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Klein 1998

ARCHAEOLOGICAL DOCUMENTARY RESEARCH STUDY  
RECONSTRUCTION AND IMPROVEMENT  
CLEARVIEW AND 24TH AVENUE PUMPING STATIONS  
BOROUGH OF QUEENS  
NEW YORK CITY

CAPITAL PROJECT NO. WP-269

RECEIVED  
ENVIRONMENTAL REVIEW

APR 8 1998

LANDMARKS PRESERVATION  
COMMISSION

Prepared for:

Bureau of Environmental Engineering  
Department of Environmental Protection  
City of New York

97 DEP 029Q

Prepared by:

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## I. INTRODUCTION

The Bureau of Environmental Engineering, Department of Environmental Protection, of the City of New York is proposing to reconstruct and improve the Clearview and 24th Avenue pumping stations (Figures 1, 2, 3, 4, and 5). URS Greiner, Inc., under contract with the Department, conducted an archaeological documentary research study of both sites in order to evaluate the archaeological potential of the sites. This work was performed following the New York City Landmarks Preservation Commission (LMPC) guidelines. This report presents the results of this archaeological documentary research study. This work was conducted under the supervision of Terry H. Klein, SOPA. Background research on the project areas was performed by Madeline Sheerer, project historian, and Bernard W. Slaughter, project archaeologist.

## II. DOCUMENTARY RESEARCH

### Prehistory

Since a prehistoric overview for Queens has been developed for the LMPC (Boesch 1997), it will not be repeated in this report. However, the following discussion examines the potential of the two sites to contain prehistoric archaeological resources based on this overview, and additional background research.

In general, throughout prehistory, the native inhabitants of Queens utilized the floral and faunal resources present along the Little Neck Bay and its associated saltwater and brackish marshes, and tidal creeks. Information from sites dating to the Paleoindian Period are rare in the area of Queens considering that they would have been inundated by rising sea levels at the end of the last glacial period. While there is minimal information on Early and Middle Archaic occupations, Late Archaic sites are relatively well represented. Woodland period occupations, especially Late Woodland sites, are also well represented in Queens. Further, there are documented European encounters with Native American settlements located adjacent to area's riverine and coastal water sources. In essence, areas adjacent to the bay, such as the two project sites, if undisturbed, would have a high potential to contain prehistoric sites.

Only one previously recorded prehistoric site has been documented in the vicinity of the pumping stations. The Clearview Site (Site 32), which was located and subsequently destroyed during the construction of the Cross Island Parkway, was located approximately .5 miles southwest of the Clearview Avenue Pumping Station, on the former Walter Roe Farm, near a spring situated at Willet's Point Boulevard, near 201st Street. (Boesch 1996, Smith 1950). This site, defined as a hunting and fishing camp, contained a shell midden and pit features. In addition, ceramics dominated by East River and Windsor types, side notched and triangular points and ground stone tools were recovered (Smith 1950).

## History

In order to develop a site history for the two project areas, URS Greiner conducted historical research at the main branch of the New York Public Library - Map Division; Queens Borough Branch of the New York City Public Library - Archives Department; and the New York Historic Landmarks Preservation Commission. Inspection of previous cultural resource survey reports, and site forms was conducted at the LMPC. In addition, URS Greiner consulted historic maps of the Borough of Queens, on file at these repositories, dating circa 1886 to 1945 to ascertain the history of land use for the project areas.

**24th Avenue Pumping Station.** The 24th Avenue Pumping Station property was never developed during the nineteenth and twentieth century by its various owners. Hopkin's 1886 *Map of Flushing, Long Island* (Figure 6) indicates that the site was located on property belonging to J.W. Harway. The site remained undeveloped and in the possession of the Harway family through 1896 (Figures 8 and 10). A 1934 Sanborn Insurance Map (Figure 12) indicates that the Harway property had been divided into several lots, the site being listed as Lot 6008. The site is located on a section of land that juts into Little Neck Bay. During the middle of the twentieth-century a portion of the bay located directly north of the site was filled in to facilitate the completion of 217th Street as a through street. Based on this history of land use, the site does not have the potential to contain historic period archaeological resources, but may contain prehistoric resources unaltered by historic activities.

**Clearview Avenue Pumping Station.** Map data indicate that the site was never developed during the nineteenth and twentieth centuries by its various owners. Hopkin's 1886 *Map of Flushing, Long Island* (Figure 7) indicates that the site was located on property belonging to the Payntar family and adjacent to St. Joseph's Convent, which was owned by the Sisters of Charity. By 1891 the Sisters of Charity had purchased the Payntar property and incorporated the site into the convent holdings, as seen on Chester A. Wolverton's 1891 *Map of Long Island* (Figure 9). The property remained in the possession of the Sisters of Charity through the latter part of the nineteenth century. Between 1896 and 1934, the area was purchased and developed as a part of the Clearview Golf Course (Figures 11 and 13). A map produced by the City Planning Commission indicates that the site was ultimately incorporated into Clearview Park by 1945 (Figure 14). As with the other site, the Clearview property does not have the potential to contain historic period archaeological resources, but may contain prehistoric resources unaltered by historic land use.

## III. FIELD INSPECTION

On January 29, 1998, URS Greiner conducted a field inspection in order to assess the archeological potential of the two project locations (Figure 1). Specifically, the inspection was conducted to determine the impact that modern development has had on the integrity of the original landscape

at each location. Observations were made on the degree of fill deposited and on obvious land modifications in the areas of potential effect (APE) associated with each improvement project. In addition to the field inspection, soil profiles obtained from previous auger borings within and adjacent to the project areas were examined

### **24th Avenue Pumping Station**

The 24th Avenue Pumping Station is located at the intersection of 24th Avenue and Waters Edge Drive (217th Street) along a stretch of land directly parallel to the eastbound lane of the Cross Island Parkway. The present pumping station, visible on the surface as a 7-x-10 foot concrete pad with grates and manhole covers, is located just west of the intersection of these two streets (Figure 2). The pumphouse currently extends to a depth of approximately 37 feet below grade. The APE associated with the project, that is not located under Waters Edge Drive, is limited to an approximate 6-x-10 foot area adjacent to the eastside of the existing pumping station. This area is a grassy strip between Waters Edge Drive and a fence bordering a parking lot. The APE beneath the pavement of Waters Edge Drive contains several utilities and portions of the existing pumping station (Figure. 3).

An analysis of the Hopkin's 1886 *Map of Flushing, Long Island* (Figure 6 ) indicates the project area was originally located directly on the shore of Little Neck Bay. The current shore of the bay is approximately one-quarter mile to the north. Clearly, the area to the north of the project site has been filled, extending out the bay shoreline.

