton		islip	postwar suburban	residential	1945-1960	DSCN0375.jpg	Split Level	SA1f	109_1105.00
140_SA1f		sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0345.jpg	Colonial Revival	SA1f	105_1081.00
182_SA1f	9	hiawatha	Rd	babylon	early suburban	residential	1920-1945	DSCN0398.jpg	Vacation - Cottage	SA1f	106_632.00
79_SA1f	162	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0268.jpg	Colonial Revival	SA1f	106_589.40
19_SA1f	6	shore	Rd	babylon	early nationhood	residential	1800-1840	DSCN0189.jpg	Folk Victorian	SA1f	105_531.00
181_SA1f		hiawatha		babylon	early suburban	residential	1920-1945	DSCN0397.jpg	Folk Victorian	SA1f	106_631.00
116_SA1f	19	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0315.jpg	Cape Cod Revival	SA1f	105_833.00
170_SA1f	254	sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0385.jpg	Cape Cod Revival	SA1f	
120_SA1f	4	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0319.jpg	Ranch	SA1f	105_823.00
121_SA1f	5	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0320.jpg	Ranch	SA1f	105_824.00
196_SA1f		fire island	Ave	babylon	early suburban	commercial	1890-1920	DSCN0413.jpg	20th c Commercial	SA1f	105_684.00

14_SA1f	18	shore	Rd	babylon	industrialization	residential	1865-1890	DSCN0185.jpg	Colonial / Vernacula	SA1f	105_534.00
180_SA1f	1	hiawatha	Rd	babylon	early suburban	residential	1920-1945	DSCN0396.jpg	Queen Anne	SA1f	106_630.00
94_SA1f	100	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0284.jpg	Bungalow	SA1f	106_580.00
134_SA1f		fire island		babylon	postwar suburban	commercial	1945-1960	DSCN0336.jpg	20th c Commercial	SA1f	105_768.00
160_SA1f	179	sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0370.jpg	Cape Cod Revival	SA1f	105_1050.00
98_SA1f	76	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0290.jpg	Bungalow	SA1f	106_576.00
101_SA1f	64	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0294.jpg	Folk Victorian	SA1f	106_573.00
128_SA1f	450	fire island	Ave	babylon	early suburban	commercial	1920-1945	DSCN0331.jpg	20th c Commercial	SA1f	105_786.10
93_SA1f	102	araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0283.jpg	Cape Cod Revival	SA1f	106_581.00
41_SA1f		annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0218.jpg	Bungalow	SA1f	106_655.00
38_SA1f	69	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0215.jpg	Minimal Traditional	SA1f	106_658.00
127_SA1f	447	fire island	Ave	babylon	early suburban	residential	1920-1945	DSCN0329.jpg	Craftsman	SA1f	105_785.00
131_SA1f		post	Pl	babylon	early suburban	maritime/ind	1920-1945	DSCN0337.jpg	Maritime - Fishing p	SA1f	105_771.00
3_SA1f	173	sumpwams	Rd	babylon	early suburban	residential	1920-1945	DSCN0175.jpg	Bungalow	SA1f	105_318.00
177_SA1f	241	eaton		islip	early suburban	residential	1920-1945	DSCN0393.jpg	Colonial Revival	SA1f	109_1090.00
16_SA1f	1	shore	Rd	babylon	early nationhood	maritime/ind	1800-1840	DSCN0187.jpg	Maritime - Fishing p	SA1f	105_565.00
39_SA1f	83	annuskemunncia		bagylon	postwar suburban	residential	1945-1960	DSCN0216.jpg	Cape Cod Revival	SA1f	106_657.00
52_SA1f	145	the crescent		babylon	postwar suburban	residential	1945-1960	DSCN0236.jpg	Cape Cod Revival	SA1f	105_597.00
104_SA1f		araca	Rd	babylon				DSCN0297.jpg	Minimal Traditional	SA1f	106_591.40
78_SA1f		araca		babylon	early suburban	residential	1890-1920	DSCN0267.jpg	Craftsman	SA1f	106_589.50
184_SA1f		hiawatha	Rd	babylon	early suburban	residential	1920-1945	DSCN0400.jpg	Vacation home - Cott	SA1f	106_634.00
103_SA1f		araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0297.jpg	Minimal Traditional	SA1f	106_572.00
168_SA1f		sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0383.jpg	Folk Victorian	SA1f	105_1037.00
84_SA1f	146	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0273.jpg	Cape Cod Revival	SA1f	106_589.10
183_SA1f		hiawatha		babylon	early suburban	residential	1920-1945	DSCN0399.jpg	Folk Victorian	SA1f	106_633.00
80_SA1f	159	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0269.jpg	Minimal Traditional	SA1f	106_589.80
91_SA1f	108	araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0281.jpg	Cape Cod Revival	SA1f	106_582.00
54_SA1f		the crescent		babylon	postwar suburban	residential	1945-1960	DSCN0234.jpg	Minimal Traditional	SA1f	105_803.00
88_SA1f	120	araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0278.jpg	Split Level	SA1f	106_585.00
147_SA1f	115	sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0353.jpg	Ranch	SA1f	105_1074.00
145_SA1f		sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0350.jpg	Minimal Traditional	SA1f	105_1078.00
136_SA1f		sequams lane east		islip	early suburban	resort	1890-1920	DSCN0338.jpg	Recreation	SA1f	105_1086.00
87_SA1f	124	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0277.jpg	Bungalow	SA1f	106_586.00
31_SA1f		annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0207.jpg	Split Level	SA1f	105_670.00
205_SA1f	575	fire island	Ave	babylon	early suburban	residential	1920-1945	DSCN0419.jpg	Vacation home - Cott	SA1f	106_718.00

221_SA1f		bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0441.jpg	Vacation - Cottage	SA1f	106_436.00
148_SA1f	104	sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0355.jpg	Ranch	SA1f	105_1073.00
85_SA1f	138	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0275.jpg	Cape Cod Revival	SA1f	106_589.00
53_SA1f	141	the crescent		babylon	postwar suburban	residential	1945-1960	DSCN0235.jpg	Cape Cod Revival	SA1f	105_596.00
220_SA1f	80	bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0440.jpg	Minimal Traditional	SA1f	106_438.00
66_SA1f		sumpwams	Pl	babylon	postwar suburban	residential	1945-1960	DSCN0246.jpg	Modern	SA1f	105_334.00
144_SA1f	132	hsequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0349.jpg	Split Level	SA1f	105_1077.00
89_SA1f	119	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0279.jpg	Cape Cod Revival	SA1f	106_590.50
209_SA1f	15	bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0428.jpg	Split Level	SA1f	106_471.00
100_SA1f	68	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0293.jpg	Minimal Traditional	SA1f	106_574.00
33_SA1f	19	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0209.jpg	Cape Cod Revival	SA1f	105_668.00
217_SA1f	101	bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0437.jpg	Cape Cod Revival	SA1f	106_456.00
216_SA1f	105	bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0435.jpg	Minimal Traditional	SA1f	106_455.00
35_SA1f		annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0211.jpg	Split Level	SA1f	105_663.00
213_SA1f	21	bay view	Ave	babylon	early suburban	residential	1920-1945	DSCN0432.jpg	Colonial Revival	SA1f	106_469.00
92_SA1f	97	araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0282.jpg	Colonial Revival	SA1f	106_590.90
214_SA1f		bay view	Ave	babylon	early suburban	residential	1920-1945	DSCN0433.jpg	Vacation - Cottage	SA1f	106_442.00
34_SA1f	27	annuskemunncia		babylon	early suburban	residential	1920-1945	DSCN0210.jpg	Folk Victorian	SA1f	105_666.00
42_SA1f	107	annuskemunncia		babylon	early suburban	residential	1920-1945	DSCN0219.jpg	Minimal Traditional	SA1f	106_652.00
212_SA1f	18	bay view	Ave	babylon	early suburban	residential	1920-1945	DSCN0431.jpg	Bungalow	SA1f	106_428.00
15_SA1f	45	willow	St	babylon	industrialization	maritime/ind	1865-1890	DSCN0186.jpg	Maritime - Fishing p	SA1f	105_566.00
109_SA1f	45	araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0304.jpg	Cape Cod Revival	SA1f	105_591.80
211_SA1f	2	bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0430.jpg	Split Level	SA1f	106_424.00
188_SA1f	165	annuskemunncia		babylon	early suburban	residential	1890-1920	DSCN0404.jpg	Colonial Revival	SA1f	106_639.00
194_SA1f	416	fire island	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0411.jpg	Split Level	SA1f	105_682.00
218_SA1f	88	bay view	Ave	babylon	early suburban	residential	1920-1945	DSCN0438.jpg	Bungalow	SA1f	106_439.00
36_SA1f	59	annuskemunncia		babylon	early suburban	residential	1920-1945	DSCN0212.jpg	Minimal Traditional	SA1f	105_662.00
37_SA1f	61	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0214.jpg	Minimal Traditional	SA1f	106_659.00
115_SA1f	21	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0314.jpg	Ranch	SA1f	105_834.00
40_SA1f	87	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0217.jpg	Minimal Traditional	SA1f	106_656.00
82_SA1f	154	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0271.jpg	Colonial Revival	SA1f	106_589.30
201_SA1f	524	fire island	Ave	babylon	early suburban	residential	1890-1920	DSCN0415.jpg	Colonial Revival	SA1f	106_689.00
189_SA1f	161	annuskemunncia		babylon	early suburban	residential	1890-1920	DSCN0405.jpg	Cape Cod Revival	SA1f	106_640.00
4_SA1f		sumpwams	Rd	babylon	early suburban	residential	1920-1945	DSCN0174.jpg	Folk Victorian	SA1f	105_317.00
187_SA1f	167	annuskemunncia		babylon	early suburban	residential	1890-1920	DSCN0403.jpg	Colonial Revival	SA1f	106_638.00

186_SA1f	171	annuskemunncia		babylon	early suburban	residential	1890-1920	DSCN0402.jpg	Colonial Revival	SA1f	106_637.00
81_SA1f	165	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0270.jpg	Colonial Revival	SA1f	106_589.90
156_SA1f		sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0366.jpg	Colonial Revival	SA1f	105_1055.00
179_SA1f	2	annuskemunncia		babylon	early suburban	residential	1920-1945	DSCN0395.jpg	Minimal Traditional	SA1f	106_636.00
185_SA1f		hiawatha		babylon	early suburban	residential	1920-1945	DSCN0401.jpg	Vacation home - Cott	SA1f	106_635.00
167_SA1f		sequams lane cntr		islip	postwar suburban	residential	1945-1960	DSCN0381.jpg	Colonial Revival	SA1f	105_1038.00
159_SA1f		sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0369.jpg	Colonial Revival	SA1f	105_1051.00
6_SA1f		sumpwams		babylon	early suburban	residential	1920-1945	DSCN0171.jpg	Folk Victorian	SA1f	105_325.00
5_SA1f		sumpwams	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0173.jpg	Minimal Traditional	SA1f	105_327.00
219_SA1f		bay view	Ave		early suburban	residential	1920-1945	DSCN0439.jpg	Colonial Revival	SA1f	
215_SA1f	108	bay view	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0434.jpg	Minimal Traditional	SA1f	
117_SA1f	17	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0316.jpg	Split Level	SA1f	105_832.00
129_SA1f	475	post	Pl	babylon	early suburban	residential	1920-1945	DSCN0332.jpg	Craftsman	SA1f	105_770.00
202_SA1f	526	fire island	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0416.jpg	Cape Cod Revival	SA1f	106_691.00
203_SA1f	530	fire island	Ave	babylon	early suburban	residential	1920-1945	DSCN0417.jpg	Vacation home - Cott	SA1f	106_697.00
193_SA1f	410	fire island	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0410.jpg	Minimal Traditional	SA1f	105_681.00
8_SA1f	38	shore	Rd	babylon	early suburban	residential	1890-1920	DSCN0178.jpg	Craftsman	SA1f	105_561.00
27_SA1f	134	prospect	St	babylon	early suburban	residential	1890-1920	DSCN0204.jpg	Folk Victorian	SA1f	105_529.00
155_SA1f		sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0365.jpg	Craftsman	SA1f	105_1020.00
166_SA1f	249	sequams lane cntr		islip	postwar suburban	residential	1945-1960	DSCN0380.jpg	Colonial Revival	SA1f	105_1039.00
173_SA1f	200	sequams lane cntr		islip	postwar suburban	residential	1945-1960	DSCN0388.jpg	Ranch	SA1f	105_1029.00
9_SA1f	28	shore	Rd	babylon	early suburban	residential	1890-1920	DSCN0179.jpg	Folk Victorian	SA1f	105_536.00
59_SA1f		lighthouse		babylon	early suburban	residential	1920-1945	DSCN0239.jpg	Craftsman	SA1f	106_532.00
143_SA1f	138	sequams lane east		islip				DSCN0348.jpg	Ranch	SA1f	105_1079.00
206_SA1f	579	fire island	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0420.jpg	Split Level	SA1f	106_721.00
65_SA1f		sumpwams	Pl	babylon	early suburban	residential	1920-1945	DSCN0247.jpg	Colonial Revival	SA1f	105_282.00
141_SA1f		sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0347.jpg	Minimal Traditional	SA1f	105_1080.00
68_SA1f		shore		babylon	early suburban	residential	1890-1920	DSCN0250.jpg	Colonial Revival	SA1f	105_562.00
118_SA1f	13	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0317.jpg	Ranch	SA1f	105_830.00
157_SA1f	153	sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0367.jpg	Cape Cod Revival	SA1f	105_1054.00
139_SA1f		sequams lane east		islip	early suburban	resort	1920-1945	DSCN0344.jpg	Agricultural - farms	SA1f	105_1083.00
28_SA1f		prospect	St	bab7lon	early nationhood	residential	1800-1840	DSCN0203.jpg	Colonial / Vernacula	SA1f	105_530.00
208_SA1f	1	bay view	Ave	babylon	early suburban	residential	1920-1945	DSCN0427.jpg	Cape Cod Revival	SA1f	106_472.00
96_SA1f	88	araca	St	babylon	early suburban	residential	1920-1945	DSCN0288.jpg	Bungalow	SA1f	106_578.00
130_SA1f		post	Pl	babylon	early suburban	maritime/ind	1920-1945	DSCN0333.jpg	Maritime - Fishing p	SA1f	
1_SA1f		sumpwams	Rd	babylon	post wwii	maritime/ind	1945-1960	DSCN0170.jpg	Maritime - Fishing p	SA1f	
222_SA1f	58	bay view	Ave	babylon	early suburban	residential	1920-1945	DSCN0442.jpg	Vacation - Cottage	SA1f	106_434.00

