TABLE OF CONTENTS

I. INTRODUCTION

St. Michael's Cemetery is located on the south side of Astoria Boulevard, in the Borough of Queens (see Figure 1). It is designated as Block 1016, Lots 450 and 310 on the current Borough of Queens tax map. The Cemetery is proposing to construct a new crematory and chapel on land immediately adjacent to an existing office building located in the northeastern portion of the Cemetery (see Figures 2a-b).

This documentary study has been prepared to meet the requirements of the New York City Board of Standards and Appeals and the New York City Landmarks Preservation Commission. Following its review, the latter agency determined that

> there is a potential for the recovery of remains from 19th Century occupation and potential for the recovery of human remains on the project site. Accordingly, the Commission recommends that a topic intensive documentary study be performed to determine the exact presence or absence of burials or other archaeological remains

within the area to be affected by project construction (Strauss 1997). While the primary concern is the possible presence of burials dating to the period after establishment of St. Michael's Cemetery, this study also considers the sensitivity of the site for other archaeological remains dating to either the historic or prehistoric periods.

Research for this study was conducted at the New York Public Library, Map and General Research Divisions; the Queens Borough Public Library; the New York City Landmarks Preservation Commission; the Queens office of the New York City Register, the New York City Municipal Archives; the St. Michael's Church Archives and at St. Michael's Cemetery.

A previous archaeological documentary study of a small tract of land then within the boundaries of St. Michael's Cemetery was conducted in 1987, prior to the transfer of this tract to the Bulova Watch Company (Geismar 1987). However, the latter tract was located in the southwestern portion of the Cemetery, approximately 1500 feet southwest of the current project site. Therefore, most of the analysis contained in the 1987 report is not applicable to the current site.

A. Site Description

Examination of the files of the New York City Landmarks Preservation Commission indicates that the existing one-story office building was constructed in the 1950's for use as a crematory and chapel. The crematory equipment was removed from the building several years ago and it was converted for use as an office. An extension to the north side of the building was

constructed after 1994 (Gilhooly 1994). The eastern portion of the existing building has a basement with the western portion constructed on a concrete slab at grade (see Figure 2c).

According to project plans on file at the New York City Landmarks Preservation Commission, the proposed construction will occur immediately adjacent to the south side of the existing office structure and will extend southward for a distance of approximately 47 feet. Examination of plans and section drawings indicate that the proposed new structures will not have basements (see Figures 2c-d).

The grade of the northwestern portion of the proposed building site, immediately adjacent to the existing structure, is several feet higher than the remainder of the site. The lower portion of the site has been paved and is used for parking. The eastern portion of the paved area is enclosed by a wooden fence and is used by the Cemetery staff (see Plates 1-4).

Grading and paving of the area now used for parking would have resulted in surface disturbance. The area immediately adjacent to the existing office structure and the basement stairwell at its southeastern corner may have experienced disturbance to a greater depth during construction of this building.

II. DOCUMENTARY RESEARCH

A. Prehistoric Archaeological Sites

A number of compendia of prehistoric archaeological sites were prepared during the first half of the 20th century (Bolton 1920, 1922, 1934; Parker 1920; Solecki 1941). The nearest site to the project area which is listed in these sources is the one shown on Bolton's 1934 map as #132 (see Figure 5). Bolton (1934) lists this site as "Bovery Road, near Steinway: there was a site on which some human burials were found, on the Bovery Road." Bolton's source for this reference was, in turn, Parker's 1920 compendium. Parker (1920:672) describes the site, which he lists as Queens County site #9, as a "burial site on the Riker and Titus estates on the Bowery Road to Steinway and North Beach."

The historic period maps indicate that large tracts of land in vicinity of St. Michael's Cemetery, including the site of the Cemetery itself, were at one time owned by the Riker family. In the late 19th and early 20th centuries the Riker family continued to own the land east of the Cemetery (see Figures 13-14; 16). However, an 1874 map (see Figure 6) indicates that the Titus property was located west of the Bowery Bay Road and North of the Astoria and Flushing Turnpike (now Astoria Boulevard). This map also shows a tract owned by D. S. Riker north of the Titus property along the shore of Bowery Bay. This suggests that the site listed by Parker was closer to the shoreline than the Cemetery site, and it is shown near the shoreline on Bolton's map (see Figure 5) as well as Parker's (1920) site map (see Figure 6 - site #9).

The prehistoric site list recently compiled by Boesch (1996) for the New York City Landmarks Preservation Commission includes the sites noted in the sources listed above as well as other sites and find spots listed in museum files and other sources. Boesch (1996) references an entry in the New York State Museum Site files (NYSM #5472). He states that

> the New York State Museum records the presence of a Native American burial site in Saint Michael's Cemetery. No other source mentions the site. [The] New York State Museum reference may be erroneous (Boesch 1996:7).

We concur with Boesch's assessment. Since many of the entries in the State Museum files reflect Parker's work as presented in the latter's report (1920), it is considered likely that the New York State Museum actually refers to Parker's site #9 as noted above.

To further assess the sensitivity of the project area for prehistoric sites we examined the 1912 Borough of Queens topographic maps. While most major reported prehistoric sites were located near the Long Island shoreline, inland sites are known (e.g. see Lightfoot et al. 1985). Such sites most frequently represent resource procurement camps (e.g. hunting

camps) and would typically be located on higher ground near water sources. The historic period maps indicate that a stream which entered Flushing Bay, east of Bowery Bay, had its head east of the location of St. Michael's Cemetery (see Figures 9-10; 13). This would be probably have been the nearest water source to the project site in prehistoric times. The stream is shown on the 1912 Borough of Queens topographic maps approximately 1200 feet east of the project site. These maps show the grade sloping upwards to the northwest from from the stream location to the local height-of-land located above the 50 foot contour, approximately 300 - 600 feet northwest of the project site (see Figure 4). The project site is located below the 35 foot contour on ground which sloped downward to the south and east. The distance from the stream and the fact that there is higher ground in the vicinity suggests that the project site would not have represented a particularly attractive location for utilization by prehistoric peoples.

B. Historic Period Prior to Establishment of St. Michael's Cemetery

Prior to the incorporation of Queens County into the City of New York in 1898, the land which now comprises St. Michael's Cemetery was located in the westernmost portion of the Town of Newtown.

Prior to 1642 there was only scattered settlement in the area which later became Newtown. Isolated plantations had been established near Mespat Kill, later known as Newtown Creek. However, in 1642 the Reverend Francis Doughty and a band of settlers from New England obtained a patent from the Dutch governor of New Amsterdam, Willem Kieft, for a tract of 13,332 acres which extended from Flushing Creek westward to what is now Long Island City, and from the south side of Newtown Creek and what is now Forest Hills northward to Long Island Sound.

Doughty and his followers established a small settlement at the most easterly branch of Mespat Kill, approximately three miles southwest of the project site. However, in 1643 Governor Kieft precipitated a war with the local Native Americans, and in a retaliatory raid the latter destroyed the Mespat settlement, with the settlers fleeing to the safety of the fort at New Amsterdam (Riker 1852, Munsell 1882, Historical Records Survey 1940).

Peaceful relations with the Native Americans were eventually restored, and by 1645 the Mespat settlement had been rebuilt. However, a subsequent dispute arose between Doughty and the other settlers and there was apparently no further development or expansion of the Mespat settlement.

The next settlement in the area occurred in 1652 when a group of 54 English Calvinists arrived from New England. Although the Dutch were still in control in New Amsterdam at this time, the English settlers obtained permission from Governor Peter Stuyvesant to settle in a location approximately mid-way between Newtown Creek and the Dutch settlement of Vlissingen (later known

as Flushing). The settlement was centered in the vicinity of the present intersection of Queens Boulevard and Grand Avenue, some two miles southeast of the project site. The privileges accorded under the 1642 Dutch patent were extended to the new English settlement, which was named Middleburg (Munsell 1882, Historical Records Survey 1940).

