

# GATEWAY ESTATES SITE

NEW LOTS, BROOKLYN, NEW YORK CEQR No. 93-HPD014K

PHASE IA ARCHAEOLOGICAL ASSESSMENT REPORT

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# PHASE IA ARCHAEOLOGICAL REPORT

for the

# GATEWAY ESTATES SITE, NEW LOTS, BROOKLYN, NEW YORK CEQR No. 93-HPDO14K

Prepared

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- DATE: September 20, 1993

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The City of New York Landmarks Preservation Commission Environmental Review Comments: Gateway Estates

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#### I. INTRODUCTION

The Gateway Estates Development is proposed to be constructed in the New Lots neighborhood of Brooklyn on the approximately 230 acres of land bordered by Flatlands Avenue on the northwest, Hendrix Creek and the New York City Department of Environmental Protection's Water Pollution Control Plant on the southwest and the Shore Parkway on the southeast (Figs. 1 and 2, Photographs 2 and 3). In the north, the corner bordered by Flatlands and Fountain Avenues is an outparcel occupied by the National Satellite Services Inc. Spring Creek Earth Station, while the Brooklyn Developmental Center, a state facility for the mentally retarded, borders the site along two-thirds of its length on the northeast, across Erskine St. (Photograph 1).

As currently proposed, the development may include up to 3,290 residential units, a shopping center, three schools, some 6000 parking spaces, a town center with retail space and a publicly accessible open space (Fig. 2A). It would occupy blocks 4443-4452, 4475, 4476, 4580 (Lot 2, Partial), 4586 (Lot 1) (Fig. 2). Specific details of the proposed construction have not been finalized and therefore, the degree of subsurface disturbance can not yet be measured. For the purposes of the present evaluation, however, it is assumed that there will be subsurface disturbance throughout the project area.

On the basis of a preliminary assessment of the Gateway Estates site, the City of New York Landmarks Preservation Commission concluded that a documentary study was required. The project area "...has potential for archaeological remains from Native American occupation. In addition, there is a potential for historic remains related to a house and outbuildings which formerly stood on Block 4448 (former lot 3, near Vandalia)." (Environmental Review, Gina Santucci, 4-15-93; Appendix A).

An Archaeological Sensitivity Evaluation prepared for the Water Pollution Control Plant southwest of the Gateway Estates project area concluded that the location "was potentially sensitive to the preservation of prehistoric archaeological evidence." (Roberts, et. al., 1-15-1990). Environmental studies for two neighboring properties on the eastern side, the National Satellite Services, Inc. and the state Mental Hygiene center, are 11 and 23 years old, respectively, considerably pre-dating the current rigorous archaeological review procedures for potential sensitivity.

The present Phase IA Archaeological Assessment Report, based on documentary evidence, was undertaken in order to address specific concerns of the New York City Landmarks Preservation Commission (LPC) - Native American occupation and historic resources on Block 4448. The Report determines whether important cultural remains might be present on the Gateway Estates site and if so, the degree to which these will have been disturbed or destroyed by subsequent alterations of the topography. In conclusion, in order to address the concerns of the LPC, the report assesses the impact of the proposed development on any possible archaeological remains of historical and prehistoric sensitivity.

The likelihood of prehistoric settlement will have depended on the availability of dry land in this predominantly marshy area. Maps of the 18th and 19th and early 20th centuries along with soil borings conducted by TAMS Consultants Inc. and Lockwood, Kessler & Bartlett, Inc., provided information about the topography prior to modern filling operations. Additionally, enquiries on inventoried prehistoric and historical sites were directed to the New York State Museum and the New York State Historic Preservation Office. Maps furnished by Montrose Surveying Co., Inc. show the present topography of the site.

Maps also revealed the presence of a few buildings on the site in the very late 19th and early 20th centuries, while Block and Lot Records gave the names of the owners of the plots on which they were built. Consultation with Richard Eisenstein, at the New York City Dept of Water Supply and Waste Water Collection, yielded valuable information on sewage arrangements in the area.

The present report is largely based on a study of the Spring Creek Site conducted by Historical Perspectives in 1988, and two important works on the area: Alter Landesman's <u>A History of New Lots</u>, Brooklyn to 1887, providing detailed information about the town from the 17th to the 19th centuries and Jamaica Bay: A History, by Frederick R. Black, which offered an excellent overview of the history of Jamaica Bay from prehistoric times as well as a fairly lengthy description of the topographical changes which took place there in the 20th century.

A photographic record of current conditions at the site was made on July 23, 1993.

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#### II. ENVIRONMENTAL SETTING

Long Island is the top of a Coastal Plain ridge formation that is covered with glacial drift, in reality an elevated sea bottom demonstrating low topographic relief and extensive marshy tracts. In the last million years, as glaciers advanced and receded three times, the surficial geology of the island was profoundly altered. "The glacier was an effective agent of erosion, altering the landscape wherever it passed. Tons of soil and stone were carried forward, carving and planing the land surface. At the margins of the ice sheet massive accumulations of glacial debris were deposited, forming a series of low hills or terminal moraines" (Eisenberg 1978:10). Circa 18,000 years ago, the last ice sheet reached its southern limit, creating the Harbor Hill moraine that traverses the length of Long Island. Before extensive alteration of the landscape during the nineteenth and twentieth centuries, a gently sloping plain extended south of the moraine to the series of tidal marshes draining into Jamaica Bay by a series of small creeks.