106_SA1f	52	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0300.jpg	Minimal Traditional	SA1f	106_570.00
56_SA1f	142	the crescent		babylon	postwar suburban	residential	1945-1960	DSCN0229.jpg	Ranch	SA1f	105_595.00
171_SA1f		sequams lane cntr		islip				DSCN0386.jpg	Split Level	SA1f	105_1031.00
86_SA1f	160	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0276.jpg	Craftsman	SA1f	106_587.00
32_SA1f	15	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0208.jpg	Minimal Traditional	SA1f	105_669.00
132_SA1f		post	Pl	babylon	postwar suburban	maritime/ind	1945-1960	DSCN0334.jpg	Maritime - Fishing p	SA1f	105_773.00
114_SA1f		sumpwams		babylon	postwar suburban	residential	1945-1960	DSCN0313.jpg	Cape Cod Revival	SA1f	105_792.00
204_SA1f	571	fire island	Ave	babylon	early suburban	residential	1920-1945	DSCN0418.jpg	Vacation home - Cott	SA1f	106_716.00
125_SA1f	48	robbins	Ave	babylon	early suburban	residential	1890-1920	DSCN0327.jp.jpg	Folk Victorian	SA1f	105_837.00
55_SA1f		the crescent		babylon	early suburban	residential	1890-1920	DSCN0230.jpg	Folk Victorian	SA1f	105_804.00
153_SA1f		sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0362.jpg	Colonial Revival	SA1f	105_1056.00
146_SA1f	134	sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0351.jpg	Minimal Traditional	SA1f	105_1075.00
43_SA1f		annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0220.jpg	Split Level	SA1f	106_650.00
191_SA1f	147	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0407.jpg	Cape Cod Revival	SA1f	106_643.00
192_SA1f		annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0409.jpg	Modern	SA1f	106_627.00
178_SA1f		eaton		islip	early suburban	residential	1920-1945	DSCN0394.jpg	Colonial Revival	SA1f	109_1092.00
169_SA1f	258	sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0384.jpg	Cape Cod Revival	SA1f	105_1036.00
105_SA1f		araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0298.jpg	Bungalow	SA1f	106_591.50
83_SA1f	150	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0272.jpg	Craftsman	SA1f	106_589.20
154_SA1f	128	sequams lane cntr		islip	industrialization	residential	1920-1945	DSCN0363.jpg	Colonial Revival	SA1f	105_1019.00
12_SA1f	10	shore	Rd	babylon	early nationhood	residential	1800-1840	DSCN0183.jpg	Colonial / Vernacula	SA1f	105_532.00
24_SA1f	30	willow	St	babylon	industrialization	residential	1865-1890	DSCN0198.jpg	Folk Victorian	SA1f	105_498.00
99_SA1f	72	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0291.jpg	Bungalow	SA1f	106_575.00
20_SA1f		prospect	St	babylon	early nationhood	residential	1800-1840	DSCN0191.jpg	Colonial / Vernacula	SA1f	105_501.00
17_SA1f	3	shore	Rd	babylon	early suburban	maritime/ind	1865-1890	DSCN0188.jpg	Maritime - Fishing p	SA1f	105_564.00
21_SA1f	31	willow	St	babylon	early nationhood	residential	1800-1840	DSCN0194.jpg	Colonial / Vernacula	SA1f	105_568.00
107_SA1f		araca	Rd	babylon	early suburban	residential	1945-1960	DSCN0301.jpg	Ranch	SA1f	105_569.00
2_SA1f		sumpwams	Rd	babylon	early suburban	residential	1920-1945	DSCN0176.jpg	Bungalow	SA1f	105_319.00
90_SA1f		araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0280.jpg	Bungalow	SA1f	106_590.70
13_SA1f		shore	Rd	babylon	early nationhood	residential	1800-1840	DSCN0184.jpg	Colonial / Vernacula	SA1f	105_533.00
63_SA1f	84	sumpwams	Pl	babylon	early suburban	residential	1920-1945	DSCN0244.jpg	Colonial Revival	SA1f	105_281.00
22_SA1f	36	willow	St	babylon	early nationhood	residential	1800-1840	DSCN0199.jpg	Colonial / Vernacula	SA1f	105_499.00
51_SA1f	148	the crescent		babylon	postwar suburban	residential	1945-1960	DSCN0228.jpg	Modern	SA1f	105_594.00
48_SA1f	187	cedar	la	babylon				DSCN0225.jpg	Ranch	SA1f	105_561.00
60_SA1f	116	the crescent		babylon	early suburban	residential	1920-1945	DSCN0240.jpg	Colonial Revival	SA1f	105_805.00
61_SA1f	110	the crescent		babylon	early suburban	residential	1920-1945	DSCN0241.jpg	Colonial Revival	SA1f	105_807.00
47_SA1f		cedar	la	babylon	postwar suburban	residential	1945-1960	DSCN0224.jpg	Modern	SA1f	105_560.00

46_SA1f	179	cedar	la	babylon	postwar suburban	residential	1945-1960	DSCN0223.jpg	Modern	SA1f	105_559.00
45_SA1f		cedar	la	babylon	postwar suburban	residential	1945-1960	DSCN0222.jpg	Modern	SA1f	105_337.00
50_SA1f	149	the crescent		babylon	postwar suburban	residential	1945-1960	DSCN0227.jpg	Minimal Traditional	SA1f	105_598.00
64_SA1f	83	sumpwams	Pl	babylon	postwar suburban	residential	1945-1960	DSCN0245.jpg	Modern	SA1f	105_280.00
44_SA1f	222	cedar		babylon	early suburban	residential	1890-1920	DSCN0221.jpg	Folk Victorian	SA1f	105_671.00
67_SA1f		overton	Pl	babylon	early suburban	residential	1920-1945	DSCN0248.jpg	Cape Cod Revival	SA1f	105_283.00
49_SA1f	191	cedar	la	babylon	postwar suburban	residential	1945-1960	DSCN0226.jpg	Modern	SA1f	105_593.00
172_SA1f		sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0387.jpg	Cape Cod Revival	SA1f	105_1043.00
163_SA1f	146	eaton		islip	early suburban	residential	1920-1945	DSCN0373.jpg	Colonial Revival	SA1f	109_1112.00
23_SA1f	25	willow	St	babylon	early nationhood	residential	1800-1840	DSCN0197.jpg	Colonial Revival	SA1f	105_569.00
11_SA1f	22	shore	Rd	babylon	industrialization	residential	1890-1920	DSCN0181.jpg	Folk Victorian	SA1f	105_535.00
69_SA1f	15	sumpwams	Pl	babylon	early suburban	residential	1920-1945	DSCN0251.jpg	Colonial Revival	SA1f	105_539.00
26_SA1f	122	prospect	St	babylon	early nationhood	residential	1800-1840	DSCN0201.jpg	Colonial / Vernacula	SA1f	105_528.00
111_SA1f		yacht club	Rd	babylon	postwar suburban	resort	1945-1960	DSCN0307.jpg	Hotels / Motels	SA1f	106_764.10
175_SA1f	188	sequams lane cntr		islip	postwar suburban	residential	1945-1960	DSCN0390.jpg	Minimal Traditional	SA1f	105_1026.00
119_SA1f	8	lewis		babylon	postwar suburban	residential	1945-1960	DSCN0318.jpg	Split Level	SA1f	105_829.00
164_SA1f	165	eaton		islip	postwar suburban	residential	1945-1960	DSCN0374.jpg	Ranch	SA1f	109_1106.00
176_SA1f	174	sequams lane cntr		islip	postwar suburban	residential	1945-1960	DSCN0391.jpg	Minimal Traditional	SA1f	105_1025.00
158_SA1f	157	sequams lane cntr		islip	early suburban	residential	1920-1945	DSCN0368.jpg	Colonial Revival	SA1f	105_1053.00
138_SA1f		sequams lane east		islip	early suburban	resort	1890-1920	DSCN0342.jpg	Landscape features /	SA1f	105_1084.00
137_SA1f		sequams lane east		islip	early suburban	resort	1890-1920	DSCN0343.jpg	Recreation	SA1f	105_1085.00
161_SA1f	247	eaton		islip	early suburban	residential	1920-1945	DSCN0371.jpg	Colonial Revival	SA1f	109_1110.00
162_SA1f		eaton		islip	early suburban	residential	1920-1945	DSCN0372.jpg	Colonial Revival	SA1f	109_1108.00
75_SA1f		sumpwams		babylon	early suburban	residential	1890-1920	DSCN0261.jpg	Colonial Revival	SA1f	105_543.00
74_SA1f		cormack		babylon				DSCN0260.jpg	Folk Victorian	SA1f	105_422.00
29_SA1f		fire island	Ave	babylon	postwar suburban	institutional	1945-1960	DSCN0205.jpg	Modern	SA1f	106_731.00
200_SA1f	523	fire island	Ave	babylon	early suburban	resort	1920-1945	DSCN0414.jpg	Vacation home - Cott	SA1f	105_688.00
108_SA1f	49	araca	Rd	babylon	postwar suburban	residential	1945-1960	DSCN0302.jpg	Minimal Traditional	SA1f	105_591.70
97_SA1f	82	araca	St	babylon	postwar suburban	residential	1945-1960	DSCN0289.jpg	Ranch	SA1f	106_577.00
95_SA1f	96	araca	Rd	babylon	early suburban	residential	1920-1945	DSCN0285.jpg	Bungalow	SA1f	106_579.00
7_SA1f				islip	early suburban	maritime/ind	1890-1920	DSCN0177.jpg	Recreation-boat hous	SA1f	
190_SA1f	150	annuskemunncia		babylon	postwar suburban	residential	1945-1960	DSCN0406.jpg	Ranch	SA1f	106_628.00
195_SA1f	420	fire island	Ave	babylon	postwar suburban	residential	1945-1960	DSCN0412.jpg	Ranch	SA1f	105_683.00
142_SA1f		sequams lane east		islip	postwar suburban	resort	1920-1945	DSCN0347.jpg	Maritime - one room	SA1f	
62_SA1f	111	the crescent		babylon	early suburban	residential	1890-1920	DSCN0242.jpg	Georgian revival	SA1f	105_806.00
124_SA1f	266	fire island	Ave	babylon				DSCN0323.jpg	Folk Victorian	SA1f	105_848.00
57_SA1f		lighthouse		babylon	early suburban	resort	1920-1945	DSCN0237.jpg		SA1f	

30_SA1f				babylon	early suburban	resort	1890-1920	DSCN0206.jpg		SA1f	
123_SA1f		Fire Isld & Virginia	AVE	babylon	early suburban	transportation	1890-1920	DSCN0322.jpg		SA1f	
102_SA1f		araca	Rd	babylon	early suburban	residential	1890-1920	DSCN0295.jpg		SA1f	
58_SA1f		lighthouse		babylon	early suburban	resort	1920-1945	DSCN0238.jpg		SA1f	
135_SA1f		eaton		islip	early suburban	resort	1890-1920	DSCN0339.jpg		SA1f	
77_SA1f		araca		babylon	early suburban	resort	1920-1945	DSCN0265.jpg		SA1f	
10_SA1f				babylon/islip	early nationhood	maritime/ind	1800-1840	DSCN0180.jpg	SA1f		
18_SA1f		willow	St	babylon/islip	early nationhood	maritime/ind	1800-1840	DSCN0190.jpg	SA1f		
110_SA1f				babylon	early suburban	residential	1920-1945	DSCN0305.jpg	SA1f		
70_SA1f		sumpwams	Pl	babylon	early suburban	residential	1920-1945	DSCN0252.jpg	SA1f		
152_SA1f		sequams way		islip	early suburban	residential	1920-1945	DSCN0361.jpg	SA1f		
151_SA1f		sequams way		islip	early suburban	maritime/ind	1920-1945	DSCN0359.jpg	SA1f		
133_SA1f		post	Pl	babylon	POST WWII	maritime/ind	1945-1960	DSCN0337.jpg	SA1f		
149_SA1f		sequams lane east		islip	postwar suburban	residential	1945-1960	DSCN0356.jpg	SA1f		
72_SA1f		hewlett		babylon	early suburban	residential	1890-1920	DSCN0255.jpg	SA1f		
126_SA1f		robbins - west of fi		babylon	early suburban	suburb/resort	1890-1920	DSCN0324.jpg	SA1f		
73_SA1f		cormack		babylon	early suburban	residential	1890-1920	DSCN0257.jpg	SA1f		
71_SA1f		hewlett		babylon	early suburban	residential		DSCN0254.jpg	SA1f		

Residential District Area – 3D

SURVEY_ID	Address or Street Location	STREET_NAM	STREET_SUF	Village/Hamlet:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
15_SA3d	5	beach		patchogue	early suburban	residential	1920-1945	DSCN0527.jpg	Bungalow	SA3d	153_609.00
27_SA3d		ocean	Ave	patchogue	early suburban	residential	1890-1920	DSCN0542.jpg	Folk Victorian	SA3d	153_651.00
97_SA3d		west		patchogue	early suburban	residential	1890-1920	DSCN0656.jpg	Colonial Revival	SA3d	152_341.00
76_SA3d	4	leo		patchogue	early suburban	residential	1920-1945	DSCN0632.jpg	Craftsman	SA3d	153_984.00
36_SA3d		maiden	la	patchogue	industrialization	residential	1865-1890	DSCN0551.jpg	Italianate/2nd empir	SA3d	153_1009.00
70_SA3d		rider		patchogue	postwar suburban	residential	1945-1960	DSCN0625.jpg	Colonial Revival	SA3d	153_997.00
90_SA3d		laurel		patchogue	early suburban	residential	1920-1945	DSCN0649.jpg	Bungalow	SA3d	153_373.00
91_SA3d	107	laurel		patchogue	early suburban	residential	1920-1945	DSCN0650.jpg	Minimal Traditional	SA3d	153_372.00
49_SA3d	13	sunset	la	patchogue				DSCN0601.jpg	Bungalow	SA3d	153_160.00
62_SA3d	32	smith	St	patchogue	early suburban	resort	1920-1945	DSCN0616.jpg	Vacation home - Cott	SA3d	153_1023.00
60_SA3d	47	smith	St	patchogue	early suburban	resort	1920-1945	DSCN0614.jpg	Vacation home - Cott	SA3d	153_1029.00
68_SA3d		rider		patchogue	early suburban	residential	1920-1945	DSCN0623.jpg	Colonial Revival	SA3d	153_1026.00
57_SA3d		smith	St	patchogue	early suburban	resort	1920-1945	DSCN0611.jpg	Vacation home - Cott	SA3d	153_1024.00
71_SA3d	388	rider		patchogue	early suburban	residential	1945-1960	DSCN0626.jpg	Ranch	SA3d	153_996.00
42_SA3d		smith		patchogue	early suburban	residential	1890-1920	DSCN0558.jpg	Folk Victorian	SA3d	153_1001.00

