SENSITIVITY EVALUATION AND ARCHAEOLOGICAL TESTING
RECOMMENDATIONS FOR CADMAN PLAZA
BROOKLYN, N.Y.

85-32+K

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INTRODUCTION

The following sensitivity study and testing recommendations have been prepared under the auspices of the Public Development Corporation so as to provide the timely availability of critical data necessary for agency review and the initiation of field work on a fast-track basis. This survey of published and unpublished documentary sources has demonstrated that although no known prehistoric remains are known for the project block, multiple lines of documentary and cartographic evidence indicate that this triangular parcel at the corner of Pierrepont and Fulton Streets in Brooklyn maintains its original configuration and location adjacent to one of Brooklyn's earliest roadways through time. Our documentary impact analysis has further highlighted areas within the surviving parcel (now a parking lot) which shows strong possibilities of containing undisturbed early historic remains which may contain significant information relative to the archaeology, economic history and general development of colonial and Revolutionary era Brooklyn.

Accordingly, the following report summarizes documentary coverage available to date, relative to both the prehistory, indigenous Contact Period and early post-Colonial history of this parcel. Based on these findings, a detailed site testing recommendation is presented for those parcels highlighted as having sustained limited impacts through subsequent construction activities through time. In addition to reproductions of early historic maps of the area, the project team has prepared a series of three scaled sensitivity maps spanning the 19th through 20th centuries, showing changes in building configurations, and on the final 1929 version, the location of undisturbed rear yard areas relative to historic structures, a roadway and activity areas.

HISTORICAL BACKGROUND

Ongoing work to date has utilized a variety of early historical accounts of Brooklyn's prehistory/history, a review of recent sensitivity studies from Federal, State and Municipal agencies' E.I.S. reports for this section of Brooklyn, N.Y.S. Archaeological Site Files, comparisons through time of historic maps from the 17th century to the present, and finally, a preliminary review of deeds and property transactions, soil boring evidence from the block and vicinity and where available, the reconstruction of 19th and 20th century basement depths within the project area.
THE PREHISTORIC PERIOD

Previous work throughout eastern and western Long Island has documented the continuous occupation of pre-Contact populations from approximately 3,000 B.C. to the present, which can be categorized in a series of periods and cultural adaptations through time. While an overview of this developmental history of this region of Brooklyn will be incorporated into the final cultural resource study, for the purpose of this initial E.I.S. section it is pertinent to review literary references to known sites in Brooklyn with brief discussions of their cultural affiliations and locations relative to the project impact area.

A review of the literature which included the N.Y. State Archaeological site files, as well as cultural resource surveys undertaken by Solecki (1977; 1984), Church, Gimigliano and Hoopes (1983), Kopper (1984) and Kardas and Larrabee (1984), indicated that there were no known sites within the project area. Although much archaeological material has been found on northern and eastern Long Island and on Staten Island, less information is available for western Long Island and Brooklyn.

At the time of the first European contact and settlement in the 17th century, Brooklyn was inhabited by at least two distinct Indian groups with a number of village sites, seasonal encampments and food supply areas indicated in the documentary record. "The Indians of western Long Island during the protohistoric/historic period included the Nayack, Marech Kawreck and Canarsie in Brooklyn" (Church, et al 1983:16). Several of these village sites have been identified with varying degrees of precision as having been situated in Brooklyn in the vicinity of the project area.

The Indian village of Mareyckawick was identified by Bolton (1934) as being located at Galletin and Elm Place, approximately 1/4 mile from the project area. Solecki (1977) places it in the vicinity of Lawrence and Jay Streets, also approximately 1/4 mile from the site of proposed construction. Confusingly, he states that "the area just to the north of Old Fulton Street (now called Cadman Plaza West)... was occupied by a family of Indians called the Mareykwicks, a branch of the Canarsie Indians who controlled much of western Long Island" (Solecki 1975:75). This new location would place the village 1/2 mile west of the project parcel.

Furman noted the physical evidence of Indian occupation "at Bridge Street, between Front and York and between Jay and Bridge Streets" (Furman 1865:34). Remains included Indian pottery, projectile points and clay tobacco pipes. He further stated that the "material was found in situ (down to a depth of 3'-4') on the top of a hill about 70' high which is shown in Lt. Ratzer's map of 1766-67" (Solecki 1977:75). The hill has since been razed, but would have been located approximately 1/2 mile from the site.
Indian "maize lands" were described in the Lubbertson Grant of 1640, situated between present day Atlantic and Baltic Streets; however, a map compiled by C.W. Nenning (1950) further defines the cornfields as being "within the Cobble Hill Historic District, from Atlantic Avenue to Degraw Street and from Hicks to Court Street" (Solecki 1977:10), which is approximately 1 mile from the project area.

Two other Canarsie village sites existed: "One located near the present Canarsie section of Brooklyn" (Church et al., 1983:16), far from the project area and a village named Werpos, which existed at the head of Gowanus Creek approximately two miles from the Cadman Plaza site (ibid).

Thus while a number of historic village sites are known to have existed in the vicinity of the project area, none appear to have been located in the actual Cadman Plaza parcel during the most recent Contact Period episode of indigenous occupation. Nevertheless, given the lack of documentary sources for pre-Contact Period site locations, these limited references tell us little about the presence and/or potential preservation of pre-Contact sites in the urbanized sector of Brooklyn.

