Appendix 3.12-1

Phase IA Literature Search and Archaeological Sensitivity Assessment

A PHASE 1A LITERATURE SEARCH

and

ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

for

THE LIGHTHOUSE AT LONG ISLAND

UNIONDALE, TOWN of HEMPSTEAD

NASSAU COUNTY, NEW YORK

Prepared by:

David J. Bernstein, Ph.D.
Daria E. Merwin, M.A., R.P.A.

The Institute for Long Island Archaeology
Department of Anthropology
State University of New York at Stony Brook
Stony Brook, New York 11794-4364

October 2008

MANAGEMENT SUMMARY

SHPO Project Review Number	N/A
Involved State and Federal Agencies	N/A
Phase of Survey	Phase 1A archival search and archaeological sensitivity assessment.
Location	Location: north and south sides of Hempstead Turnpike (New York State Route 24, also known as Fulton Avenue) between Earle Ovington Boulevard and James Doolittle Boulevard Minor Civil Division: 05901 County: Nassau
Survey Area	Approximately 150 acres (61 hectares).
USGS 7.5 minute Quadrangle Maps	*Freeport, New York* (1969/1979)
Recommendation	Due to thorough disturbance of the project area, along with the very low sensitivity for the presence of prehistoric and historic period sites, no further archaeological investigations are recommended.
Report Authors	David J. Bernstein, Ph.D. Daria E. Merwin, M.A., R.P.A.
Date of Report	October 2008

TABLE OF CONTENTS

LIST OF FIGURES, TABLE, AND PHOTOGRAPHS

INTRODUCTION

This report presents a Phase 1A literature/archival search and archaeological assessment for the proposed Lighthouse at Long Island development project in Uniondale, Town of Hempstead, Nassau County, New York (Minor Civil Division 05901; Figures 1 and 2). The research was conducted by the Institute for Long Island Archaeology at Stony Brook University in April 2008.

The purpose of this Phase 1A study is to determine if redevelopment will impact archaeological remains of prehistoric and/or historic age. The study was performed in accordance with the guidelines outlined in the *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* issued by the New York Archaeological Council (1995) and the *Phase I Archaeological Report Format Requirements* issued by the New York State Historic Preservation Office (2005).

Description of the Undertaking

The Lighthouse at Long Island project consists of the proposed redevelopment of the Nassau Veterans Memorial Coliseum and the surrounding area comprising approximately 150 acres (61 hectares) in four parcels separated by roads (Figures 1-3). The project area is located on the north and south sides of Hempstead Turnpike (New York State Route 24, also known as Fulton Avenue) west of the Meadowbrook State Parkway, and between Earle Ovington Boulevard and James Doolittle Boulevard. The project proposal includes renovation of the existing Coliseum building (Photograph 1), along with the construction of new office buildings, a convention facility and hotel, parking garages, and residential buildings.

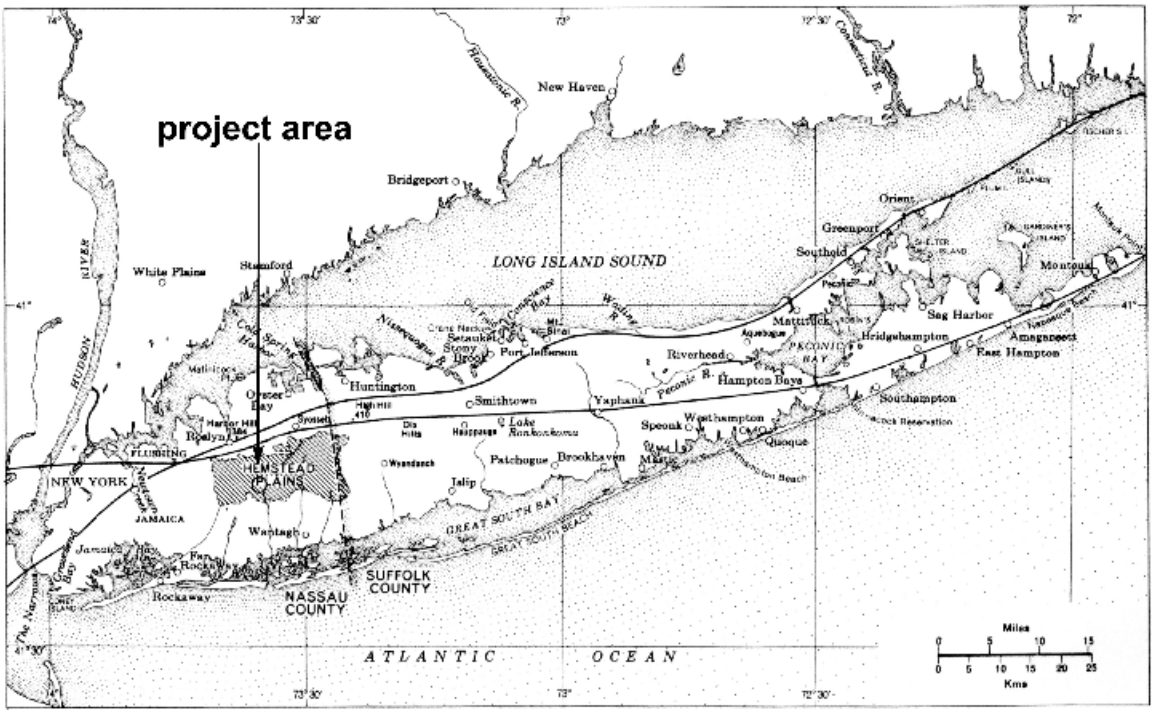

Figure 1. Map of Long Island showing the location of the project area.