37_SA3d	575	ocean		patchogue	industrialization	residential	1840-1865	DSCN0553.jpg	Greek Revival	SA3d	153_1014.00
58_SA3d	43	smith	St	patchogue	early suburban	resort	1920-1945	DSCN0612.jpg	Vacation home - Cott	SA3d	153_1027.00
96_SA3d				patchogue	early suburban	maritime/ind	1890-1920	DSCN0655.jpg	Maritime - Fishing p	SA3d	152_315.00
19_SA3d		pine		patchogue	early suburban	resort	1920-1945	DSCN0531.jpg	Vacation home - Cott	SA3d	153_590.00
72_SA3d		rider		patchogue	postwar suburban	residential	1945-1960	DSCN0627.jpg	Minimal Traditional	SA3d	153_995.00
32_SA3d	29	maiden	la	patchogue	early suburban	residential	1890-1920	DSCN0547.jpg	Queen Anne	SA3d	153_660.00
78_SA3d		ocean	Ave	patchogue	early suburban	resort	1890-1920	DSCN0635.jpg	Hotels / Motels	SA3d	153_975.00
77_SA3d	3	leo		patchogue	early suburban	residential	1920-1945	DSCN0633.jpg	Craftsman	SA3d	153_983.00
61_SA3d	49	smith	St	patchogue	early suburban	residential	1920-1945	DSCN0615.jpg	Vacation home - Cott	SA3d	
56_SA3d		crescent		patchogue	early suburban	maritime/ind	1920-1945	DSCN0610.jpg	Maritime - Fishing p	SA3d	
98_SA3d	250	west		patchogue	early suburban	residential	1920-1945	DSCN0657.jpg	Colonial Revival	SA3d	152_349.00
16_SA3d	1	beach		patchogue	early suburban	residential	1920-1945	DSCN0528.jpg	Tudor	SA3d	153_602.00
83_SA3d		dock	St	patchogue	early suburban	residential	1920-1945	DSCN0641.jpg	Vacation home - Cott	SA3d	153_628.00
81_SA3d	39	brightwood		patchogue	early suburban	residential	1920-1945	DSCN0639.jpg	Vacation home - Cott	SA3d	153_632.00
82_SA3d	37	brightwood		patchogue	early suburban	residential	1920-1945	DSCN0638.jpg	Vacation home - Cott	SA3d	153_634.00
23_SA3d		beach		patchogue	early suburban	residential	1920-1945	DSCN0537.jpg	Vacation home - Cott	SA3d	153_594.00
22_SA3d		willow		patchogue	early suburban	residential	1920-1945	DSCN0536.jpg	Vacation home - Cott	SA3d	153_591.00
55_SA3d		crescent		patchogue	postwar suburban	maritime/ind	1945-1960	DSCN0609.jpg	Recreation	SA3d	153_202.00
86_SA3d		argyle		patchogue	early suburban	residential	1920-1945	DSCN0644.jpg	Colonial Revival	SA3d	153_378.00
80_SA3d	43	brightwood		patchogue	early suburban	residential	1920-1945	DSCN0640.jpg	Bungalow	SA3d	153_631.00
93_SA3d	100	laurel		patchogue	early suburban	residential	1920-1945	DSCN0652.jpg	Minimal Traditional	SA3d	153_378.00
63_SA3d	30	smith	St	patchogue	early suburban	resort	1920-1945	DSCN0617.jpg	Vacation home - Cott	SA3d	153_1022.00
59_SA3d	45	smith	St	patchogue	early suburban	resort	1920-1945	DSCN0613.jpg	Vacation home - Cott	SA3d	153_1028.00
65_SA3d		smith	St	patchogue	early suburban	residential	1920-1945	DSCN0619.jpg	Vacation home - Cott	SA3d	153_1019.00
48_SA3d	11	sunset	la	patchogue	postwar suburban	residential	1945-1960	DSCN0600.jpg	Minimal Traditional	SA3d	153_158.00
52_SA3d	37	mapes	Ave	patchogue	postwar suburban	residential	1945-1960	DSCN0604.jpg	Ranch	SA3d	153_174.00
46_SA3d	14	sunset	la	patchogue	postwar suburban	resort	1945-1960	DSCN0598.jpg	Minimal Traditional	SA3d	153_157.00
47_SA3d	16	sunset	la	patchogue	postwar suburban	residential	1945-1960	DSCN0599.jpg	Minimal Traditional	SA3d	153_159.00
53_SA3d	20	mapes	Ave	patchogue	postwar suburban	residential	1945-1960	DSCN0606.jpg	Minimal Traditional	SA3d	153_173.00
88_SA3d		argyle		patchogue	early suburban	residential	1920-1945	DSCN0647.jpg	Folk Victorian	SA3d	153_518.00
89_SA3d	111	laurel		patchogue	early suburban	residential	1920-1945	DSCN0648.jpg	Bungalow	SA3d	153_374.00
67_SA3d	18	smith	St	patchogue	early suburban	residential	1920-1945	DSCN0621.jpg	Vacation home - Cott	SA3d	153_1016.00
64_SA3d	25	smith	St	patchogue	early suburban	residential	1920-1945	DSCN0618.jpg	Colonial / Vernacu	SA3d	153_999.00
92_SA3d	105	laurel		patchogue	early suburban	residential	1920-1945	DSCN0651.jpg	Bungalow	SA3d	153_371.00
40_SA3d		ocean	Ave	patchogue	early nationhood	residential	1840-1865	DSCN0562.jpg	Colonial Revival	SA3d	
45_SA3d	12	sunset	la	patchogue	postwar suburban	resort	1945-1960	DSCN0597.jpg	Vacation home - Cott	SA3d	153_156.00
79_SA3d		roosevelt		patchogue	early suburban	residential	1920-1945	DSCN0637.jpg	Bungalow	SA3d	153_640.00

21_SA3d		willow		patchogue	early suburban	residential	1920-1945	DSCN0534.jpg	Vacation home - Cott	SA3d	153_587.00
14_SA3d	17	beach		patchogue	early suburban	residential	1920-1945	DSCN0526.jpg	Bungalow	SA3d	153_617.00
41_SA3d		ocean		patchogue	early suburban	residential	1865-1890	DSCN0559.jpg	Folk Victorian	SA3d	153_1003.00
75_SA3d	5	leo		patchogue	early suburban	residential	1920-1945	DSCN0634.jpg	Craftsman	SA3d	153_985.00
30_SA3d		maiden	la	patchogue	early suburban	residential	1890-1920	DSCN0545.jpg	Folk Victorian	SA3d	153_654.00
87_SA3d	20	argyle		patchogue	early suburban	residential	1890-1920	DSCN0645.jpg	Bungalow	SA3d	153_521.00
13_SA3d	83	brightwood		patchogue	early suburban	residential	1890-1920	DSCN0525.jpg	Folk Victorian	SA3d	153_619.00
95_SA3d				patchogue	early suburban	residential	1920-1945	DSCN0654.jpg	Bungalow	SA3d	152_345.00
66_SA3d	15	smith	St	patchogue	early suburban	resort	1920-1945	DSCN0622.jpg	Vacation home - Cott	SA3d	153_1000.00
43_SA3d	564	ocean		patchogue	early suburban	residential	1890-1920	DSCN0557.jpg	Bungalow	SA3d	153_1008.00
39_SA3d	556	ocean		patchogue	early	commercial	1865-1890	DSCN0554.jpg	19th c Commercial	SA3d	
34_SA3d	17	maiden	la	patchogue	early suburban	residential	1890-1920	DSCN0549.jpg	Bungalow	SA3d	153_1011.00
29_SA3d	41	maiden	la	patchogue	early suburban	residential	1890-1920	DSCN0544.jpg	Folk Victorian	SA3d	153_655.00
73_SA3d	10	leo		patchogue	postwar suburban	residential	1945-1960	DSCN0629.jpg	Minimal Traditional	SA3d	153_990.00
35_SA3d		maiden	la	patchogue	industrialization	residential	1865-1890	DSCN0550.jpg	Italianate	SA3d	
85_SA3d		laurel		patchogue	early suburban	residential	1920-1945	DSCN0643.jpg	Colonial Revival	SA3d	153_377.00
44_SA3d	10	sunset	la	patchogue	postwar suburban	resort	1945-1960	DSCN0596.jpg	Minimal Traditional	SA3d	153_155.00
51_SA3d	84	sunset	Ave	patchogue	early suburban	residential	1945-1960	DSCN0605.jpg	Ranch	SA3d	153_172.00
74_SA3d	7	leo		patchogue	postwar suburban	residential	1945-1960	DSCN0630.jpg	Minimal Traditional	SA3d	153_987.00
25_SA3d		brightwood	St	patchogue	early suburban	residential	1890-1920	DSCN0540.jpg	Colonial Revival	SA3d	153_642.00
26_SA3d		brightwood	St	patchogue	early suburban	residential	1890-1920	DSCN0539.jpg	Craftsman	SA3d	153_648.00
33_SA3d	23	maiden	la	patchogue	early suburban	residential	1890-1920	DSCN0548.jpg	Colonial Revival	SA3d	153_659.00
28_SA3d		cedar	Ave	patchogue	early suburban	residential	1890-1920	DSCN0543.jpg	Craftsman	SA3d	153_650.00
69_SA3d		rider		patchogue	postwar suburban		1945-1960	DSCN0624.jpg		SA3d	
31_SA3d		maiden	la	patchogue	early suburban	residential	1890-1920	DSCN0546.jpg		SA3d	
24_SA3d				patchogue	early suburban	resort	1890-1920	DSCN0538.jpg		SA3d	
18_SA3d		pine		patchogue	early suburban	resort	1920-1945	DSCN0530.jpg		SA3d	
54_SA3d				patchogue				DSCN0608.jpg		SA3d	153_611.00
20_SA3d		willow		patchogue	early suburban	resort	1920-1945	DSCN0533.jpg		SA3d	
50_SA3d		sunset + price		patchogue	early suburban	residential	1945-1960	DSCN0602.jpg		SA3d	
94_SA3d		laurel fom ocean		patchogue	early suburban	residential	1920-1945	DSCN0653.jpg		SA3d	
84_SA3d		south of laurel to		patchogue	early suburban	residential	1890-1920	DSCN0642.jpg		SA3d	

Residential District Area – 4A

SURVEY_ ID	Address or Street Location:	STREET_NAM	STREET_ SUF	Village/ Hamlet:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
22_SA4a				bellport	postwar suburban	residential	1945-1960	DSCN0770.jpg	Ranch	SA4a	161_46.00
20_SA4a		williams		bellport	postwar suburban	residential	1945-1960	DSCN0766.jpg	Ranch	SA4a	
5_SA4a	39	reels			early suburban	residential	1920-1945	DSCN0750.jpg	Bungalow	SA4a	161_377.00
19_SA4a	17	williams		bellport	postwar suburban	residential	1945-1960	DSCN0765.jpg	Minimal Traditional	SA4a	161_51.00
2_SA4a								DSCN0747.jpg	Modern	SA4a	161_368.00
39_SA4a		shore	Rd	bellport	postwar suburban	residential	1945-1960	DSCN0796.jpg	Minimal Traditional	SA4a	161_112.00
10_SA4a		s. dunton	Ave	bellport	early suburban	residential	1920-1945	DSCN0756.jpg	Bungalow	SA4a	161_383.00
38_SA4a		elgin	Pl	bellport	early suburban	residential	1920-1945	DSCN0793.jpg	Minimal Traditional	SA4a	161_114.00
8_SA4a	12	yacht	Rd	bellport	early suburban	residential	1920-1945	DSCN0755.jpg	Vacation - Cottage	SA4a	161_379.00
1_SA4a					early suburban	residential	1920-1945	DSCN0745.jpg	Colonial Revival	SA4a	161_369.00
3_SA4a		s. dunton	Ave		early suburban	residential	1920-1945	DSCN0748.jpg	Bungalow	SA4a	161_367.00
33_SA4a		ocean	Ave	bellport	early suburban	institutional	1920-1945	DSCN0785.jpg	Institutional - Cult	SA4a	161_99.00
7_SA4a		s. dunton		bellport	early suburban	residential	1920-1945	DSCN0753.jpg	Bungalow	SA4a	161_366.00
13_SA4a		s. dunton		bellport	early suburban	residential	1920-1945	DSCN0760.jpg	Cape Cod Revival	SA4a	161_384.00
40_SA4a		shore	Rd	bellport	early suburban	residential	1920-1945	DSCN0798.jpg	Vacation home - Cott	SA4a	161_103.00
11_SA4a		s. dunton	Ave	bellport	early suburban	residential	1945-1960	DSCN0757.jpg	Ranch	SA4a	
4_SA4a	305	s. dunton			early suburban	residential	1920-1945	DSCN0749.jpg	Bungalow	SA4a	
17_SA4a		williams		bellport	early suburban	residential	1920-1945	DSCN0763.jpg	Minimal Traditional	SA4a	161_48.00
28_SA4a		wall	St	bellport	postwar suburban	residential	1945-1960	DSCN0777.jpg	Ranch	SA4a	161_58.00
6_SA4a	37	reels			early suburban	residential	1920-1945	DSCN0751.jpg	Bungalow	SA4a	161_375.00
24_SA4a		summit		bellport	early suburban	residential	1920-1945	DSCN0772.jpg	Colonial Revival	SA4a	161_35.00
31_SA4a		summit		bellport	postwar suburban	residential	1945-1960	DSCN0781.jpg	Minimal Traditional	SA4a	161_68.00
21_SA4a		summit		bellport	early suburban	residential	1920-1945	DSCN0768.jpg	Cape Cod Revival	SA4a	
23_SA4a	22	williams		bellport	postwar suburban	residential	1945-1960	DSCN0771.jpg	Ranch	SA4a	161_45.00
15_SA4a	247	s. dunton	Ave	bellport	early suburban	residential	1920-1945	DSCN0761.jpg	Colonial Revival	SA4a	161_385.00
29_SA4a	4	brown		bellport	postwar suburban	residential	1945-1960	DSCN0777.jpg	Ranch	SA4a	161_54.00
27_SA4a		wall	St	bellport	postwar suburban	residential	1945-1960	DSCN0776.jpg	Ranch	SA4a	161_59.00
26_SA4a		roosevelt	Blvd	bellport	early suburban	residential	1945-1960	DSCN0774.jpg	Ranch	SA4a	161_39.00
12_SA4a	266	s. dunton	Ave	bellport				DSCN0759.jpg	Minimal Traditional	SA4a	
18_SA4a		williams		bellport	early suburban	residential	1920-1945	DSCN0764.jpg	Cape Cod Revival	SA4a	161_49.00
37_SA4a		shore	Rd	bellport	postwar suburban	residential	1945-1960	DSCN0792.jpg	Modern	SA4a	161_113.00
32_SA4a		summit		bellport	postwar suburban	residential	1945-1960	DSCN0782.jpg	Minimal Traditional	SA4a	
30_SA4a		summit		bellport	early suburban	transportation	1920-1945	DSCN0780.jpg		SA4a	
35_SA4a		ocean	Ave	bellport	early suburban	institutional	1920-1945	DSCN0788.jpg		SA4a	