According to 18th, 19th and early 20th century maps, most of the area proposed for the Gateway Estates was originally a wetland marsh, save for a tongue of higher land located, roughly speaking, between the mapped locations of Ashford and Elton Streets, south of Flatlands Ave. as far as Vandalia (Fig. 12). When consulting 19th century and earlier maps, one should be aware that the names of many streets have changed: Van Wicklen later became Vandalia Ave. and Fairfield, later became Flatlands Ave. Many of the north-south streets between Schenck and Fountain Avenues were known by different names in the 19th century. Between Schenck and Fountain, from west to east, the 19th century and current street names, may be compared as follows:

Current name	19th century	Current name	19th century
Schenk Barbey Jerome Warwick Ashford Cleveland Elton Linwood	Schenck Barbey John Washington Adams Jefferson Madison Monroe	Shepherd Berriman Atkins Montauk Milford Logan Fountain	Shepherd/Shepard Bennet Atkins Montauk Morse Locust Fountain
Essex	Eldert		

A number of creeks cut through the marsh: the Fresh Creek, on the west, also called the First Creek or First Kill and, on the east, a complex system of interconnected waterways known at various times as the Third or Betts Kill, Spring Creek or Old Mill Creek. The Fresh and

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Spring Creeks are still part of the topography of the area, though much altered in both their widths and courses. A 1907 map shows that a branch of Spring Creek known as Betts Creek used to run further west, along Fountain Avenue, the street which borders the project site on the northeast. In between the two large creeks lay, from west to east, the narrow Second Creek or Second Kill which is called Hendrix Creek today and flows along the western boundary of the project site and and the broad Mud Creek (Fig. 5).

The present Vandalia Ave., which was opened in 1961, lies approximately 175' south of its predecessor. Contrary to what is shown on many maps, Schenck and Elton Avenues are "paper streets" and do not continue south of Vandalia. Walker Avenue does not currently exist. The site is bordered along two-thirds of its northeastern side by Erskine Street. At the project site, Seaview Avenue runs only between Erskine Street and Fountain Avenue. Approximately 160,000 sq. ft. at the northwestern corner of the site are occupied by the Thomas Jefferson Athletic Field, which includes several playing fields and ball courts, as well as bleachers for a local public school.

Fig. 3 shows that almost the entire area of the Gateway Estates project site was used as a landfill: the Milford Street Landfill, for refuse, and an "additional on-site area known to be underlain with municipal solid waste" (legend, Fig. 3). In some places, the current ground surface lies over 30' above ground water level. The recent borings and soil tests recorded wood, brick, glass, tile, pieces of rubber and rubber hose, silver fill material, plastic strips, railroad ties, fence posts, sheet metal, wire, automotive parts, cement, etc., reported to a depth of up to 35' below the surface. Below this level, the deposit consists almost uniformly of grey sand. There is also a great deal of sand on the surface of the site, along with piles of refuse and in some places, discarded building materials such as broken up concrete slabs. Spring Creek Park, south of the Belt Parkway, is also the product of extensive landfilling operations.

The site is overgrown with a variety of grasses such as reed grass (<u>Phragmites communis</u>), and clumps of trees including poplar and ailanthus that are most often associated with disturbed soils.

#### III. PREHISTORIC ERA

The prehistoric era on the south shore of western Long Island can be divided into three time periods, based on prehistoric people's adaptations to changing environmental conditions. These are generally known as the Paleo-Indian (c.12,000 to 10,000 years ago), the Archaic (c.10,000 to 2,700 years ago) and the Woodland (c.2,700 to 400 years ago). In order to be able to assess the project site's potential for prehistoric exploitation, it is first necessary to review these time periods and their associated settlement patterns.

#### Paleo-Indian Period (c. 12,000 - 10,000 years ago)

The Paleo-Indian period encompasses the era from the final disappearance of Pleistocene glacial conditions in eastern North America to the establishment of Holocene environments which were closer to modern conditions. Glacial recession from Long Island was probably complete by about 18,000 years ago. A post-glacial conifer cover, primarily of spruce and pine, was beginning to be augmented with hardwoods such as oak and hickory. These also have a food value, making them far more useful to human beings than conifers. Paleoenvironmental research suggests that Long Island was a cold Arctic barren, with little carrying capacity for vegetation or man from initial deglaciation until about 13,500 to 12,500 years ago (Lavin 1988:101). "A global warming trend about 12,000 B.C. encouraged Paleo-Indian settlement of the Northeast. By 8,000 B.C., when Paleo-Indians may well have been present in coastal New York, deciduous species dominated forests all along the eastern seaboard; the Pleistocene megafauna were rapidly becoming extinct, perhaps with the help of aboriginal hunters, and were being replaced by the temperate-climate fauna that are indigenous today" (Gwynne 1982:190-191).

From the locations of recorded sites in the Northeast, Paleo-Indians exhibited a marked preference for well-elevated situations. However, thirty per cent of sites were found on or near the margins of swampy ground. Environmental characteristics which appear to have been to Paleo-Indians include the proximity of major waterways, large fertile valleys and the coastal plain, where the densest population of desired food animals was supported (Ritchie 1980:7). Very importantly for the Gateway Estates site analysis, oysters occurred in "extraordinary abundance" on the southern Atlantic Shelf from ca.12,000 years ago - providing a food source for Paleo-Indian and subsequent culture groups (Lavin 1988:103).

The environment of the Paleo-Indian period changed drastically over time. The melting glacier created numerous streams whose waters poured into the Atlantic Ocean. The resultant rise in sea level, combined with the compression of the shorelands under the weight of the glacier, caused continual submergence of the coastline for the next 12,000 to 13,000 years. The rise in

sea level, estimated to be from 75 to 80 feet, has submerged large numbers of these Paleo-Indian and later prehistoric sites (Witek 1992:31; Funk and Pfeiffer 1988:106-107).