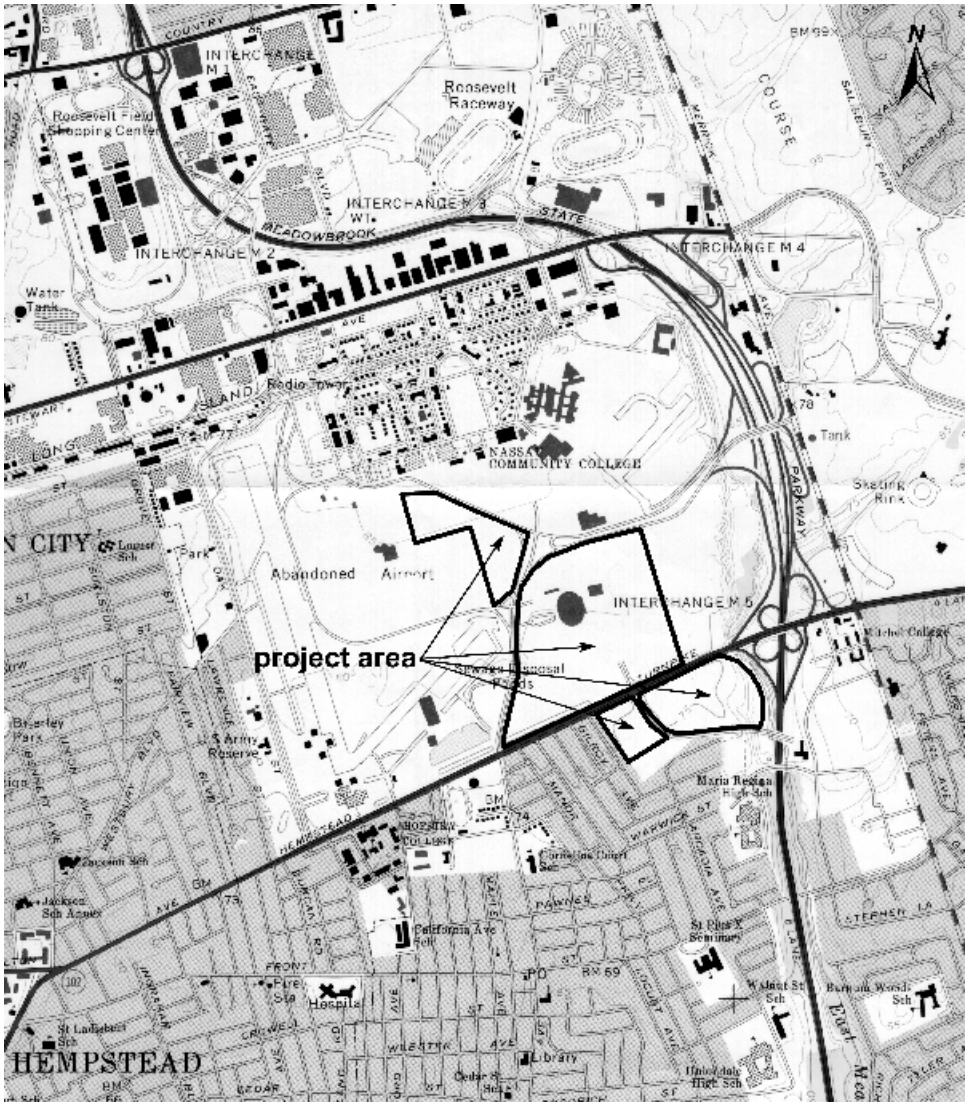

Figure 2. 1969/1979 USGS topographic map of *Freeport, New York* showing the location of the project area (scale = 1:24,000).

Figure 3. Aerial photograph of the Lighthouse at Long Island project area in Uniondale, Town of Hempstead.

BACKGROUND RESEARCH

Environmental Setting

The project area is near the center of Nassau County on western Long Island, near two major roadways (Hempstead Turnpike and the Meadowbrook State Parkway) in an area of heavy residential and commercial development (Figures 1 and 2; Photograph 1). It is situated on the broad sandy Hempstead outwash plain, a landscape feature created more than 15,000 years ago by meltwater runoff from the Wisconsinan ice sheet (Sirkin 1996). Topography in the project area is generally relatively level, with an average elevation of 24 meters (80 feet) above mean sea level. The nearest source of fresh water is the East Meadow Brook, which follows the parkway less than 1000 feet (305 meters) to the east.