34_SA4a		ocean	Ave	bellport	early suburban	resort	1920-1945	DSCN0787.jpg		SA4a	
36_SA4a				bellport	early suburban	maritime/ind	1920-1945	DSCN0790.jpg		SA4a	
9_SA4a				bellport	early suburban	residential	1920-1945	DSCN0754.jpg		SA4a	
16_SA4a		s. dunton	Ave	bellport	early suburban	residential	1920-1945	DSCN0762.jpg		SA4a	
41_SA4a		roosevelt, shore, su		bellport	early suburban	residential	1920-1945	DSCN0800.jpg		SA4a	

Residential District Area – 4F

SURVEY_ID	Address or Street	STREET_NAM	STREET_SUF	Village/Hamlet:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
33_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0420.jpg	Vac home - Cottage	SA4f	186_235.00
36_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0423.jpg	Modern	SA4f	185_230.00
22_SA4f	66	longfellow	Rd	mastic	early suburban	residential	1920-1945	DSCN0409.jpg	Vacation home - Cott	SA4f	185_738.00
57_SA4f	17	west	dr	mastic	early suburban	residential	1920-1945	DSCN0460.jpg	Vacation home - Cott	SA4f	
43_SA4f				mastic	early suburban	residential	1920-1945	DSCN0430.jpg	Vacation home - Cott	SA4f	185_240.00
23_SA4f		beaver		mastic	early suburban	residential	1920-1945	DSCN0410.jpg	Vacation home - Cott	SA4f	185_269.00
42_SA4f				mastic	post WWII	residential	1945-60	DSCN0429.jpg	Ranch	SA4f	185_238.00
2_SA4f	9	riveria		mastic	early suburban	residential	1920-1945	DSCN0381.jpg	Vacation home - Cott	SA4f	191_852.00
37_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0424.jpg	Vacation home - Cott	SA4f	185_229.00
1_SA4f		park		mastic	early suburban	residential	1920-1945	DSCN0380.jpg	Ranch	SA4f	191_854.00
54_SA4f				mastic	early suburban	residential	1920-1945	DSCN0444.jpg	Vacation home - Cott	SA4f	185_187.00
28_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0415.jpg	Vacation home - Cott	SA4f	185_258.00
11_SA4f		riveria		mastic	early suburban	commercial	1920-1945	DSCN0391.jpg	20th c Commercial	SA4f	185_832.00
31_SA4f	80	laffayette		mastic	early suburban	residential	1920-1945	DSCN0418.jpg	Vacation home - Cott	SA4f	185_260.00
16_SA4f	118	riveria	Rd	mastic	early suburban	residential	1920-1945	DSCN0400.jpg	Split Level	SA4f	185_747.00
35_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0422.jpg	Vacation home - Cott	SA4f	185_231.00
30_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0418.jpg	Vacation home - Cott	SA4f	185_259.00
27_SA4f		elm		mastic	early suburban	residential	1920-1945	DSCN0414.jpg	Vacation home - Cott	SA4f	185_257.00
24_SA4f	19	beaver		mastic	early suburban	residential	1920-1945	DSCN0411.jpg	Vacation home - Cott	SA4f	185_268.00
7_SA4f		riveria		mastic	early suburban	residential	1920-1945	DSCN0387.jpg	Ranch	SA4f	185_835.00
50_SA4f		forest		mastic	early suburban	residential	1945-1960	DSCN0440.jpg	Vacation home - Cott	SA4f	185_212.00
49_SA4f		forest			early suburban	residential	1920-1945	DSCN0439.jpg	Vacation home - Cott	SA4f	185_213.00
38_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0425.jpg	Vacation home - Cott	SA4f	185_199.00
34_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0421.jpg	Minimal Traditional	SA4f	185_233.00
48_SA4f	164	forest		mastic	early suburban	residential	1920-1945	DSCN0438.jpg	Cape Cod Revival	SA4f	185_210.00
47_SA4f		forest		mastic	early suburban	residential	1920-1945	DSCN0437.jpg	Cape Cod Revival	SA4f	185_220.00
41_SA4f		grove		mastic	early suburban	residential	1920-1945	DSCN0428.jpg	Vacation home - Cott	SA4f	185_228.00
39_SA4f		laffayette		mastic	early suburban	residential	1920-1945	DSCN0426.jpg	Minimal Traditional	SA4f	185_200.00

13_SA4f		elm	Rd	mastic	early suburban	residential	1920-1945	DSCN0393.jpg	Cape Cod Revival	SA4f	185_826.00
21_SA4f	62	longfellow	Rd	mastic	early suburban	residential	1920-1945	DSCN0408.jpg	Split Level	SA4f	185_739.00
4_SA4f		riveria		mastic	early suburban	residential	1920-1945	DSCN0383.jpg	Vacation home - Cott	SA4f	191_846.00
9_SA4f	79	riveria		mastic	early suburban	residential	1920-1945	DSCN0389.jpg	Vacation home - Cott	SA4f	185_834.00
3_SA4f	8	riveria		mastic	early suburban	residential	1920-1945	DSCN0382.jpg	Vacation home - Cott	SA4f	191_853.00
6_SA4f	39	washington		mastic	early suburban	residential	1920-1945	DSCN0386.jpg	Vacation home - Cott	SA4f	185_844.00
5_SA4f		riveria		mastic	early suburban	residential	1920-1945	DSCN0385.jpg	Vacation home - Cott	SA4f	191_845.00
14_SA4f	67	elm	Rd	mastic	postwar suburban	residential	1945-1960	DSCN0394.jpg	Split Level	SA4f	185_749.00
12_SA4f		riveria		mastic	early suburban	residential	1920-1945	DSCN0392.jpg	Ranch	SA4f	
15_SA4f	72	riveria		mastic	early suburban	residential	1920-1945	DSCN0398.jpg	Vacation home - Cott	SA4f	185_748.00
17_SA4f		riveria	Rd	mastic	early suburban	residential	1920-1945	DSCN0401.jpg	Minimal Traditional	SA4f	185_746.00
18_SA4f	45	longfellow	Rd	mastic	early suburban	residential	1920-1945	DSCN0404.jpg	Ranch	SA4f	185_743.00
59_SA4f	33	magnolia		mastic	e. suburban	residential	1900-1945	DSCN0464.jpg	Minimal Traditional	SA4f	
19_SA4f	37	longfellow	Rd	mastic	postwar suburban	residential	1945-1960	DSCN0406.jpg	Vacation home - Cott	SA4f	185_744.00
20_SA4f	56	longfellow	Pl	mastic	early suburban	residential	1920-1945	DSCN0407.jpg	Vacation home - Cott	SA4f	185_740.00
32_SA4f	15	laffayette		mastic	postwar suburban	residential	1945-1960	DSCN0419.jpg	Vacation home - Cott	SA4f	186_236.00
25_SA4f	53	beaver		mastic	early suburban	residential	1920-1945	DSCN0412.jpg	Colonial Revival	SA4f	185_560.00
40_SA4f		grove		mastic	early suburban	residential	1920-1945	DSCN0427.jpg	Vacation home - Cott	SA4f	185_227.00
46_SA4f		forest		mastic	early suburban	residential	1920-1945	DSCN0436.jpg	Cape Cod Revival	SA4f	185_244.00
44_SA4f				mastic	early suburban	residential	1920-1945	DSCN0431.jpg	Vacation home - Cott	SA4f	185_241.00
55_SA4f				mastic	early suburban	residential	1920-1945	DSCN0445.jpg	Vacation - Cottage	SA4f	185_110.00
53_SA4f		riviera		mastic	postwar suburban	residential	1945-1960	DSCN0443.jpg	Modern	SA4f	185_196.00
51_SA4f		hemlock		mastic	early suburban	residential	1920-1945	DSCN0441.jpg	Minimal Traditional	SA4f	185_193.00
56_SA4f				mastic	early suburban	residential	1920-1945	DSCN0446.jpg	Vacation home - Cott	SA4f	185_106.00
52_SA4f		hemlock		mastic	postwar suburban	residential	1920-1945	DSCN0442.jpg	Minimal Traditional	SA4f	185_197.00
29_SA4f		laffayette/elm		mastic	early suburban	residential	1920-1945	DSCN0416.jpg		SA4f	
45_SA4f		forest		mastic	early suburban	residential	1920-1945	DSCN0435.jpg		SA4f	185_243.00

Residential District Area – 5B

SURVEY_ID	Address or Street	STREET_NAM	STREET_SUF	Village/Hamlet:	Primary Context:	Secondary Context:	Period of Significanc	PHOTO	Building Type/Style:	Subarea	USACEID
34_SA5b	112	senix		moriches	early suburban	residential	1890-1920	DSCN0835.jpg	Colonial Revival	SA5b	189_300.00
44_SA5b		union	Ave	moriches	postwar suburban	commercial	1945-1960	DSCN0846.jpg	Maritime - Fishing p	SA5b	194_137.00
6_SA5b	5	merritt	la	moriches	early suburban	residential	1920-1945	DSCN0804.jpg	Colonial Revival	SA5b	193_324.00
65_SA5b		bay		moriches	postwar suburban	residential	1945-1960	DSCN0873.jpg	Minimal Traditional	SA5b	194_492.00
53_SA5b		inlet view	dr	moriches	postwar suburban	residential	1945-1960	DSCN0860.jpg	Cape Cod Revival	SA5b	194_168.00
22_SA5b		orchard neck		moriches	early suburban	residential	1920-1945	DSCN0823.jpg	Minimal Traditional	SA5b	193_378.00

68_SA5b	30	laura lee		moriches	early suburban	residential	1920-1945	DSCN0876.jpg	Bungalow	SA5b	194_3.00
57_SA5b		bayview		moriches	early suburban	residential	1920-1945	DSCN0865.jpg	Cape Cod Revival	SA5b	194_185.00
70_SA5b	28	laura lee		moriches	postwar suburban	residential	1945-1960	DSCN0878.jpg	Colonial Revival	SA5b	194_4.00
16_SA5b	30	orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0816.jpg	Minimal Traditional	SA5b	193_364.00
12_SA5b	16	orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0812.jpg	Minimal Traditional	SA5b	193_354.00
60_SA5b	9	laura lee		moriches	early suburban	residential	1920-1945	DSCN0868.jpg	Ranch	SA5b	194_14.00
5_SA5b		merritt	la	moriches	early suburban	residential	1920-1945	DSCN0802.jpg	Colonial Revival	SA5b	193_322.00
69_SA5b		winnie	Rd	moriches	early suburban	residential	1945-1960	DSCN0877.jpg	Minimal Traditional	SA5b	194_499.00
48_SA5b	129	union	Ave	moriches	early suburban	residential	1920-1945	DSCN0852.jpg	Minimal Traditional	SA5b	194_142.00
51_SA5b		inlet view	dr	moriches	postwar suburban	resort	1945-1960	DSCN0857.jpg	Cape Cod Revival	SA5b	194_170.00
62_SA5b	17	laura lee		moriches	postwar suburban	residential	1945-1960	DSCN0870.jpg	Ranch	SA5b	194_11.00
25_SA5b		south	St	moriches	early suburban	residential	1920-1945	DSCN0826.jpg	Minimal Traditional	SA5b	194_24.00
66_SA5b		laura lee		moriches	postwar suburban	residential	1945-1960	DSCN0874.jpg	Minimal Traditional	SA5b	194_495.00
30_SA5b	142	senix		moriches	early suburban	residential	1890-1920	DSCN0831.jpg	Italianate	SA5b	189_307.00
14_SA5b	24	orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0814.jpg	Cape Cod Revival	SA5b	193_359.00
32_SA5b	120	senix		moriches	early suburban	residential	1890-1920	DSCN0833.jpg	Italianate	SA5b	189_302.00
15_SA5b		orchard neck		moriches	early suburban	residential	1920-1945	DSCN0815.jpg	Cape Cod Revival	SA5b	193_361.00
27_SA5b		south	St	moriches	early suburban	resort	1920-1945	DSCN0828.jpg	Colonial Revival	SA5b	194_22.00
67_SA5b	32	laura lee		moriches	early suburban	resort	1920-1945	DSCN0875.jpg	Vacation home - Cott	SA5b	194_2.00
58_SA5b	6	bayview		moriches	early suburban	residential	1945-1960	DSCN0866.jpg	Minimal Traditional	SA5b	194_184.00
47_SA5b	131	union	Ave	moriches	early suburban	residential	1920-1945	DSCN0851.jpg	Cape Cod Revival	SA5b	194_141.00
41_SA5b		union	Ave	moriches	early suburban	institutional	1890-1920	DSCN0843.jpg	Recreation	SA5b	194_136.00
54_SA5b		ocean	Ave	moriches	postwar suburban	residential	1945-1960	DSCN0861.jpg	Minimal Traditional	SA5b	194_172.00
38_SA5b		old south neck	Rd	moriches	postwar suburban	residential	1945-1960	DSCN0840.jpg	Minimal Traditional	SA5b	189_274.00
23_SA5b	48	orchard neck		moriches	postwar suburban	residential	1920-1945	DSCN0824.jpg	Bungalow	SA5b	193_379.00
29_SA5b	207	belleview	St	moriches	postwar suburban	residential	1945-1960	DSCN0830.jpg	Split Level	SA5b	194_16.00
9_SA5b		orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0807.jpg	Colonial Revival	SA5b	193_344.00
43_SA5b		union	Ave	moriches	early suburban	maritime/ind	1890-1920	DSCN0844.jpg	Maritime - Fishing p	SA5b	194_138.00
33_SA5b	6	grove	St	moriches	early suburban	residential	1920-1945	DSCN0834.jpg	Minimal Traditional	SA5b	189_301.00
45_SA5b		union	Ave	moriches	early suburban	resort	1920-1945	DSCN0847.jpg	Bungalow	SA5b	194_139.00
55_SA5b	9	bayview		moriches	early suburban	residential	1920-1945	DSCN0862.jpg	Colonial / Verna	SA5b	194_186.00
31_SA5b	130	senix		moriches	early suburban	residential	1920-1945	DSCN0832.jpg	Craftsman	SA5b	189_305.00
64_SA5b	10	bay		moriches	postwar suburban	residential	1945-1960	DSCN0872.jpg	Minimal Traditional	SA5b	194_489.00
49_SA5b				moriches	postwar suburban	resort	1945-1960	DSCN0853.jpg	Hotels / Motels	SA5b	194_158.00
63_SA5b		bay		moriches	early suburban	resort	1920-1945	DSCN0871.jpg	Vacation - Cottage	SA5b	194_480.00
59_SA5b	7	laura lee		moriches	postwar suburban	resort	1945-1960	DSCN0867.jpg	Minimal Traditional	SA5b	194_15.00
26_SA5b		south	St	moriches	postwar suburban	resort	1945-1960	DSCN0827.jpg	Vacation home - Cott	SA5b	194_23.00

