PHASE 1A HISTORICAL/ARCHAEOLOGICAL SENSITIVITY EVALUATION OF THE PAN AM MOTOR INN QUEENS, NEW YORK CEQR #86-165Q

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January 1990
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Michael W. Davenport - Cartographer
INTRODUCTION

The purpose of this Phase 1A Sensitivity Study is to document the potential prehistoric and historic sensitivity of the Pan Am Motor Inn Development Project on Block 2453 in Elmhurst, Queens, New York through the review of existing archival, cartographic and published references. In order to provide a context for evaluating any identified resources within the parcel itself, this survey shall include a synthesis of published and unpublished prehistoric and historic resources in the immediate locality surrounding the project area. This report has been requested in advance of potential rezoning for the entire block and expansion of the motor inn.

GEOGRAPHY AND PHYSICAL SETTING

The project area lies on Block 2453 within the Elmhurst section of Queens. Block 2453 consists of a roughly triangular piece of land bounded to the north by Queens Boulevard, to the south by 51st Avenue and to the west by Hillyer Street. It currently is subdivided into eight lots numbered 1, 3, 17, 18, 25, 40, 42 and 44. Lot 1 is on the southwest corner of the block and houses an automobile repair shop and gasoline station in a one story structure. Lots 42 and 44 are adjacent to one another on the northwest corner of the block and contain three small one story structures utilized by a used car dealer. Lot 25 occupies the triangular eastern end of the block and is almost completely covered by three or four adjacent one and two story structures which house an automobile repair business. Lots 17 and 18 form an 'L' shaped plot adjacent to lot 25 on its west side. They are completely covered by a one story structure which also houses an automobile repair shop. The remainder of the block consists of lots 3 and 40 which contain the Pan Am Motor Inn. This section of the block includes nearly 70% of its total area and the majority of the street frontages along Queens Boulevard and 51st Avenue. The Pan Am Motor Inn is a relatively modern seven story brick and concrete structure fronting Queens Boulevard. The remainder of lots 3 and 40 house the motor inn's swimming pool and parking lots. Queens Boulevard, one of the borough's main arteries, is a large and busy thoroughfare. In the immediate vicinity of the project area are many small businesses and private homes. The small streets leading to the project area from the south contain small brick houses. Five blocks to the north of the project area is Elmhurst's main shopping district. See Figure 1 for the location of the project area.

The project area lies in Long Island, which is within the Atlantic Coastal Lowland Physiographic Province (Thompson 1966:34). This province exists within New York State only on Long Island and Staten Island (ibid:34, 43). Long Island's fertile soil is good for the production of hay and grains. Farmers on Long Island also raise vegetables, potatoes and fruit.
Figure 1 Location of the project area shown on U.S.G.S. 7.5 minute series, Brooklyn, New York Quadrangle, 1967 (photorevised 1979).
The climate of Long Island is basically mild and wet during the winters. During the summer it is warm and humid (Thompson 1955:77). Ocean breezes help cool Long Island in the summer. The mean temperature for January is 30 degrees Fahrenheit. The frost-free season lasts for approximately two hundred days.

PREHISTORIC SENSITIVITY

As part of the project evaluation process, this sensitivity study has surveyed published and unpublished sources in the archives of New York City, the files of the New York State Museum Division of Historical and Anthropological Services, as well as resources on file at Greenhouse Consultants.

Table 1 presents the results of our search for prehistoric sites in the vicinity of the Pan Am Motor Inn project area. Included in the table are two sites located two miles or less from the project area. The locations of these sites are presented on Figure 2 with letter code identifiers which correspond to those in Table 1. The New York State Museum conducted a complete search of their files for sites within two miles of the project area. Information on sites within two miles of the project area was also obtained from documents on file at Greenhouse Consultants.