Prior to development during the twentieth century, the project area was part of the Hempstead Plains. The original size of the Hempstead Plains roughly corresponded to the extent of the Hempstead outwash plain in Queens and Nassau Counties, or over 60,000 acres, although only a few scattered patches remain today (Neidich-Ryder 1988). The Hempstead Plains, a true prairie ecosystem, once supported grasses, wildflowers, berries, and sixty herb species.

Soils in the project corridor are dominated by Urban land, with a small area of Hempstead silty loam. Specifically, the northwesternmost of the four parcels consists of Urban land, Hempstead complex; the main large parcel is Urban land with a section of Hempstead silty loam in the southwest corner (the recharge basin site); the two parcels south of Hempstead Turnpike are both Urban land (Figure 4; Table 1; United States Department of Agriculture [USDA] 1987: Sheet 11). Urban land is characterized as at least 85% covered with asphalt, concrete, or other impervious building material. The Hempstead series consists of very deep, well drained soils on outwash plains. As indicated by the county soil survey, nearly all of the project area is covered by pavement and buildings (Photographs 1 and 2).

Site File Search

The files of the New York State Museum (NYSM), and the Office of Parks, Recreation, and Historic Preservation (OPRHP) document no known prehistoric or historic period archaeological sites within 1.6 kilometers (one mile) of the project area. No archaeological deposits were identified during two previous surveys adjacent to the Lighthouse at Long Island parcels (Silver 1994; Wyatt 1976). There is a potentially State and/or National Register of Historic Places eligible historic district beginning approximately 210 meters (700 feet) north of the project area, Mitchel Air Field (OPRHP inventory numbers 05901.000226-05901.000327). The historic district is physically separated from the project area by Charles Lindbergh Boulevard, newer buildings and facilities at Nassau Community College, and commercial development (Photograph 2). There will be no physical impact to the Mitchel Air Field historic district under the proposed work scope due to this separation.

Table 1. Project area soils.

Name	*Soil Horizon Depth*	*Color*	*Texture*	*Slope %*	*Drainage*
Urban land, Hempstead complex	A: 0-27 cm (0-11 in) B1: 27-38 cm (11-15 in) B2: 38-74 cm (15-29 in)	black dark brown yellow brown	silt loam silt loam silt loam	0-3%	well
Urban land	N/A (consists of areas with greater than 85% of surface is covered)	N/A	N/A	flat	N/A
Hempstead silt loam	A: 0-27 cm (0-11 in) B1: 27-38 cm (11-15 in) B2: 38-74 cm (15-29 in)	black dark brown yellow brown	silt loam silt loam silt loam	0-3%	well