61_SA5b	15	laura lee		moriches	postwar suburban	residential	1945-1960	DSCN0869.jpg	Ranch	SA5b	194_12.00
52_SA5b		inlet view	dr	moriches	postwar suburban	residential	1945-1960	DSCN0856.jpg	Minimal Traditional	SA5b	194_169.00
50_SA5b				moriches	early suburban	resort	1890-1920	DSCN0855.jpg	Shingle / Stick	SA5b	194_156.00
11_SA5b		orchard neck		moriches	postwar suburban	residential	1945-1960	DSCN0811.jpg	Ranch	SA5b	193_348.00
17_SA5b		orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0818.jpg	Vacation - Cottage	SA5b	193_365.00
13_SA5b	18	orchard neck	Rd	moriches	early suburban	residential	1945-1960	DSCN0813.jpg	Minimal Traditional	SA5b	193_355.00
10_SA5b		orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0808.jpg	Minimal Traditional	SA5b	193_345.00
39_SA5b	6	old south neck	Rd	moriches	postwar suburban	residential	1945-1960	DSCN0841.jpg	Colonial Revival	SA5b	189_276.00
7_SA5b	7	merritt	la	moriches	early suburban	residential	1920-1945	DSCN0803.jpg	Colonial Revival	SA5b	193_323.00
21_SA5b		orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0822.jpg	Cape Cod Revival	SA5b	193_377.00
20_SA5b	43	orchard neck	Rd	moriches	postwar suburban	residential	1920-1945	DSCN0821.jpg	Minimal Traditional	SA5b	193_376.00
46_SA5b	11	convent	la	moriches	early suburban	institutional	1890-1920	DSCN0850.jpg	Shingle / Stick	SA5b	194_362.00
42_SA5b		union	Ave	moriches	early suburban	maritime/ind		DSCN0845.jpg		SA5b	
4_SA5b		red bridge + bellevi		moriches	postwar suburban	residential	1945-1960	DSCN0801.jpg		SA5b	
8_SA5b		orchard neck	Rd	moriches	early suburban	residential	1920-1945	DSCN0805.jpg		SA5b	
56_SA5b				moriches				DSCN0864.jpg		SA5b	
37_SA5b				moriches	industrialization	maritime/ind		DSCN0839.jpg		SA5b	
36_SA5b		old south neck	Rd	moriches	early suburban	resort	1890-1920	DSCN0838.jpg		SA5b	
18_SA5b				moriches	industrialization	maritime/ind	1890-1920	DSCN0819.jpg		SA5b	
28_SA5b		south	St	moriches	early suburban	resort	1920-1945	DSCN0829.jpg		SA5b	
24_SA5b				moriches	early suburban	residential	1890-1920	DSCN0825.jpg		SA5b	

Residential District Area – 6A

SURVEY_ ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID
20_SA6a	285	oneck	language	westhampton beach	early suburban	resort	1890-1920	DSCN0143.jpg	Vacation home - esta	SA6a	210_120.00
21_SA6a	285	oneck	la	westhampton beach	early suburban	resort	1890-1920	DSCN0144.jpg	Vacation home - esta	SA6a	210_119.00
8_SA6a		jagger		westhampton beach	postwar suburban	residential	1945-1960	DSCN0128.jpg	Cape Cod Revival	SA6a	207_175.00
18_SA6a		fiske	Ave	westhampton beach	early suburban	residential	1920-1945	DSCN0139.jpg	Colonial Revival	SA6a	210_113.00
27_SA6a	14	halsey	Ave	westhampton beach	early suburban	residential	1890-1920	DSCN0155.jpg	Shingle / Stick	SA6a	210_105.00
26_SA6a		halsey	Ave	westhampton beach	early suburban	resort	1890-1920	DSCN0154.jpg	Colonial Revival	SA6a	210_104.00
16_SA6a		fiske	Ave	westhampton beach	early suburban	resort	1890-1920	DSCN0138.jpg	Vacation home - esta	SA6a	210_114.00
17_SA6a	29	fiske	Ave	westhampton beach	early suburban	resort	1890-1920	DSCN0140.jpg	Colonial Revival	SA6a	210_115.00
7_SA6a		jagger	St	westhampton beach	postwar suburban	residential	1945-1960	DSCN0127.jpg	Cape Cod Revival	SA6a	207_172.00
22_SA6a		oneck	la	westhampton beach	early nationhood	residential	1750-1800	DSCN0149.jpg	Colonial Revival	SA6a	210_121.00
34_SA6a	32d	honeysuckle	la	westhampton beach	industrialization	residential	1890-1920	DSCN0166.jpg	Folk Victorian	SA6a	210_2.00

1_SA6a	9	potters neck	la	westhampton beach	postwar suburban	resort	1945-1960	DSCN0121.jpg	Modern	SA6a	210_264.00
4_SA6a	10	sandpiper		westhampton beach	postwar suburban	resort	1945-1960	DSCN0124.jpg	Ranch	SA6a	210_254.00
19_SA6a	15	fiske	Ave	westhampton beach	early suburban	resort	1890-1920	DSCN0142.jpg	Shingle / Stick	SA6a	210_117.00
24_SA6a	264	oneck		westhampton beach	early suburban	residential	1920-1945	DSCN0152.jpg	Colonial Revival	SA6a	210_102.00
23_SA6a		oneck		westhampton beach	early suburban	resort	1920-1945	DSCN0150.jpg	Vacation home - Cott	SA6a	210_118.00
6_SA6a		sandpiper		westhampton beach	postwar suburban	resort	1945-1960	DSCN0126.jpg	Ranch	SA6a	207_240.00
9_SA6a		jagger	la	westhampton beach	early suburban	residential	1920-1945	DSCN0130.jpg	Colonial Revival	SA6a	207_176.00
30_SA6a	10	lott	Ave	westhampton beach	early suburban	residential	1890-1920	DSCN0161.jpg	Shingle / Stick	SA6a	210_112.00
3_SA6a	15	tanners neck	lq	westhampton beach	postwar suburban	residential	1945-1960	DSCN0123.jpg	Colonial Revival	SA6a	210_262.00
2_SA6a	4	tanners neck		westhampton beach	postwar suburban	resort	1945-1960	DSCN0122.jpg	Ranch	SA6a	210_263.00
5_SA6a		sandpiper		westhampton beach	postwar suburban	resort	1945-1960	DSCN0125.jpg	Ranch	SA6a	210_255.00
10_SA6a	14	jagger	la	westhampton beach	early suburban	residential	1890-1920	DSCN0131.jpg	Colonial Revival	SA6a	207_180.00
25_SA6a	232	oneck	la	westhampton beach	postwar suburban	residential	1945-1960	DSCN0153.jpg	Ranch	SA6a	210_98.00
31_SA6a	24	lott	Ave	westhampton beach	early suburban	residential	1890-1920	DSCN0162.jpg	Colonial Revival	SA6a	210_110.00
28_SA6a	8	lott	Ave	westhampton beach	early suburban	residential	1920-1945	DSCN0157.jpg	Beaux Arts	SA6a	210_106.00
29_SA6a	5	lott	Ave	westhampton beach	early suburban	residential	1920-1945	DSCN0158.jpg	Colonial Revival	SA6a	210_109.00
12_SA6a		jagger	la	westhampton beach	early suburban	residential	1890-1920	DSCN0133.jpg	Colonial Revival	SA6a	207_181.00
35_SA6a		shore	Rd	westhampton beach	early suburban	institutional	1890-1920	DSCN0167.jpg		SA6a	
11_SA6a		jagger	la	westhampton beach	early suburban	residential	1890-1920	DSCN0132.jpg		SA6a	
32_SA6a		lott, halsey, fiske		westhampton beach	early suburban	resort	1890-1920	DSCN0164.jpg		SA6a	

Residential District Area – 6C

SURVEY_ ID	Address or Street Location:	STREET_NAM	STREET_SUF	Village/Hamlet:	Primary Context:	Secondary Context:	Period of Significance:	PHOTO	Building Type/Style:	Subarea	USACEID	A Events/Patterns	B Important Persons
14_SA6c		west end		east quogue	postwar suburban	residential	1945-1960	DSCN0217.jpg	Ranch	SA6c	222_197.00	0	0
18_SA6c		sunset	Ave	east quogue	early suburban	residential	1920-1945	DSCN0222.jpg	Bungalow	SA6c	222_95.00	0	0
20_SA6c	51	sunset	Ave	east quogue	postwar suburban	residential	1945-1960	DSCN0224.jpg	Ranch	SA6c	222_97.00	0	0
10_SA6c		bayside	Ave	east quogue	early suburban	residential	1920-1945	DSCN0213.jpg	Minimal Traditional	SA6c	222_183.00	0	0
6_SA6c		bayside	Ave	east quogue	early suburban	resort	1920-1945	DSCN0210.jpg	Minimal Traditional	SA6c	222_188.00	0	0
11_SA6c		bayside	Ave	east quogue	early suburban	residential	1920-1945	DSCN0214.jpg	Vacation home - Cott	SA6c	222_179.00	0	0
15_SA6c		bayshore		east quogue	postwar suburban	residential	1945-1960	DSCN0220.jpg	Minimal Traditional	SA6c	222_196.00	0	0
19_SA6c	53	sunset	Ave	east quogue	postwar suburban	residential	1945-1960	DSCN0223.jpg	Ranch	SA6c	222_96.00	0	0
760_SA6c	65	west end		east quogue	postwar suburban	residential	1945-1960	DSCN0216.jpg	Ranch	SA6c	222_198.00	0	0
102_SA6c	5	bayside		hampton bays	postwar suburban	residential	1945-1960	DSCN0200.jpg	Minimal Traditional	SA6c	222_189.00	0	0
3_SA6c		bayside		hampton bays	postwar suburban	residential	1945-1960	DSCN0201.jpg	Minimal Traditional	SA6c	222_169.00	0	0
8_SA6c		bayside	Ave	east quogue	early suburban	residential	1920-1945	DSCN0212.jpg	Minimal Traditional	SA6c	222_185.00	0	0
750_SA6c	42	shinnecock	Rd	quogue	early suburban	resort	1890-1920	DSCN0247.jpg	Shingle / Stick	SA6c	219_68.00	0	0