By the early 1660's relations between the English settlers and the Dutch authorities had deteriorated and the Middleburg settlers, proclaiming their allegiance to the English King, Charles II, changed the name of their settlement from "Middleburg," to "Hastings" (Munsell 1882, Historical Records Survey 1940).

In 1664, the English acquired the New Amsterdam colony from the Dutch, and changed its name to New York. Subsequently, in 1665, at a convention of the various towns, the former town of Hastings was enlarged by inclusion within its boundaries of a number of "out-plantations," and its name was changed to "New Towne." However, this name was apparently already in common use (Munsell 1882, Historical Records Survey 1940).

In 1667, the settlers succeeded in obtaining a patent for the Town lands from the English Governor, Richard Nicolls. Under the patent there was a large amount of land held in common by the patentees. Grants of land were made periodically to individual applicants and there were also allotments of common land among the freeholders (Riker 1852:99).

Examination of historic period maps indicates that through the middle of the 19th century, the location of the cemetery was used as farmland (see also Geismar 1987). A map showing land ownership as of 1800 (Borough of Queens 1935) indicates that at that time the tract which later became St. Michael's Cemetery was part of the land owned by Samuel and Jacobus Riker. However, by the mid-19th century, it was included in a large tract owned by Isaac Rapelye (Geismar 1987 - see also discussion of land conveyances, below). Riker's 1852 map (Figure 8), drawn to accompany his history of Newton, indicates the Cemetery land as "premises of Chas. Rapelye, formerly D. Riker's," consistent with ownership passing from the Riker to the Rapelye families.

In the 19th century St. Michael's Cemetery was bounded on its north side by a Road known as the Astoria and Flushing Turnpike or Flushing Avenue which followed the route of the present Astoria Boulevard. The northwestern corner of the present cemetery property was bounded on its western side by a road known as the Bowery Bay Road which in this location followed the route of the present 49th Street. The project site, located in the northeastern portion of the cemetery, is approximately 1750-1850 feet east of the former location of Bowery Bay Road and some 600-650 feet south of the location of the Astoria and Flushing Turnpike.

A 1781 map (Figure 9) shows a lane at the location of the Bowery

Bay Road. However, the Astoria and Flushing Turnpike did not exist at this time. Maps dating to 1849 and 1859 (Figures 10 and 11) show both roads. The 1849 map, as well as a 1852 Dripps map (see Geismar 1987:14), does not show any structures along the south side of the Astoria and Flushing Turnpike. A single farmhouse is shown on these maps adjacent to Bowery Bay Road, approximately 1750 feet west of the project site.

The 1859 Walling map (Figure 11) shows two farmhouses along the south side of the Astoria and Flushing Turnpike. The closest of these to the project site is the one labelled "Blackwell." The 1873 Beers map (Figure 12) also shows this farmhouse and two associated outbuildings. The Cemetery deeds (see below) indicate that the Blackwell farm, previously part of the Rapelye property, was acquired by the Cemetery in 1883 and was located west of the project site. Early 20th century maps (see Figures 14-17) show the Blackwell farmhouse as still standing within the Cemetery. Its location would place it some 600 feet northwest of the project site.

C. St. Michael's Cemetery History

In 1849, the Rev. T. M. Peters of New York City's St. Michael's Protestant Episcopal Church acquired ground in what is now Central Park to provide a burial place for the poor inhabitants of what was then known as Seneca village. However, the New York State legislature subsequently passed a law forbidding burials in the portion of New York City lying below 86th Street. This led Rev. Peters to seek another tract outside of what were then the boundaries of New York City in order to provide for the burial of the poor (Peters 1907). This led to the founding of what is now St. Michael's Cemetery. The first tract of land was purchased in 1852, with three additional tracts being acquired during the latter half of the 19th century. The first three of these tracts were acquired by Rev. Peters and subsequently transferred to St. Michael's Church, with the fourth acquired directly by the Church. We have examined the deeds by which St. Michael's Church acquired these properties. The deeds indicate the dimensions of each tract and previous owners of the properties. We have indicated the approximate boundaries of the four tracts on a copy of the Cemetery map included here as Figure 18b.

The first tract (labelled tract A) was deeded by Rev. Peters to the Church on October 25, 1852 (Queens County Deeds Liber 112:279). It had been acquired by Rev. Peters from Isaac C. Rapelye on May 1, 1852 (Deeds Liber 96:380). This tract, which totals some seven acres, adjoined the south side of Flushing Avenue (now Astoria Boulevard), extending for approximately 512 feet eastward along this roadway beginning some 258 east of the intersection of Flushing Avenue and Bowery Bay Road. The October 25th deed specifies that "the said premises...[be]...forever devoted to the purpose of a Burial Ground and Cemetery and the erection of a Chapel and other buildings appropriate thereto" (Deeds Liber 112:280).

In 1874, Rev Peters wrote that in 1855 he had made provisions

> that a certain plot known as 'C' [within this initial tract] should be forever appropriated to the burial of members of Free Churches and the inmates of charitable institutions, the only charge to be that of digging the grave. Twelve hundred and ninety-four free interments, chiefly for the City Mission Society have been made in the piece of ground thus set aside (cited in Peters 1907:450).

The location of the City Mission plot is shown on the Cemetery Plan (see Figures 18a-b).

It should be noted that this initial Cemetery tract purchased in 1852 was not located "at the intersection of Bowery Road and Astoria Boulevard" as stated by Geismar (1987:19). The land at the latter location represents the second of the tracts acquired for the Cemetery (see Figure 18b - tract B), which was deeded to the Church by Rev. Peters on May 3, 1864 (Deeds Liber 320:65). This tract, of approximately six acres, extended for some 258 feet along the Astoria and Flushing Turnpike eastward from its intersection with the Bowery Bay Road to the tract previously acquired in 1852. The deed to the latter tract indicates that the property acquired in 1864 had previously been owned by David Rapelye. The 1849 map (Figure 10) shows what is apparently the old D. Rapelye farmhouse adjacent to Bowery Bay Road, some 2000 feet southwest of the project site. This house may have stood as early as 1781 (see Figure 9).

In his 1874 account, Rev. Peters noted that in addition to the free burials for the poor provided by St. Michael's Church, a total of 984 additional free graves were provided within the Cemetery by various institutions including St. Luke's Hospital and the Churches of the Holy Communion, the Holy Apostles, Trinity and other churches (Peters 1907:450). These plots are also labeled on the Cemetery map (Figures 18a-b), and are located within the portion of the Cemetery acquired prior to 1864. After 1867, however, the only free burials in the Cemetery were those from St Michael's parish (Peters 1907:455).

The 1873 Beers map (Figure 12) is the earliest map examined which shows the Cemetery. However, only the tract purchased in 1852 is labelled "Cem." on this map. The 1873 map shows the land to the east of the Cemetery as still owned by the Blackwell family. The Blackwell farm, comprising some 13 acres, was acquired by St. Michael's Cemetery on May 14, 1883 (Deeds Liber 613:271). The boundary descriptions contained in the various deeds indicate that this tract was originally part of the Isaac Rapelye property and was subsequently acquired by James M. Blackwell. This 1883 acquisition (see Figure 18b - tract C) extended the Cemetery for approximately 745 feet along the Astoria and Flushing Turnpike eastward from the previously acquired lands.

In addition to the properties noted above which had been acquired

by Rev. Peters on the south side of Flushing Avenue and incorporated into St. Michael's Cemetery, Rev. Peters had also acquired two tracts on the north side of Flushing Avenue (the present Astoria Boulevard) totalling some 36 1/2 acres. The first was acquired from Isaac C. Rapelye in 1859 (Deeds Liber 166:354). and the second from Abbe Francis Pryer in 1870 (Deeds Liber 3237:5). In 1885 Peters and David Brown, co-owner of the second of these two tracts, conveyed them to St. Michael's Church (Nash 1888). On May 8th, 1888 the Church reached an agreement with William Steinway (Meyer 1888) to exchange this 36 1/2 acre property for a tract of some 45 1/2 acres located on the south side of Flushing Avenue which was owned by Steinway. The exchange of land was conducted to exclude the land north of Flushing Avenue from the Cemetery (Nash 1888), and instead to extend it to the east and south.