Two auger borings were previously excavated to depths of 61.5 and 36.5 feet below surface just south of Waters Edge Drive across from the pump station. While these borings were not located directly in the project area, it is reasonable to assume that similar profiles exist in the project area which is approximately 30 feet from the borings. An analysis of the auger boring data indicates that the area has been subjected to massive amounts of filling. Fourteen to 17 feet of fill was encountered in these borings, overlying a 5 foot thick layer of fine to medium brown silty sand containing a minimal amount of gravel. It is possible that this layer represents a natural buried soil profile. Groundwater was encountered 3.7 feet below the surface, well above the interface between the modern fill deposits and possible natural strata.

Though potentially intact soils are present below the thick layer of fill, further archeological work in this area is not recommended. The potential for the recovery of significant archeological deposits and features is quite limited given the following factors:

- Because of the small size of the project area not under the street (i.e., a 6-x-10 feet area), any prehistoric sites encountered below the fill would yield minimal information. In essence, the available sample size of any encountered site would be extremely small.
- Groundwater was encountered 3 feet above the top of the possible natural soils. The presence of groundwater would make excavations in the area extremely difficult. This logistical difficulty is heightened by the small size of the project area.



## Clearview Avenue Pumping Station

The Clearview Avenue Pumping Station area is located directly north of the northbound lane of Clearview Expressway (Exit Seven) and east of the Cross Island Expressway South Service Road. The project area is a 60-x-80 foot grassy island surrounded by roadways. The present pumping station is visible on the surface as a 17-x-28 foot concrete pad with grates and manhole covers (Figures 4 and 5). The pumphouse currently extends to a depth of approximately 34 feet below grade. An analysis of the Hopkin's 1886 *Map of Flushing, Long Island* (Figure 7) and Chester A. Wolverton's 1891 *Map of Long Island* (Figure 9) indicates that the project area was originally located directly on Little Neck Bay. During the middle of the twentieth century a portion of the bay located directly north of the site was filled in to facilitate the completion of 217th Street as a through street.