#### Archaic Period (c. 10,000 - 2,700 years ago)

The Archaic Period is characterized by a series of adaptations to the fully-emerged Holocene environments. The modern distribution of flora and fauna was established by c. 5000 B.C. Environmental changes immediately before and after this stabilization are reflected in the Native American "Archaic" culture. "With the warmer and drier climate, the tundra and the spruce forests disappeared and deciduous woodlands gradually replaced them. The oak and hickory woodlands of the project area and the rest of coastal New York attracted mast-eaters like the white-tailed deer and wild turkey. During this later post-glacial period, the melting ice no longer poured large amounts of meltwater into local rivers and streams. The slower stream flow allowed the growth of marsh areas and mudflats, which encouraged an influx of migratory waterfowl and the growth of numerous edible plant species and shellfish. The subsistence and settlement systems of Archaic groups were based on a restricted wandering system which consisted of seasonal movements to and from base camps located near [these] resources" (Kearns, Kirkorian and Lavin 1987:7).

Tool kits were more generalized than earlier Paleo-Indian kits and show a wider array of plant processing tools, such as grinding stones, mortars and pestles. A mobile lifestyle was probably common with a wide range of resources and settings utilized on a seasonal basis. A shifting band-level organization whose numbers waxed and waned in relation to the availability of resources is evident. The archaeological record presents a profile of Archaic culture as one of small multi-component sites usually situated on tidal inlets, coves and bays, particularly at the heads of the latter, and at fresh water ponds on islands along the New York coastline. By the Late Archaic stage, there is ample evidence of coastal settlement and the exploitation of shellfish resources (Ritchie 1980:143; Kearns and Kirkorian 1986:9). The Late Archaic Wading River complex, four archaeological sites on the north shore of Suffolk County, was found on the edge of a salt marsh, on the dry ground that ranges from only 2 to 7 feet above mean high water (Wyatt 1982:71). Areas of steep slope and poorly drained ground would not have been suitable for habitation or activity areas, although stray finds, like projectile points lost during resource exploitation, may occur in these locations.

Early Archaic and middle Archaic cultural periods, as with the Paleo-Indian period, are poorly represented in coastal areas of the Northeast. But by the late Archaic there were cooler climactic conditions following a warming trend, a decline in eustatic sea level rise, and a cessation of postglacial movements. "The end result was a dramatic reduction in the rate of sea level rise between 2,000 and 1,000 B.C. It promoted the development of extensive salt marshes along the coast and mouths of rivers" (Lavin 1988:108). These areas provided shellfish, small game, fish, salt hay and tuberous grasses, making larger more permanent settlements possible. Semi-nomadic life is still indicated, but wandering occurred within well-defined territorial limits, with seasonal movements between camps near exploitable resources. A dietary shift to shellfish in coastal New York near the end of the Archaic suggests a scarcity of large game, and a change from the early Archaic inland adaptation of forest hunting. Coastal sites show a principal reliance upon shellfish, especially oysters, hard and soft shell clams and bay scallops, which were easily gathered all around the shores of Long Island.

#### Woodland Period (c.2,700 to 300 years ago)

The Woodland Period can be correlated with a dramatic change in local climates and environments. A pronounced warm and dry period set in and lasted from c. 5,000 to 3,000 years ago. Mesic forests were replaced by xeric forests of oak and hickory, and grasslands again became common. Some interior streams dried up, but the overall effect of the environmental changes was an alteration rather than a degradation. A continued rise in sea level made many areas bordering the East River and Long Island Sound into sites of brackish water marshes extremely rich in exploitable resources. The major changes in environment and resource distributions caused a radical shift in adaptations for prehistoric groups. Important areas for settlement included the major river floodplains and estuarine swamp\marsh areas.

From approximately 3,000 years ago until the arrival of the first Europeans, Native Americans of southern New York shared common attributes: the practice of horticulture, large permanent or semi-permanent villages, pipe smoking, the bow and arrow, extensive trade networks and the production of clay vessels. The habitation sites of the Woodland Indians increased in size and permanence as these people became ever more efficient in extracting food from their environment. The archaeological evidence of the Woodland Period sites indicates a strong preference for large-scale settlement near a major fresh water source. and smaller scale, extractive functioning sites to be located at other resource locales, e.g. quarrying sites, butchering stations or shell gathering places. Late Woodland Stage sites of the East River Tradition in Manhattan and other parts of southern New York have been noted on the "second rise of ground above high water level on tidal inlets," and situated on "tidal streams or coves" and "well-drained sites" (Ritchie 1980:269). Carlyle S. Smith, who studied and analyzed the distribution of prehistoric ceramics in coastal New York, stated that "village sites" are found on the margins of bays and tidal streams" (Smith 1950:130).

Woodland Period tool kits show a few minor variations as well as some major additions to previous Archaic tool kits. Plant processing tools became increasingly common and their presence seems to indicate an intensive harvesting of wild plant foods that may have approached the efficiency of horticulture, newly introduced during the second half of the Woodland Period. "According to current archaeological research in the Connecticut River Valley (including carbon-14 dates), maize cultivation may have been in place as early as 800 years ago" (Kearns, Kirkorian and Schaefer 1988:9). The advent of horticulture is tied in with the introduction of ceramic containers which allowed for more efficient cooking of certain types of food and may also have functioned as storage for surplus food resources. "With the onset of relative sedentary lifestyles and intensified food production, which might have produced occasional surpluses, incipient ranked societies may have begun to develop, as indicated by the presence of extensive trade and exchange and some caching of special artifact forms" (Grettler 1988:10).

Anthropologists and linguists agree that when the Europeans arrived in the Jamaica Bay area, the Native Americans were Munsee-speaking Upper Delaware Indians. Daniel Denton reported, in 1660, that the diseases introduced by Europeans had already reduced the native population of Long Island from six to two villages. As described by Denton, the Indians at this time lived principally by hunting, fishing, fowling and the cultivation of corn. They relocated their "small moveable tents" two or three times a year, going to their principal quarters where they planted their corn, hunt, and fish (Denton 1902:40,45).