5_SA6c		bayside	Ave	east quiogue	early suburban	resort	1920-1945	DSCN0211.jpg	Minimal Traditional	SA6c	222_187.00	0	0
2_SA6c	38	shinnecock	Rd	quogue	early suburban	resort	1890-1920	DSCN0237.jpg	Vacation - estate	SA6c		0	0
23_SA6c	45	sunset	Ave	east quogue	early suburban	residential	1920-1945	DSCN0227.jpg	Bungalow	SA6c	218_100.00	0	0
24_SA6c		sunset	Ave	east quogue	early suburban	residential	1890-1920	DSCN0228.jpg	Shingle / Stick	SA6c	218_101.00	0	0
21_SA6c	49	sunset	Ave	east quogue	postwar suburban	residential	1945-1960	DSCN0225.jpg	Minimal Traditional	SA6c	222_98.00	0	0
999_SA6c	29	shinnecock	Rd	quogue	early suburban	resort	1890-1920	DSCN0238.jpg	Vacation - estate	SA6c	219_80.00	0	0
986_SA6c		shinnecock	Rd	quogue	early suburban	resort	1890-1920	DSCN0243.jpg	Vacation estate	SA6c	219_76.00	0	0
28_SA6c		stone	la	east quogue	early suburban	resort	1890-1920	DSCN0236.jpg	Shingle / Stick	SA6c	218_58.00	-1	0
918_SA6c		shinnecock	Rd	quogue	early suburban	resort	1920-1945	DSCN0242.jpg	Colonial Revival	SA6c	219_58.00	0	0
969_SA6c	31	shinnecock		quogue	early suburban	resort	1890-1920	DSCN0244.jpg	Colonial Revival	SA6c	219_59.00	0	0
995_SA6c		shinnecock	la	quogue	early suburban	resort	1890-1920	DSCN0241.jpg	Vacation home - esta	SA6c	219_77.00	0	0
752_SA6c		bayside		east quogue	early suburban	residential	1945-1960	DSCN0215.jpg	Minimal Traditional	SA6c	222_178.00	0	0
998_SA6c	26	shinnecock	Rd	quogue	early suburban	resort	1890-1920	DSCN0239.jpg	Colonial Revival	SA6c		0	0
751_SA6c	36	niamaug		quogue	early suburban	resort	1890-1920	DSCN0249.jpg	Vacation home - esta	SA6c		-1	0
12_SA6c		niamaug		quogue	early suburban	residential	1920-1945	DSCN0250.jpg	Vacation home - esta	SA6c		-1	0
25_SA6c		sunset	Ave	east quogue	postwar suburban	residential	1945-1960	DSCN0231.jpg	Ranch	SA6c	218_86.00	0	0
26_SA6c		sunset	Ave	east quogue	early suburban	residential	1945-1960	DSCN0232.jpg	Colonial Revival	SA6c	218_85.00	0	0
4_SA6c		bayside	Ave	east quogue	early suburban	residential	1920-1945	DSCN0202.jpg	Minimal Traditional	SA6c	222_170.00	0	0
9_SA6c		bayside	Ave	east quogue	early suburban	residential	1920-1945	DSCN0207.jpg	Minimal Traditional	SA6c	222_171.00	0	0
22_SA6c		sunset	Ave	east quogue	early suburban	residential	1920-1945	DSCN0226.jpg	Bungalow	SA6c	218_99.00	0	0
7_SA6c		bayside	Ave	east quogue	early suburban	residential	1920-1945	DSCN0205.jpg		SA6c		0	0
997_SA6c		quaquanantuck	la	quogue	industrialization	maritime/ind	1865-1890	DSCN0240.jpg		SA6c		0	0
1_SA6c		bayside	Ave	east queoge	postwar suburban	residential	1945-1960	DSCN199.jpg		SA6c		0	0
16_SA6c				east quogue	early suburban	maritime/ind	1890-1920	DSCN219.jpg		SA6c		0	0
27_SA6c		sunset	Ave	east quogue	early suburban	residential	1920-1945	DSCN0233.jpg		SA6c		0	0
13_SA6c		shinnecock-niamaug		quogue	early suburban	resort	1890-1920	DSCN0251.jpg		SA6c		-1	0
17_SA6c		west end - hallock		east quogue	early suburban	residential	1920-1945	DSCN0221.jpg		SA6c		0	0

Residential District Area – 7B

SURVEY_ID	Address or Street Location:	STREET_NAM	Village/Hamlet:	Original Use:	Current Use:	Primary Context:	Secondary Context:	Period of Significance	PHOTO	Subarea	USACEID
13_SA7b	294-6	montauk hwy	hampton bays	residence	residence	early suburban	resort	1920-1945	DSCN0196.jpg	SA7b	

VII. EFFECTS

According to 36 CFR 800.5(a)(1):

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

As stipulated in 36 CFR 800.5(a)(3), the USACE can use a phased approach to the assessment of effects "where alternatives under consideration consist of corridors or large land areas." As FIMP encompasses a large corridor, such an approach is used in this discussion. Furthermore, because specific project alternatives have not been selected for specific properties, the assessment of effect can only cover typical or generic effects upon historic properties generally representative of those within the APE. A more specific effect assessment would take place when specific alternatives have been selected for implementation at specific properties. However, this initial discussion of adverse effects, on a broad level, allows for integration of historic resource concerns into the early decision-making process. With a preliminary understanding of likely adverse effects, the USACE can fulfill an important role in the Section 106 process before final design decisions have been reached. Accordingly, the discussion of adverse effects below pertains only to sites and properties that are listed, eligible, or likely to be considered eligible for listing in the National Register of Historic Places.

The FIMP study is designed to evaluate the positive and negative impacts resulting from the use of a variety of hazard mitigation measures (specifically, structural diversions, elevation, relocation, floodproofing, and demolition). In addition, the FIMP study seeks to determine how local planning controls may influence or reduce future development in hazard-prone areas.

STRUCTURAL DIVERSIONS

The FIMP project is intended to analyze the use of structural diversions, such as berms and structural jetties. Structural alternatives may have a direct adverse effect on subsurface and submerged archaeological resources, if any, which are located in or directly proximate to the construction footprint (and any other project areas associated with ground disturbance). Likewise, structural alternatives may have a direct adverse effect upon historic properties that are directly in the footprint (see relocation, discussed below). These direct effects would include the destruction of resources. It is not anticipated that aboveground historic properties, such as

buildings, will be directly in the footprint. As discussed in earlier reports, there may be some potential for submerged archaeological resources in the footprint.

Structural alternatives may have an indirect effect on aboveground historic properties, such as buildings, if they are in the immediate viewshed (approximately 1/8 mile). The level of effect (including the determination of adverse effect) would have to be evaluated on a site-by-site basis. An adverse effect would only occur if setting and/or viewshed are considered important character-defining features to a given property and if the integrity of setting is retained by such a property.

ELEVATION

The FIMP project is intended to analyze the use of building elevations in flood-prone areas. Elevation will include raising these buildings onto new foundations, so that the base floor of a building is less likely to be impacted by severe flood events. The height of proposed elevations would vary from building to building, or site to site. Although creative design can use elevation as an aesthetically pleasing "improvement" upon a property's original design, the assessment of adverse effect scrutinizes the alteration or change in important historic design features.

Elevation may likely have an adverse effect on elevated properties. The level of adverse effect is related to several factors, including the property type/style, the extent or height of elevation, and the physical relationship between the building and other surrounding buildings (e.g., the setback and streetscape). For example, the elevation of 10 feet for a small building set close to the lot line, within a denser streetscape of other similar buildings, would be likely to have a greater level of effect than the elevation of only several feet for a building set back from the streetscape within a neighborhood of other, similarly isolated buildings. The adverse effect would likely diminish the integrity of design, materials, and feeling. In addition, elevations of many feet would diminish the integrity of association.

Elevation may also have an indirect adverse effect on historic properties. This circumstance would diminish the integrity of setting within a district or within the setting of other proximate historic structures. This is particularly true for neighborhoods that feature a more dense concentration of historic buildings.

Elevation may also have a direct adverse effect on historic or prehistoric archaeological sites within or directly proximate to the footprint of the undertaking, specifically within areas of ground disturbance.

Depending upon the specific character-defining features of a given property, as well as the extent of the proposed elevation, elevation may not be considered an adverse effect. For example:

- The adverse effect of elevation of two or three feet may be minimized through regrading and creative landscape design.
- The adverse effect of elevation may also be minimized.

- Elevation of certain property types (specifically "split levels") may not be an adverse effect if the property type already features multiple elevated levels. Other creative design solutions may exist, although they have not specifically been identified.

RELOCATION

Relocation would entail moving hazard-prone buildings to sites that are less likely to experience hazard-related damage, and would be an option subject to evaluation in the FIMP project. However, this may not be a practical option for many buildings, given the dense settlement within the larger project area.

Relocation would likely have an adverse effect on the integrity of setting for relocated properties. These effects would impact character-defining features, such as landscape elements, siting, and physical/contextual relationship with other buildings within a neighborhood. This adverse effect could be minimized (see below):

- If proper planning is undertaken, relocated properties may still be eligible for listing in the National Register (although adverse effects may occur). This would be possible if the new setting of the property closely matched the original or historic setting (replicating landscape elements and setback, for example).

Relocation would have a direct adverse effect upon any subsurface and archaeological resources within the area of ground disturbance (including at the proposed relocation site).

FLOODPROOFING

Floodproofing is an option for properties that would be evaluated under FIMP. Floodproofing is a broad term encompassing interior alterations that would have the cumulative effect of reducing damage from hazard events. Floodproofing options would include measures such as the elevation of utilities and basement-level alterations. Although floodproofing typically has a lower cost, it is less effective in reducing the level of potential damage.

Floodproofing is not likely to have an adverse effect. Floodproofing would typically entail alterations to interior features, but would preserve overall floorplans. In most cases, character-defining interior features would not be altered.

ACQUISITION AND DEMOLITION

Acquisition and demolition would be evaluated under FIMP. This effort would include the "buy out" of property and relocation of residents. In most cases, a property would be demolished, and no permanent replacement structure would be erected on the site.

Acquisition and demolition would have a direct adverse effect upon targeted historic properties. In certain cases, acquired properties could undergo a change in use and would be regarded as unoccupied "picnic structures." However, the vast majority of acquired properties would likely be demolished.

Acquisition and demolition of historic resources would have an indirect adverse visual effect to historic properties in the direct viewshed of the property and/or that bear a visual relationship.

Acquisition and demolition of historic resources would have an indirect adverse effect upon other properties that bear a contextual relationship to the target property. For example, the demolition of a house within a historic district of like houses would have an indirect adverse effect upon the district.

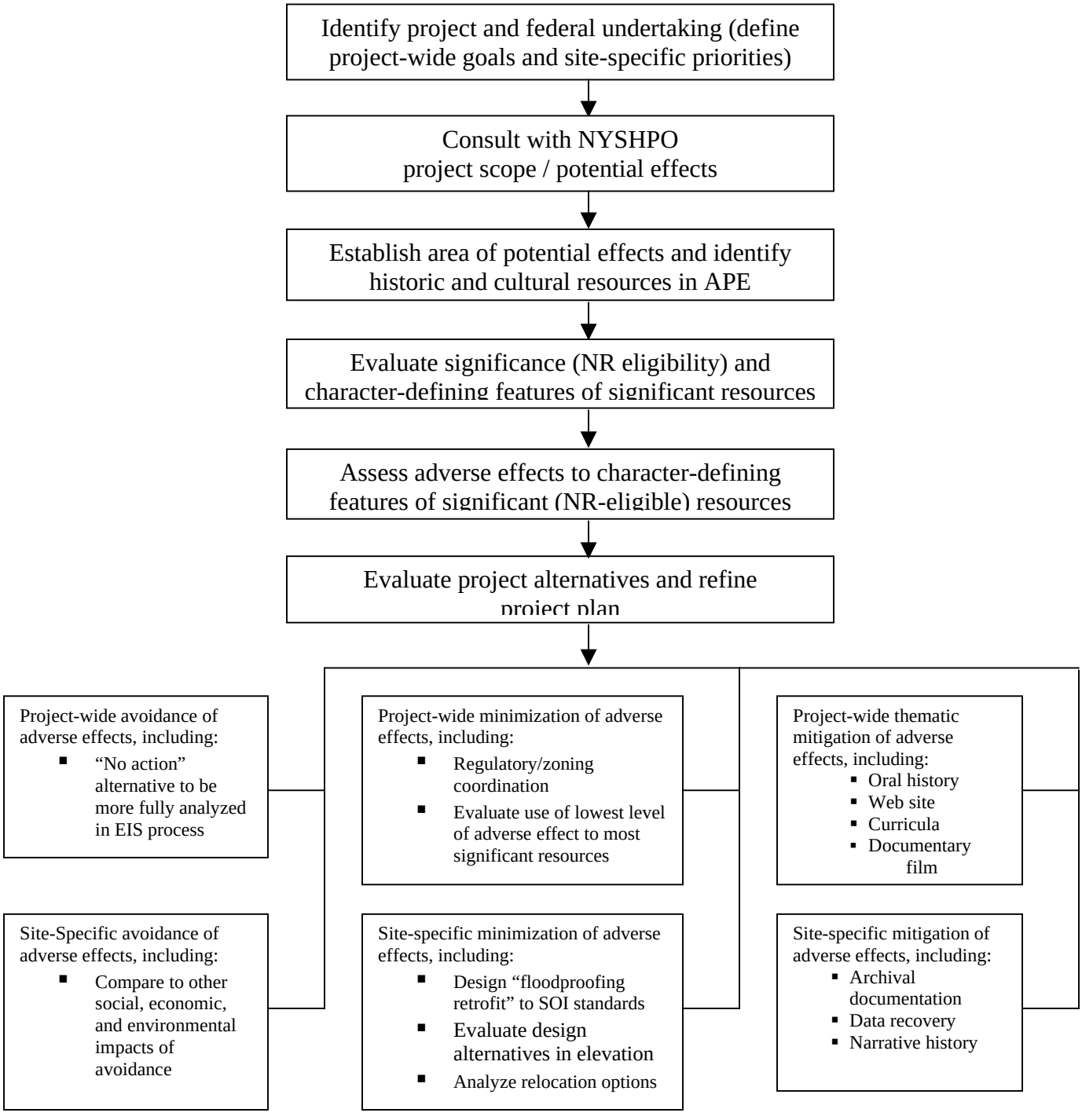
PLANNING CONTROLS

Planning controls would also be evaluated under FIMP. Although the USACE would not necessarily enforce these planning measures, the agency would work closely with local governments to ensure that local planning tools, such as zoning and building codes, would restrict future growth of hazard-prone areas.

Although the exact content of these planning controls is unknown (including if implementation would be considered a federal "undertaking" under 36 CFR 800), it is possible that these controls could have the long-term cumulative effect of reduced occupancy or physical alterations of existing historic buildings. This effect would potentially diminish the integrity of setting, feeling, and, in more extreme cases, association. However, it may also be possible to integrate historic preservation planning and growth controls within these planning tools. The level of effect, if any, would be dependent upon the wording and implementation strategies for these planning controls.

VIII. DECISION-MAKING GUIDE FOR HISTORIC RESOURCES

This guide is intended to provide the USACE and consulting parties with an enhanced decision-making process. The decision-making guide provides for an analysis of potential project alternatives that avoid, minimize, or mitigate adverse effects to historic and cultural resources. In keeping with the USACE's phased approach to Section 106 consultation, as outlined in 36 CFR 800.4(b)(2), this decision-making guide outlines approaches to avoidances, minimization, and mitigation of adverse effects for both broad, project-wide, and site-specific levels of analysis and decision-making.