EARLY HISTORY

A summary of historic evidence highlights the continued European utilization of this parcel from at least the mid-17th century to the present. A survey of deeds and map sources from the early 17th century to the present indicates that the parcel was initially owned by the Dutch West India Company. On September 12, 1645, Governor Kieft granted land which included the project parcel to Andries Huddes. A map located in the office of the Commissioner of Records depicting 17th century Brooklyn, reveals a structure on the southwest corner of Love Lane and Fulton Street, marked "Dwelling 1646". This structure lies on the Andries Huddes farm and suggests that Love Lane dates as early as the 1640's.

Sometime in the 17th or 18th century, members of the DeBevoise family purchased the southern three-quarters of the present day block. John Swertcope later purchased one-half of Block 239 (Liber 6, p. 504) from the DeBevoise family:

"John Valentine Swertcope, one of the Hessian soldiers who stayed behind after 1783, bought a farm from the deBevoises with a gate that stood where Johnson St. would run into Fulton. He knew all about raising the rare strawberry and then gave the monopolists* such a run for their money that they finally had to cut him in. Old Swertcope was a character. He wore a long grey beard, was an unabashed miser and irascible to boot. He invented an airgun which shot clay "pellets" and, armed with this and a black-snake whip, caused little boys to move over to the other side of the old Turnpike (Fulton St.) when
Satan tempted idle hands to thievery among his peach trees and strawberry patches. He made a lot of money, kept it in an iron-bound box and died at a ripe old age with the key tucked under his deathbed pillow."
(Clippings 1940). * The deBevoise family.

The cartographic record jumps to the Revolutionary era with the depiction of the 1766-67 Ratzer Plan (see Map 1) of Brooklyn in general and the project parcel in particular. This demonstrably accurate military plan shows the presence of long rectangular farm lots running east-west, perpendicular to the shoreline and terminating at what is now Fulton Street. The Ratzer Plan also documents the continued presence of structures on this project parcel, one at the northeast corner of what became the Swertcope farm and two structures near the southeast corner of the DeBevoise family farm property. This map documents the existence of a "lane" or early roadway, later known as Love Lane running perpendicular to Fulton Street. This roadway is important because its location and orientation correspond with the most recent pre-demolition or pre-parking lot lines along Pierrepont Street which, despite numerous subdivisions and re-numberings during the 19th century, continued with an internal uniformity until the most recent buildings were demolished in the 1960's. As mentioned above, Love Lane predates the 1767 Ratzer Plan and given the former ownership by the Dutch West India Company and the presence of 17th century structures on the parcel, may date as far back in time as the mid-17th century.

THE EARLY 19TH CENTURY

On April 27, 1816, Robert A. and John DeBevoise sold more of their real estate holdings to Hezekiah B. Pierpont (Liber 11, p. 509) (hence Pierrepont Street). An 1816 overlay map by Poppleton and Lott (see Map 2) showed the location and property boundaries of the Swertcope Farm relative to the modern street configurations of Brooklyn. Two structures are shown on the edge of Fulton Street, within the Swertcope property, which would correspond in location to modern #286 and #288 Fulton Street. This map also shows the southern boundary of the Swertcope property passing through the Cadman Plaza parcel parallel to Pierrepont Street. When overlaid to scale with the most recent lot line definitions, this southern boundary of Swertcope's property corresponds almost precisely with the rear yards of the 19th century lots facing on Pierrepont Street. This correlation strongly suggests that the rear lot line also correlates with the former Colonial Love Lane in this section of the project parcel.

One other point deserves mention: although the Ratzer Plan initially shows Love Lane extending all the way to the shoreline, a subsequent 1816 overlay map by Poppleton and Lott shows the southern property boundary—Love Lane location as running directly through the center of an early military fortification located one block to the west of Clinton Street and the project parcel. Although the evidence at present is only circumstantial, this
cartographic evidence strongly suggests that the former Love Lane may in fact have been associated with early military fortifications in the area in addition to its function as a Colonial service road.

On June 21, 1831 (Liber 31, p. 101) Amos Madden purchased land on Block 239 from John Swertcope. A survey on file at the Long Island Historical Society dated Sept. 4, 1832 indicated that this piece of real estate was actually owned by two Madden family members in partnership with an O'Brien. The survey also noted two structures existing on the farm at #s 286 and 288 Fulton Street.

By 1833, Madden and O'Brien had sold off six of their lots on Fulton Street. This was the first evidence of the subdivision of the Swert cope farm. The last lots were sold in 1859. This date overlaps in time with the earliest Insurance Atlas Sheets. Although an earlier Atlas map exists in 1846 showing Love Lane and old farm lines, it contains no details pertaining to buildings, lot lines or structure locations. The earliest lot-by-lot Atlas Map is Perris 1855 (see Map 3). This map and subsequent 19th and 20th century atlases provided the basis for the following lot-by-lot alteration and site impacts through time.

19TH CENTURY IMPACTS & ALTERATIONS: HISTORIC LOT SUMMARIES

Several 19th century maps were consulted to determine the individual lot histories of Block 239. The purpose of this map research was to examine 19th-20th century impacts and alterations to individual lots. The maps varied as to the level of information offered. The various insurance atlases dating from the mid-19th century through the 20th century proved of greatest use, containing much information relevant to the nature of structures present. The insurance maps consulted were as follows: Perris 1855; Bromley 1893; Hyde 1898; Sanborn 1904; Hyde 1929; and Sanborn 1939.