Two auger borings had been previously excavated to depths of 66.5 and 31.5 feet below the surface, immediately to the north and south sides of the pump station. Approximately 11 to 13 feet of fill was encountered in these borings. Natural grey/green silt and clay deposits are directly underlying the fill. These deposits, approximately five feet thick, are directly overlying glacial till. The grey/green silt and clay soils would represent water-saturated soils, such as within a marsh. A wellpoint, established in one of these borings encountered groundwater at 11 feet below the surface, just above the interface between modern fill deposits and natural strata. Given the apparent absence of fast land within the project area, the site has a low potential to contain intact, significant prehistoric sites.

## IV. RECOMMENDATIONS

Given the results of the archaeological documentary research on the two pumping station sites, and a field inspection of the current conditions of each property, the potential for the two sites to contain significant, intact prehistoric deposits and features is very low. Therefore, no additional work in the form of archaeological field testing is recommended for the two sites.

## REFERENCES CITED

Boesch, Eugene J.

1997 *Archeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of Queens, New York*. Document on file, New York City Landmarks Preservation Commission.

1996 Previously Recorded Native American Sites in the Borough of Queens. In *Appendix A, Archeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of Queens, New York*. Document on file, New York City Landmarks Preservation Commission.

Smith, Caryle Shreeve

1950 *The Archaeology of Coastal New York*. Anthropological Papers of the American Museum of Natural History, Volume 43: Part 2. New York.

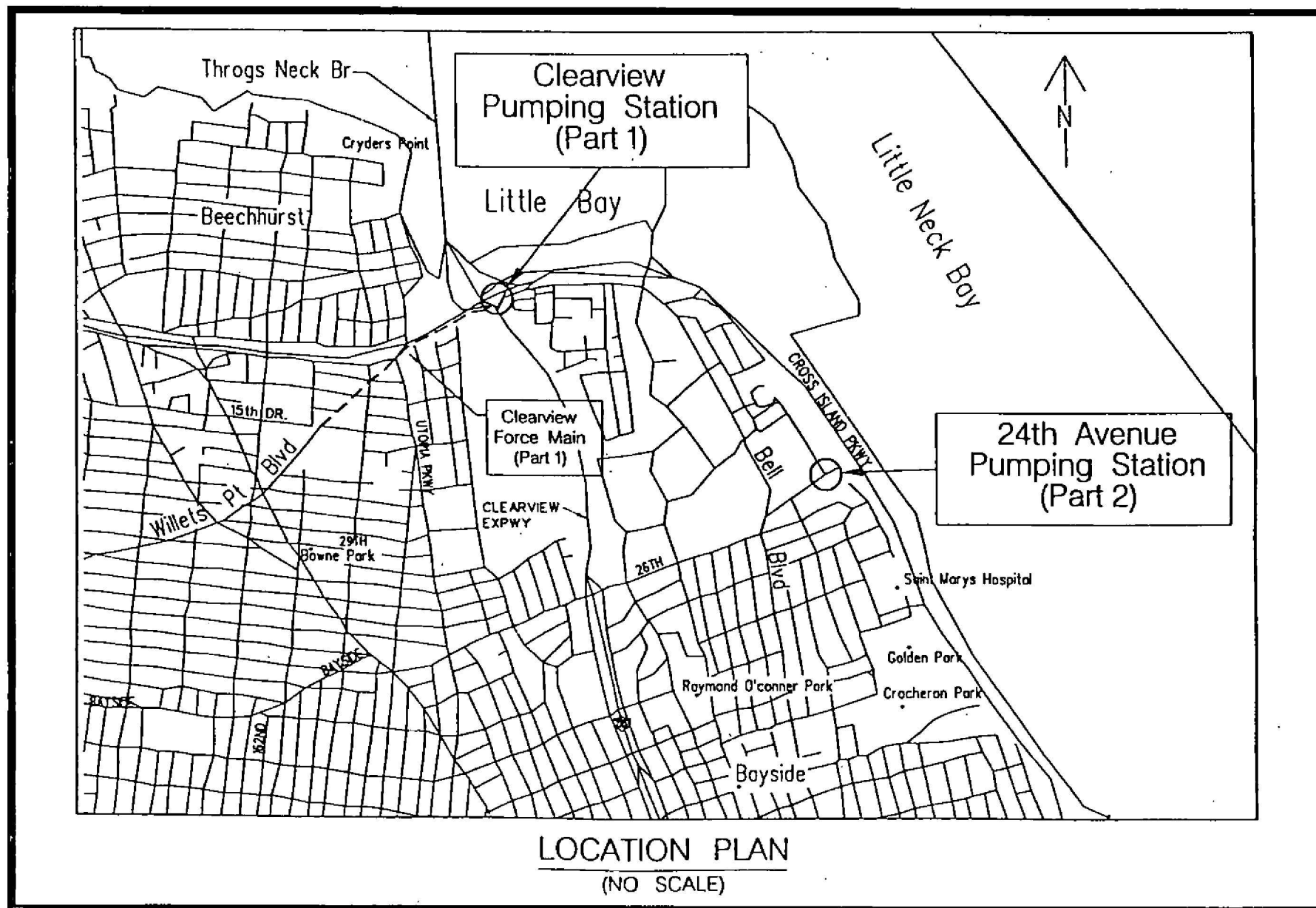
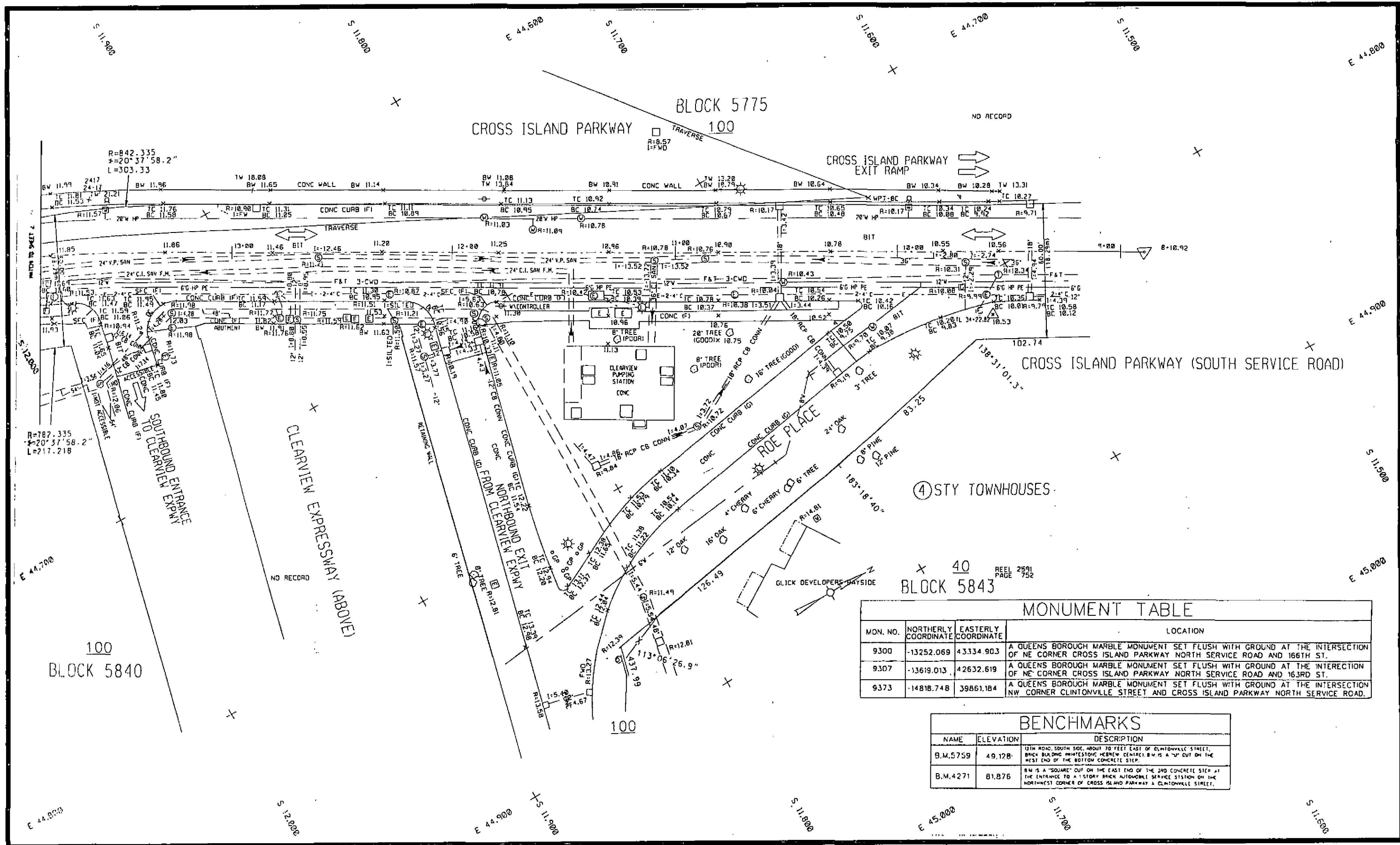