The Maspeth Site or Site A, the nearest of the prehistoric sites, is known primarily through the work of Arthur C. Parker, the former New York State Archaeologist, during the first quarter of this century. This site is described as a village. The village site is associated with the name Maspeth and is situated along Maspeth Creek approximately 1.9 miles southwest of the project area. Unfortunately no detailed descriptions of artifacts recovered from this site was supplied, so no assessment of a date range can be made (Parker 1922). Since the Maspeth site is described as a village, it therefore may date to the Woodland Period. This inference is based solely on the general fact that villages were not a common occupation pattern of the preceding Archaic and Paleo-Indian Periods. (See Site A in Table 1 and Figure 2.)

The second site found during our search is designated 'B' in Table 1 and Figure 2. This site, known as Saint Michael's Cemetery, is located approximately 2.0 miles northwest of the project area. It is listed in the prehistoric site files of the New York State Museum as a cemetery although no additional information such as date range is supplied. A report prepared recently to document a portion of this cemetery was reviewed as part of this research. This report describes the potential prehistoric sensitivity of the cemetery and concludes that although the cemetery location would have been conducive to its use by prehistoric populations, no evidence exists to confirm St. Michael's Cemetery as a known prehistoric site. This location has definitely been used for burials since the middle of the 19th century (Geismar 1987), but its listing in the prehistoric site files of the New York State Museum is apparently erroneous.
Figure 2 Known prehistoric sites within a two mile radius of the project area.
### Table 1: Prehistoric Sites in the Vicinity of the Pan Am Motor Inn

<table>
<thead>
<tr>
<th>Site Name</th>
<th>NYSM#</th>
<th>Parker#</th>
<th>Other#</th>
<th>Reference</th>
<th>Period(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Maspeth</td>
<td>4536</td>
<td>ACP-QUNS-13</td>
<td>-</td>
<td>Parker 1922: 672</td>
<td>Woodland (?)</td>
<td>Village</td>
</tr>
<tr>
<td>B. St. Michael's Cemetery</td>
<td>5472</td>
<td>-</td>
<td>14</td>
<td>-</td>
<td>-</td>
<td>Cemetery</td>
</tr>
</tbody>
</table>
Documentary evidence from the seventeenth century also indicates that this region was utilized by the aboriginal population. The place name Maspeth is evidently of native origin. Several different meanings have been proposed for this term including "bad water place" derived from the Micmac "mespaak" meaning "overflowed by the tide," and "great brook" derived from the Delaware words "mech" and "sepe" (Gruet 1981:23-29). R.P. Bolton, the early twentieth century researcher, places the village of Maspeth in the territory of the Rockaway group (Bolton 1975:51). There is considerable evidence that the group that occupied this portion of Queens was Delaware speaking (Gruet 1981:65).

In terms of potential prehistoric sensitivity, the project impact area was evaluated from two points of view:

1) the proximity of known prehistoric sites in or near the project area; and
2) the presence of fresh water drainage courses in general, and particularly the identification of river or stream confluence situations where two or more drainages come together, providing access to both water and food supplies of both systems.

This survey has documented the recorded or published location of two sites within a two mile radius of the Pan Am Motor Inn project area. Although sites have been identified in the general region of the proposed project impact area, none are known to exist within the project area itself. No evidence, positive or negative, based on previous survey work is available. It would be inappropriate, however, to characterize the area as without prehistoric sensitivity, especially since two streams formerly existed within or near the project area. A small unnamed stream ran off to the west of the project area draining into Newtown Creek. A second stream drained the marshy meadow to the east. This stream was known as Horsebrook.