The Native American presence on Long Island has been reconstructed through a compilation of ethnographic accounts and published archaeological reports. At the turn of the 20th century, local historians noted the presence of "enormous" Indian shell middens in the Woodmere Bay area of Queens (Bellot 1917:90). In the early years of this century, Reginald Bolton researched the Indian past of New York City and reported that at the time of the European influx, the land of the Rockaway Chieftaincy stretched diagonally across Long Island from the East River to Jamaica Bay. The Canarsie, closely related to the Rockaway, were said to have occupied all of Kings County and part of Jamaica (Bolton 1922:171). Bolton, and more recently, R.S. Grumet (1981), reconstructed the approximate locations of Indian planting fields, village sites, and trails throughout the five boroughs. The nearest Indian village site east of the Gateway Estates Site appears to have been that reported by Dr. Ralph Solecki, in the course of his survey and exploration of Queens and Brooklyn in the 1930s and 40s. Destroyed by the Belt Parkway, it lay a half a mile south of the Aqueduct Racetrack, at the head of Hawtree Creek about 2 miles from the project site. To the west, the closest prehistoric site was the headquarters of the Canarsie Indians, north of the Paerdegat Basin, about 2 miles west of the project site. Shell middens of oyster and hardshell clams were present at both sites. As reported in Historical Perspective's Spring Creek Study, Annette Silver of the Professional Archaeologists of New York City Action Committee was contacted regarding her investigation of a reported shell midden site on Jamaica Bay. Dr. Silver visited the marshy area on the east side of Jamaica Bay and concluded that the historic deposits may be the result of landfill activities.

Although Solecki's map of Indian Village Sites in New York City plots at least one site in the Spring Creek Park area -- which would have been destroyed by the Belt Parkway construction, -- it is not described in the literature, nor does it appear in the "Catalog of Photographs by Ralph Solecki - Long Island and Environs, Local Archaeology," (Queens Borough Public Library). According to Joe Avery, Superintendent of the Breezy Point Unit of Gateway National Recreation Area, there have been no recent reports of Indian artifacts in Spring Creek Park (7-14-88). According to a site file search request placed with the New York State Museum, there are no prehistoric sites located within a one mile radius of the Gateway Estates project site. The Museum's sensitivity rating did, however, indicate a "possibility of submerged prehistoric occupation in this area" (Appendix B).

As outlined above, during the Paleo-Indian and early Archaic time periods the project site was part of a broad, exposed plain near shellfish resources. During the late Archaic and Woodland periods, and into the twentieth century, the project site was part of a marsh and salt meadow which drained into Jamaica Bay by a network of creeks. Extensive filling operations in the twentieth century raised it to its present elevation. Late Archaic and Woodland Indians favored well-drained elevated sites near such large-scale marsh biomes. The creeks, marsh, meadows and Jamaica Bay provided prehistoric settlers with rich resources such as shellfish (some edible genera year-round); waterfowl, fish and small mammals; reeds and shrubs for food (e.g. the beach plum), fodder, or other domestic use (e.g. cord grass and salt hay). On the Gateway Estates Site historically, only one small spit of land was elevated above the low lying marsh, as seen on maps of 1871, 1874 and 1907 (Figs. 6, 7 and 12). The 1871 map, the most detailed of these, unfortunately stops short of the area where Vandalia Ave. was later built. At that time, there were no streets laid out south of Wortman Ave. Judging by the 1874 and 1907 maps, if the current line of Jefferson (Cleveland) and Madison (Elton) streets is continued southeastwards, the later Block 4448 and part of Block 4447 would have stood on this spit of dry land surrounded by marsh. This part of the site was not used later as part of the Milford Street Landfill, probably because of its higher elevation than the surrounding area (Figure 3). Only part of two blocks (4447 and 4448) on the Gateway Estates site may therefore have been sufficiently elevated for a substantial shellfish extracting/processing site during the late Archaic and Woodland and even European contact periods. And, although it is possible that Paleo-Indians and early Archaic Indians used the entire project site for a temporary shellfish processing station, elevated locales such as Block 4447 and 4448 would have been preferred during the earlier periods also. Consequently, topographical evidence indicates that prehistoric archaeological sensitivity is restricted to this small portion of the site. The prehistoric land surfaces, however, are deeply buried under a substantial overburden of landfill.

Well-3/B-3, a soil boring made next to or in the possible area of sensitivity, produced light-medium brown, medium and dark brown sand to a depth of 17' below land surface. Although not so indicated in the core log, it is possible that the 17 feet of sand represents a layering (approximately 8-9") of hydraulic dredge fill material deposited in the 1960s over the natural sands. Currently, large portions of lot 4448 are covered with heaps of sandy material (Photograph 3).

The depth of the modern fill in the potentially sensitive area is estimated to be between eight and nine feet. The 1905 Beltcher Hyde map indicates that land surface on Vandalia Ave., south of lot 4448, varied between 6.40 and 7.80 feet above high tide level. According to the USGS topographical map, the average range of the tide is approximately 5.30 feet (between mean high and mean low water levels). Assuming the range of the tide has not changed radically in the last 100 years or so, in 1905, the land in lots 4448 and 4447 would have stood approximately between 11.70-13.10 feet above mean low water or, on average, approximately 9.0-10.40 feet above mean sea level. The depth of the modern fill is therefore about 8.2-9.6 feet in this area. This figure is consistent with the analysis presented in the Archaeological Sensitivity Evaluation for the Water Pollution Control Plant cited above, which, on the basis of soil borings, concluded that the depth of the fill in that area "ranged from nine to eighteen feet below surface." (Roberts et. al., 1990:9)

Data from borings clearly outside the possible area of sensitivity in most cases show that the modern fill lies directly above ground water level and even continues below it (i.e. borings B-2, B-4 and B-10). The original land surface of the marsh lay at or near ground water level. Peat, indicating the approximate level of the original surface, was found in a number of borings at depths below the ground water level and the modern fill (some subsidence of the land is normal; see borings B-1, B-5, B-6, B-9, B-10, B-12, B-13, B-14). Any stray prehistoric or historic remains mislaid in the salt marsh would therefore now lie below the ground water level. The low-lying, marshy ground originally covering most of the Gateway Estates Site would in any case have restricted its use to hunting or gathering.