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The Block number, lot numbers and addresses have been changed at least twice, therefore the individual lot summaries below are identified by the addresses found on the 1904 Sanborn atlas.

316 Fulton Street

The Perris 1855 map shows a triangular shaped lot with a brick or stone structure covering the entire lot. Bromley 1893, Hyde 1898, Sanborn 1904, Hyde 1929 and Sanborn 1939 all show a brick or stone structure covering the entire lot. The Hyde 1898 map shows the former line of Love Lane running through this lot.
314 Fulton Street

The Perris 1855 map shows a brick or stone structure partially covering this lot. The backyard area is large and irregularly shaped. The Bromley 1893, Hyde 1898 and Hyde 1929 all show a brick or stone structure partially covering the lot with a triangular shaped backyard area. The Sanborn 1904 and 1939 maps show a brick structure covering the entire lot. The Hyde 1929 shows the line of Love Lane as running through the lot.

312 Fulton Street

The Perris 1855 map shows a brick or stone structure partially covering this lot. It has an irregularly shaped backyard area. The Bromley 1893 map shows a brick or stone structure covering the whole lot. The Hyde 1898 map shows a brick structure set back from the street. The Sanborn 1904, Hyde 1929 and Sanborn 1939 maps all show a brick structure with a triangular shaped backyard.

310 Fulton Street

The Perris 1855 map shows a brick or stone structure partially covering this lot. It has an irregularly shaped backyard area. The Bromley 1893, Hyde 1898, and Sanborn 1904 atlases show a brick or stone structure occupying the entire lot; there is no backyard area. The Hyde 1929 atlas shows a brick structure with a backyard area on the lot.

308 Fulton Street

The Perris 1855 map shows a brick or stone structure with a large rectangular backyard area. The Bromley 1893 atlas shows a brick or stone structure occupying the entire lot. The Hyde 1898, Sanborn 1904, Hyde 1929 and Sanborn 1939 maps show a brick structure with a backyard area. The building is larger than the one shown in 1855 and may represent an addition to an earlier structure.

306 Fulton Street

The Perris 1855 map shows a brick or stone structure with a large rectangular backyard area. The Bromley 1893, Hyde 1898, Sanborn 1904, Hyde 1929 and Sanborn 1939 all show a brick structure with a backyard area on the lot. The later structure is larger than the one depicted in 1855, and may represent an addition to an earlier building.
302 Fulton Street

The Perris 1855 map shows a brick or stone structure occupying approximately half the lot. In the backyard area is an outbuilding shown at the extreme rear of the lot. In 1893, there is a brick or stone structure occupying the entire lot (Bromley 1893). In 1898, there is a brick structure on the lot, recessed from the street (Hyde 1898). The Sanborn 1904 map shows a brick building occupying the entire lot. In 1929, the lot is shown together with 300 Fulton Street as "The Brooklyn Savings Bank", and there was no backyard area (see Illustration 1).

300 Fulton Street

The Perris 1855 map shows a brick or stone structure occupying approximately half the lot. There is an outbuilding shown in the backyard at the extreme rear of the lot. In 1893, there was a brick or stone building covering the entire lot. In 1898, there was a brick building recessed from the street which covered the whole lot. In 1904, the whole lot was covered by a brick structure. In 1929, the lot is labeled "Brooklyn Savings Bank" together with 302 Fulton Street.

298 Fulton Street

The Perris 1855 atlas shows a brick or stone structure occupying approximately half of the lot. There was an outbuilding shown at the extreme rear of the lot in the backyard. In 1893, there was a brick or stone structure with a triangularly shaped backyard (Bromley 1893). The Hyde 1898 atlas shows a brick building recessed from the street with a triangularly shaped backyard. The Sanborn 1904 and Hyde 1929 atlases show a brick building with open backyard.

296 Fulton Street

The 1855 Perris map shows a brick or stone structure covering approximately half of the lot. In 1893, there was a brick or stone structure on most of the lot. The backyard area is triangular in shape (Bromley 1893). In 1898 there was a brick building recessed from the street with a triangular shaped backyard (Hyde 1898). In 1904 and 1929, there was a brick building with a triangular-shaped backyard (Sanborn 1904, Hyde 1929).

294 Fulton Street

The Perris 1855 atlas shows a brick or stone structure occupying the lot with a large rectangular backyard area. The Hyde 1898, Sanborn 1904 and Hyde 1929 maps all show a brick structure with an open backyard area.
Illustration #1: from King's Views of New York 1896-1915 and Brooklyn 1905.
151 Pierrepont Street

This lot is undeveloped in 1855. The Bromley 1893, Hyde 1898 and Sanborn 1904 maps all show a brick or stone structure with a rectangular backyard area. The Hyde 1929 atlas shows a brick structure recessed from the street, with an open backyard area. Most recently (1969) this lot is part of an 85 car parking lot (Cert. of Occupancy #201211). In 1972, three transformer vaults were installed under the sidewalk (Building Notice 710).

149 Pierrepont Street

This lot is undeveloped in 1855. The Bromley 1893, Hyde 1898 and Sanborn 1904 maps all show a brick or stone structure with a rectangular backyard area. The Hyde 1929 map shows a brick structure covering most of the lot, but there is a small backyard area. Most recently (1969) this lot is part of an 85 car parking lot (Cert. of Occupancy #201211), and in 1972, three transformer vaults were installed under the sidewalk (Building Notice 710).