These sources of fresh water, although no longer evident, may have been utilized by prehistoric inhabitants of this region. The project area is presently nearly level with some relatively elevated soils situated from approximately 19.8 to 22.3 feet above the Queens Highway datum formerly adjacent to the streams. The existence of this elevated land with easy access to fresh water within the project area, combined with the knowledge of the one prehistoric site in the vicinity as well as Contact Period references to occupation in this region, indicates that the project area may preserve evidence of prehistoric occupation. Such evidence would probably consist of a temporary or seasonal hunting camp, since these camps often overlook marshes or swamps where game might obtain food and water.
Seventeenth Century

Director-General Kieft of the Dutch West India Company purchased a tract of land east of Rockaway on the southern shore of present-day Nassau County (Flint 1896:116). Kieft's land extended to the north as far as Martin Gerretsen's Bay. This purchase from the Nanhasset Indians was the first known European contact with present-day Queens (ibid.). The Dutch, however, made no organized settlement in the region.

English settlers from New England arrived and established the first colonies in Queens, known as the English Towns (Flint 1896:116). The English colonists of Queens accepted Dutch rule (c. 1640) which extended on Long Island's northern shore as far east as Oyster Bay (ibid.:118). The settlers had to pay a rent of one-tenth of all their farm produce to the Dutch West India Company each year (ibid.:131).

New Netherland became English in 1664, and all of Long Island including present-day Queens was included within the administrative district called Yorkshire (Flint 1896:116-17). Yorkshire was subdivided into three divisions known as Ridings: West, East, and North (ibid.:117). The township of Newtown, including the present project area, was part of the West Riding.

Governor Dongan ended the Riding system, and the Colonial Assembly set up counties (Flint 1896:117). In 1683 the colony of New York was divided into twelve counties with Queens County composed of the townships of Jamaica, Newtown, Flushing, Oyster Bay, and Hempstead (Hazelton 1925 I:126). The focus of this section is on the township of Newtown, the site of present-day Elmhurst and the project area.

In 1642 the New Amsterdam authorities granted Reverend Francis Doughty, an immigrant from Massachusetts, and his associates a tract of land at the head of Mespas Kill, later known as Maspeth Creek or Newtown Creek (The New York City Historical Records Survey 1940 I:V). Reverend Doughty fled New England because of his unorthodox religious views (Kross 1983:13). The Doughty patent included a large portion of what would become the town of Newtown as well as the present project area (The New York City Historical Records Survey 1940 I:V, XVIII). The area was called Mespas after the Mespatheres Indian group. In 1643 during the war between the Dutch and the Indians, the settlement of Mespas or Maspeth was destroyed. Two years later the area had recovered enough for resettlement. Hans Hansen, also known as Hans deBoor, bought 400 acres of land at the head of Mespas Kill (The New York City Historical Records Survey 1940 I:V; Hazelton 1925 II:934).

In 1652 the English settlers arrived at Middleburg, which later became a village of Newtown and present-day Elmhurst (Hazelton 1925 II:942). The first house at Middleburg was built on present-day Queens Boulevard near Grand Avenue, approximately eight blocks east of the project area (ibid.). The first Middleburg settlers purchased 1,376 acres from the Indians at one shilling per acre (Hendrickson 1902:9). This purchase
from the Indians was the only claim that the Middleburg settlers had to their land, since Director-General Stuyvesant did not grant a village patent to them (Kross 1983:21). The purchased land corresponded to Doughty's 1642 patent, who had left the area. The Dutch allowed the Middleburg settlement to function under the provisions of Doughty's patent and recognized its status as a village (ibid.:22). By the middle of the 1650s the Middleburg settlement was called Newtown as well as Middleburg (ibid.:21).

One of the individuals active in the purchase of Middleburg from the Indians was an Independent preacher, Reverend John Moore (Chapman Publishing Company 1896:335). As a result of Moore's active role in the community, his family was awarded eighty acres of land in Middleburg. The Moore family built a house on their property which today lies approximately eight blocks northwest of the project area (The Queens Museum 1976:1).

During the early 1660s the settlers of Middleburg supported the English crown against the Dutch of New Netherland (Onderdonk 1665:5). At this time the name of the Middleburg settlement was changed temporarily to Hastings (Hendrickson 1902:11). Following the English capture of New Netherland in 1664, "Newtown", an name already in popular use, became official (The New York City Historical Records Survey 1940 I:VIII).