Figure 1 Map Showing the Location of the Project Areas.





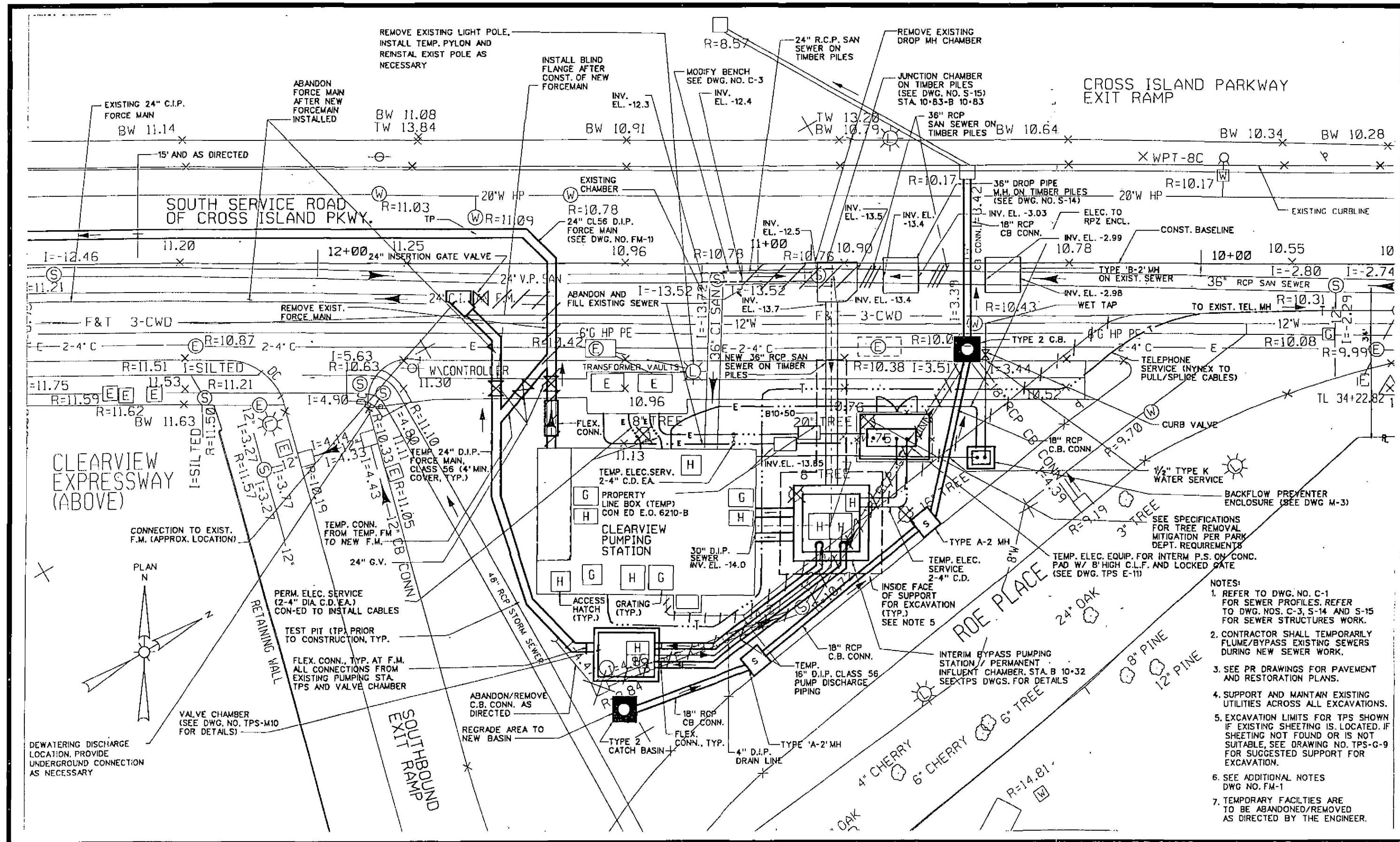




MONUMENT TABLE			
MON. NO.	NORTHERLY COORDINATE	EASTERLY COORDINATE	LOCATION
9300	-13252.069	43334.903	A QUEENS BOROUGH MARBLE MONUMENT SET FLUSH WITH GROUND AT THE INTERSECTION OF NE CORNER CROSS ISLAND PARKWAY NORTH SERVICE ROAD AND 166TH ST.
9307	-13619.013	42632.619	A QUEENS BOROUGH MARBLE MONUMENT SET FLUSH WITH GROUND AT THE INTERSECTION OF NE CORNER CROSS ISLAND PARKWAY NORTH SERVICE ROAD AND 163RD ST.
9373	-14818.748	39861.184	A QUEENS BOROUGH MARBLE MONUMENT SET FLUSH WITH GROUND AT THE INTERSECTION NW CORNER CLINTONVILLE STREET AND CROSS ISLAND PARKWAY NORTH SERVICE ROAD.

BENCHMARKS		
NAME	ELEVATION	DESCRIPTION
B.M.5759	49.128	12TH ROAD, SOUTH SIDE, ABOUT 70 FEET EAST OF CLINTONVILLE STREET, BRICK BUILDING, WHITE STONE, HEAVY CONCRETE. B.M. IS A "UP" OUT ON THE WEST END OF THE BOTTOM CONCRETE STEP.
B.M.4271	81.876	B.M. IS A "SQUARE" CUT ON THE EAST END OF THE 2ND CONCRETE STEP AT THE ENTRANCE TO A 1-STORY BRICK AUTOMOBILE SERVICE STATION ON THE NORTHWEST CORNER OF CROSS ISLAND PARKWAY & CLINTONVILLE STREET.

Figure 4 Present Conditions at the Clearview Pumping Station.









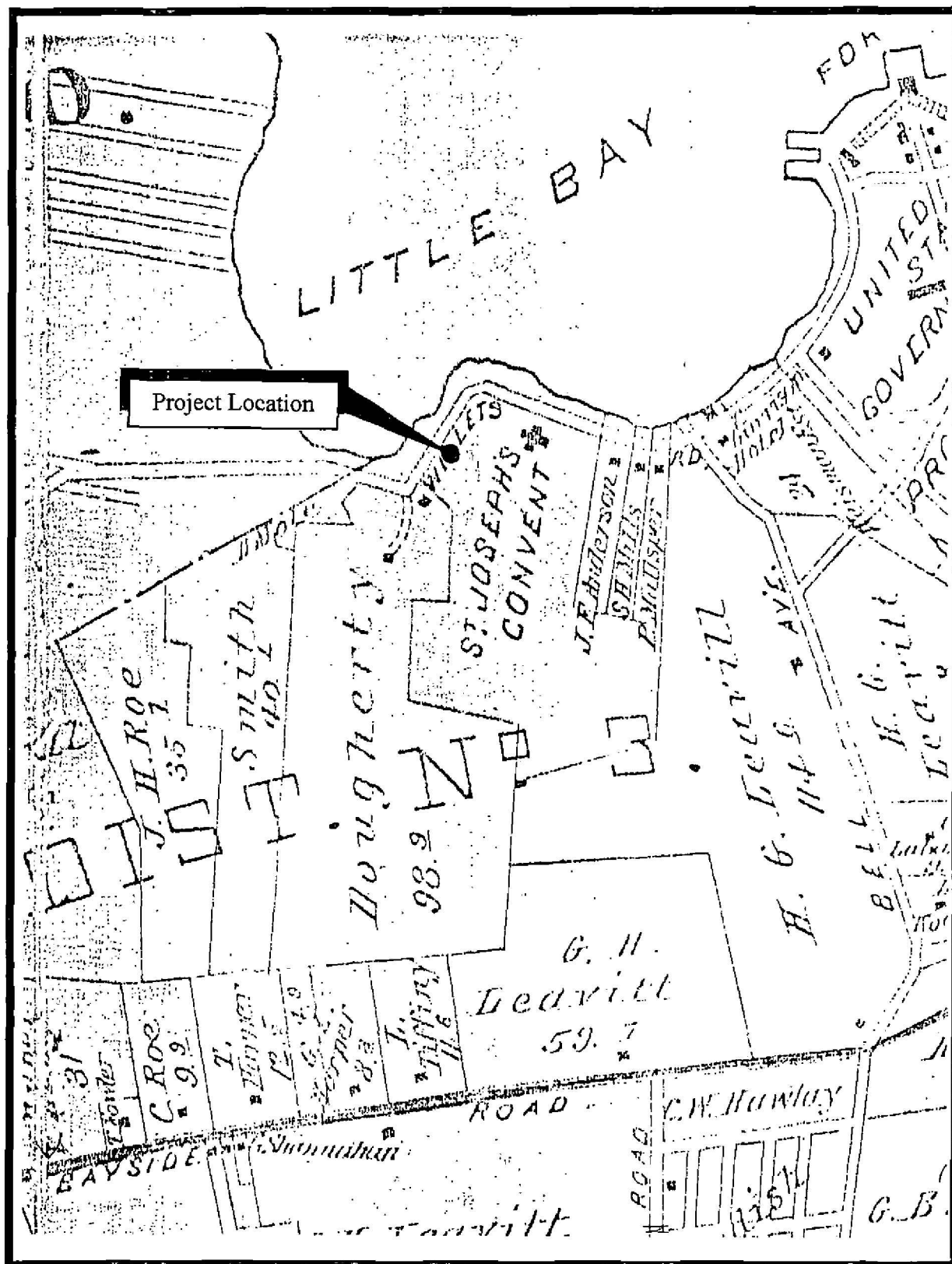


Figure 8 Chester A. Wolverton 1891 Map of Long Island. Location of 24th Street Pumping Station.