147 Pierrepont Street

This lot was undeveloped in 1855. The Bromley 1893, Hyde 1898, Sanborn 1904 and Hyde 1929 maps all show a brick structure with a rectangular backyard area. Most recently (1969) this lot is part of an 85 car parking lot (Cert. of Occupancy #201211), and in 1972, three transformer vaults were installed under the sidewalk (Building Notice 710).

135-145 Pierrepont Street; 35-45 Clinton Street

This is the former site of the Brooklyn Savings Bank Building, erected in 1893 (King 1977). The Perris 1855 insurance map shows a Baptist Church on the site, of brick or stone construction. The basement depth of the bank building was 14' 10" (Elevator Application #33, August, 1958). Most recently this lot is part of an 85 car parking lot (see Illustration 1).

33 Clinton Street

The 1855 Perris map shows a frame building toward the rear of the lot. It is labeled "reading" and was most likely related to the adjacent Baptist Church. In 1893 and 1898, it is a brick or stone structure at the front half of the lot with a backyard area at the rear (Bromley 1893, Hyde 1898). In 1904 there was a brick or stone structure in the back of the lot with a frame section (Sanborn 1904). The 1929 Hyde map shows this lot was incorporated into the Brooklyn Savings Bank (see Illustration 1).
31 Clinton Street

This lot is undeveloped in 1855 (Perris). In 1893 (Bromley) and 1898 (Hyde), there was a recessed brick or stone structure with a backyard area. In 1904 and 1929 there was a brick or stone structure over the entire lot; no backyard area is present (Sanborn 1904, Hyde 1929).

29 Clinton Street

In 1855, there was a frame structure with a rectangular backyard area. In 1893 and 1898 there was a brick or stone structure on the lot, with a rectangular backyard area (Bromley 1893, Hyde 1898). In 1904 there was a brick building recessed from the street. There was no backyard area, as the building must have had an addition to the rear. In 1929, there was a brick structure with a small backyard area.

25-27 Clinton Street

The Perris 1855 atlas shows these lots as separate brick or stone structures. They cover approximately half of the lot and had rectangular shaped rear yards. In 1893, it is depicted as two lots, but with one designation of "Grand Hotel" (Bromley 1893). In 1898 the two lots are listed as the "Crescent Athletic Club" (Hyde 1898). In 1904 and 1929 it appears as a single lot with a brick building. It had a domed roof and was an athletic club (Sanborn 1904, Hyde 1929, King 1977).

As summarized in maps 3-6, this lot-by-lot survey has helped define the level of mid 19th–20th century impacts and alterations to the block. As illustrated, this graphic summary demonstrates that after almost 80 years of rebuilding on each of the modern lot lines it is possible to define 2 discreet areas which, based on available information, have not been exposed to deep basement construction. As detailed below, the first of these is represented by two relatively small parcels at the rear of Fulton Street, and the second by a larger triangular parcel which constitutes the former rear yard area of three parcels fronting on Pierrepont Street.

All other lot areas appear to have been repeatedly built upon and disturbed by deep basement construction. Although the boring data is far from complete, this reconstruction based upon the maps appears to be initially corroborated by the ongoing boring program which was begun in the past several days between Fulton Street and the two triangular parcels indicated as open yard areas on Map #6.

AVAILABLE BUILDING RECORD DATA

In addition to reviewing the block specific atlas sheets for past impacts and alterations to the 18th century surfaces and
PIERREPOINt STREET

MAP 4: BROMLEY 1893 and HYDE 1898
deposits, a lot-by-lot review of surviving Building Records using the original alteration specs revealed only limited coverage to the project area. Records were available for the block, but the majority covered the area of Block 239 where the library now stands, which is outside of the presently defined project development area. Surviving building records were limited in coverage to the Assembly (Wilson) Building which is presently standing, and the Brooklyn Savings Bank which was previously demolished. There were no other records containing any data relevant to existing basement depths. These documents indicate that the Wilson Medical Building contains a basement depth of 8' below grade, and the now demolished 35-45 Clinton Street address of the Brooklyn Savings Bank had a basement depth of 14' 10" below the 1st floor. However, given the lack of data pertinent to the elevation of the 1st floor, it is not possible to project a basement depth for this now demolished structure. Given the paucity of other relative documentation on basement depth, it will be necessary to rely on the forthcoming boring data to adequately project the actual basement depth of this project parcel (35-45 Clinton Street), now sealed under the existing parking lot.

PAST SUBSURFACE BORING DOCUMENTATION

A review of available documents at the N.Y.C. Bureau of Topography indicates that no basement depth or fill depth data is currently available from previous borings within the project area itself. The only available boring data prior to the ongoing engineering program pertain either to adjacent site locations or to the area of the existing Brooklyn branch library, on the north end of the block outside of the project parcel.

Consequently, a refined and highly detailed evaluation of historic land surfaces relative to current grade levels or basement depths was not a viable route of analysis. The only information relative to historic surfaces and recent impacts in the non-impacted portion of the project area will have to be generated within the next few weeks through the field results of the ongoing engineering project.