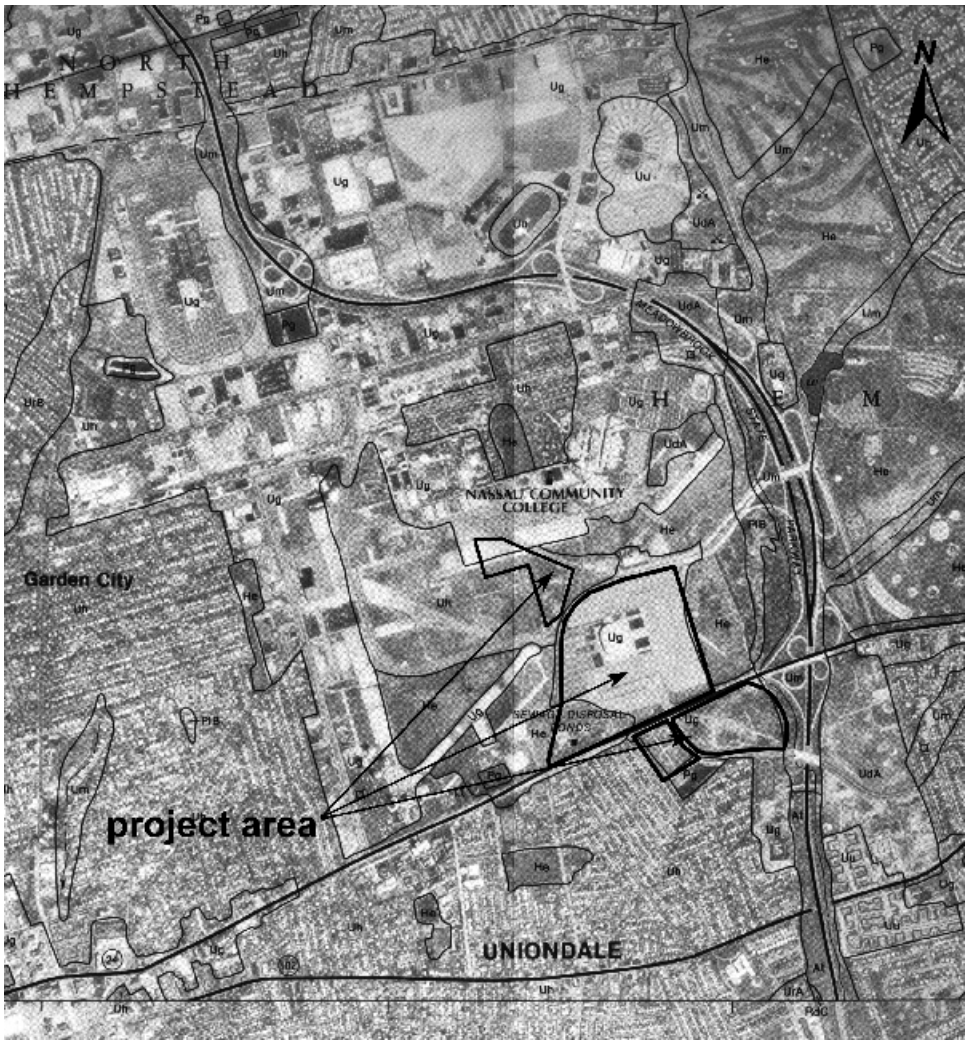

Figure 4. Soils in the Lighthouse at Long Island project area (from USDA 1987: Sheet 11).

Photograph 1. Looking northwest at the Nassau Veterans Memorial Coliseum near the center of the project area.

Photograph 2. View west across a parking field towards the Omni office building (left) from near the intersection of James Doolittle Boulevard and Charles Lindbergh Boulevard. Buildings in the Mitchel Air Field historic district, located more than 210 meters (700 feet) from this position, are not visible to the north (right) beyond newer buildings at Nassau Community College.

Historic Maps

A survey of nineteenth and early twentieth century maps indicates that the project area was sparsely populated until the mid-twentieth century. The 1837 United States Coastal Survey of Long Island (Figure 5) is among the earliest maps to accurately depict natural and man-made landscape features. The historic nucleus of settlement at Hempstead is illustrated west of the project area, with several rural roads (including Hempstead Turnpike) radiating outward from the community. The East Meadow Brook east of the Lighthouse property is clearly depicted. There is one house on the north side of Hempstead Turnpike within the project area (the site is now covered with pavement) and one house just outside (no evidence of this structure is present on the north side of Hempstead Turnpike just west of Uniondale Avenue).

By the time of the 1873 Beers *Atlas of Long Island* (Figure 6), the railroad had reached central Nassau County, spurring development. During the mid-nineteenth century, several more structures were built along Hempstead Turnpike (identified on the 1873 map as Fulton Avenue), including four within the project area belonging to (west to east) C. Pettit, J. Vandewater (two structures, one possibly an outbuilding), and Mrs. Youngs (the building shown on the 1837 map). There is no evident remains of any of these houses, and their former sites are covered by pavement. A similar settlement pattern is shown on the 1903 topographic map of *Hempstead, New York* (15 minute series; Figure 7). Three houses are depicted on the north side of Hempstead Turnpike within the project area on the 1903 map.