In 1667 Governor Nicolls issued a patent for Newtown. Three years later a Meeting House was erected on what is today the south side of Queens Boulevard, less than one-half mile east of the project area (New York City Historical Records Survey 1940 I:VIII). In 1668 Governor Dongan confirmed the original Newtown patent of 1667 (Kross 1983:53-61). The population of Newtown by the 1680s was still low. Hazelton (1925 II:939) claims a population at this time of ninety families for the entire town.

The areas of heaviest settlement were near English Kills (Maspeth or Maspeth) and along Horsebrook Creek (Newtown Village) (Kross 1983:4). The fresh and salt meadows were good for both agriculture and pasturage (ibid.). In the seventeenth century the project area was known as Smith's Meadow (ibid.:5). This meadow was a fresh water swamp with streams flowing through it (Innes 1898:3). In 1678 one stream was diverted into a main ditch and the meadow on each side of it was given to settlers in two to ten acre plots (ibid.). According to Innes there was a road leading from the Hyatt home "along the edge of the upland on the south side of Smith's Meadow to Middleburg" (1898:7). The road skirted the meadow which had trees, fields, and pastures in its vicinity (ibid.:16).

Eighteenth Century
Newtown experienced some population growth during the last decade of the seventeenth century and the first decade of the eighteenth. The 1711 Census records 1003 people, including 164 black slaves (Riker 1852:147). By 1727 the Quaker population increased enough for the construction of a meeting house. By 1733 the influx of Dutch resulted in the building of a
Figure 3 From Faden's (1776) A Plan of New York Island, with part of Long Island, Staten Island, and East New Jersey.
Dutch Reformed Church (The New York Historical Records Survey 1940 LXIII). The population of Newtown doubled before the close of the eighteenth century with the 1790 Census listing 2111 (Riker 1852:262).

Along with population growth came physical developments. In 1703 the Queens County road supervisors constructed roads linking Newtown, Flushing and Jamaica. They completed fourteen more by 1722 (Kross 1983:161). The State Legislature passed a law in 1796 requiring that a certain meadow in Newtown be drained more thoroughly (Long Island Daily Star 1937:n.p.). The meadow was fed by Horsebrook Creek (unnamed at that time) and, therefore, could only have been Smith’s Meadow. The legislation came as a result of a petition presented by Charles Roach and other residents of Newtown to require the owners of the meadow to drain it on a regular basis.

Newtown was the site of activity during the American Revolution. An American spy, Caleb Brewster, noted a regiment of Highlanders (1779) at Jamaica with some detachments at Newtown Village (MacMaster 1961:3). British Major General Robertson arrived and left Newtown without finding any American troops (Onderdonk 1846:100). After Robertson had left, British Generals Clark and Heister (with his Hessians) remained at Newtown for three weeks (ibid:101). British troops marched and encamped in the vicinity of Newtown Village, but there is no evidence that they were within the project area (see Figure 3). There was an encampment at Train’s Meadow to the northwest of the project area, thus indicating the kind of terrain favored for temporary settlement, (Onderdonk 1846:133, Kross 1983:5). The closest point to the project area occupied by British troops was at the Moore family house, approximately eight blocks to the northwest (The Queens Museum 1976:1-6).

Two families, Moore and Gosseline, should be noted in connection with the eighteenth century. Riker’s map (1852) shows J. J. Moore’s property (including a building) to the immediate north of the project area (see figure 4). The Moore family, as noted above, had been in the area since the seventeenth century. It is highly possible, but not certain, that the Moore family owned the piece of the Smith’s Meadow that included the project area during the eighteenth century (ibid). The Gosseline family became associated with Newtown Village in 1725, when Jose Gosseline (Gorsline), a weaver of French or Flemish descent, purchased twenty-one acres of land (Innes 1898:25). Riker’s map (1852) shows Peter Gorsline, but his property is located to the south of the project area (see Figure 4). There is again, no evidence with respect to the location of the Gorsline property during the eighteenth century. The only clue to the possibility of Gorsline’s ownership of land on or adjacent to the project area is the presence of Gorsline Street which runs into the project area from the south (see Figure 7).