CONTEMPORARY SUBSURFACE BORING DOCUMENTATION

As indicated on Map 7, the engineering and archaeological issues of undocumented basement depths have been synchronized through a joint meeting between Joel Grossman of Greenhouse Consultants and James L. Kaufman, Consulting Engineer of Mueser Rutledge. In addition to the 17 initially planned deep cores, a total of 8 sample locations have been targeted for continuous split-spoon sampling at least 15' below the surface to identify the depths of fill in those rear lot areas where no documentary evidence exists. In addition to the equilaterally spaced bedrock borings located on a 60' grid located throughout the project site, the archaeological "borings" cluster in 2 rows running
north-south at an average of 26' or 27' spacing so as to sample the rear yard areas of four lots facing on Clinton and three lots facing on Cadman Plaza West. Two other borings (B-12 and B-13) were not moved from the original engineering locations but fortuitously fell within the rear lot areas facing Pierrepont Street which, based on surviving building records and available historical atlas maps, indicate the presence of open lot areas as late as 1939.

The boring program was initiated on Monday, July 1, 1985 with a prioritized sampling strategy aimed at rapid completion and data turnaround for the archaeologically sensitive samples, hopefully, as early as Wednesday, July 3, 1985. Once available, this new data should provide critical information on depth of fill and basement depths for many of the undocumented lots. This data will also provide a basis for evaluating the need for any additional subsurface tests beyond those initially recommended in this testing proposal.

EXISTING CONDITIONS: ARCHAEOLOGICAL RESOURCES

As described above, our initial historical background survey has indicated that while no known prehistoric or Contact Period sites have been documented for the Cadman Plaza parcel, both cartographic and documentary sources confirm the former existence of 17th and 18th century occupations, structures and a roadway known as Love Lane within the Cadman Plaza block itself. Furthermore, our review of basement depth data, available boring records and a survey through time of changing backyard and open areas within the project parcel suggests the potential survival of early historic remains in at least two rear yard areas of the present parking lot.

The first of these in the northern portion adjacent to the present library overlaps with the former location of the Swertcope farm in the 18th century. While the original structures which faced on Fulton Street have either been destroyed or impacted by subsequent construction and the widening of Fulton Street in the recent historic period, the open rear yard areas may contain both undisturbed primary deposits and/or features such as cisterns/privies relating to the early 17th-18th century historic occupation at the site.

The second sensitivity area is located to the south in the larger open rear yard parcels at the rear of the Pierrepont Street lots. A scale overlay of historic lot lines relative to the most recent subdivisions in the block indicate that this second open area correlates with and may contain surviving remains of the 17th-18th century Love Lane documented on the historic maps. If true, this survival would be of both regional and local significance in terms of its history of early transportation routes in the Colonial period and as a possible stratigraphic record of relatively undisturbed material site history. Recent archaeological work in lower Manhattan has demonstrated the
survival of intact vertical archaeological records under streets and roadways which, in the case of one recent rescue excavation, contained the earliest European artifacts found in Manhattan in an undisturbed stratigraphic context.

Based on these insights, we strongly recommend the need for on-site testing to establish the presence, level of integrity and research significance of these potentially surviving historic remains. At the very least, relatively large backhoe cuts should be made through the present parking lot surfaces in the location of the former open rear yards correlating with the Swertcope property and the former Love Lane.

TESTING RECOMMENDATIONS AND PROJECTED DATA YIELDS

A review of available documentary sources has demonstrated that this block may contain intact and undisturbed archaeological remains possibly dating as far back as the 17th century Dutch West India Company control of Brooklyn. Historic maps and early written accounts further indicate the presence of at least one and possibly more 18th century or earlier structures on the block and the presence of an early historic roadway which may at one time have led to an early fortification situated to the west of the project parcel.

Our historic impact analysis using sequential overlays of historic maps, building locations, surviving building records and available boring data strongly suggest that at least two segments or rear lot parcels within the block may have survived as undisturbed deposits through to the present time. It is our estimation that additional documentary research will not augment or alter this characterization of surviving unimpacted parcels within the project area.

At the same time, our background research suggests that other areas within the block may also contain undisturbed remains, but the lack of data precludes a firm evaluation of these other areas. This secondary category of lot sections of undetermined sensitivity consists of the "rear building" sections of a series of lots which consistently show a series of one or two storey brick structures as additions to the deep basements indicated for the sidewalk end of each lot along Fulton and Pierrepont Streets. Our research team was unable to recover any indications of basement depths for these rear yard additions and no borings are yet available in the project area to evaluate the depth of fill or possible basement depth at this time.

Accordingly, we are recommending a two-phase testing program: 1) backhoe cuts and controlled test units in the two undeveloped rear yards areas indicated in red on Figure 6; and 2) the simultaneous use of a line of split-spoon borings parallel to both Pierrepont and Fulton Streets, behind the rear wall of the former structure locations fronting on the sidewalks. These two lines of borings will be conducted at 20-25 foot intervals so as
to permit sampling of each rear lot area along the two streets, down to the depth of fill line or basement break. The boring program will be conducted under the direction of archaeologists in conjunction with Mueser Rutledge during the first week of field testing so as to provide a rapid control over the need and location of further archaeological tests based on these results.