#### IV. HISTORIC ERA

King's county, settled by the Dutch in the seventeenth century, was part of the Colony of New Netherlands and was administered by officials of the Dutch West India Company. By the time of the English conquest in 1664, five Dutch towns had been established there: Breukelen (Brooklyn), Amersfoort (Flatlands), New Utrecht, Boswyck (Bushwick) and Midwout (Flatbush). Despite its years under English hegemony, Kings County retained a strong Dutch element well into the nineteenth century.

New Lots, encompassing the present neighborhoods of Brownsville, Cypress Hills, East New York and New Lots, was part of the Town of Flatbush throughout the colonial period. "Flatbush", a corruption of the Dutch "Vlacke Bosch," meaning flat or level forest, was settled c. 1652 and given a patent by Peter Stuyvesant in 1656. This was confirmed by the first English governor, Richard Nicolls, in 1667. Flatbush officially acquired the uplands, "Oostwoud," (meaning east woods, since it was east of Flatbush), in 1670, when it was purchased from Eskemappas, the Rockaway Indian Sachem and his brothers Kinnarimas and Ahawaham. This deed of April 20, did not apparently include the meadows, for which there may have been an earlier, unrecorded deed (Van Wyck 1924:70). This woodland and extensive meadow tract extended from the Newtown town line to Jamaica Bay and was known as the new lots or lands of the Town of Flatbush, whence derives its later name of New Lots. Title to the land was shown to be uncertain, for Captain Richard Betts, living in Newtown, claimed a section of New Lots on the basis of an Indian sale from 1663. The case was eventually appealed to the General Court of Assizes in New York City, which decided in favor of the Town. Flatbush then received a separate patent, in 1677, from Governor Andros for Oostwoud (Landesman 1977:12; Armbruster n.d.:1).

According to Long Island historian Armbruster, New Lots was first settled in 1654 by a group of twenty families from the Netherlands and a few Germans from the Palatinate region. Common lands were divided and assigned in 1660. Landesman, however, states that it was the landholders of Flatbush who divided the lands of New Lots. The meadows on the south side of New Lots, where the Gateway Estate site is now located, were probably allocated to the plantation owners of New Lots when their farms were first laid out in 1677/80, since a number of the original land grants already included meadow lots between the First and Third Creeks (Landesman). Landesman based his account on <u>The History and Chain of Title of New Lots</u> Meadows, which records that the lands were granted to the residents of Flatbush by Petrus Stuyvesant on June 20, 1656 and confirmed by Governor Dongan by patent dated November 12, 1685. According to the Conveyance Indexes, the first grantor, in 1679, of the lands included in Blocks 4443-4452 (now encompassed by the Gateway Estates Site), was one Floras W. Cram.

Forty-seven of the lots or "plantations" of New Lots had its own meadow lot; the 48th plantation received only meadow lands. The meadow lots were divided into two sectors, with 24 lots between the First and Second Creeks, and another 24 between the Second and Third Creeks. <u>The History and Chain of Title...</u> states that the lots on the west averaged 7 rods in width (a rod being equal to 12.34') and covered about 4 acres, while those on the east were 12-20 rods wide and covered an area of approximately 6 acres. According to Stiles (1884:442), the salt hay growing in the meadows was used for winter forage; the sedge grass for thatch; the dried sea weed or eel grass for stuffing mattresses and both the sedge and eel grasses were used for manure.

Figure 5, a Map Showing the Property Owners of "New Lotts of Midwout," also indicates the finger of higher ground pointing into the meadow discussed above, only the tip of which, (later blocks 4447 and 4448), would have lain inside the present Gateway Estates Site. The Dutch government of the town of Midwout set aside four lots for the use of the church.

On the "New Lotts of Midwout" map, the higher land is labeled "3rd Kills Point Woodlands", and is bounded on the north by a "Circular Fence". The fence, mentioned by Landesman, was erected in 1799 on the southern edge of New Lots "beginning east of the Second kill at ditches of John and Christopher Lott and running to Thomas Bett's Creek" (i.e. the Third, or Spring Creek). It lay approximately three or four blocks north of the project site, in the general area of the present Wortman or Stanley Avenues, perhaps near the old road to the landing (Figs. 1 and 6). In 1799, Hendrick Wyckoff, was the poundmaster or fence viewer who guarded the fields and meadows against the incursions of cattle and could seize any animal which strayed on to the enclosed land as part of his payment (Landesman 1977:33).

Circa 1680, the New Lots settlement consisted of about ten Dutch families, centered on New Lots Road, (the present New Lots Avenue, six blocks north of the project site), between Van Sinderen and Fountain Avenues. The town grew only slightly during the following 150 years, remaining essentially a farming village until the second half of the 19th century. In 1820, there were still only 64 families living in New Lots and only 79 in the parent community of Flatbush. The population included a number of African slaves, owned by more than half of the families. According to the 1820 census, there were 338 Europeans, 90 slaves, 30 free slaves and other free persons. Slavery was abolished in New York in 1826, but many of the newly freed slaves remained as farm laborers in New Lots (Landesman 1977:61-62, 65, 75, 78; McLaughlin 1981:203; Kearns, Kirkorian and Schaefer 1988:16).