Nineteenth and Twentieth Centuries

Physical development continued in Newtown throughout the nineteenth century, particularly in the area of the transportation. The first bridge was built in 1801 over the meadow, connecting Newtown with
Figure 4 From Riker's 1852 Map of Newtown, Long Island.
Figure 5  From Beers' 1873 Atlas of Long Island, New York.
Figure 6 From Wolverton's 1891 Atlas of Queens County, Long Island, New York.
Flushing (Munsell and Co. 1932:320). Shell Road, named after the crushed oyster shells used in its construction, was built in 1840, six blocks northwest of the project area (The Queens Museum 1975:9).

The railroad came to Queens County by the middle of the century. The Flushing Railroad, joining Flushing with Long Island City started in 1852, but it went bankrupt before the end of the decade (Seyfried 1961 III:71; Rossand Pelletreau 1903:290). In 1859 the New York and Flushing Railroad took the place of the defunct Flushing Railroad, and ten years later the Flushing and North Side Railroad extended the line to Newtown (Rossand Pelletreau 1903:294; see Figure 5). The Newtown and Flushing Railroad Company began their operations in 1871 and reached Newtown Village by 1873 (ibid:82; ibid). This line, known as the "White Line", was discontinued in 1876 because it proved unnecessary (Seyfried 1961 III:199). In 1888 the Port Washington Branch of the Long Island Railroad reached Newtown Village, where a depot was erected (ibid VI:281). Along with railroad service to Newtown, one of the town's main thoroughfares, Thomson Avenue (later Queen's Boulevard) was completed (1876) (The Daily Star, Queens Borough 1926:n.p.). The project area, as noted above, lies on a piece of land to the immediate south of Queens Boulevard.

The issue of swamp drainage, important to the eighteenth century, was raised again during the nineteenth. The State Legislature (1824) amended the 1786 drainage law, thus allowing the extension of the drainage ditch (Long Island Daily Star 1937: n.p.). It was not until 1884, however, that a Drainage Commission was appointed for Newtown Village by the Queens County Judge (ibid). The Drainage Commission worked for ten years before it was able to complete the project (ibid). The water course of Horsebrook Creek, originally private property, had to be made public property before adequate drainage could be accomplished (ibid). Throughout Newtown Village's history, therefore Smith's Meadow required frequent attention in order to alleviate flooding.

Rapid population growth came to Newtown during the second quarter of the nineteenth century. In 1830 Newtown's population was 2610, but by 1850, it had reached 7,207 (Riker 1852:262). The population explosion generated a need for housing that was new to this rural area. In 1850 Samuel Lord (who established Lord and Taylor), owner of a larger tract of land in Newtown Village, built a development of row houses called Clermont Terrace (New York Herald Tribune 1964:7). The Lord family retained more than one hundred acres of land until it was purchased by another developer, Cord Meyer (ibid). During the 1890s Meyer's property amounted to about 1700 lots in Newtown Village which was still inhabited by the descendants of the original English and Dutch settlers (ibid). In 1893 Meyer started to build his residential development of one-family homes (Gray 1954 II:100). It was mainly because of Cord Meyer that Newtown Village began to grow into a residential community (New York Times 1985:n.p.).

The name, "Elmhurst", also came into use at this time, Cord Meyer gave this name to his development in the northern part of Newtown Village.
because of the elm trees which flourish in the area (Ricard 1945:3). The new name began to be applied to all of Newtown Village.