Concurrent with the rear yard auger testing, it is proposed for the sake of time and in case undisturbed deposits are found intact as well as for logistical reasons relevant to equipment access, that backhoe testing be initiated at the earliest possible date for the two rear yard areas, shown on Map 6 in red. The two small triangular rear yard areas to the north and closest to the existing library have been selected for archaeological testing because of their location in line with the rear of Swertcope's 18th century residence at approximately 286 Fulton Street. If these two small rear yard areas are indeed undisturbed the possibility exists for two categories of historically and archaeologically significant material remains:

1) the possibility of undisturbed 17th or 18th century features which may contain artifacts or deposits reflecting the cultural affiliation, economic links, and activities of the early 17th or 18th century residents on this early historic parcel; and

2) the second testing area is considerably larger and consists of a triangular portion with its approximately 60' long axis running parallel to Pierrepont Street. As indicated above, this parcel correlates strongly with the original alignment of the historic roadway, Love Lane, which ran either to the shore or to the fortification to the west. If indeed intact, this surviving segment of what may be a 17th century artery or roadway in Brooklyn could contain two categories of otherwise not available material data. First, as an historic roadway itself it could add to our understanding of issues relevant to the history of transportation, road construction and possibly military supply lines. Secondly, as a preserved deposit based on the results of relevant work in lower Manhattan, particularly the sidewalk in front of Fraunces' Tavern, this preserved roadway or lane might contain a well preserved undisturbed vertical stratigraphic record dating back to the 17th century.

Field Testing:

Initial field tests in these two backyard areas will be conducted in two stages. First, heavy equipment will be utilized to break through the existing blacktop to define existing lot lines and 19th century walls, and finally to establish the depth and then remove all modern debris or fill down to a level of undisturbed historic deposits. Once completed, the exposed rear yards areas will be evaluated with controlled, manual test square units.

Given the range of size and potential remains expected, we
recommend the use of two 5'x5' test units, one in each of the small triangular rear yard areas closest to the existing library. Once the presence and depth of the larger triangular test locations have been established, and given the fact that the roadway runs east-west, we recommend that at least a 5'x10' unit running north-south be placed so as to transect the orientation of the former roadway. The purpose of each of these controlled test units will be first to establish the presence of undisturbed remains and secondly, the integrity of any deposits encountered as a basis for projecting the range of variation and research potential of the materials encountered. If any features such as wells, cisterns or privies are identified, each will be corner sectioned to provide a minimal stratigraphic profile and volumetric sample of their contents.

We project that this level of effort will require at least 10 field days with a crew of at least 8 field personnel on site. Based on our experience in similar testing programs, we further project a minimal laboratory analysis effort of at least two weeks of core staff time. All materials will be processed, stabilized and computer inventoried as detailed in the following section.

STAGE IB/II ANALYSIS

The specific level of analysis of recovered artifacts will be limited in scope to address the primary goals of this testing program. These goals are: 1) to utilize subsurface techniques to document the presence or absence of archaeological resources; 2) to define the nature and relative integrity of the archaeological resources. Accordingly, the analysis during the Phase IB/II testing will focus on the identification of key stylistic and chronological indicators as a basis for identifying the type and period of occupation represented as a first level of definition. Secondly, as a part of the coding and cataloging process, all recovered materials will be quantified by functional and material categories as a basis for characterizing the spatial diversity and range of variation of the recovered materials. These sub-categories will be defined in order to distinguish the relative percentage of different artifacts and as the basis for establishing the need for more in-depth analysis of specific categories of data encountered.

A report on the testing results will be submitted documenting the stratigraphic and chronological data recovered as well as an evaluation of the significance and research potential of the site, if appropriate. All materials will be washed, marked, coded, inventoried, dated and documented as a basic data set of this subsurface testing program. The primary analysis of historical materials will be performed in two sections: 1) an inventory of all artifacts recovered will be created on the Greenhouse Consultants micro-computer using an in-house inventory system derived from the National Parks Service Cultural Material Data Base; 2) based on this overall inventory,
which contains the Terminus Post Quem (TPQ) dates of diagnostic artifacts, relative percentage graphs of the types represented per provenience unit (including the weights and counts of other categories such as construction materials) will be created. More refined secondary evaluations or analyses would then be recommended at the termination of the test phase as a basis for projecting potential mitigation procedures and data processing requirements in any necessary data recovery program, if deemed necessary by the Landmarks Preservation Commission. If encountered, the prehistoric classification will reflect past and current stylistic and typological categories pertaining to the North and Middle Atlantic region. In addition to recognized projectile point types, the identification and analysis of recovered lithic materials will utilize microscopic wear analysis and technical evaluations focusing on the materials and techniques of manufacture indicated by the lithic material and on the correlation of environmentally pertinent indicators of these recognized types based on stratigraphically controlled units of association and contemporaneity. The precise technological and stylistic categories applied will be determined by the range of variation actually recovered during the IB/II testing.
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Map representing 17th century, compiled from Town Records, Surveys and Deeds.

Hyde, E. Belcher  

Perris, William  
1855  Map of the City of Brooklyn. Published by J.H. Higginson, N.Y., N.Y.

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1766  Plan of the Town of Brooklyn and Part of Long Island Surveyed in the Year 1766 and 1767.