The 45 1/2 acre tract conveyed to St. Michael's Church by Steinway on January 15, 1889 (Deeds Liber 771:205), represents the last of the four tracts comprising the Cemetery grounds (see Figure 18b - tract D) and is the portion of the Cemetery in which the proposed project site is located. This 45 1/2 acre tract was originally part of the Isaac Rapelye estate and had been acquired from Jacob P. Rapelye and other heirs of Isaac Rapelye by William Steinway in 1872.

With the acquisition of the Steinway tract, St. Michael's Cemetery acquired essentially its present dimensions, with the exception of some minor 20th century modifications around its periphery.

Unlike the other 19th and 20th century maps examined for this study, the 1891 Wolverton Atlas (see Figure 13) shows St. Michael's Cemetery extending to the north side of the present Astoria Boulevard. The tract labelled St. Michael's Cemetery on this map includes the land owned by St. Michael's Church after its acquisition from Rev. Peters but before the 1888 exchange of land with William Steinway. This land was apparently never used for cemetery purposes.

1. Lot 310

The northeastern portion of St. Michael's Cemetery is designated on the Borough of Queens tax map as lot 310. This lot is also indicated on the site plan for the present project (Figure 2a) and on a copy of the Cemetery map examined at the offices of St. Michael's Cemetery (see Figure 18a). It represents the northeastern portion of the property acquired from William Steinway in 1889. A portion of the proposed project site would fall within the boundaries of this lot (see Figure 2a).

The 1903 Hyde map (see Figure 14), drawn subsequent to the 1898 incorporation of Queens County into the City of New York, shows the separate tax lot, then designated as Block 113, Lot 149, in the borough's Second Ward. This lot is labelled "St. Nicholas

Cem." on the 1903 map. It should be noted that this 1903 Hyde map is erroneously identified as the 1909 Bromley map in Geismar's report (1987:31).

A 1905 survey of St. Michael's Cemetery (Van Alst 1905), examined in the office of the City Register, shows the Cemetery property with dimensions representing the acquisition of the four properties discussed above and referenced in this report as tracts A-D. Neither this survey nor the 1902 Sanborn map (Figure 15), show separate boundaries or indicate separate ownership of the land in the northeastern corner of the Cemetery.

Neither the 1909 Bromley map (Figure 16), the 1912 Hyde Map (Figure 17) nor the 1915 Hyde map (included in Geismar 1987:23) label the lot in the northeastern portion of St. Michael's Cemetery as "St. Nicholas Cem". However, it continues to be shown on these maps with a separate lot designation and boundary lines.

Examination of the grantor/grantee deed indexes for the years between 1889, when tract D was acquired from William Steinway through 1903 failed to indicate a transfer of property from St. Michael's Church to a "St. Nicholas Church," "St. Nicholas Cemetery," or other any other institution.

The collection of the New York City Municipal Archives includes Queens tax records for the period 1899-1910. However, members of the Archives staff informed us that the ledger books for the years 1899-1908 for the second Ward, Block 113 are missing. The records for 1909 and 1910 show both lots 130 (62.891 acres) and 149 (7.926 acres) as owned by St. Michael's Cemetery.

We examined directories for the Borough of Queens for 1898-1902, 1904, and 1909 as well as New York City directories for the years 1901-1904. The Queens directories all list St. Michael's Cemetery at the corner of Flushing Avenue and Bowery Bay Road. The Cemetery is also listed in the New York City directories. None of these directories list a "St. Nicholas Cemetery."

The Queens County directories for the years noted above do not list a "St. Nicholas Church." The New York City directories do not include a listing for a Protestant Episcopal church with this name, although there is a listing for a St. Nicholas Roman Catholic Church.

Other than the 1903 map, documentary sources examined provide no indication that the northeastern portion of St. Michael's Cemetery was ever owned or operated as a separate institution. During our examination of hand-written deeds and entries in the tax ledger books, it was noted that entries for "St. Michaels" could be easily mis-read as "St. Nicholas." Such an error could account for lot 149 being labelled with the latter name on the 1903 Hyde map.

2. Project Site Utilization

To determine whether the proposed project site has been used for burial purposes since its acquisition by St. Michael's Cemetery in 1889, we examined the burial records located at the Cemetery offices. The Cemetery maintains complete records of all burials made since its inception in 1852. There are several sets of records. The Cemetery maintains a card file of all burials arranged by section or plot designation, and by row and grave number within each plot. The Cemetery map (Figure 18a-b) shows the location of each plot or section within the cemetery, and there are detailed section/plot maps showing the location of the rows and individual graves.

In addition to the card file of burials the cemetery records also include a chronological burial register containing data including the name and address of the deceased, age and cause of death, and the grave location according to the system noted above. There are also handwritten daily burial logs for the years after 1900 indicating the name of the deceased and grave location.

The cemetery records do not indicate that the project site was ever used for burial purposes after acquisition of this portion of the Cemetery in 1889.

There are two designated plots/sections in the portion of the cemetery in the vicinity of the project site. Plot 5 references the portion of the Cemetery extending southward of the pathway shown on the Cemetery map as Beech Road (see Figure 18a and Plate 6). The northern boundary of Plot 5 is approximately 85-100 feet south of the existing office building and 35-50 feet south of the location of the proposed crematory/chapel site. Examination of the burial records indicates that Plot 5 was extensively used for burials in the first two decades of the 20th century with the first burial noted occurring in 1898.

Section 16 designates the portion of the Cemetery located west of the project site. The Cemetery maps as well as visual observation indicate that only the western portion of section 16 has actually been used for burial purposes, with the closest graves to the project site being located some 125-150 feet west of the existing office building (see Plate 5). Examination of the cemetery records indicate that burials in section 16 did not occur until the second half of the 20th century, with the earliest burials noted dating to the 1950's.

Burials in sections 12 and 15, located north of the existing office building (see Figure 18a), did not take place until the late 1920's (Section 12) and 1930's (Section 15).

In recent years several mausoleum structures have been constructed in the portion of the Cemetery located north and northwest of the existing office building. These are shown on the site plan for the present project (see Figures 2a-b). These buildings were erected in areas which had not been used for prior

burials by St. Michael's Cemetery. According to Cemetery staff members there have been no reports of burials being encountered during excavations for these structures.

III. SUMMARY AND CONCLUSIONS

A review of documentary sources does not indicate that the proposed project site is in the vicinity of any known prehistoric sites. Analysis of the site topography and physiography does not suggest that it would have been a particularly suitable site for utilization by prehistoric occupants of western Queens County.

Prior to the establishment of St. Michael's Cemetery in 1852 the project site was located within a tract of farmland owned by the Rapelye family. This tract was acquired by William Steinway in 1872 and by St. Michael's Church in 1889. There is no indication that any structures stood within the boundaries of this property. The nearest house was located on an adjacent farmstead owned in the mid-19th century by the Blackwell family and stood some 600 feet northwest of the project site. It is unlikely that any archaeological remains associated with this or other area farmsteads would be located within the project site.

In the period after the establishment of St. Michael's Cemetery in 1852, a number of plots were set aside for free burials of the poor. The location of these plots would be within the first two tracts of land which were acquired for use as a Cemetery. The tract which includes the proposed project site was acquired for incorporation into the cemetery in 1889 and is located approximately 1000 feet east of the area utilized for pauper burials in the 1850's and 1860's. St. Michael's cemetery records indicate that the area to be affected by construction was never utilized for burial purposes.

Although one map, dating to 1903, suggests the possibility that the northeastern portion of the cemetery, including a portion of the project site, may have been sold or leased to another institution for burial purposes for a brief period during the early 20th century, there is no other documentary evidence for this. There are no reports of burials being uncovered during previous excavations for construction of several mausoleums in this portion of the Cemetery. There are, therefore, no indications that the project site was ever used for burial purposes.