J.H. Innes describes the vicinity of the project area (Smith's Meadow) as it was at the close of the nineteenth century, but the late nineteenth-century maps offer the most detailed information. Riker's map (1852) shows Smith's Meadow which includes the project area (see Figure 4). The meadow is bounded by a road to the immediate north, and to the north of the road is the property of J.J. Moore (ibid). The road branches off to the south, skirting the eastern edge of the meadow (ibid). Property names and buildings are shown on the eastern side of this road, but there is no indication as to the amount of meadow that they owned (ibid). J.J. Moore and John Penfold are closest to the project area, but it cannot be determined from this map whether or not they owned it (ibid). Beers' map (1873) shows the project area at the intersection of Thomson and Maurice Avenues, but no property names are shown (see Figure 5). Wolverton's map (1891) shows the Moore property in the immediate vicinity of the project area, but it is not certain whether or not this triangular piece of land was included (see Figure 5). Even at the end of the nineteenth century Newtown Village (or Elmhurst as it was already called at this time) still retained a basically rural character (Innes 1898:7). German market gardeners owned some of the old farm houses in the vicinity of Smith's Meadow (ibid).

Changes were taking place during the 1890s in the government of Queens County. In 1890 New York State set up a commission to investigate the advantages and possibilities of the consolidation of Queens County with New York City (Seyfried 1982:39). The Commission presented the State Legislature with a bill (1894) that put the issue to a popular referendum (ibid). The Queens townships (except for Flushing) voted in favor of the proposal (ibid). The New York State Legislature passed the consolidation bill and Governor Morton signed it (ibid). In 1897 all of the old Queens County towns lost the traditional township status that they had for over two centuries (ibid). All of the local governments within Queens became defunct and on January 1, 1898 Queens, Bronx, Brooklyn, Staten Island and Manhattan all became consolidated into one municipality, New York City (ibid).

The opening of the Queensboro Bridge (1909) and the Long Island Railroad Tunnel one year later initiated the physical and demographic changes that altered the character of most of Queens from rural to urban (Hart, Krivatsky and Stubee 1967:19). Italians began to settle in Elmhurst, thus stimulating housing construction (ibid). By 1917 the population of Elmhurst reached approximately twenty thousand, and the number of retail stores, banks, schools, churches and clubs rapidly increased (Gray 1954 II:101). Some of the old local names remained, but they were now urban communities instead of rural villages.

Further demographic changes came to Elmhurst when the subway arrived in the 1930s (Hart, Krivatsky and Stubee 1967:21). More housing was needed for the Irish, East Europeans and Blacks who were moving to Elmhurst (ibid). The population of Elmhurst reached forty five thousand by 1941.
Figure 7 From Sanborn's 1914 Queens: City of New York.
Figure 8 From Sanborn's 1932 Queens: City of New York.
and continued to grow after World War II (Gray 1954 II:101; Hart, Krivafsky and Stubee 1957:21). Elmhurst remained a primarily white, middle class community on into the 1960s (Hart, Krivafsky and Stubee 1967:27).

Modern Elmhurst is bounded by the Long Island Expressway on the south, the old New York Connecting Railroad on the west, Roosevelt Avenue on the north, and Junction Boulevard on the east (New York Times 1985:n.p.). The three main thoroughfare, Queens Boulevard, Grand Avenue and Broadway, intersect in the center of Elmhurst (ibid). Residences in Elmhurst include one and two family woodframe and brick houses, as well as low-rise apartment buildings (ibid).

The maps offer the most complete picture of the project area as it was earlier in the twentieth century. According to the Sanborn Map (1914), the project area, on the triangle between Queens Boulevard (Thompson Avenue) and Maurice Avenue (blocks 1573 and 1574), contained some vacant lots (see figure 7). The changes that were taking place in Elmhurst during the early part of this century are reflected in the development of the project area. The Sanborn Map (1932) shows some industrial growth in the vicinity (see Figure 8). Immediately to the west of the project area were a filling station and a factory for the production of sheet metal (block 1573) (ibid.). On the eastern edge of the project area there was another filling station and an "auto laundry" (block 1574) (ibid.). The project area, itself, was still vacant (ibid.). Hillyer Place and Gorsline Place were not yet opened (ibid.). The introduction of the Queens Boulevard Trolley was probably instrumental in bringing growth to the area (Norwood 1931: 104-105).