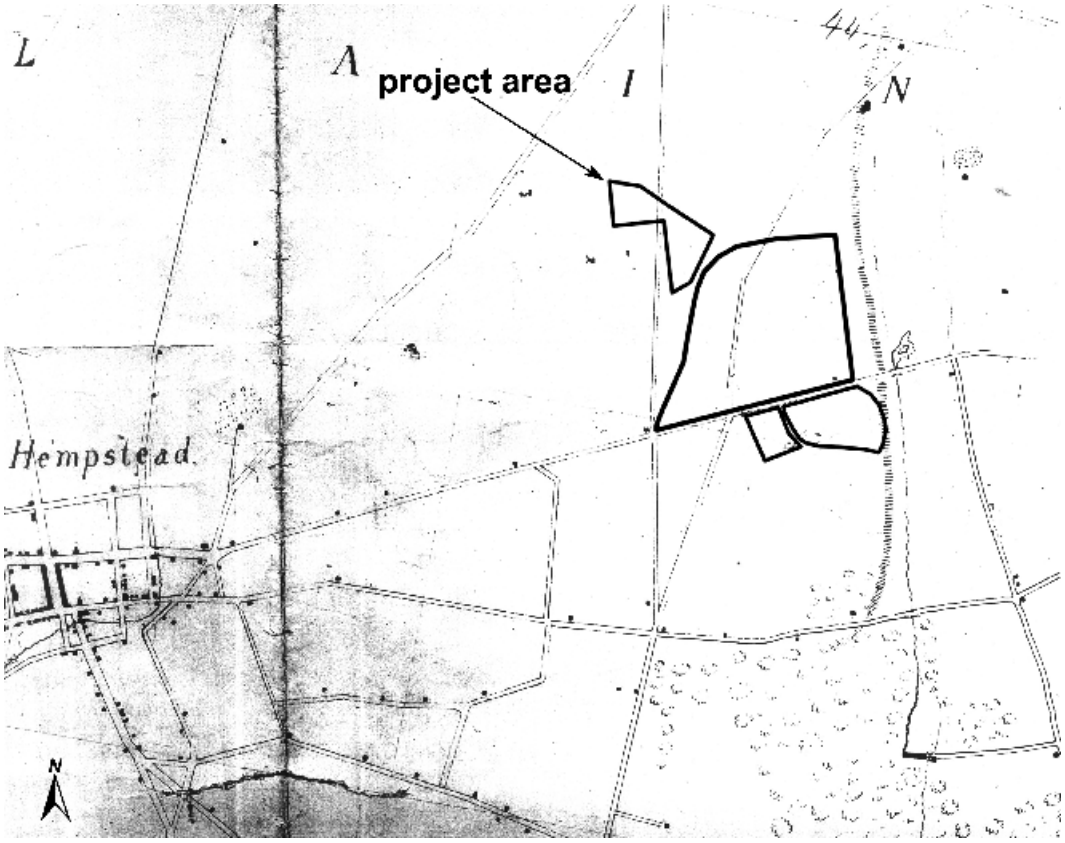

Figure 5. 1837 U.S. Coastal Survey of Long Island showing early nineteenth century development in Hempstead and in the surrounding rural area. One building is illustrated within the project area.

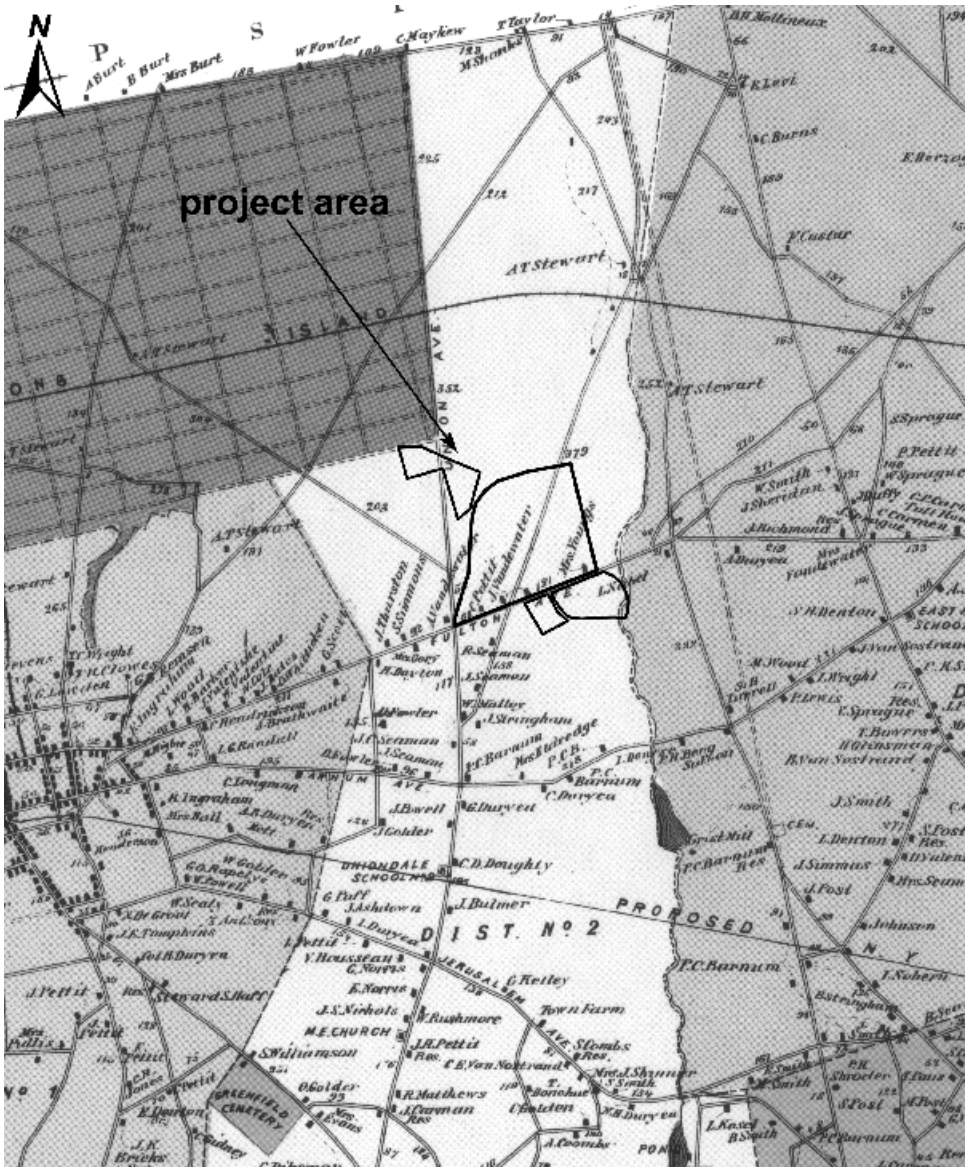

Figure 6. 1873 Beers Atlas of Long Island showing the location of the project area.