The results of this archaeological documentary study do not indicate that possibly significant archaeological remains are likely to be present within the area to be affected by the proposed construction of a new chapel and crematory at St. Michael's Cemetery. No further archaeological investigations are recommended.

IV. REFERENCES CITED

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

Boesch, Eugene
1996 Key, Previously Recorded Native American Sites in the Borough of Queens. Document on file, New York City Landmarks Preservation Commission.

Borough of Queens, Topographical Bureau
1912 Topographical Map of the Borough of Queens, Sections 5 and 6 (includes modifications adopted by the Board of Estimate and Apportionment prior to April 5, 1935, data for contours obtained in 1905).

1935 Map of Queens Showing Ownership as of 1800. Queens Borough Public Library, Long Island Collection.

Bolton, Reginald Pelham
1920 "New York City in Indian Possession." Indian Notes and Monographs. Vol. II, No. 7. New York: Heye Foundation.

1922 "Indian Paths in the Great Metropolis." Indian Notes and Monographs. Misc. No. 23. New York: Heye Foundation.

1934 Indian Life of Long Ago in the City of New York. Port Washington: Ira J. Friedman, Inc. (Reissued 1971).

Bromley, George W. and Walter S.
1909 Atlas of the City of New York, Borough of Queens, Ward 2. Philadelphia: G.W. Bromley and Co.

Dripps, Matthew
1852 Map of Kings and Queens Counties, Long Island, N. Y. Surveyed by R. F. O. Connor.

1874 Map of Long Island City, Queens County, N.Y., Showing Farm Lines. Collection of the New York Public Library.

Ettlinger & Ettlinger, P.C.
1993 Map of a Portion of St. Michael's Cemetery in the Vicinity of the Administrative Office, Borough of Queens, City of New York (amended to show new mausoleums, in addition to existing mausoleum and topography in the easterly portion of Section 16). Staten Island, N.Y.: Ettlinger & Ettlinger.

Geismar, Joan H.
1987 Documentation of the St. Michael's Cemetery Project Site, Queens, CEQR No. 88-098Q. Report on File, New York City Landmarks Preservation Commission.

Gilhooly, James M.
1994 "Proposed Alterations and Addition to the Administration Building, Saint Michael's Cemetery, 72-02 Astoria Boulevard, East Elmhurst, New York". Set of plans dated 11/10/94 provided to the author by Irving Minkin, Stroock & Stroock & Lavan LLP.

Hagstrom Map Company, Inc.
1992 Hagstrom Map of Queens, City of New York. Maspeth, New York.

Historical Records Survey
1940 Transcription of Early Town Records of New York, Town Minutes of Newtown. 2 Vols.

Hyde, E. Belcher
1903 Atlas of the Borough of Queens, City of New York, Vol. 2, Brooklyn: E. Belcher Hyde.

1912 Atlas of the Borough of Queens, City of New York, Vol. 2, (1908, updated to 1912) Brooklyn: E. Belcher Hyde.

1915 Atlas of the Borough of Queens, City of New York, Vol. 2A. New York: Brooklyn: E. Belcher Hyde.

Klevering, Loren L.
1997 Proposed Site Plan, Floor Plans and Section Drawings, St. Michael's Cemetery, Crematory and Chapel Addition. Troy: Michigan: Giffels, Hoyem Basso, Inc. On file, New York City Landmarks Preservation Commission.

Lightfoot, Kent G., Robert Kalin and James Moore
1985 "Interior Resources Exploitation: A Woodland Settlement Model for Long Island, New York." Anthropology., Vol. VIII (2):15-40.

Miller and McGiffert, Engineers
n.d. Map of St. Michael's Cemetery. (Map showing section and plot designations and roadways). Available at St. Michael's Cemetery.

Munsell, W.W. and Co.
1882 History of Queens County, New York. New York.

Meyer, Charles B.
1888 Agreement dated May 8, 1888, St. Michael's P.E. Church with William Steinway. (drawn by Charles B. Meyer, Atty. at Law), Document in the collection of St. Michael's Church archives.

Nash, Stephen P.
1888 Opinion of Stephen P. Nash relating to exchange of property with Wm. Steinway, dated March 31, 1888. Document in the collection of St. Michael's Church Archives.

New York City Directories
1901-1904 Trow's General Directory of the Boroughs of Manhattan and Bronx, City of New York. New York City Municipal Archives.

New York City Register, Queens Office
Index and Libers of Deeds
Filed Maps

Parker, Arthur C.
1920 "The Archaeological History of New York, Part Two." New York State Museum Bulletin, Nos. 237, 238. Albany.

Peters, John Punnett (Ed.)
1907 Annals of St. Michael's, 1807-1907. New York: G.P. Putnam's Sons.

Queens Borough Directories
1898-1902; 1904; 1909 Trow's Business and Residential Directory of the Borough of Queens, City of New York. Queens Borough Public Library, Long Island Collection.

Queens Borough Public Library
1938 "Historical Collections of the Borough of Queens, Copied from original reports in the Borough of Queens Topographic Bureau." (15 Vols. - Index dated 1941). Long Island Collection, Queens Borough Public Library.

Queens Borough Tax Records
1909 Records of Assessed Valuation, Borough of Queens,
1910 Collection of the New York City Municipal Archives.

Riker, James Jr.
1852 The Annals of Newtown. New York: D. Fanshaw.

1852a Map of Newtown, Long Island. Collection of the New York Public Library.

Sanborn Map Company
1902 Insurance Maps of the Borough of Queens, New York City. Vol. 3. Collection of the New York Public Library.

Sidney, J.
1849 Sidney's Map of Twelve Miles Around New York. Collection of the New York Public Library.

Solecki, Ralph
1941 "The Indians Lived Here." in So This Is Flushing. Pamphlet in the Long Island Collection, Queens Borough Public Library.

Strauss, John J.
1997 Letter from John J. Strauss, Director of Environmental Review, New York City Board of Standards and Appeals to Irving Minkin, Esq, Stroock & Stroock & Lavan LLP, dated May 13, 1997.

Taylor, George and Andrew Skinner
1781 Map of New York and Staten Island and Part of Long Island. Collection of the New York Public Library.

Van Alst, Peter
1905 Map of St. Michael's Cemetery, 2nd Ward, Borough of Queens. Filed Map No 1016, Office of the City Register, Borough of Queens.

Walling, H. F.
1859 Topographical Map of the Counties of Kings and Queens, New York. New York.

Wolverton, Chester
1891 Atlas of Queens County, Long Island, New York.