The following sections of this report contain information for both project-wide and site-specific levels of evaluation and consultation. This methodology is consistent with the USACE's phased approach to Section 106 consultation, as outlined in 36 CFR 800.4(b)(2) and 36 CFR 800.3(b). By taking into account broad strategies for avoiding, minimizing, or mitigating adverse effects to historic resources early in the planning process, the USACE is able to allow such concerns a meaningful role in further shaping the FIMP project. The early consideration of historic resource issues in the environmental planning process is specifically encouraged by the governing regulations, in which "agencies should consider their Section 106 responsibilities as early as possible in the NEPA process," according to 36 CFR 800.8(a). However, because the exact project alternatives and specific sites have not yet been fully defined, it is difficult to make a final determination of effect (and therefore undertake decision-making for particular historic resources). Decision-making options for anticipated site-specific FIMP projects are described in the following section, however, as the USACE believes that the general identification of this decision-making process early in the project best addresses the spirit of Section 106 consultation. The USACE anticipates that further consultation will take place with NY SHPO and other interested parties as more specific project alternatives are identified, and that such consultation will either follow the normal Section 106 consultation process or a streamlined interagency consultation.

AVOIDANCE OF ADVERSE EFFECTS

The USACE is required in 36 CFR 800.6 to consider the avoidance of adverse effects to historic resources in consultation with interested parties. An effect is defined in 35 CFR 800.16(i) as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." See Chapter 7 for a detailed discussion of potential effects from the FIMP project.

The no-build alternative will be more fully analyzed in the forthcoming EIS process. The no-build alternative, for the purposes of this report, would be considered to be the avoidance of adverse effects associated with the FIMP plan. Design alternatives that minimize adverse effects—or may even avoid adverse effects to specific structures—are examined below. For the purposes of this report, it is assumed that adverse effects to some cultural resources will be associated with the FIMP plan. Avoidance of these cumulative effects would be possible through the decision not to implement the FIMP plan. The USACE and consulting parties may also analyze the possibility of adverse-effect avoidance on a site-specific level. Again, it is important to evaluate the avoidance of adverse effects to historic resources with other planning considerations.

However, failure to implement the FIMP plan and avoidance of associated adverse effects would create the strong potential for hazard-related negative impacts. The USACE estimated that a coastal event similar to the Hurricane of 1938 would cause approximately $70,000,000 of direct damage to Long Island (USACE 2004). However, many of the properties within the APE are also subject to repetitive flooding from smaller-scale coastal events. Although these environmental impacts from coastal storm hazards might not be considered adverse effects as

defined in 36 CFR 800 (because of their unknown timing, nature, and extent), the possibility of direct structural damage—as well as the cumulative cost of economic recovery from a large-scale hazard event—would have a negative impact for historic resources, and should nonetheless be considered when evaluating the possibility of avoidance of adverse effects through the no-action alternative.

MINIMIZATION OF ADVERSE EFFECTS

Project-Wide Measures

The FIMP project has identified a variety of potential non-structural alternatives for protecting hazard-prone buildings. These alternatives include:

- Elevation
- Floodproofing
- Relocation
- Acquisition/demolition

The anticipated level of effect varies for both the site-specific property-defining features and the relative significance of each property. It is possible, however, to differentiate between the general adverse effects likely to be related to these options for broad planning purposes. Acquisition/demolition, for example, may have a greater adverse effect than floodproofing. In addition, each of these alternatives offers a different level of protection against hazard-related damage. In addition to determining which historic resources are eligible for listing on (or that are already listed on) the National Register of Historic Places, it is possible to further evaluate the relative significance and integrity of those resources.

The forthcoming Federal Emergency Management Agency publication *How-To Guide #6: Integrating Historic Property and Cultural Resource Considerations into Mitigation Planning* (anticipated September 2004) identifies specific recommended design strategies that provide for an enhanced level of protection while retaining character-defining historic features.

An effective strategy to minimize adverse effects early in the FIMP planning process is to evaluate the use of the least intrusive alternative to the most significant historic resources (those resources that would stand towards the top of a "preservation hierarchy"). In some cases, the least intrusive alternative may not be cost-effective (or may not be able to provide the desired level of protection).

Another means to minimize adverse effects would be to examine regulatory and zoning measures that would integrate restrictions on future development in hazard-prone areas with the economic growth of historic, hazard-prone areas. For example, local communities adopting regulatory measures associated with a larger, USACE-sponsored program could integrate those local zoning measures to consider 44 CFR 360.1, Part 60 (a) (Criteria for Land Management & Use, Subpart A, 60.6 Variances and Exceptions), which states that "variances may be issued for the repair or

rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure."

Site-Specific Measures

Site-specific measures could also be taken to minimize the level of adverse effect to historic buildings. These measures include (but are not limited to):

Elevation. This measure may change the historic scale, design, and setting of a building. However, elevation of a few feet may be combined with other design programs, such as landscaping, regrading, and the reuse or replication of a veneer of historic building materials on a façade. When combined with other design measures, such as floodproofing, elevation below the 100-year floodplain may be a cost-effective measure that reduces future damage from hazard events while maintaining historic character.

Floodproofing. While this method could alter character-defining interior and exterior features, careful design may allow for the integration of floodproofing measures (for example, the relocation of utilities above the floodplain may include hidden panels).

Relocation. With proper planning, some buildings may be able to be relocated to new locations that maintain historic settings. This type of relocation requires considerable planning to ensure that important character-defining features—such as the physical relationship between buildings, setbacks, outbuildings, and historic landscape features—are relocated or reconstructed. It is important to note that relocated buildings need to meet special criteria considerations to maintain eligibility for listing in the National Register of Historic Places.

MITIGATION

Project-Wide Measures

While historic properties are by definition non-renewable resources, creative planning may identify project actions that help to offset the loss of character-defining features. In many cases, these mitigation options include both some level of data recovery (recording historic information) and public involvement (benefiting those who would most directly feel the impact of the loss of historic resources). These mitigation options would include the development and implementation of a mitigation program that would (a) directly relate to specific, character-defining features of a like group of resources and (b) encompass all future adverse effects to that group of resources. The mitigation program, if chosen, should correspond to the nature and level of adverse effect. The mitigation program may also feature additional public involvement, and may be further developed with the participation of regional heritage experts and repositories.

Based upon survey results, the largest concentrations of thematic resources include prewar subdivisions such as vacation cottages, other early suburban house types, and postwar house

types. In addition, concentrations of archaeological resources have not yet been fully defined. Mitigation actions should take into account concentrations of particular groups or classifications of historic resources.

Some project-wide mitigation items may include:

- Production of a short documentary film that relates important trends in social and architectural history to local historic resources (for example, how local historic resources demonstrate changing patterns of suburbanization).

- An oral history archive, which relies upon the participation of local residents and an experienced interviewer or ethnographer (this would most closely relate the particular "way of life" to specific places).

- Development and maintenance of a web site that displays historical research from the survey project, as well as other items (such as films or oral histories).

- Development of a local curriculum plan that relates important trends in social and architectural history to local historic resources.

- Archival documentation of a selected representative example of a particular property type. Such documentation could include large-scale black-and-white photography, measured drawings produced on archival media, and narrative and contextual histories. Such documentation could be undertaken through the National Park Service (NPS) Historic American Building Survey (HABS) and Historic American Landscape Survey (HALS) programs, and would be submitted to the Library of Congress. If the HABS/HALS format were selected, such documentation would be undertaken in consultation with the NPS regarding the level of documentation required. Alternatively, such mitigation could consist of archival documentation undertaken to meet published HABS standards, but not reviewed by the NPS and stored in a regional archive accessible to the public.

Adverse effects to National Register-listed and eligible archaeological sites (including historic and/or prehistoric sites containing subsurface material culture) may be direct or indirect. As the further identification and evaluation of archaeological sites will not occur until more specific project alternatives are selected, it is only possible to discuss site-specific mitigation options. Typical mitigation measures for archaeological sites include data recovery, analysis, and curation of artifacts.

Site-Specific Measures

Site-specific mitigation measures could include archival documentation (described above), performed to HABS/HALS standards, or in a lesser degree of documentation (such as simple archival 35-mm photography) commiserate with the degree of resource significance. Due to the larger number of similar historic resources, it is recommended that site-specific mitigation measures be streamlined and integrated with other FIMP planning.

FURTHER INTERAGENCY CONSULTATION

The FIMP project, if implemented, would constitute a major federal undertaking and would include a wide degree of interagency participation at all levels of government. The project would be long-term and include a variety of potential hazard-mitigation solutions. FIMP would likely be implemented in a phased approach with tiers of targeted, prioritized areas. Because of the complexity of the undertaking, the USACE may wish to involve NY SHPO and other interested parties, including the Advisory Council on Historic Preservation, in discussions regarding an interagency programmatic agreement. This programmatic agreement could provide several useful benefits, including:

- Streamlined identification and evaluation of cultural resources, including the extent of documentation necessary and the review authority.
- Appropriate standards for the continued evaluation of postwar historic resources.
- Streamlined effects assessment.
- An appropriate framework for participation and input by other consulting parties and members of the public.
- Delegation of initial project review responsibilities to the USACE.
- Development of detailed design guidelines for site-specific projects impacting historic resources.

The development of a well-crafted interagency agreement would provide more specific implementation information of the broad decision-making guidelines discussed in this chapter. In addition, such an agreement would formalize the phased approach to Section 106 consultation for the FIMP project. Specific procedures for establishing a programmatic agreement are contained in 36 CFR 800.14(b). Listed reasons for establishing a programmatic agreement include situations in which effects to historic properties are regional in scope and similar in nature, as well as situations in which the nature of effects cannot be determined prior to federal approval of an undertaking. Such an agreement would provide an appropriate vehicle for project-wide alternative analysis and mitigation planning. In addition, the FIMP project would likely be carried out under an extended and phased timeframe, and could encompass additional resources not yet identified (or in need of reevaluation) as they approach the time mark of 50 years in age (likely including buildings built in 1960 or 1965). This would increase the number of sites subject to review and consultation under Section 106, although it is likely that many of these resources share similar historic characteristics. Therefore, a programmatic agreement or other interagency consultation method would provide an opportunity for streamlined project planning while allowing the USACE to act as a responsible steward of historic resources.

In the absence of a programmatic or other interagency agreement, the USACE will conduct future Section 106 consultation using the standard process as outlined in 36 CFR 800.

COST OF MITIGATION

Because specific mitigation measures are unknown, it is difficult to reasonably estimate the cost of mitigation. It is, however, reasonable to estimate that, as a general rule of thumb, project-wide mitigation would cost less than five percent of the total project cost (either an aggregate construction cost for multiple structures or on a structure-by-structure basis). This statement is qualified by several factors, including the fact that potential costs for mitigating archaeological sites are not known. If the assumption is made that archaeological sites could be most appropriately mitigated through intensive data recovery (in combination with other measures, such as public education), then the costs range based upon the size, location, and complexity of the site. However, a detailed predictive model or evaluation of sites on the South Shore has not been undertaken. The location and number of archaeological sites, if any, is not known within the APE. In addition, highly significant resources (e.g., national historic landmarks, certain individually eligible resources which are highly unique, those resources which have national significance, or those resources with strong community ties) may require additional or alternative mitigation measures and should be discussed on a case-by-case basis. In addition, the integration of design measures that would minimize the level of adverse effect (for example, through the development of project design guidelines that integrate preservation and hazard-mitigation goals) with overall project planning could bring about a substantial reduction in mitigation costs. In addition, appropriate mitigation measures may also be identified and utilized through an interagency programmatic agreement or multi-phased memorandum of agreement that could reduce mitigation costs through streamlining mitigation implementation and review.

While anticipating flexibility, it is reasonable to say that general mitigation measures for aboveground historic resources (buildings, districts, structures, and landscapes) discussed herein would be well below five percent of total project costs.

IX. STUDY SUMMARY AND RECOMMENDATIONS

This study is the first broad-scale survey of aboveground architectural resources of the entire area of potential effects (APE) for the U.S. Army Corps (USACE), New York District, Fire Island to Montauk Point (FIMP) Reformulation Project. The study involved the research and development of historic contexts informing the patterns of development and growth within the project area. Additionally, this study sought to identify, through survey, potentially eligible aboveground resources within the APE for National Register listing. The resources surveyed were intended to represent the full spectrum of historic architectural types and styles found within the APE, so that the recommendations for hazard mitigation associated with flooding and erosion along the South Shore would be applicable and useful for future phases of the FIMP Reformulation Project.

The South Shore of Suffolk County is associated with broad national historical events and patterns of development: early colonial settlement; early industrialization, urbanization, and agricultural development from the mid-eighteenth through mid-nineteenth centuries; agricultural, industrial, immigration, commercial, and urban expansion from the mid-nineteenth century through to end of World War I; and the development of suburbs from 1840 through to 1960. Within the broader themes and patterns, the history particular to the South Shore of Suffolk County includes Native-American culture; the melding of various traditions and practices of various European groups that came to the East End of the South Shore; the rise and fall of various maritime industries; localized industrialization; summer resort and summer vacation home development; and the rise of modern industries, such as defense weaponry manufacture and aeronautics design and development.

In Chapter 6, this study lists the aboveground resources identified as potentially eligible for the National Register of Historic Places. A full analysis and study of each of these properties and districts was not conducted. Additionally, only 1,480 properties were surveyed within the APE. The properties surveyed were intended to be a representative sampling of what exists in the project area in order to develop a series of options and a variety of recommendations for mitigating the effects associated with the reformulation project. Forty-nine individual properties and 10 districts of the 1,480 properties surveyed were identified as having historical significance and potentially eligible for the National Register.

Furthermore, the data collected through the survey is capable of being integrated into a geographic information system (GIS), allowing the data to be mapped for the purpose of identifying commonalities in theme and type and for locating historic resources along the Southern Shore of Suffolk County. The GIS will make the information more accessible than it is in its database form.

Alternatives for mitigation were developed for both impacts associated with flooding as well as impacts caused by human intervention designed to prevent future flooding damage to properties determined to fall within hazard-prone areas. Chapter 8 presents a full discussion of possible options for preventing or minimizing future flood damage to historic properties within the project area. The explored options include flood-proofing retrofit, design alterations to elevation

of property, and relocation of a resource to a less hazard-prone area. The options explored to mitigate the potential adverse impacts associated with the FIMP Reformulation Project include Historic American Building Survey (HABS)/Historic American Engineering Report (HAER) documentation at an appropriate level, curriculum development for local schools, web site development, a documentary of the project area, and oral history recordation.