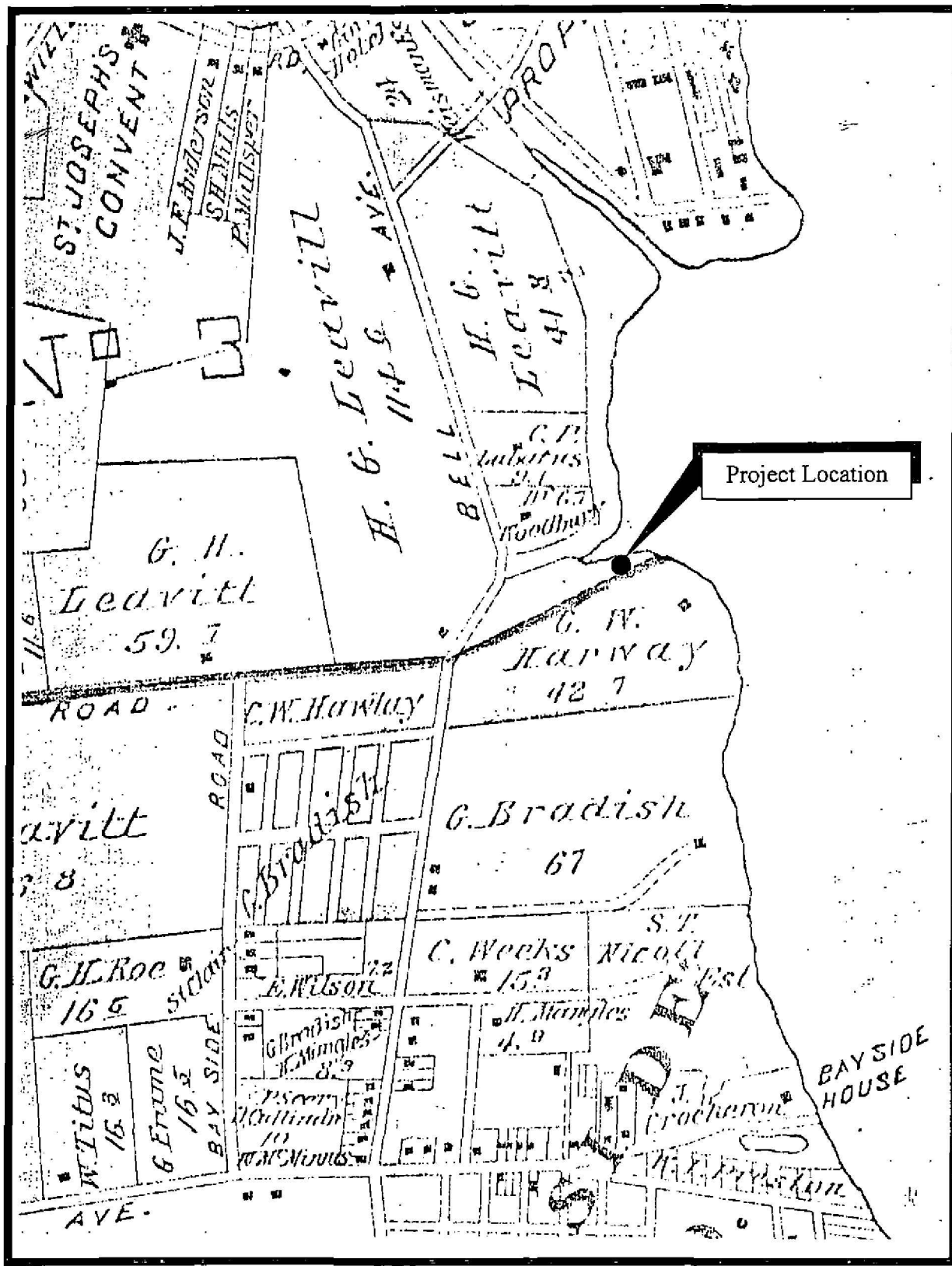


Figure 9

Chester A. Wolverton 1891 Map of Flushing, Long Island. Location of Clearview Parkway Pumping Station.





Figure 11 Hyde and Company 1896 Map of Long Island. Location of Clearview Parkway Pumping Station.

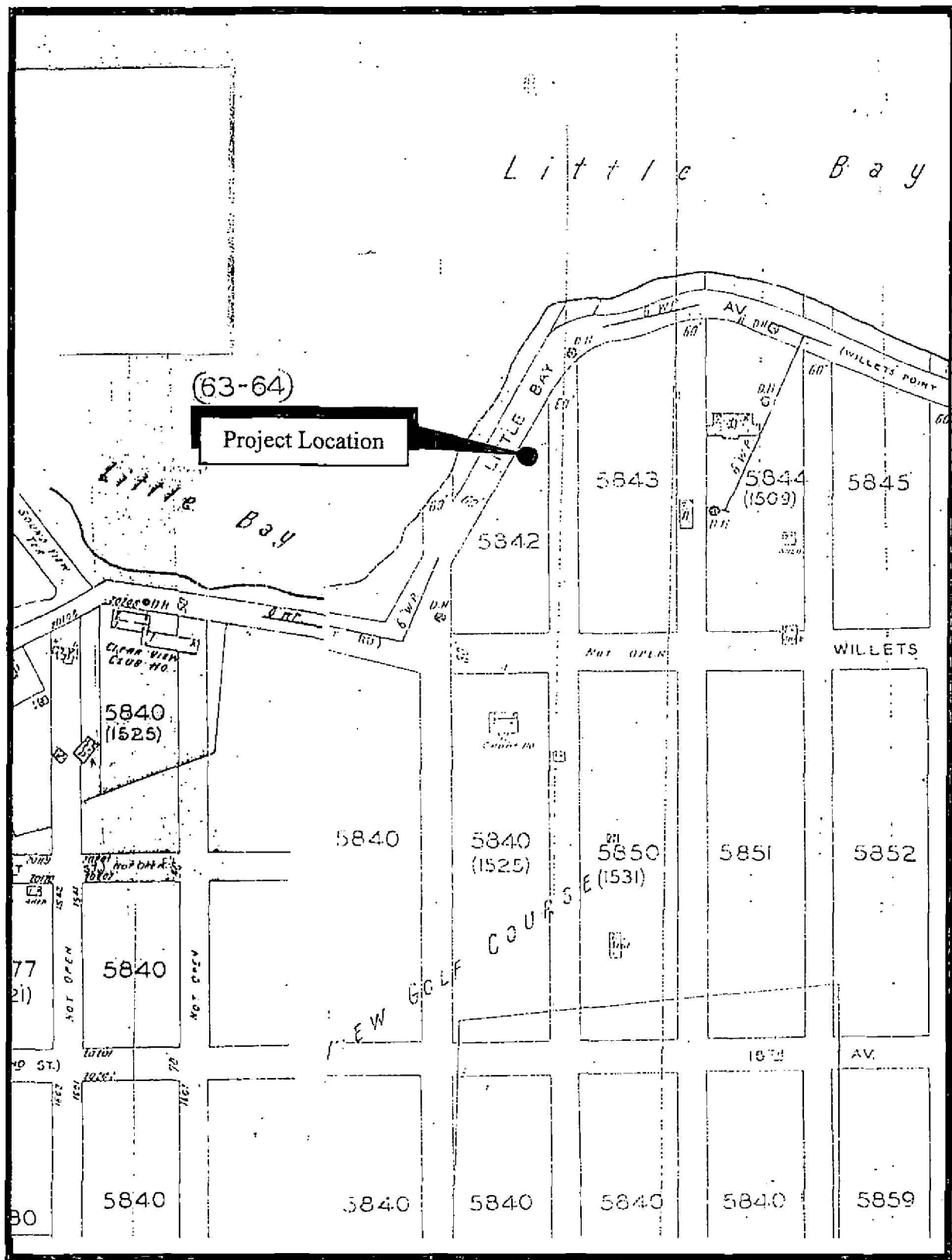


Figure 12 1934 Sanborn Insurance Map of Long Island. Location of 24th Street Pumping Station.