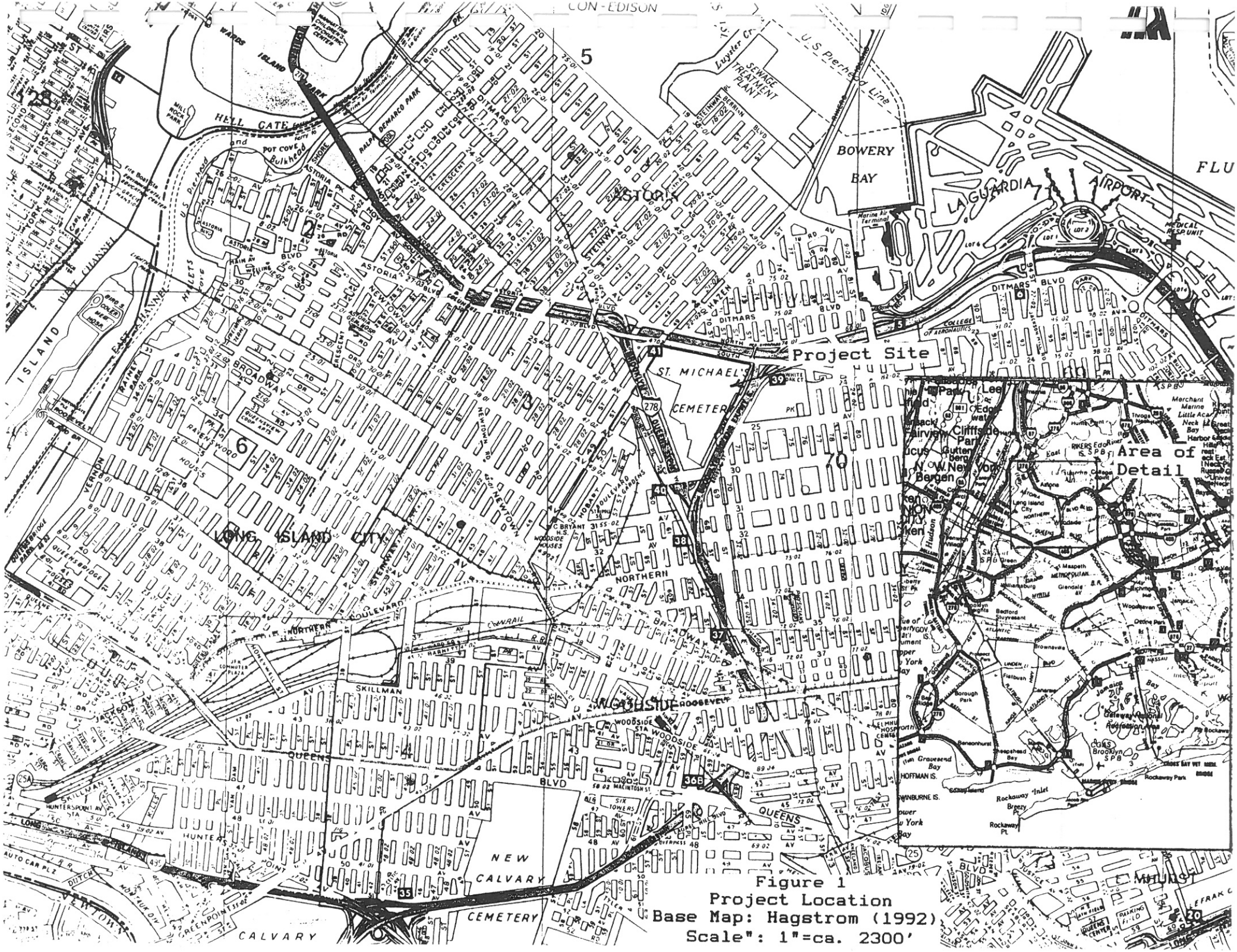
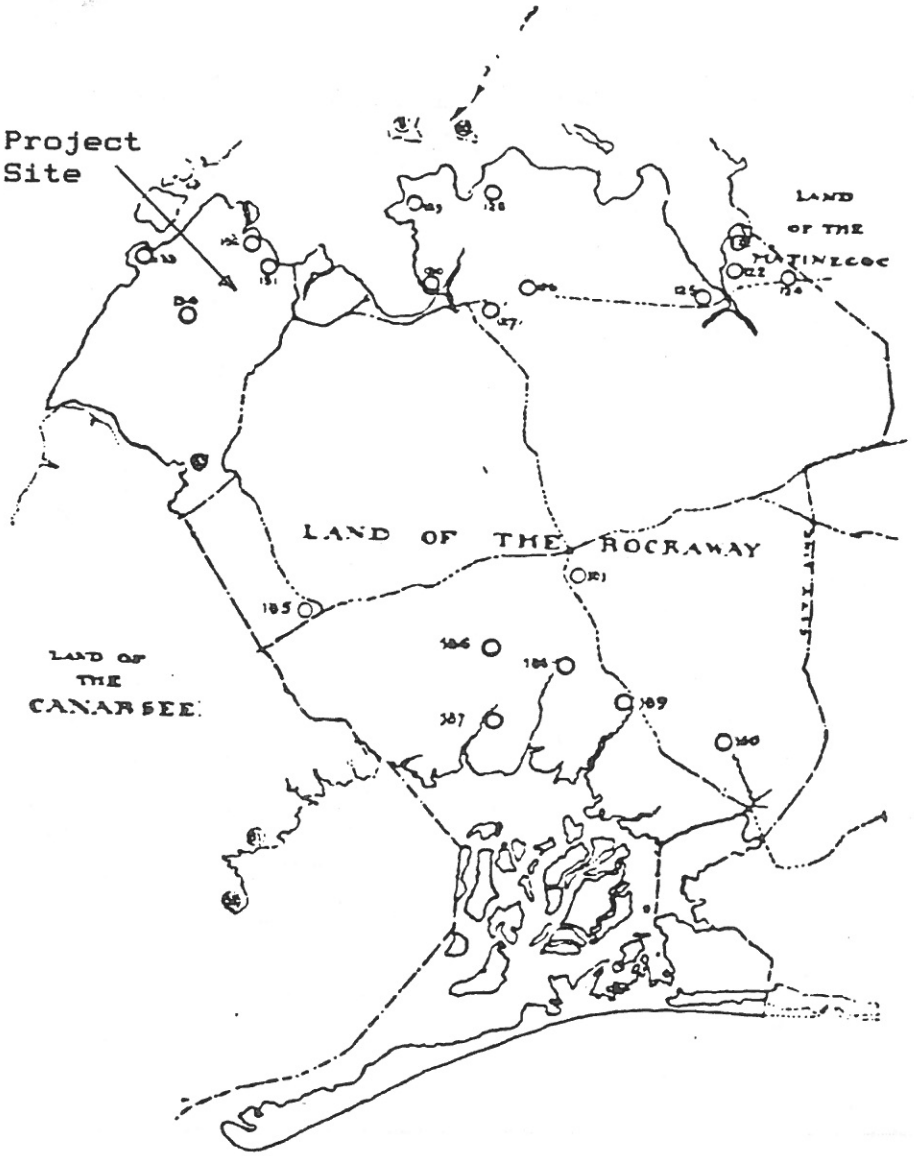


Figure 1
Project Location
Base Map: Hagstrom (1992)
Scale": 1"=ca. 2300'



INDIAN SITES IN THE BOROUGH OF QUEENS

Figure 5
Prehistoric Sites in Queens
Source: Bolton (1934:148)