To conclude, Newtown Village began as a small English settlement and eventually became an urban community in the borough of Queens. The two family names associated with the early history of the project area are Doughty and Moore. Doughty's property included the project area during the 1640s. the Moore family, residing in Newtown Village for over two centuries, owned land in the immediate vicinity of the project area, but the maps and the literary sources do not pinpoint the project area within the Moore family's tract. Smith's Meadow, which included the project area, was divided among the property owners in its vicinity. The meadow needed drainage, and it was the responsibility of the owners to do it regularly. By the late nineteenth century a Queens County Drainage Commission had to be appointed for the task. Population growth and physical development came in the eighteenth and nineteenth centuries, but the rural character of Newtown was retained until the early twentieth century. The introduction of the railroad brought new people into Newtown during the second half of the nineteenth century. Housing construction followed population growth. During the 1890s Queens County became a borough of New York City and all of the former local governments became defunct. The name of Newtown was changed to Elmhurst at this time.

Urbanization began in the twentieth century. Transportation facilities brought new residents which, in turn, brought more housing, businesses,
schools, and churches. The project area is reflective of the developments in Elmhurst at this time. In 1914 there were no structures on its boundaries, but by 1932 a factory and three automobile service businesses had appeared to its east and west.

Elmhurst is today a community of private homes, low-rise apartment houses, and small businesses. People of many national origins make up the area's population. The project area is at the northern end of two small residential streets.

ANALYSIS OF SOIL BORINGS

An examination of records on file with the Subsurface Exploration Section of the Bureau of Building Design, New York City Department of General Services, indicated that three borings from a group completed within the course of Queens Boulevard were near to the project area. Although no borings could be found from within block 2453, these three borings were all within approximately sixty feet of the northern boundary of the block. These borings were completed during July 1967 as part of Job 647. They are numbered 25, 26 and 27. All contain fill deposits to approximately ten feet below grade. The fill consisted primarily of loose brown or grey-brown sand with a little gravel, some clay and traces of silt. Below this in two cases was a layer of stiff grey clay with some silt and a trace of fine sand. In the third boring located within the intersection of Queens Boulevard and 51st Avenue, the layer below the fill consisted of a compact brown fine to medium sand with lenses of gravel, grey clay and silt. These borings were probably sampled every five feet, so the thickness of the fill deposit could vary by up to three feet (Subsurface Exploration Section 1967).

The interpretation of the nine to ten foot thick layer just below the surface asphalt and concrete pavement as fill is consistent with the view that this location was formerly a marsh. It would have been necessary to add fill here to provide a firm base for constructing the streets and buildings now present.

The block adjacent to the project area to the west, bounded by Queens Boulevard, Hillyer Street, 51st Avenue and Ireland Street, was the subject of a similar archaeological assessment (Historical Perspectives 1988). This report also concluded that the area had the potential to preserve prehistoric archaeological resources. Several soil borings taken from the block indicated that a layer of fill, six to eleven feet thick, had been deposited over the former marsh (ibid.:9). Historical Perspectives recommended a series of additional soil borings for archaeological purposes. These were completed recently and the principal investigator for the project has concluded that no evidence of prehistoric use of the land was found (Kearns 1990 pers. comm.).
CONCLUSIONS AND RECOMMENDATIONS