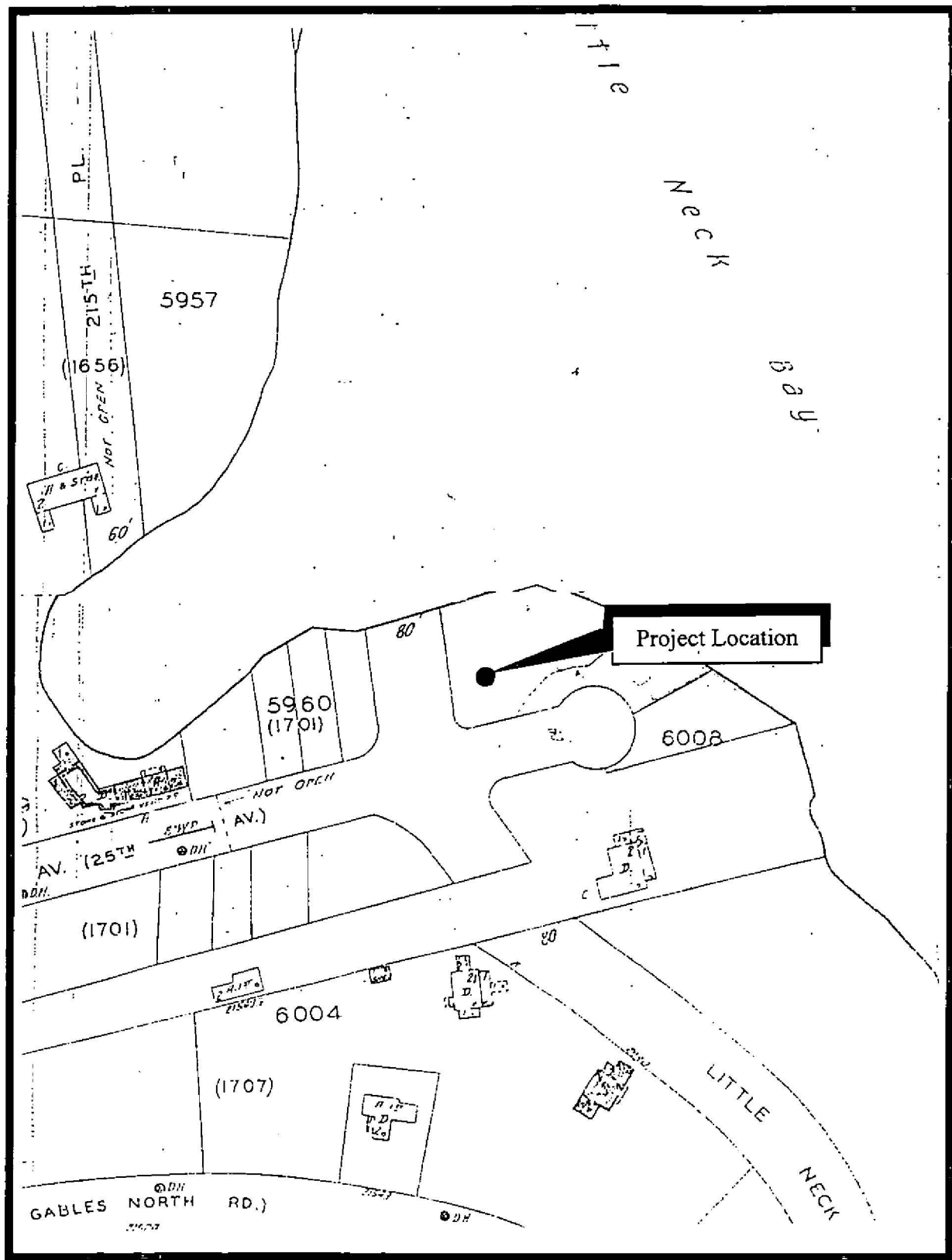


Figure 13 1934 Sanborn Insurance Map of Long Island. Location of Clearview Parkway Pumping Station.