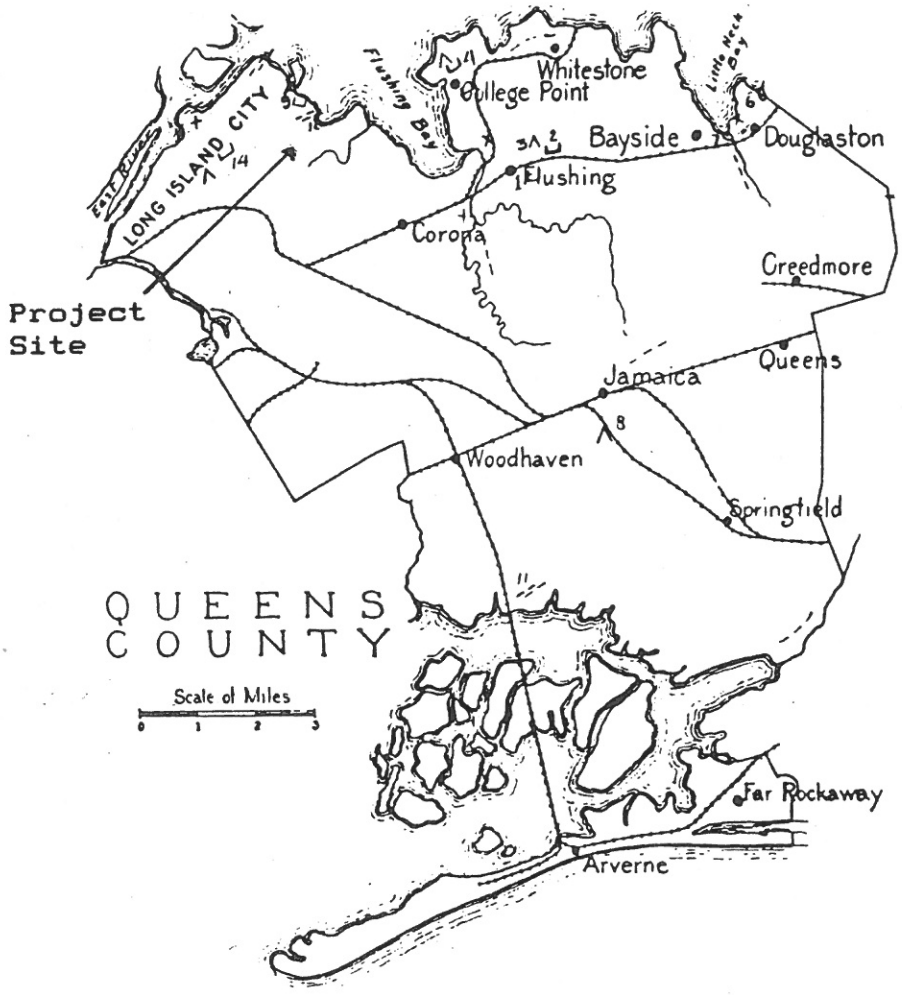
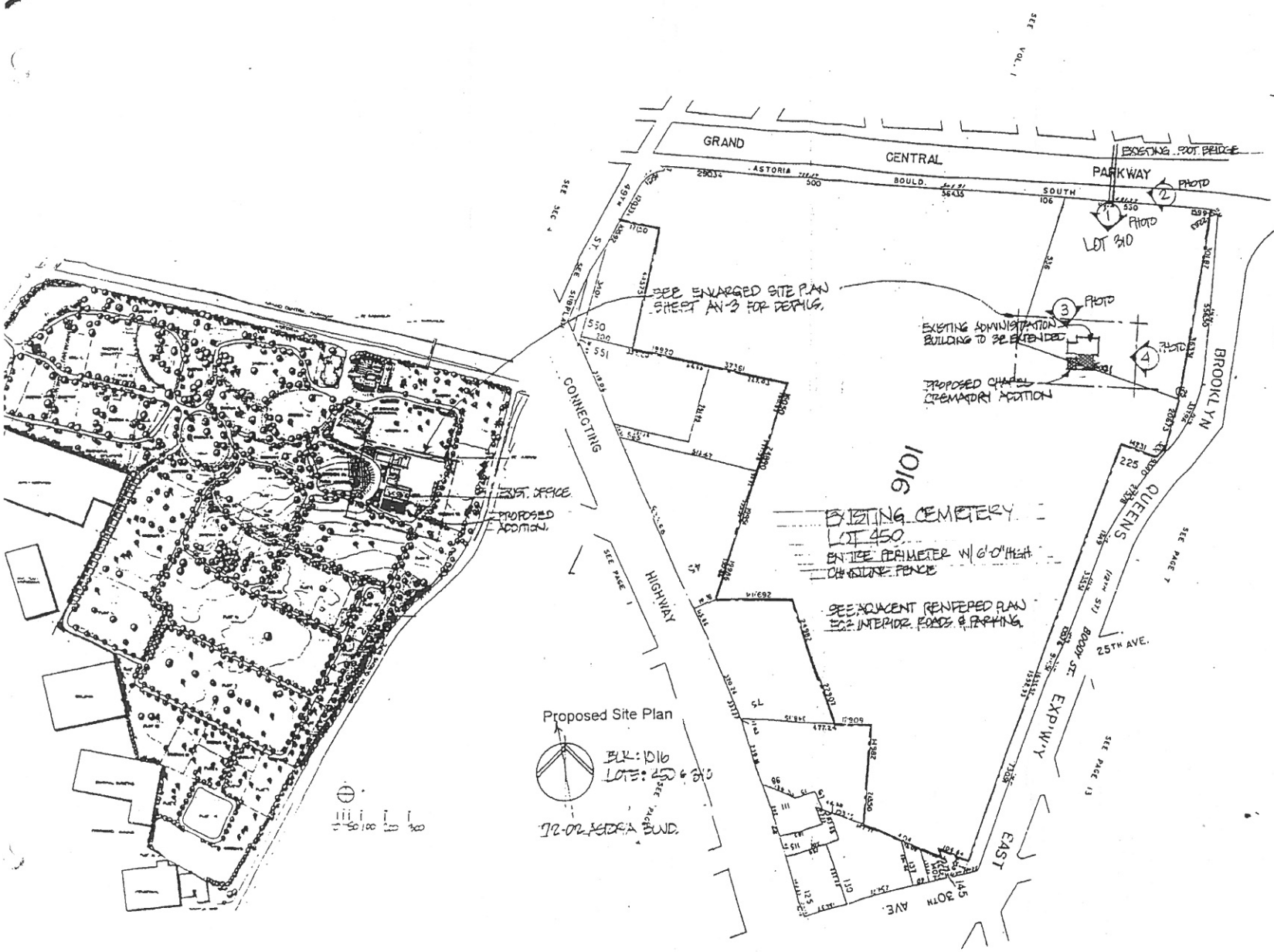


Figure 6
Prehistoric Sites in Queens
Source: Parker (1920: Plate 208)

V Village Site
X Camp Site
U Burial Site
-- Shell Deposits



Loren L. Klevering, Al
In Association With

Gilfels Hoyem Basso, Inc.
Architecture and Engineering

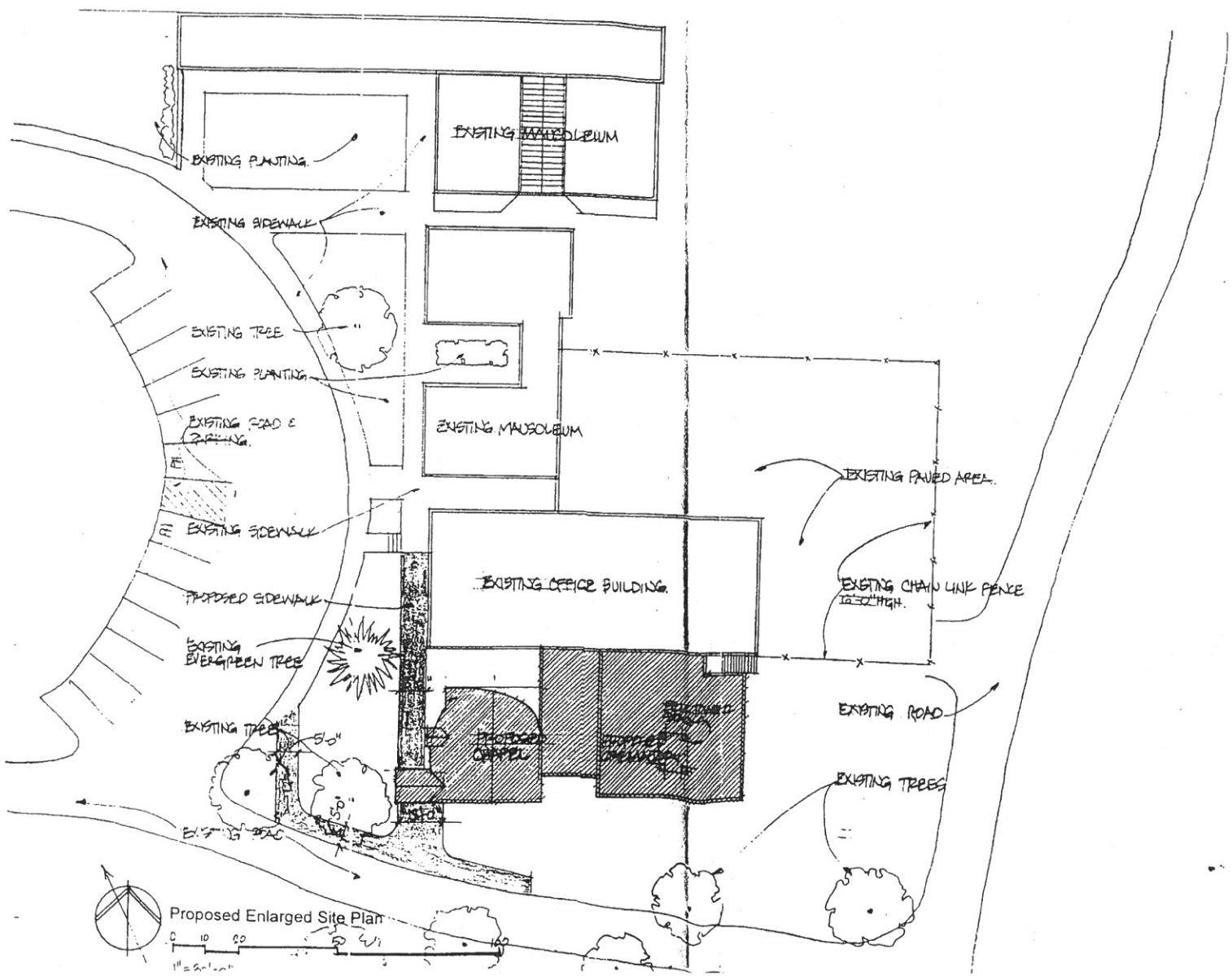
St. Michael's Cemeter
Crematory and Chape
Addition