Some families originally owned land in both Flatbush and New Lots, but as the two settlements became more distinct, most had consolidated their holdings by the 1670s. These rural Dutch families maintained their insularity partly because there was only one church in Flatbush, the Dutch Reformed, to which almost everyone belonged, and because they intermarried. Given their relative geographical isolation, it is no wonder that marriages were confined to members of their own group. As a result, by the late eighteenth century, the major families were interrelated. After marriage, because of the abundance of land and the profitability of agriculture, eldest sons inherited farms which, at the time of the Revolution, averaged more than 100 acres in size. Brooklyn, a larger town than Flatbush but still rural, was their marketplace. Although much less heterogeneous than New York, the proprietors of the Town of Flatbush did not form a closed group but made continuous accommodation to newcomers, who received many privileges along with the land that they purchased.

Aside from the initial invasion, the Revolution did not interrupt this pattern of life. The settlement continued to grow and even prospered as a result of the war and British military rule, since this resulted in an expanded market and higher prices for the farmers' produce. The British conquest of Long Island in 1776 is New Lot's claim to fame --or infamy-- in the Revolutionary War. During the Battle of Long Island, in 1776, 10,000 British troops under Sir William Howe stopped at Howard's tavern, near the present intersection of Fulton St. and Broadway, and forced William Howard, its owner, and his son, to lead them north through the hills to outflank the American army. In this manner, the British secured Long Island and held it until the end of the war (Landesman 1977:36-40).

The descendants of the early settlers remained in New Lots and continued to farm. They harvested a variety of agricultural products. The 1845 state census recorded 2,355.5 acres under cultivation. The major crops were corn, oats, wheat and rye and the area also produced large amounts of buckwheat, peas, beans, turnips and potatoes, as well as having 278 meat cattle, 192 dairy cows (which produced 9,230 pounds of butter), 222 horses and 230 hogs. At this time, the produce was either shipped to New York City or sold directly to consumers at markets in Jamaica, Flatbush or New York (Landesman 1977:76). The Van Wicklens were among the most prominent farmers of New Lots. Other important families were the Vanderveers, the Rapeljes, the Schencks, the Duryeas, the Hegemans, the Cozines, the Van Sickelens, the Wyckoffs, and the Stoothoffs, to name but a few.

Many of the streets in New Lots were named after these early landowners. Vandalia Ave. was originally called Van Wicklen. Its present name, after a city in Illinois, was acquired in 1888 (Pearlman 1965:87). The Van Wicklen family owned one of the two gristmills in the area, erected c. 1770 and called Van Wicklen's, or Old Mill. On the 1797 map of Flatbush, it appears as "Titus Mill" (Fig. 4). The mill stood at the foot of the present Crescent St., about one fifth of a mile north of the Gateway Estates site. The original Old Mill was built by a man named Van Brunt in 1763 at Pleasant Point, a half mile south of this spot, east of the Gateway Estates site, on the opposite side of Betts' Creek. The Van Wicklens, who owned it, took it down in 1810, reassembling it on the west side of the Old Mill Road. The tidal mill stood at the edge of an artificial lagoon which came to be known as Old Mill Creek. What remained of the mill, on the lagoon north of the project site, was demolished in 1934. The Van Wicklen mansion, erected in 1749, stood immediately to the north of the mill, on the east side of the Mill Road.

Neither the rapid growth in population of New Lots -- from 777 in 1845 to 5,009 in 1865, -- nor the consolidation of the town with Brooklyn in 1886, resulted in the draining or otherwise improving of the salt meadows. This was probably because there was already an abundance of good farmland in the area. The Dripps map of 1878 shows that the Cozine family's land was the only property extending south of Vandalia Ave., into the area of the later blocks 4448 and 4449 (Fig. 8). According to the Brooklyn Historical Society's Block Conveyance Summaries, this land was known as "Homestead Farm;" however, the Brooklyn Building Department was not able to locate their Block and Lot File Folders for block 4448.

The Bromley atlas of 1893, showing streets and buildings, indicates that no structures had as yet been erected on the Gateway Estates site and, in particular, the small elevated portion in the northwest section. But only five years later, the Belcher Hyde map of 1898 (Fig. 9) shows a small frame house and a stable standing just south of Vandalia, near the corner of Elton Street (Block 4452). According to Armbruster, "The Samuel Cozine House is standing in the meadows at the foot of Elton Street" (1942:342). The Cozines first acquired their lands, a 30 acre property, in 1799 (Heidenreich 1948:16).

By the end of the 19th century, the Cozine property was broken up. In 1890, as recorded in the Block and Lot register, Herman G. Bocklage purchased part of the Cozine lands on the Gateway Estates project site, corresponding to the later Blocks 4447, 4448, 4449 and 4452 (Figs. 10). And, by 1905, part of the former Cozine property was sold to Nathan Kaplan (Fig. 11). It is uncertain whether Bocklage built the structures shown in the southern part of Block 4448 (Fig. 11), or whether these represent an old Cozine house and associated buildings not illustrated on the 1893 atlas. This detailed map records one two and a half story frame building with a brick or stone foundation flanked by a large stable and a small frame shed (Fig. 11). Diagonally opposite the main building were two frame sheds, standing back to back. The same group of buildings appear in the 1929 <u>Desk Atlas Borough of Brooklyn</u> and in the Sanborn map of 1928 corrected to 1951. The 1905 and later maps do not record any structures southeast of Vandalia St., as appear in the 1898 map (Figs. 9 and 11), raising the suspicion that these may represent the same group of buildings, especially since this residence was remote from any other and Vandalia St. was a paper street, at that time perhaps only a dirt track. Noted Brooklyn historian Stiles does not refer to a Cozine house.