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1904  Insurance Map of the Borough of Brooklyn.
1944  

Stiles, Henry  
1867  The Village of Brooklyn in 1816 Compiled from the First Village Map of that Date by Jeremiah Lott, and from Poppleton & Lott's Map of the Pierrepont Estate of 1819; in Stiles, A History of the City of Brooklyn, Vol. II.
APPENDIX I

from INDEX OF CONVEYANCES, SECTION I, BLOCK 239 (for 1695 to 1894) (1st ten entries & others selected)

<table>
<thead>
<tr>
<th>GRANTOR</th>
<th>GRANTEE</th>
<th>DATE</th>
<th>CONVEYANCE LIBER</th>
<th>PAGE</th>
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<tbody>
<tr>
<td>Wm. Kiefft</td>
<td>Andries Hudde</td>
<td>12 Sept. 1645*</td>
<td>1</td>
<td>249</td>
</tr>
<tr>
<td>Andries Hudde</td>
<td>Lodewyck Jongh</td>
<td></td>
<td>1</td>
<td>250</td>
</tr>
<tr>
<td>Lodewyck Jongh</td>
<td>Jeronimus de Rapale</td>
<td></td>
<td>1</td>
<td>250</td>
</tr>
<tr>
<td>Lodewyck Jongh</td>
<td>Dirck Janse Woertman</td>
<td></td>
<td>1</td>
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<tr>
<td>Andries Hudde</td>
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<td>1</td>
<td>251</td>
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<tr>
<td>Jacques Cortelyou</td>
<td></td>
<td>survey</td>
<td>1</td>
<td>252</td>
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<tr>
<td>Dirck Janse Woertman</td>
<td>Ante-nuptial agreement</td>
<td></td>
<td>1</td>
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<td>Annitje Ankers, widow of Weynant Peterse</td>
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<td>Geo. &amp; Trentye Jacobs</td>
<td>Harman Joras</td>
<td>8 Nov. 1692</td>
<td>1</td>
<td>293</td>
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<td>Harman Joras</td>
<td>Geo. &amp; Tr. Jacobs</td>
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<td>1</td>
<td>295</td>
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<tr>
<td>Town of Breucklyn</td>
<td>Minutes of Town Mtng.</td>
<td>9 May 1699</td>
<td>2</td>
<td>191, 191a</td>
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<td>Brooklyn Freeholders</td>
<td>Minutes of Town Mtng.</td>
<td>13 May 1702</td>
<td>2</td>
<td>225, 225a, 226</td>
</tr>
<tr>
<td>Geo. &amp; Tr. Jacobs</td>
<td>Garret Middagh</td>
<td></td>
<td>2</td>
<td>280</td>
</tr>
<tr>
<td>Harman &amp; Nettie Joras</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dirck J. Woertman</td>
<td>Joras Remsen</td>
<td>16 Oct. 1706</td>
<td>3</td>
<td>81</td>
</tr>
<tr>
<td>Jarvis &amp; Susannah Roebuck</td>
<td>John Carpenter</td>
<td>27 Aug. 1782</td>
<td>6</td>
<td>267</td>
</tr>
<tr>
<td>John Carpenter</td>
<td>John V. Swartcop</td>
<td>13 Nov. 1793</td>
<td>6</td>
<td>504</td>
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<tr>
<td>Robert &amp; John DeBevoise</td>
<td>Hezekiah B. Pierpont</td>
<td>27 Apr. 1816</td>
<td>11</td>
<td>509</td>
</tr>
<tr>
<td>Art Middagh</td>
<td>Frederick Mitchell</td>
<td>12 Oct. 1820</td>
<td>12</td>
<td>570</td>
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from INDEX OF CONVEYANCES, SECTION I, BLOCK 239 (for 1695 to 1894) (1st ten entries & others selected)

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<tr>
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<th>GRANTEE</th>
<th>DATE</th>
<th>CONVEYANCE LIBER</th>
<th>PAGE</th>
</tr>
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<tr>
<td>Art Middagh</td>
<td>Frederick Mitchell</td>
<td>12 Oct. 1820</td>
<td>12</td>
<td>572</td>
</tr>
<tr>
<td>Art Middagh</td>
<td>Frederick Mitchell</td>
<td>12 Oct. 1820</td>
<td>12</td>
<td>573</td>
</tr>
<tr>
<td>John Swetcope</td>
<td>Amos Madden</td>
<td>21 June 1831</td>
<td>31</td>
<td>101</td>
</tr>
</tbody>
</table>