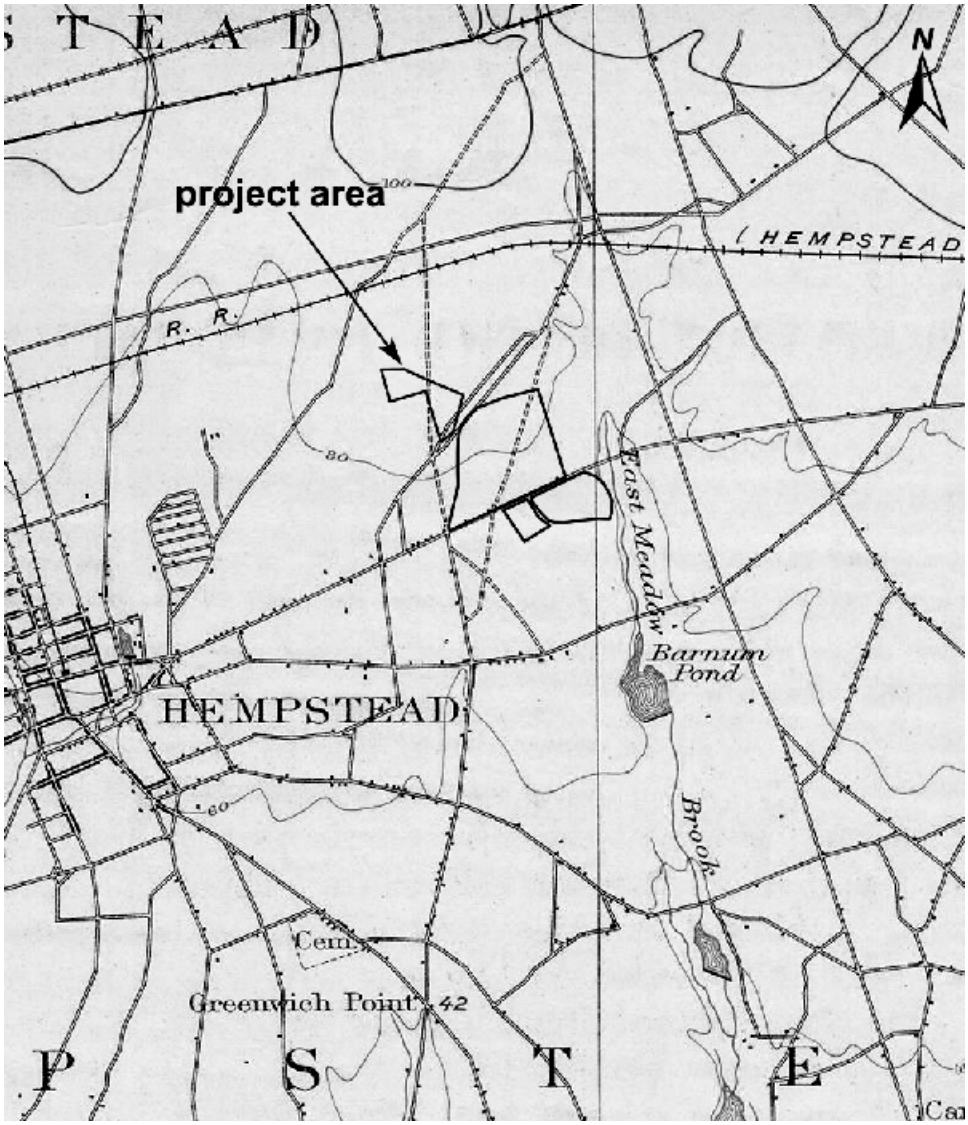

Figure 7. 1903 topographic map of Hempstead, New York (15 minute series). Three buildings are shown along the north side of Hempstead Turnpike within the project area.

Sensitivity Assessment

Prehistoric Context. As discussed above, there are no known prehistoric deposits in the project area vicinity reported in the state archaeological site files. Comparatively little is known about prehistoric settlement and subsistence patterns for the interior reaches of Nassau County, since attention has traditionally focused on Long Island's coast (Lightfoot 1988) and many cultural resource surveys conducted over the past several decades (e.g., Silver 1994; Wyatt 1976) have not discovered any interior archaeological sites. The results of some studies suggest that many sites located away from the coast are short duration camps or procurement stations (Lightfoot 1988:38). These are sites where a limited range of activities was performed (such as hunting, tuber collecting, or other raw material procurement), and their archaeological assemblages frequently contain a low diversity of artifactual remains.

Prior to Euro-American settlement (and especially extensive development during the late nineteenth through twentieth centuries), the Hempstead Plains hosted a variety of plant and animal species that were undoubtedly attractive to prehistoric hunter-gatherers. Colonist Daniel Denton (1845[1670]) commented on the plains' seasonal abundance of berries and wild animals, especially birds like turkey, heath hen, and partridge. Prehistoric utilization of the Hempstead Plains was probably focused on procuring seasonal resources, but not with long-term or repeated occupation sites. The likelihood of encountering such small and ephemeral procurement sites is relatively low.

Based on the results of the site file search and an assessment of environmental conditions, undisturbed portions of the project area, if they exist, would have a low sensitivity for the presence of prehistoric remains. However, virtually all of the project area has witnessed significant ground disturbance (see below). Therefore, there is almost no potential for the presence of intact prehistoric sites.