East Elmhurst, New York

Figure 2a

Proposed Site Plan

97513 AV2



1-31-97 DOB REVIEW

REGISTERED ARCHITECT
LOREN LEE KLEVERING
020667
STATE OF NEW YORK

Loren L. Klevering,
In Association With

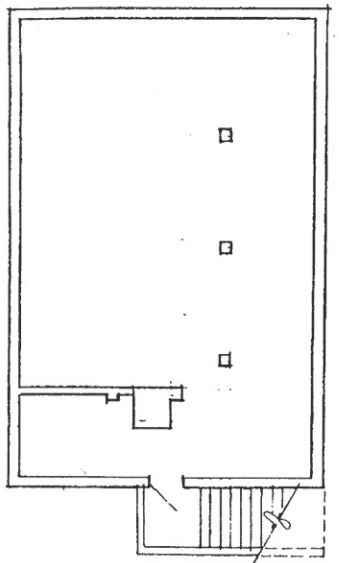
Giffels Hoyem Basso,
Architecture and Engineering
2150 Livernois
Suite 300
Troy, Michigan 48083-6029
Tel: 810.680.0880
Fax: 810.680.1819

St. Michael's Ceme
Crematory and Ch
Addition

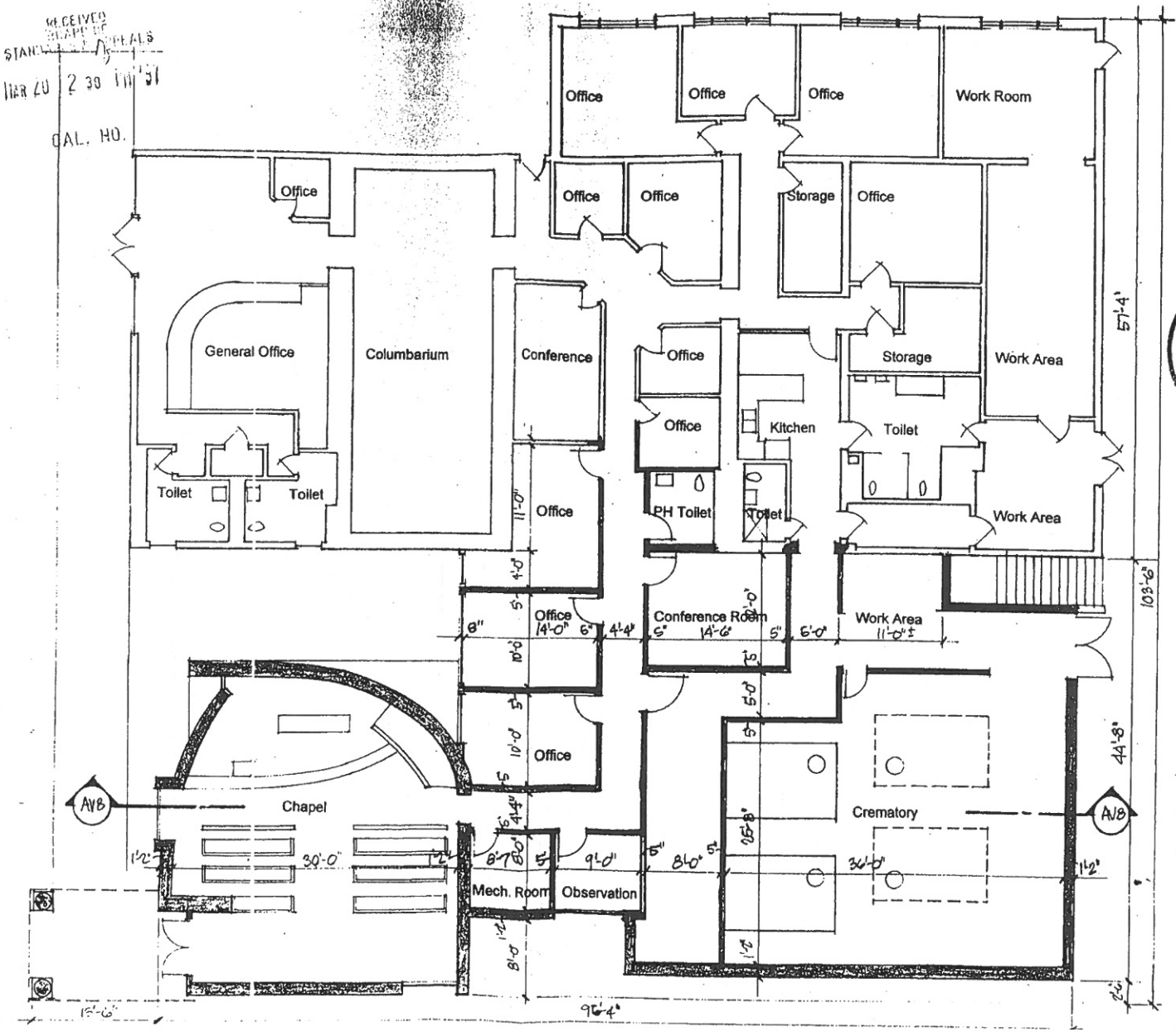
East Elmhurst, New York

Figure 2b

Proposed Enlarg
Site Plan



Existing Proposed Basement Plan



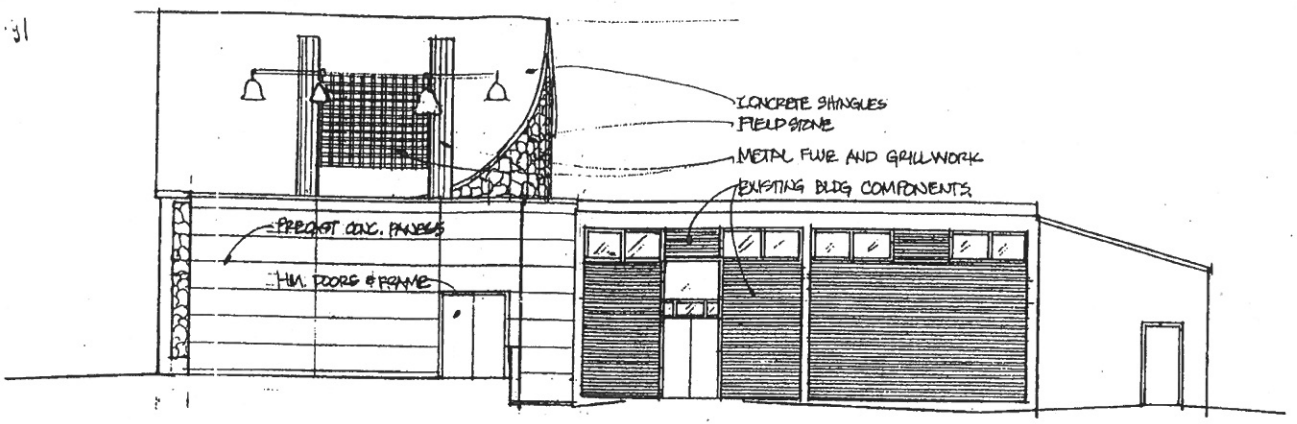
Loren L. Klevering, AIA
In Association With
Giffels Hoyem Basso, Inc.
Architecture and Engineering
8180 Livernois
Suite 300
Troy, Michigan 48083-6026
Tel: 810.680.0880
Fax: 810.680.1919