The above text has documented that the Pan Am Motor Inn Development Project potentially may preserve archaeological evidence from the prehistoric period. This location is considered sensitive to the preservation of prehistoric archaeological remains because it is topographically similar to the locations of documented prehistoric sites. One known site exists within a two mile radius of the project area, adjacent to a stream, a description which may have characterized the Pan Am Motor Inn Development site in the past. Although no prehistoric artifacts have been reported from this location, it is our opinion that its physical condition would have been conducive to its use and/or occupation during prehistory, particularly as a temporary camp of the procurement of game, if evidence could be found to indicate that the project area was relatively high ground near the stream and not marshland. All the evidence available from soil borings to the north and west of the project area strongly suggests that those locations are filled wetlands. Figure 9, taken from the Pinal Maps of the Borough of Queens shows differences of up to five feet between the topography, lines based on 1904 surveys and the elevations shown within the streets. This is another indication that fill has been added here.

It is also our conclusion that the Pan Am project area is not sensitive to the preservation of historic archaeological evidence. This location is shown as a marsh on the nineteenth century maps, and no evidence for any structures is shown on any of the maps or plans examined as part of this research, prior to its development during the last years of that century. Examination of three soil boring logs provided evidence to support interpretation of this locale as a former marsh that had subsequently been filled.

We are recommending that archaeological testing of the Pan Am Motor Inn project area is not necessary. The area is not considered sensitive to the preservation of historic resources, and no evidence of any prehistoric occupation or other use of the land could be found in any of the soil borings conducted in the vicinity.

Acknowledgements: We would like to thank the local History Division, the Map Room, the Reference Division, and the Photocopy Service of the New York Public Library; the New York Historical Society, the Queens Historical society, the Elmhurst branch of the Queensborough Public Library for their generous assistance.
Figure 9 From the Final Maps of the Borough of Queens, Section 19, with Project Area indicated by hatchure.
BIBLIOGRAPHY

Bolton, Reginald Pelham

Chapman Publishing Co.

The Daily Star, Queens Borough

Flint, Martha Bockee

Geismar, Joan H.

Gray, Vincent J.

Grumet, Robert Steven

Hart, Robert Lamb, Adam Krivatsky, and William Stubee
1967 Local Area Study: Jackson Heights, Corona, East Elmhurst, Elmhurst. New York: Department of City Planning, New York, N.Y.

Hazelton, Henry Isham

Hendrickson, Rev. William H.
Historical Perspectives

Board of Education School Site 3, Queens Boulevard, Ireland and Hillyer Streets, Archaeological Assessment Report, CEQR 88-130Q. Riverside, Connecticut.

Innes, J.H.


Kearns, Betsy W.

Personal communication, 20 March 1990.

Kross, Jessica


Long Island Daily Star


MacMaster, Frank J.


Munsell, W.W. and Co.


The New York City Historical Records Survey Project Division of Professional and Service Projects


New York Genealogical and Biographical Society


New York Herald Tribune


New York Times


Norwood, C.W.

Onderdonk, Henry
1846 Documents and Letters intended to Illustrate the Revolutionary Incidents of Queens County; with Connecting Narratives, Explanatory Notes, and Additions. New York: Leavitt, Trow and Company.

1865 Queens County in Olden Times. Jamaica, New York: Charles Welling.

Parker, Arthur C.

The Queens Museum

Ricard, Herbert F.

Riker, James Jr.

Ross, Peter and William Pelletreau
1903 A History of Long Island from its Earliest Settlement to the Present Time. Volume I

Seyfried, Vincent F.


Subsurface Exploration Section

Thompson, John H. (ed.)
1966 Geography of New York State. Syracuse: Syracuse University Press.
MAPS AND ATLASES

Beers, F.W.

Borough of Queens, Topographical Bureau
1940 Final Maps of the Borough of Queens, Section 19, dated 1910
with modifications adopted prior to 11 April 1940.

Faden, W.
1776 A Plan of New York Island, with part of Long Island, Staten
Island, and East New Jersey.

Riker, J., Jr.
1852 Map of Newton, Long Island.

Sanborn Map Co.

U.S.G.S. Topographic Map, 7.5 Minute Series

Wolverton, Chester