Historic Context. There are no reported historic period archaeological finds in the NYSM and OPRHP site files. Permanent settlement by the English did not occur in central Nassau County until the middle of the seventeenth century. At the time of contact, this section of Long Island was occupied by the Matinecock and Massapeag, speakers of the Mohegan-Pequot-Montauk Algonquian language (Salwen 1978). The Town of Hempstead was located along the boundary between Dutch and English settlement in eastern New York. Most of the mid-seventeenth century settlers were English colonists from Connecticut and Massachusetts. The political tension between the English and Dutch was resolved when the former gained control of New Amsterdam in 1664 (Hazelton 1925:922).

Land in central Nassau County was purchased from the Native Americans with a series of patents dating from 1644 through the early eighteenth century. Settlement was initially concentrated around the present-day village of Hempstead, roughly two miles (3.2 kilometers) west-southwest of the project area. The Hempstead Plains were particularly attractive to the colonists for their suitability as pasturage. Many seventeenth and eighteenth century farms were situated adjacent to kettleponds on the plains, as this was the most practical means of providing water for the animals (Hazelton 1925:903). During the mid-nineteenth century, increasing population density in Nassau County, along with competition from western cattle ranches, led to the more intensive cultivation of the Hempstead Plains, even in previously untilled sections (Neidich-Ryder 1988).

The rural economy of Nassau County was disrupted by the Revolutionary War. British troops were garrisoned throughout Hempstead and Oyster Bay during the conflict. The war and British occupation had a major impact on the economy of Long Island, as wood, agricultural produce, and entire herds of cattle and flocks of sheep were demanded by the British of the colonists (Luke and Venables 1976), seriously depleting local resources. In 1784, lingering political resentments led to the division of the Town of Hempstead, with the formation of patriot North Hempstead and loyalist South Hempstead (now simply Hempstead) (Hazelton 1925:861).

Colonial period roadways, including Hempstead Turnpike, had been important for connecting interior farmsteads and determining linear settlement patterns. However, it was the coming of the railroad which brought significant change for all of Long Island. By 1850 the Brooklyn-Greenport-Boston railroad was running regularly across the center of Long Island, and in the 1870s northern and southern branches were in full operation. The

railroad encouraged the development of fashionable summer resorts along the shores of Long Island, which in turn contributed to the proliferation of "Gold Coast" estates along Nassau County's north shore. The 1880s through the 1920s was the "Gold Coast" era, when Colonial period farmsteads were replaced by large country estates for wealthy New Yorkers (Smits 1974).

As a result of the influx of wealth into the region around the turn of the century, general civic improvements were made (such as paved streets with electric lighting). Another result was the introduction of amenities for the leisure class, such as yacht clubs, tennis courts, and polo fields. By the early twentieth century, hundreds of acres of farmland on the Hempstead Plains had given way to race tracks, aviation fields, and golf courses (Hazelton 1925:904).

The Hempstead Plains, once home to cattle and farmers, has been identified as the American "cradle of aviation." Numerous record-breaking flights (including tests of speed, distance, and altitude) were made in the region beginning in 1909. As many as 10,000 Long Islanders would visit the flying fields on weekends to cheer the aviators (Bookbinder 1983:162-165). The flat, treeless plains were deemed ideal by early airmen for a flying field, and received top priority as military training facilities. The plains had military bases during the American Revolution, the War of 1812, the Civil War, the Spanish-American War, and both World Wars (Bookbinder 1983). Two important aviation fields are located near the project area: Roosevelt Field (originally known as Hazelhurst Field) and Mitchel Field. Hazelhurst Field was established in 1917, at the start of United States involvement in World War I, and was a training school for Army and Marine corps pilots. Among the trainees was Quentin Roosevelt, youngest of Teddy Roosevelt's four sons. He was killed in a combat mission and Hazelhurst Field was renamed in his honor in 1918 (Bookbinder 1983:172). Mitchel Field, located just south of Roosevelt Field and near the project area, was used as a training center during both world wars. An Army base adjacent to Mitchel Field housed National Guardsmen from every state (Bookbinder 1983:172).

Residential development, initiated during the late nineteenth century and facilitated by a proximity to New York City, grew after World War I. New aircraft and support system factories intensified the demand for worker housing. This trend intensified following World War II, when the Hempstead Plains provided the key resource, open land, for a population and housing development boom that swept over Nassau County and made it the fastest-growing postwar suburb in America (Krieg and Naylor 2000:173). Nassau Community College opened in 1960 on the grounds of former Mitchel Field.

Based on the archaeological site file search, historic maps, local history, and an assessment of environmental conditions, undisturbed portions of the project area, if they existed, would have a moderate sensitivity for the presence of historic period remains, especially along the north side of Hempstead Turnpike, in the vicinity of nineteenth century map documented structures. However, as is the case with prehistoric sites, it is certain that any historic deposits were thoroughly disturbed during construction of the Coliseum, parking lots, and related facilities. Therefore, the potential for intact historic remains is extremely low.