NOTE: * from map at Kelly Institute, Map of Earliest Patents and Grants in the Towns of Brooklyn and Bushwick, Kings County, N.Y. 1895-1896.
<table>
<thead>
<tr>
<th>Lot No.</th>
<th>Street Address</th>
<th>Date of Document</th>
<th>Lot Dimensions</th>
<th>Building Dimensions</th>
<th>Backyard Dimensions</th>
<th>Basement Depths</th>
<th>Occupation Usage</th>
<th>Structural Comments</th>
<th>Walls</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>147 - 159 Pierrepont St.</td>
<td>1972</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>install 3 transformer vaults (Sidewalk)</td>
<td></td>
<td>Bldg. Notice 710</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>35-45 Clinton St. n.e. corner of Clinton &amp; Pierrepont Streets</td>
<td>Aug. 11, 1958</td>
<td></td>
<td></td>
<td>14'10&quot; below 1st floor</td>
<td></td>
<td></td>
<td></td>
<td>Elevator Application # 33</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>135-151 Pierrepont Street (and includes Lot 1)</td>
<td>Feb. 19, 1969</td>
<td>87' x 196'</td>
<td></td>
<td></td>
<td>Public Parking Lot for 85 cars and 10' x 10' temporary shed accessory to parking lot</td>
<td></td>
<td></td>
<td>CO 201211</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>341/346 Fulton St. west side 85' north of Pierrepont.</td>
<td>Sept. 17, 1930</td>
<td>49'7&quot; front + rear x 715'</td>
<td></td>
<td></td>
<td>3 story brick bldg.</td>
<td></td>
<td>Application to erection of illuminated sign</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot No.</td>
<td>Street Address</td>
<td>Date of Document</td>
<td>Lot Dimensions</td>
<td>Building Dimensions</td>
<td>Backyard Dimensions</td>
<td>Basement Depths</td>
<td>Occupation Usage</td>
<td>Structural Comments</td>
<td>Walls</td>
<td>Citations</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>------------------</td>
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<td>---------------------</td>
<td>--------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>---------------------</td>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>55</td>
<td>312 Fulton</td>
<td>March 20, 1930</td>
<td>14'6&quot; x 10'0&quot;</td>
<td></td>
<td></td>
<td></td>
<td>3 Story brick</td>
<td></td>
<td></td>
<td>Application for erection of illuminated sign 3029</td>
</tr>
<tr>
<td>61</td>
<td>31a Fulton</td>
<td>March 25, 1931</td>
<td>19'6&quot; front x 100' deep (115' north of pavement)</td>
<td></td>
<td></td>
<td></td>
<td>Brick 1 Story</td>
<td></td>
<td></td>
<td>Application for erection of illuminated sign 3203</td>
</tr>
</tbody>
</table>
### APPENDIX III

CADMAN PLAZA, BROOKLYN

#### MAP AND ATLAS EVIDENCE

<table>
<thead>
<tr>
<th>MAP #</th>
<th>NAME</th>
<th>DATE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Commissioner of Records Office</td>
<td>represents 17th C.</td>
<td>Shows 1 structure on the SW corner of Love Lane and Fulton St., which is marked &quot;Dwelling 1646&quot; and lies on the Andries Hudde farm. This indicates Love Lane should date to the 1640's.</td>
</tr>
<tr>
<td>1</td>
<td>Ratzer</td>
<td>1766-1767</td>
<td>Shows 1 structure at NE corner of Swertcope farm and 2 structures near the SE corner of the DeBevoise farm.</td>
</tr>
<tr>
<td>2</td>
<td>Poppleton &amp; Lott</td>
<td>1816-1819</td>
<td>Shows 2 structures near NE corner of Swertcope farm but none on DeBevoise farm.</td>
</tr>
<tr>
<td>3</td>
<td>Butt</td>
<td>1846</td>
<td>Shows Swertcope farm, Love Lane and the DeBevoise farm but no details of structures.</td>
</tr>
<tr>
<td>3</td>
<td>Perris</td>
<td>1855</td>
<td>Block divided in 47 lots, but large undeveloped area remains fronting Clinton St.</td>
</tr>
<tr>
<td>4</td>
<td>Bromley</td>
<td>1893</td>
<td>Block divided into 56 lots. Problem with lot lines depicted as parallel to Pierrepont Street instead of Swertcope/DeBevoise farm line.</td>
</tr>
<tr>
<td>4</td>
<td>Hyde</td>
<td>1898</td>
<td>Shows location of former Love Lane running just north of Swertcope/DeBevoise farm line.</td>
</tr>
<tr>
<td>5</td>
<td>Sanborn</td>
<td>1904</td>
<td>Block divided into 45 lots.</td>
</tr>
<tr>
<td>6</td>
<td>Hyde</td>
<td>1929</td>
<td>Shows extension of Brooklyn Savings Bank through to Fulton Street.</td>
</tr>
<tr>
<td>7</td>
<td>Sanborn</td>
<td>1915-1939</td>
<td>No major changes since 1929.</td>
</tr>
</tbody>
</table>

### PROPERTY TRANSACTION EVIDENCE

1640 - Dutch West India Company owns entire block.


17th or 18th century - DeBevoise family purchased southern 3/4 of block.
1783 - Swertcope purchased center 1/2 of block from deBevoise family.

1832 - Maddens & O'Brien purchase the Swertcope farm [2 structures existed on the farm, Numbers 286 and 288 Fulton Street.]

1833 - Maddens & O'Brien sell off 6 lots on Fulton Street - 1st evidence of sub-division of Swertcope farm.

1859 - Last lot(s) sold off from old Swertcope farm.

BASEMENT DEPTH EVIDENCE FROM BUILDING RECORDS

Building Records that pertain to the Assembly (Wilson) Building, the Brooklyn Savings Bank and the lots that became the new Library were obtained.

Street addresses covered:

- 284 Fulton Street
- 312-316 Fulton Street
- 135-151 Pierrepont Street
- 153-157 Pierrepont Street, basement depth 8' below grade (The Assembly, Wilson of Medical Building).
- 159-163 Pierrepont Street
- 35-45 Clinton Street, basement at least 14'10" below 1st floor (The Brooklyn Savings Bank).

SOIL BORING EVIDENCE

7 borings on the block, all on property that became the new Library. Depth of fill ranges from 7 ft. to 18 ft. below grade. Below the fill is usually brown sand with a trace of silt, occasionally with gravel and stones. No borings exist under the streets or sidewalks. Therefore no evidence exists for projecting original grade.