The project site assumed its current condition in the late 1960s when the standing structures on block 4448 were demolished as part of the city's 1967 urban renewal efforts. The

modern street grid was established shortly after demolition when the city's new street plan for the area was adopted, c.1970. As early as 1954 the marsh land to the northeast of the project site was being filled with residue from the city's South Shore Incinerator located six-tenths of a mile from the project site. The entire Gateway Estates project site eventually was filled to the newly established street grade in part with refuse, as part of the Milford Street Landfill Project, and also with municipal solid waste (Kearns, et al 1988: Appendix C).

It appears that the first buildings constructed on the Gateway Estates site date from the 1890s. At that time, this area was still remote from the town; predominantly farmland, with very few buildings. Not surprisingly, there were no sewers here and the occupants must have used privies and dry wells. The first sanitary sewer in the immediate area, running down the earlier Vandalia Ave. roadbed, was laid only in 1952 (Bureau of Highways & Sewers plan 936, Sept. 24, 1952 and R. Eisenstein, NY City Dept of Water Supply and Waste Water Collection, personal communication 7-30-93). If the residents of the building in block 4448 had their privy periodically cleaned, it would contain only fairly recent deposits of the 1930s or 1940s. If they laid a pipe in order to flush the contents of the privy into the marsh, the remains would be lost under the water table. And finally, if they dug a new privy each time the existing facility became too full, a series of privy deposits might exist. In any case, whatever might remain of the privies, dry well or cisterns used by the 19th century inhabitants is deeply buried under at least 8-9 feet of landfill (see page 9, above, and Fig. 3).

Land for the Shore Parkway was claimed in this area in 1940 and clearly, the filling and levelling operations undertaken for its construction resulted in major changes in the topography. But this area, bordering the southern edge of the Gateway Estates project, was inundated wetland with no possibility for building or prehistoric activity and consequently, the impact of the highway is not relevant to the discussion of archaeological/historical remains on the Gateway Estates Site.

#### V. CONCLUSIONS AND RECOMMENDATIONS

#### PREHISTORIC

It is clear that Native Americans were exploiting the resources of the Jamaica Bay area long before the arrival of the Europeans. Documents and published sites from the Prehistoric period demonstrate the Native American's marked preference for elevated, well-drained coastal sites with fresh water, adjacent to large scale marsh biomes providing rich food resources. On the Gateway Estates Site, dry ground suitable for a prehistoric extracting and processing site was located on the northwest, in an area approximately the size of two blocks (Blocks 4447 & 4448, see Figure 13). It is rare, however, to have such a landform preserved topographically and with a minimum of subsequent historic use. At this specific locus, it appears that there is at least 8-9 feet of 20th century fill material above the ca. 1900 ground level. In addition, enormous hillocks of sand and debris on block 4448 reach heights of as much as 25' above 19th century ground level (Montrose Survey Map No. 50328, 1-15-92). Borings throughout the site showed that the ground water, at an average depth of 15', penetrated modern fill layers.

Certain construction activities, e.g., underground parking, utility trenches, catch basins, and below-grade basements, would severely impact the potentially sensitive landform 8-9 feet below the current average grade. On the other hand, less extensive activities, e.g., spread footing foundations, passive recreation park land, and surface vehicular parking, would not directly impact possible prehistoric resources protected by the 20th century fill overmantle. The designs for the Gateway Estates, including Blocks 4447 and 4448, specify pile foundations with pile cap excavations extending six feet below current grade (Herbert L. Mandel, P.C., Architect, personal communication, 4/6/94). No below-grade basements or parking areas are planned. Therefore, the greatest impact to the possibly sensitive area will be within the overmantle. There will be limited impact beneath the pile caps by the individual piles driven into the landform. Any further testing or possible mitigation of this site is very problematical. Monitoring the installation of the piles will not afford an on-site archaeologist an opportunity to visually inspect soil profiles or identify any possible materials in situ. Testing in the areas of pile driving would be extremely expensive and disruptive due to necessary sheeting or wall canting and probable dewatering. Therefore, no mitigation is proposed for these areas.

Another possible, deep disturbance in the potentially sensitive area will be trench cuts for utility installations. These cuts would necessarily expose subsurface stratigraphy and provide an opportunity to discern presence/absence of original landform. If the utility installation excavations occur to a depth of more than 6 feet below current grade in the potentially sensitive area, an archaeologist should be on-site to monitor the procedure. Appropriate on-site monitoring tasks and responsibilites would be devised in cooperation with the New York City LPC.

### HISTORIC

With respect to the historic periods, no evidence of building activities prior to the late 19th century was found. The late 19th century frame houses and stables located in the southeastern part of Block 4448 were no doubt equipped with privies, cisterns and wells. In the 19th century, it was common to deposit household refuse in these convenient cavities, when they could no longer serve their original function. In this way, they become valuable time capsules for the archaeologist, providing insights into everyday life. But, as pointed out above, the building continued in use until the 1950s, and if its inhabitants had their privy periodically pumped, only the latest remains, dating from the last 10 years or so of the building's use, would be present. If the residents dug a new facility every time the old one became too full, it might be necessary to excavate four or five privy deposits before finding the oldest one, a long and costly process, particularly in view of the heavy overburden of landfill. It is also quite possible that refuse from the privy was flushed down a pipe into the convenient, nearby marsh. In this case, no discrete deposits of cultural materials from privies would be on the homelots. The potential historical value of deposits from wells and cisterns is also limited. Because they were apparently in continuous use until the first sanitary sewers in the area were laid in 1952, they would not contain closed deposits of 19th century remains.