As a result of the pervasiveness of this study and the information on previously identified historic properties, it is possible to identify areas within the APE containing pockets of historic architecture or that are likely to contain historic resources. As a broad, baseline evaluation, the study allows for a more focused approach and determination of property eligibility for the National Register of Historic Places in the future.

In the next phase of cultural resource study for the FIMP, it is recommended that a comparison be made of the findings of this study with those of earlier studies identifying potential aboveground resources in order to determine if any parts of the APE have been under represented in cultural resource investigations. Additionally, it is recommended that all the potential historic resources (individual and in districts) identified in this survey and preceding studies be ranked to determine the list of priority properties for further investigation. The factors to be included in determining the priority for these properties will include location in areas prone to flooding and areas that have suffered damage from flooding and erosion; properties that are planned to be demolished; properties that are in danger of integrity loss due to incompatible construction or alterations; and properties thought to have exceptional significance. Future studies should include decisive recommendations of National Register eligibility for historic properties within the APE. The methodology of this study is included in Chapter 2 of this report in order to allow for compatible future expansion of this investigation.

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Resumes of Key Personnel

Education:

M.S./Historic Preservation/The School of the Art Institute of Chicago/ 2002
Summer Program/University of Minnesota School of Architecture/1998
B.A./History/Macalester College/1998

Professional:

Co-Chair / webmaster, Preservation Alumni Group, The School of the Art Institute of Chicago
Organization of American Historians
American Historical Association
National Trust for Historic Preservation
American Institute for the Conservation of Historic and Artistic Works (AIC)
Landmarks Preservation Council of Illinois
Association for Preservation Technology (APT) – DC Chapter

Experience:

Mr. Christopher has three, including one with URS, years of experience in historic building research and documentation, particularly in the Mid-Atlantic and Midwest regions. Trained in Chicago, he has conducted research projects and cultural resource surveys in Illinois, West Virginia, Virginia, New York, Michigan, Pennsylvania, North Dakota, Maine and New Hampshire. Projects have included intensive and reconnaissance level architectural surveys, National Register nominations, conservation reports and condition surveys, Historic American Buildings Survey (HABS) research and documentation, and extensive historical research. Representative examples of Mr. Christopher's experience include the following:

HABS Recordation, Selected Buildings, St. Elizabeths Hospital, Washington: Project included documentation of four contributing buildings set within a National Historic Landmark district. Materials submitted to the National Park Service for review and approval.

Historic Resources Survey & Assessment, Dry Fork/ White Oak Virginia: Documentation of approximately 50 historic buildings and assessment of potential adverse effects related to proposed 126-acre natural gas generator owned by Florida Power & Light. Project included development of mitigation alternatives. Report submitted to the Virginia Department of Historic Resources for review and approval.

FEMA "How To" Textbook: Historic Preservation and Emergency Management: Research, writing and development of a "how to" guide for integrating cultural resources into hazard mitigation planning. Produced for local planners, this textbook will have a national audience.

FEMA Model Hazard Mitigation / Historic Preservation Study, Milton, Pennsylvania: Primary participation in development of preservation planning model project. Survey and evaluation of 100 historic buildings and structures to define level of significance and potential conservation cost. Development, writing and editing of a model hazard mitigation/historic preservation plan, developed for the Federal Emergency Management Agency, in coordination with state, local and regional agencies.

FEMA Historic Structure Survey & Recordation, West Virginia: Rapid response documentation of over 325 flood-damaged historic buildings in six counties for the Federal Emergency Management Agency's Charleston, West Virginia Disaster Field Office. Report submitted to the West Virginia SHPO for review and comment.

National Historic Landmark Status Evaluation & Preparation of Drawings Archive, Sears, Roebuck & Co. National Headquarters, Chicago, Illinois: Re-evaluation of National Historic Landmark status, and preparation of a Determination of Eligibility for the 1948 Allstate Building, and creation of a drawings archive. Work conducted with Baldwin Historic Properties for Hickey & Associates.

SBA Telecommunications Projects: Historic Resources Survey & Potential Impact Reports (21 locations), New Hampshire & Maine: Documentation of historic structures and assessments of potential impacts created by proposed telecommunications towers in 21 rural New England communities. Conducted for ATC Realty/EnviroBusiness, Inc., and submitted to the Maine and New Hampshire State Historic Preservation Offices.

"Picture North Dakota Churches!" Historic Resources Survey, North Dakota: Review and completion of over 1,600 site inventory forms from a statewide survey, in addition to undertaking a six-county survey of over 180 churches, conducted for the SHPO/State Historical Society of North Dakota. These churches were named to the National Trust for Historic Preservation's 2001 List of 11 Most Endangered Places.

Reconnaissance Survey & Historic Preservation Plan, Berwyn, Illinois: Conducted survey and developed preservation plan for Chicago's working-class "Bungalow Belt." Conducted with Preservation Planning Studio Class, The School of the Art Institute of Chicago, for the City of Berwyn.

Material Conditions Analysis & Report, 3618 Wrightwood, Chicago, Illinois: Material Analysis and scope of work developed for building owner. Conducted with Jim Guelcher.

Material Conditions Analysis & Report, 1910 South Michigan Avenue, Chicago, Illinois: Material conditions analysis and scope of work developed for building owner. Conducted with Jim Guelcher.

AREAS OF EXPERTISE

- Preservation Planning
- Building Survey, Assessment, and Recommendations for Appropriate Treatment
- Cultural Resource Management Studies
- Section 106 of the National Historic Preservation Act
- Architectural History Research
- Integration of Section 106 with NEPA Regulatory Assessments
- Public Outreach

EDUCATION

M.S./2001/Historic Preservation, University of Pennsylvania, Philadelphia

B.A./1998/History, Art History minor, Loyola College, Baltimore

Study Abroad Program/Fall 1996/Richmond College, London, England

PROFESSIONAL HISTORY

URS Corporation, Project Manager / Architectural Historian, 2003 – present

Hardy Holzman Pfeiffer Associates LLP, 2002 to 2003.

Building Conservation

REPRESENTATIVE EXPERIENCE

Ms. Sheehan joined URS Corporation in 2003. Prior to coming to URS, she worked in the New York City offices of Hardy Holzman Pfeiffer Associates LLP and Building Conservation Associates. She has just recently completed a seminar course on integrating the Section 106 process of the National Historic Preservation Act with the compliance reviews triggered by the National Environmental Policy Act.

Historic Structure Survey and Report for the Fire Island to Montauk Point Reformulation Project. Architectural Historian for the preliminary identification and the formulation of recommendations for the protection and preservation of historic properties within the United States Army Corps of Engineers specified ten-year flood plain, for the larger Fire Island to Montauk Point Reformulation Project.

Historic Structure Identification for General Electric's Hudson River Reclamation of the Hudson River Project. Architectural Historian for the identification and mapping of all properties listed on the National Register or determined eligible for the National Register which may be impacted by the proposed dredging of the Hudson River for PCB removal.

Atlantic City US Post Office, Development and Implementation of Memoranda of Agreement, Atlantic City, New Jersey. Advising Historic Preservation Specialist for the United States Postal Service on its negotiations with the New Jersey State Historic Preservation Office in the creation of a Memoranda of Agreement (MOA) intended to mitigate an assessed adverse impact (the transfer of ownership of a postal facility from the USPS to the Casino Reinvestment Development Authority). URS was authorized by the USPS to perform the services required for implementing the provisions of the MOA.

Historic Structure Survey and Report for the Proposed Improvements to Route 206 and the Bridge over Assiscunk Creek (Structure No. 0324-162), New Jersey Department of Transportation. Architectural Historian for the identification of historic properties and assessment of potential adverse impacts to historic properties for the proposed improvement project of Assiscunk Creek Bridge, Route 206 in Springfield, New Jersey.

Historic Structure Survey for the New Jersey Department of Transportation's Route 34/Amboy and Morristown Roads Intersection Project. Architectural Historian for the identification and recordation of any historically significant property within or adjacent to the project area which could potentially by adversely impacted by the proposed roadway and intersection improvements.

Associates, intern, 2000.

Affiliations

Preservation New Jersey, Volunteer.

National Trust for Historic Preservation, Member.

Preservation Action, Member NJ Chapter of the American Planning Association's *Complete Guide to Planning in New Jersey,* second edition, Contributor.

Historic Property Survey for the New Jersey Department of Transportation's Route 9 and Jake Brown Road Drainage Improvement Project. Architectural Historian for the identification and recordation of any historically significant property within or adjacent to the project area which could potentially by adversely impacted by the proposed roadway drainage improvements.

Historic Structure Identification for Jefferson Township, New Jersey-Dover Milton Road Bridge Improvements. Architectural Historian for the identification and documentation of all properties listed on the National and State Registers or determined eligible for the National and State Registers which may be impacted by the proposed plans for the improvements to the Dover Milton Road Bridge.

Historic Structure Survey for the New Jersey Department of Transportation's Noise Barrier Construction Project along Interstate 195. Architectural Historian for the identification and recordation of any historically significant property within or adjacent to the project area which could potentially by adversely impacted by the construction of noise barriers.

Education

B.A./1997/Anthropology/Geology, University of Pittsburgh

Experience

Ms. Feeney has several years experience participating in all field and laboratory phases of cultural resource investigation. She has participated in the excavations of historic and prehistoric sites in the Northeast and Middle Atlantic regions.

1997 to Present: URS Corporation, Florence, New Jersey.

Phase I investigations for a proposed bike path, proposed parking lot improvements, and proposed floodwall construction at Great Falls National Park, Rockville, Maryland. Archaeologist for a Phase I survey parallel to the park access road, in advance of a proposed bike path. Shovel testing was also conducted in the upper and lower parking lots inside the park, for the construction of extensions to the lot. Additionally, Ms. Feeney performed background historic research and assisted in writing the report for this project.

Phase I investigations for the Route 72 improvement project, Manahawkin, New Jersey. Crew Chief and Archaeologist for a Phase I study along the proposed Route 72 realignment, which includes relocation of the existing road (Route 72) as well as improvements to an existing jughandle, affecting Fish and Wildlife property. Additionally, Ms. Feeney performed background historic research and assisted in writing the report for this project.

Phase III investigations for the Betzwood Bridge Improvement Project, Montgomery County, Pennsylvania.
Archaeologist for Phase III investigations at site 36MG34. Responsibilities included full data recovery of homesteads dating from 1840 to 1900, for the proposed realignment of Route 23 in King of Prussia, Pennsylvania, as part of the Pennsylvania Department of Transportation's Betzwood Bridge Improvements Project.

Phase III investigations for the Leetsdale Industrial Park Complex, Allegheny County, Pennsylvania. Archaeologist for site 36AL480.

Phase III investigations for the Leetsdale Industrial Park Complex, Allegheny County, Pennsylvania. Archaeologist for site 36AL480.

Phase I Archaeological Investigations within the Gateway National Recreation Area at the Jamaica Bay Wildlife Refuge, Broad Channel Island, Jamaica Bay, New York. Crew Chief and Archaeologist.

Phase I Archaeological Investigations within the Gateway National Recreation Area at the Jacob Riis Bathhouse, Breezy Point, New York. Crew Chief and Archaeologist.

Phase III Archaeological Investigations at Raritan Landing (Route 18) Middlesex County, New Jersey. Crew Chief and Archaeologist for Phase III investigations at the 18th – 19th Century Upper VanRanst Site (28MI89) in Raritan, New Jersey, near the extensive Raritan Landing Colonial port village sites along the Raritan River. Additionally, Ms. Feeney assisted in site analysis and report writing for this project.

Phase III Archaeological Investigations at Raritan Landing (Route 18) Middlesex County, New Jersey. Crew Chief and Archaeologist for Phase III investigations at the 18th – 19th Century Upper VanRanst Site (28MI89) in Raritan, New Jersey, near the extensive Raritan Landing Colonial port village sites along the Raritan River.

Phase II and III Woodrow Wilson Bridge, Jones Point, Alexandria, Virginia. Archaeologist for the testing and mitigation of site 44AX185 prehistoric site and an early 19th century ropewalk.

Phase III Wilmington Bypass, Wilmington, North Carolina. Crew Chief and Archaeologist for data recovery excavation of Site 31NH707, an early woodland period site on the Cape Fear.

Germantown Avenue Bridge Replacement Site 36PH106, Archaeological Data Recovery, Philadelphia, Pennsylvania. Crew Chief and Archaeologist for the Phase III archaeological investigations conducted to mitigate adverse effects to the Paul Site (36PH106), an 18th to 19th century occupation, for the proposed replacement of the Germantown Avenue Bridge over Wissahickon Creek.

Phase I Terrestrial Archeological Survey for US 301 Southern Corridor, Charles and Prince George's Counties, Maryland. Crew Chief and Archaeologist for the Phase I terrestrial archeological investigations of the proposed US 301 Southern Corridor project in Prince Georges and Charles Counties, Maryland. The survey used a GIS-based predictive model developed for the Waldorf area that incorporated criteria of slope, aspect, and drainage.

Phase II Archaeological Investigations at Stokes State Forest in Sussex Co., NJ. Archaeologist for Phase II investigations at the historic Steffens site (28SX376).

Phase I / II Archaeological Survey for the OH7-C1 Power Station Site, Dominion Energy and Consolidated Natural Gas, Muskingum County, Ohio. Archaeologist for Phase I / II investigations for a 40-acre proposed power station and its associated pipelines in the floodplain of the Muskingum River in Cass Township, Ohio.

Maryland Route 5 – Hughesville, MD. Archaeologist for Phase I investigations for the Hughesville Bypass.

Phase I Archeological and Historic Architectural Survey of the Earnshaw Propery Wetland Creation Site (WIC-1) Charles County, Maryland. Archaeologist for Phase I investigations associated with the Woodrow Wilson Bridge project.

Fletcher's Boathouse Prehistoric Site. Archaeologist for the Phase III mitigation of Site 51NW13 in Washington, D.C., a stratified Woodland occupation along the C and O Canal.

Phase III investigations at the Wilson Tract site, Chester County, Pennsylvania. Archaeologist for Phase II/III investigations on Site 36CH687, an historic farmstead.