FIELD INVESTIGATION

The four Lighthouse at Long Island parcels were inspected with a walk-over survey in April 2008. Particular attention was given to the few areas of soil exposure around the periphery of the project area, but nearly all of the property is covered by extant buildings and paved parking lots and roads (Photographs 1 and 2). Only recent trash (i.e., less than twenty years old) was encountered during the walk-over survey.

Disturbance

As discussed above, the majority of the project area is covered by buildings and pavement (Figure 3; Photograph 1). The entire project area has witnessed substantial ground disturbance from cutting, grading, excavation for building foundations, parking lots, and below-ground utilities, along with other earth-moving activities. Disturbed areas have a very low potential for the presence of intact archaeological deposits.

RECOMMENDATIONS

Based on a search of archaeological site files, a study of historic maps, a consideration of environmental characteristics, and a field inspection, the proposed Lighthouse at Long Island development project has virtually no sensitivity for the presence of prehistoric or historic period archaeological sites. The entire project area has witnessed substantial ground disturbance from cutting, grading, excavation for building foundations and below-ground utilities, and other earth-moving activities. Further, nearly all of the project area is covered by extant buildings and paved parking lots and roads. Therefore, no further archaeological investigations are recommended.

In addition, as discussed above, there is a potentially eligible State and/or National Register of Historic Places historic district beginning approximately 210 meters (700 feet) north of the project area, Mitchel Air Field (OPRHP inventory numbers 05901.000226-05901.000327). The district is physically separated from the project area by Charles Lindbergh Boulevard, newer buildings and facilities at Nassau Community College, and commercial development. Thus, there will be no physical impact to the Mitchel Air Field historic district under the proposed work scope. The proposed Lighthouse at Long Island development would be visible from the Officers' Quarters at Mitchel Air Field. However, the new construction would be visually similar to existing development in the surrounding area, and several measures have been proposed to mitigate any visual impacts associated with the Lighthouse at Long Island project (please see Section 3.12.3 of the project DGEIS).

REFERENCES

Bookbinder, Bernie
1983 *Long Island: People and Places, Past and Present*. Harry N. Abrams Inc., New York.

Denton, Daniel
1845 *A Brief Description of New York, Formerly Called New Netherlands*. W. Gowans, New York. Originally published in 1670.

Hazelton, Henry I.
1925 *The Boroughs of Brooklyn and Queens, Counties of Nassau and Suffolk, Long Island, New York 1609_1924, Volume II.* Lewis Historical Publishing Company, New York.

Krieg, Joann P. and Natalie A. Naylor (eds.)
2000 *Nassau County-From Rural Hinterland to Suburban Metropolis*. Empire State Books, New York.

Lightfoot, Kent G.
1988 Archaeological Investigations of Prehistoric Sites on Eastern Long Island. In *Evoking a Sense of Place*, edited by Joann P. Krieg, pp. 31_44. Heart of the Lakes Publishing, Interlaken, New York.

Luke, Myron H. and Robert W. Venables
1976 *Long Island in the American Revolution*. New York State American Revolution Bicentennial Commission, Albany.

Neidich-Ryder, Carole
1988 Long Island's Vanishing Prairie: A Hempstead Plains Retrospective. *The Nature Conservancy Long Island Chapter News*, Fall:4.

Salwen, Bert
1978 Indians of Southern New England and Long Island: Early Period. In *Handbook of North American Indians, Volume 15*, edited by Bruce Trigger, pp. 160_176. Smithsonian Institution, Washington D.C.

Silver, Annette
1994 A Cultural Resources Survey Report of PIN 0523.21.101, Meadowbrook State Parkway, Southern State to Northern State Parkway, Towns of Hempstead and North Hempstead, Nassau County. Report prepared by the Institute for Long Island Archaeology, Stony Brook University for the New York State Department of Transportation.

Sirkin, Les
1996 *Western Long Island Geology with Field Trips*. The Book and Tackle Shop, Watch Hill, Rhode Island.

Smits, Edward J.
1974 *Nassau: Suburbia, U.S.A.* Doubleday and Company, Garden City, New York.

United States Department of Agriculture
1987 *Soil Survey of Nassau County, New York*. Soil Conservation Service, Washington, D.C.

Wyatt, Ron
1976 Stage I Archaeological Survey of Contract Area No. 1002-3-EM-2, East Meadow Lateral Sewer Collection District, East Meadow, Nassau County, New York. Report on file, New York State Office of Parks, Recreation, and Historic Preservation.

List of Maps

Beers, F. W.
1873 *Atlas of Long Island, New York*. Beers, Comstock, and Cline, New York.

United States Coastal Survey
1837 *Chart of the South Coast of Long Island, New York.* U.S. Coastal Survey, Washington, D.C.

United States Geological Survey
1903 *Hempstead, New York.* 15 minute series. Topographic Surveys, Washington, D.C.
1969/1979 *Freeport, New York.* 7.5 minute series. Department of the Interior, Washington, D.C.