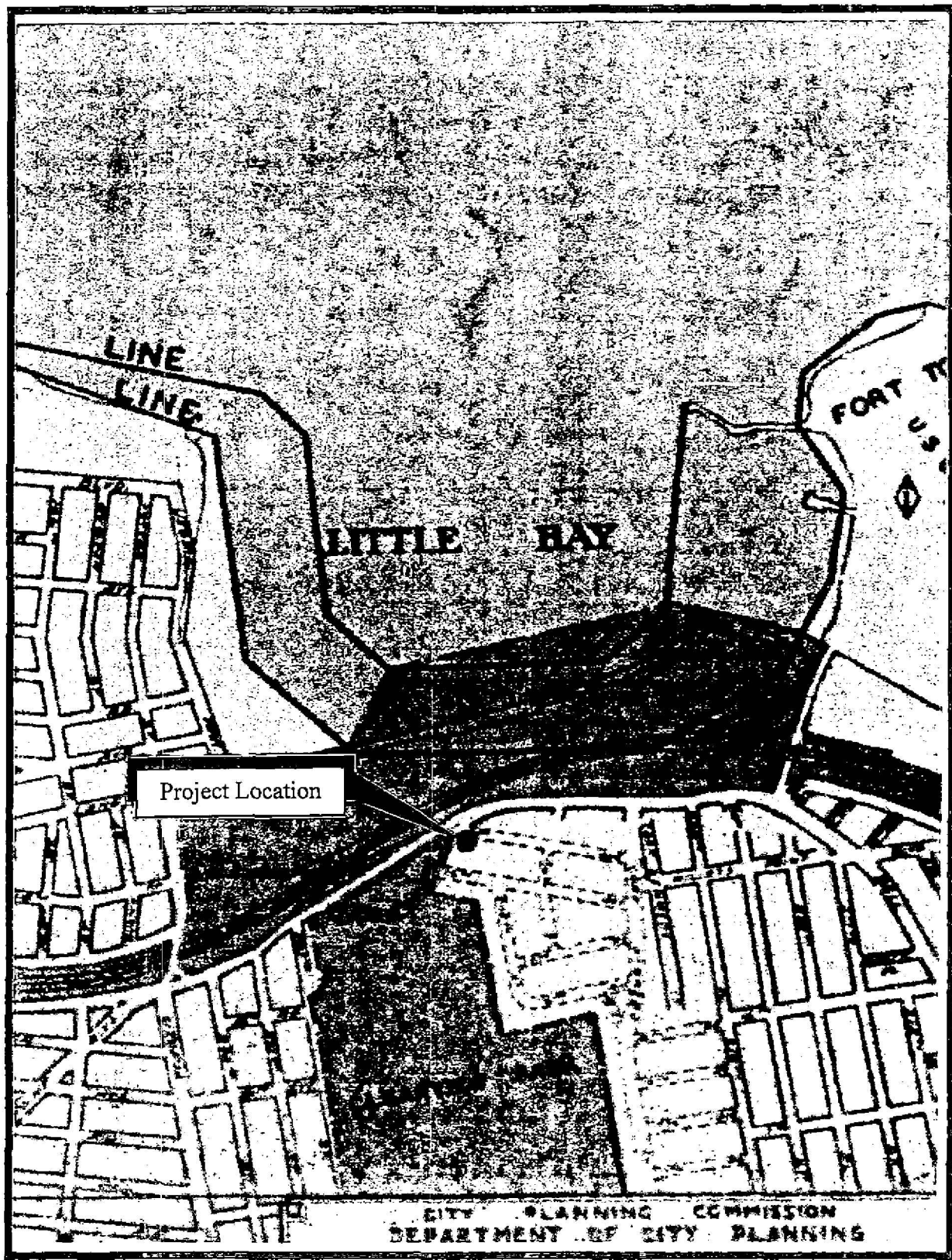


Figure 14 1945 City Planning Commission Map of Long Island. Location of Clearview Parkway Pumping Station.

**RESUME OF KEY PROJECT PERSONNEL**

**Education:**

M.A./1979/Southern Illinois University/Anthropology

B.A./1974/University of Arizona/Anthropology

**Professional:**

Society of Professional Archaeologists (SOPA Certification)

Society for American Archaeology

Society for Historical Archaeology

**Experience:**

Mr. Klein has eighteen years of experience in archaeological and historic architectural investigations. He has managed and supervised the full range of cultural resources studies that are required in obtaining federal and state permits, and for developing federal and state planning and environmental documents. Mr. Klein has also managed open-end contracts involving general cultural resource services.

1990 to Present

\*Senior Archaeologist and Manager, Archaeology and Historic Architectural Group, Greiner, Inc. Key projects include:

***Route 21 Cultural Resource Mitigation, Passaic County, New Jersey***

Project Manager for Phase III data recovery of six (6) archaeological sites as part of the New Jersey Department of Transportation Route 21 Extension project in Passaic County. The sites consisted of four (4) Late Woodland floodplain occupations along the Passaic River, one (1) late nineteenth century iron foundry, and one multi-component site with a late nineteenth century domestic, early eighteenth century domestic, and prehistoric Woodland occupations. Project also involves extensive historical research on nineteenth century domestic and industrial land uses within project area in support of archaeological data recovery program, and HAER and HABS recordation of nineteenth century industrial properties. Also, involves development of museum exhibit, tour brochure, and local history class unit as part of a public outreach program.

***Indefinite Quantities Contract, Maryland State Highway Administration***

Project Manager/Liaison for various on-call projects:

- Phase I and II Calvert County, Maryland Route 2/4 interconnector survey, which consisted of over 7 miles of new roadway. Daily coordination with highway survey crews was necessary to complete this fast track project.
- HAER documentation for the Western Maryland Railway Bridge, Allegany County, Maryland. Conducted for the Maryland State Highway Administration.
- Inventory of over 650 historic concrete, metal girders, and metal truss bridges throughout the state. Phase 1b survey of over 20 miles of new location and 90 miles

of existing roadway for the Intercounty Connector, North of Washington, D.C., Montgomery and Prince George's Counties. Also involved testing of over 30 properties with historic standing structures.

- Phase Ib survey associated with proposed Intercounty Connector north of Washington, D.C. in Montgomery and Prince George's County, Maryland. Involved the testing of over 30 properties with historic standing structures and the sample survey of over 30 miles of proposed highway corridors on new location and over 90 miles along existing roadways.

***National Capital Area of the National Park Service***

Project Manager for indefinite quantity contract with the National Park Service. Contract for a wide-range of archaeological services, including archaeological surveys and evaluations within Antietam National Battlefield, Washington County, and within the C&O Canal National Historic Park, Maryland.

***Park-and-Ride Lots, Bucks, Philadelphia, and Montgomery Counties, Pennsylvania***

Principal Investigator for archaeological/historical assessment of potential impacts resulting from improving and expanding eight Southeastern Pennsylvania Transit Authority (SEPTA) park-and-ride facilities along I-95 corridor. Assessment based on field inspections and extensive site-specific archival research. Project also involved consultation of historic records to identify previous land uses that may have produced hazardous materials. Part of project to provide environmental and engineering design services to Pennsylvania Department of Transportation.

***Baltimore/Washington International Airport, Anne Arundel County, Maryland.***

Various projects including:

Principal Investigator for archaeological survey for extension of Runway 10-28. Assignment under on-call comprehensive services contract with Maryland Aviation Administration.

Principal Investigator for the creation of an Historic Preservation Plan for Baltimore/Washington International Airport. Involved extensive background research on area's history and prehistory; a geomorphological survey of selected landforms within the airport; an inventory of prehistoric and archaeological sites; and development of treatment of plans for National Register properties.

Principal Investigator for Phase II testing of two historic/prehistoric sites, Baltimore/Washington International Airport, Baltimore, Maryland, for the Maryland Aviation Administration. Objective of testing effort was to evaluate the National Register eligibility of the sites.

***Wilmington Bypass Corridor, North Carolina***

Principal Investigator for cultural resource studies for 20-mile, controlled-access highway. Supervised historic architectural and archaeological research associated with preparation of Environmental Impact Statement and Corridor Location Report.

***Archaeological and Historic Architectural Investigations, North Carolina***

Management review of archaeological and historic architectural investigations for 15 projects throughout the state for the North Carolina Department of Transportation. Also assisted in management of 4(f) studies involving both historic properties and publicly owned parks.

Management of a two-year, open-end contract with the North Carolina Department of Transportation to provide various historic architectural services in support of highway projects throughout the state. These services include conducting historic architectural surveys and analyses, coordinating the surveys and analyses with the State Historic Preservation Office (SHPO) and other agencies, preparing survey reports, and developing memoranda of agreement.

***St. Louis International Airport, St. Louis, Missouri***

Project Manager for cultural resource component of environmental impact statement for proposed improvements at St. Louis International Airport. Project involved development of a Memorandum of Agreement. Conducted for the City of St. Louis, Missouri and the Federal Aviation Administration.

***South Suburban Airport, Chicago, Illinois***

Project Manager for cultural resource component of environmental assessment for proposed development of new South Suburban Airport. Conducted for the Illinois Department of Transportation and the Federal Aviation Administration.

***Jefferson County Airport, Jefferson County, Texas***

Project Manager for cultural resource component of environmental assessment for proposed improvements at Jefferson County Airport. Conducted for Jefferson County and the Federal Aviation Administration.