It is therefore the conclusion of this documentary study that, as concerns the historic periods, the time, cost and effort required in order to locate and excavate possible late 19th century cultural resources, buried beneath at least 8-9' of fill and possibly below the water table, is not warranted by the low probability of finding intact deposits and the questionable potential of the anticipated data to add significantly to our understanding of late 19th century lifeways along Jamaica Bay.

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Fig. 2





Fig. 2A



#### GATEWAY ESTATES PROJECT SITE

SOURCE: Lockwood, Kessler & Bartlett, Inc., "Land Use Planning Study for the Spring Creek Industrial Park, Brooklyn/Queens, New York," prepared for the New York City Public Development Corporation, April 1986.



1797 Map of the Town of Flatbush

---- Approximate Area of Gateway Estates Project Site

Fig. 4



c.1670, reconstruction



northern limit of Gateway Estate project site

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# BAY AND HARBOR OF NEW YORK, published 1874, 1883 edition





# William C. Dripps Map of Van Wicklen (Vandalia) and Adjacent Streets [Modern names & Block numbers added for clarity]



[Modern name added for clarity]

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Fig. 9

BELCHER HYDE 1898 PL. 47





Topographical Map of Jamaica Bay 1907

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----- Project Site Boundary

4452

Block Number Area of Sensitivity Project Map Showing Area of Possible Prehistoric Archaeological Sensitivity National Satellite Services Inc. Spring Creek Earth Station View: Southeast to Northwest from the corner of Flatlands and Fountain Avenues



Project site south of Vandalia Ave., sewage treatment plant on the right View: Northwest to southeast from Vandalia Ave. at Walker St. (paper street)



Intersection of Flatlands Ave. and Elton St., lots 4449 and 4448, approximate site of 19th-20th century buildings shown on the left View: Northeast to southwest from Flatlands Ave.



Vandalia Ave., approximate site of 19th-20th c. buildings shown on the left

View: Southwest to northeast from Schenk Ave. at Vandalia Ave.





THE CITY OF NEW YORK LANDMARKS PRESERVATION COMMISSION 225 Broadway, New York, NY 10007 212/553-1100

# **IRONMENTAL REVIEW...**

HPD 93-014K

4/1/93

PROJECT NUMBER

DATE RECEIVED

PROJECT

Gateway Estates

I No architectural significance

No archaeological significance

Designated New York City Landmark or within a Designated Historic District

On or eligible for National Register of historic Places

. 🖸 Appears to be eligible for National Register Listing and/or New York City Landmark designation

May be archaeologically significant; documentary study required

May be archaeologically significant; need site plan showing building

basement depths and footprints of previous and proposed buildings

#### COMMENTS

cc: Man Decine

The project area has potential for archaeological remains from Native American occupation.

In addition, there is a potential for historic remains related to a house and outbuildings which formerly stood on Block 4448 (former lot 3, near Vadalia).

Information from all available soil borings and landfill records from the area should be compiled as part of the documentary study.

Bruce Fullem (SHPO

EVALUATION OF ARCHAEOLOGICAL SENSITIVITY FOR PREHISTORIC (INDIAN) SITES Examination of the data suggests that the location indicated has the following sensitivity rating:

[ ] HIGHER THAN AVERAGE PROBABILITY OF PRODUCING PREHISTORIC ARCHAEOLOGICAL DATA.

[ ] AVERAGE PROBABILITY OF PRODUCING PREHISTORIC ARCHAEOLOGICAL DATA.

- [ ] LOWER THAN AVERAGE PROBABILITY OF PRODUCING PREHISTORIC ARCHAEOLOGICAL DATA.
- [ ] MIXED PROBABILITY OF PRODUCING PREHISTORIC ARCHEOLOGICAL DATA.

The reasons for this finding are given below:

- [ ] A RECORDED SITE IS INDICATED IN OR IMMEDIATELY ADJACENT TO THE LOCATION AND WE HAVE REASON TO BELIEVE IT COULD BE IMPACTED BY CONSTRUCTION.
- [ ] A RECORDED SITE IS INDICATED SOME DISTANCE AWAY BUT DUE TO THE MARGIN OF ERROR IN THE LOCATION DATA IT IS POSSIBLE THE SITE ACTUALLY EXISTS IN OR IMMEDIATELY ADJACENT TO THE LOCATION.
- [ ] THE TERRAIN IN THE LOCATION IS SIMILAR TO TERRAIN IN THE GENERAL VICINITY WHERE RECORDED ARCHAEOLOGICAL SITES ARE INDICATED.
- [ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION SUGGEST A HIGH PROBABILITY OF PREHISTORIC OCCUPATION OR USE.
- [ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION SUGGEST A MEDIUM PROBABILITY OF PREHISTORIC OCCUPATION OR USE.
- [ ] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION ARE SUCH AS SUGGEST A LOW PROBABILITY OF PREHISTORIC OCCUPATION OR USE.
- [ ] EVIDENCE OF PRIOR DESTRUCTIVE IMPACTS FROM CULTURAL OR NATURAL SOURCES SUGGESTS A LOSS OF ORIGINAL CULTURAL DEPOSITS IN THIS LOCATION.
- [] THE PHYSIOGRAPHIC CHARACTERISTICS OF THE LOCATION ARE MIXED, A HIGHER THAN AVERAGE PROBABILITY OF PREHISTORIC OCCUPATION OR USE IS SUGGESTED FOR AREAS IN THE VICINITY OF STREAMS OR SWAMPS. LOW PROBABILITY IS SUGGESTED FOR AREAS OF EROSIONAL STEEP SLOPE. OTHER AREAS WITHIN THE PROJECT SUGGEST AVERAGE PROBABILITY OF USE.

COMMENTS:

THERE IS A POSSIBILITY OF SUBMERGED PREHISTORIC OCCUPATION IN THIS AREA.