***General Mitchell International Airport, Milwaukee, Wisconsin***

Project Manager for archaeological and historic architectural investigations in association with proposed Master Plan Improvements at airport. Conducted for the General Mitchell Airport, Wisconsin Department of Transportation, and the Federal Aviation Administration.

***Phoenix Sky Harbor International Airport, Arizona***

Project Manager for Class II archaeological survey to support Environmental Impact Statement for proposed Master Plan improvements. Coordinated efforts by FAA, City of Phoenix, Arizona State Historic Preservation Office, and local native American communities. Managed historic architectural survey of area for potential effects associated with proposed improvements.



***Dallas-Fort Worth International Airport, Texas***

Various projects, including:

- Task Manager for evaluation of impacts to archaeological and historic architectural resources in support of Environmental Impact Statement for proposed runway improvements
- Principal Investigator for Phase I archaeological and historic architectural survey of area for potential effects of two proposed runways, including evaluation of noise impacts on historic properties eligible for National Register of Historic Places
- Principal Investigator for Phase II testing of historic farmstead occupied from 1860s to 1940s.

***Cambridge-Dorchester Airport, Dorchester County, Maryland.*** Principal Investigator for preliminary and intensive archaeological surveys of proposed runway expansion areas.

***Bay Bridge Airport, Queen Anne's County, Maryland***

Principal Investigator for archaeological survey for proposed airport improvements.

***Old Betzwood Bridge Replacement, Montgomery County, Pennsylvania***

Principal Investigator for Phase I and II archaeological and historic architectural investigations of bridge replacement project area, which was located in Valley Forge National Park, conducted for the Pennsylvania Department of Transportation.

***King of Prussia Inn, King of Prussia, Pennsylvania***

Principal Investigator for Phase I/II archaeological investigation. Site of standing eighteenth and nineteenth century inn to be affected by proposed improvements of Route 202. Conducted for the Pennsylvania Department of Transportation.

***Federal Courthouse Annex, Tallahassee, Florida***

Principal Investigator for Phase I archaeological assessment for Barrett Kays & Associates, Inc. and General Services Administration. Assessment involved extensive background research involving consultation of historic maps, city directories, sources on environmental data, and previous archaeological investigations in the downtown area. Made recommendations for Phase II testing based on findings of assessment.

***Federal Courthouse, Tampa, Florida***

Principal Investigator for Phase I archaeological assessment of five city blocks for Barrett Kays & Associates, Inc. and General Services Administration. Assessment involved extensive background research involving consultation of historic maps, city directories, sources on environmental data, and previous archaeological investigations in the downtown area. Made recommendations for Phase II testing based on findings of assessment.

***Proposed Park and Rides, Delaware County, Pennsylvania***

Principal Investigator for archaeological and historic architectural assessment of two proposed park and rides. One proposed site contained structures associated with the nationally significant Baldwin Locomotive Works.

1989-  
1990

\*Assistant Director

Cultural Resource Group, Louis Berger & Associates, Inc.

***Cultural Resource Investigations, Hamlin Historic Site, Warren County, New Jersey***

Principal Investigator for cultural resource investigations of site for New Jersey Department of Transportation. Site was a late 18th or early 19th Century farm, containing midden deposits and complex of structural features.

***Cultural Resource Investigations, Federal Bureau of Prison Facilities***

Administrative Manager for an Indefinite Quantity Option Contract for the Federal Bureau of Prisons, which involved survey, testing, and data recovery of cultural resources throughout the United States. Projects were located in Texas, Pennsylvania, New York, Maryland, Kentucky, North Carolina, South Carolina, South Dakota, Illinois, California, and Puerto Rico.

***Cultural Resource Overview and Master Plan, Forts Hamilton and Totten, New York***

Principal Investigator for Cultural Resource Overview and Master Plan for Mid-Atlantic Office, National Park Service. Involved developing prehistoric and historic overviews, conducting archaeological and architectural inventories, and writing management plan for the two military facilities.

***Phase I, II, and III Cultural Resources Investigations, Pennsylvania***

Administrative Manager for indefinite quantity contract for Pennsylvania Department of Transportation for cultural resources investigations throughout State.

***Stewart International Airport, New York***

Administrative Manager of archaeological assessment for development of Environmental Impact Statement. Involved compilation of archaeological and historic architectural data and creation of mitigation alternatives for light industrial development within airport property.

***Christina Gateway Project, Wilmington, Delaware***

Principal Investigator for Phase I II, and III archaeological investigations of a block in this project for the City of Wilmington. Block contained privy/wells dating from the late 18th to early 19th Century.

***Phase III Data Recovery, Philadelphia, Pennsylvania***

Co-Principal Investigator for Phase III investigations of large-scale archaeological excavation within Meadows Area of Philadelphia waterfront. Involved excavation of landfill soils and the remains of several waterfront industrial sites. Task under indefinite quantity contract for Pennsylvania Department of Transportation.

***Washington Street Urban Renewal Area, New York, New York***

Co-Principal Investigator for Phase II archaeological investigation of Site 1 for Shearson Lehman / American Express and New York City Public Development Corporation. Site contained 19th Century landfill constructions and foundry remains.

***Fountain-Mouquin House Site, Fort Wadsworth, Staten Island, New York***

Principal Investigator for Phase II investigations of site for Naval Facilities Engineering Command, Northern Division. Site was an 18th and 19th Century farmstead/suburban residence. Testing examined yard deposits, building foundations, and a prehistoric component.

***Barclays Bank Site, Manhattan, New York***

Co-Principal Investigator for Phase II and III investigations of Barclays Bank, 100 Water Street site, for London and Leeds Corporation. Site contained late 17th Century landfill deposits and features and remains of 18th Century domestic occupations.

***Peacekeeper Environmental Impact Assessment, Cheyenne, Wyoming***

Project Director for archaeological investigations. The project consisted of survey and testing of historic and prehistoric resources within historic Fort D.A. Russell and the area surrounding Cheyenne.

***Raleigh-Gaston Railroad Roundhouse, Raleigh, North Carolina***

Project Director for Phase II data recovery for the Raleigh-Gaston Railroad Roundhouse for the North Carolina Department of Administration.

**Publications:**

- 1991      Nineteenth Century Ceramics and Models of Consumer Behavior. *Historical Archaeology* 25 (2):77-91.
- 1987      Nineteenth-Century Households and Consumer Behavior in Wilmington, Delaware. Coauthored with Charles H. LeeDecker, Cheryl A. Holt, and Amy Friedlander. In *Socioeconomic Status and Consumer Choices: Perspectives in Historical Archaeology*, edited by Suzanne Spencer-Wood. Plenum Publishing Corp., New York.
- 1983      *A Public Consumption Report, Archaeological Investigations at the Wilmington Boulevard, New Castle County, Delaware*. Coauthored with Amy Friedlander. Delaware Department of Transportation Archaeology Series 12. Dover, Delaware.
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