St. Michael's Cemetery Crematory and Chapel Addition

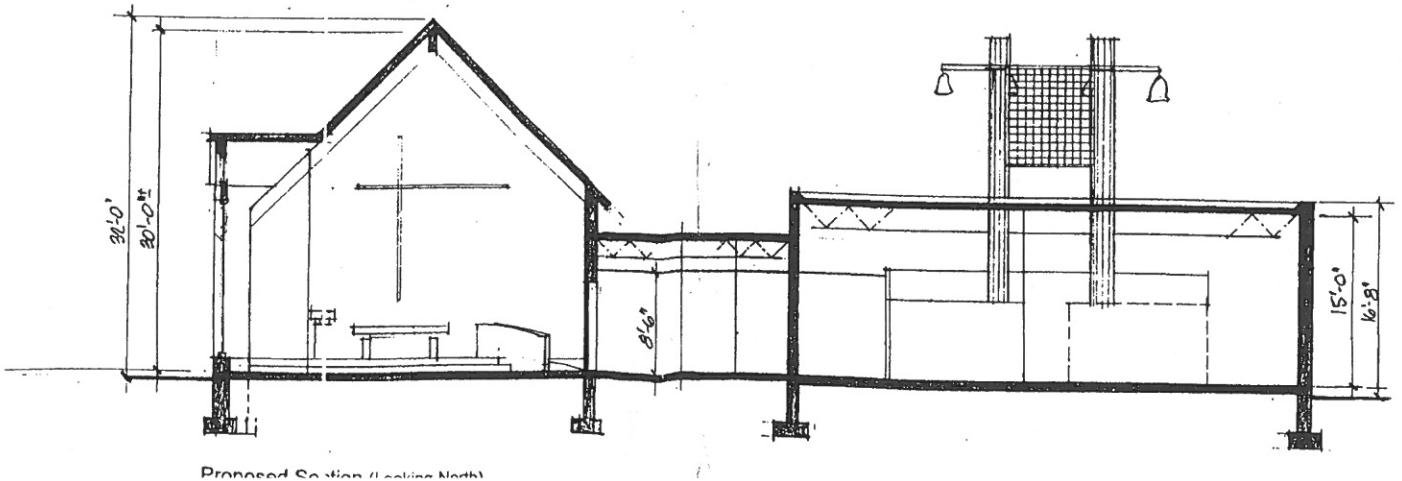
East Elmhurst, New York

Figure 2c

Proposed Floor Plan



East Elevation
3/32"=1'-0"



Proposed Section (Looking North)

ISSUE REVIEW

Loren L. Klevering, AIA
In Association With

Giffels Hoyem Basso, Inc.
Architecture and Engineering
8180 Livernois
Suite 300
Troy, Michigan 48098-2638
Tel: 810.680.0080
Fax: 810.680.1919

St. Michael's Cemetery Crematory and Chapel Addition
East Elmhurst, New York

Figure 2d

Proposed Elevation
Proposed Section

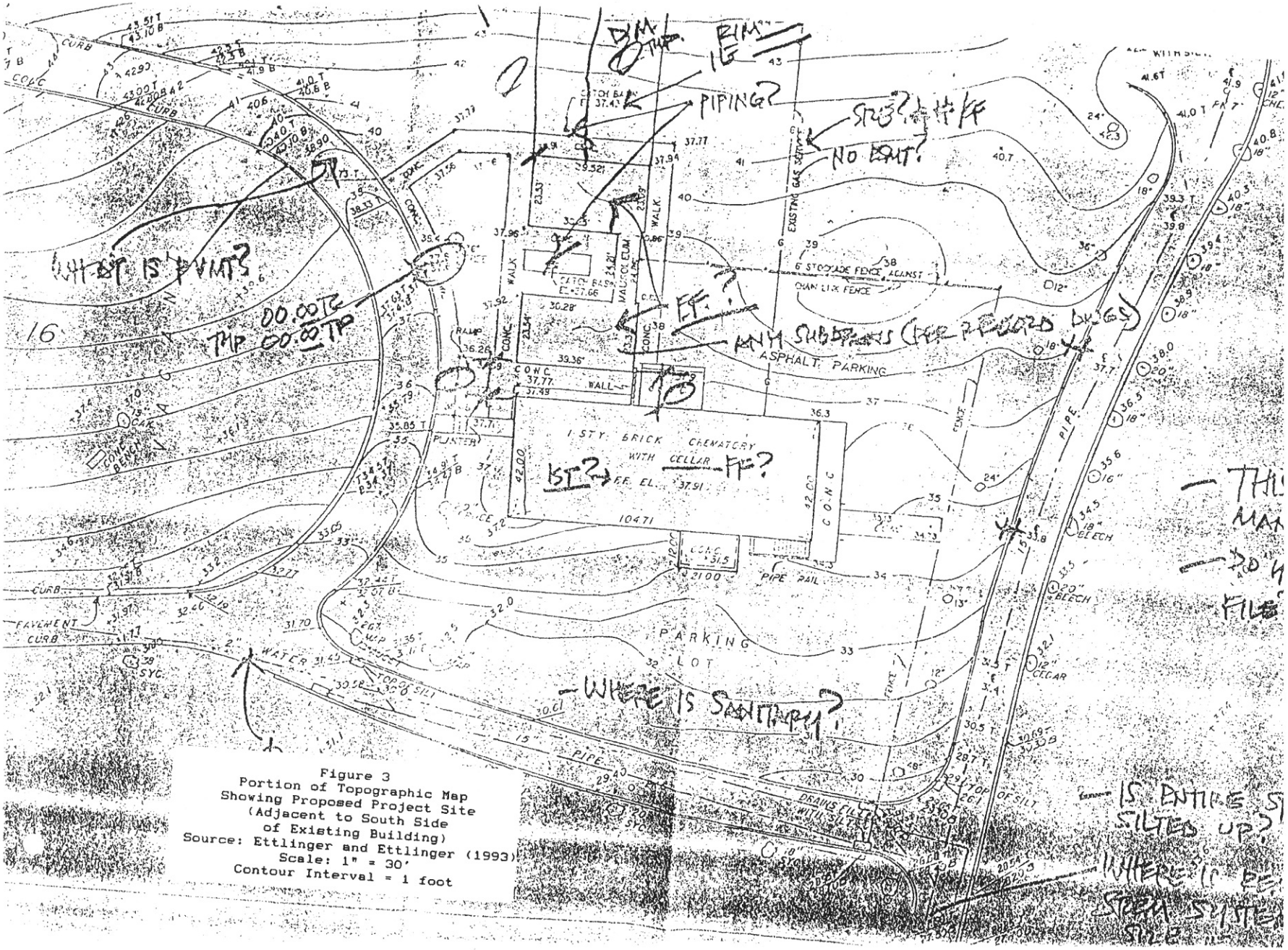


Figure 3
Portion of Topographic Map
Showing Proposed Project Site
(Adjacent to South Side
of Existing Building)
Source: Ettlinger and Ettlinger (1993)
Scale: 1" = 30'
Contour Interval = 1 foot

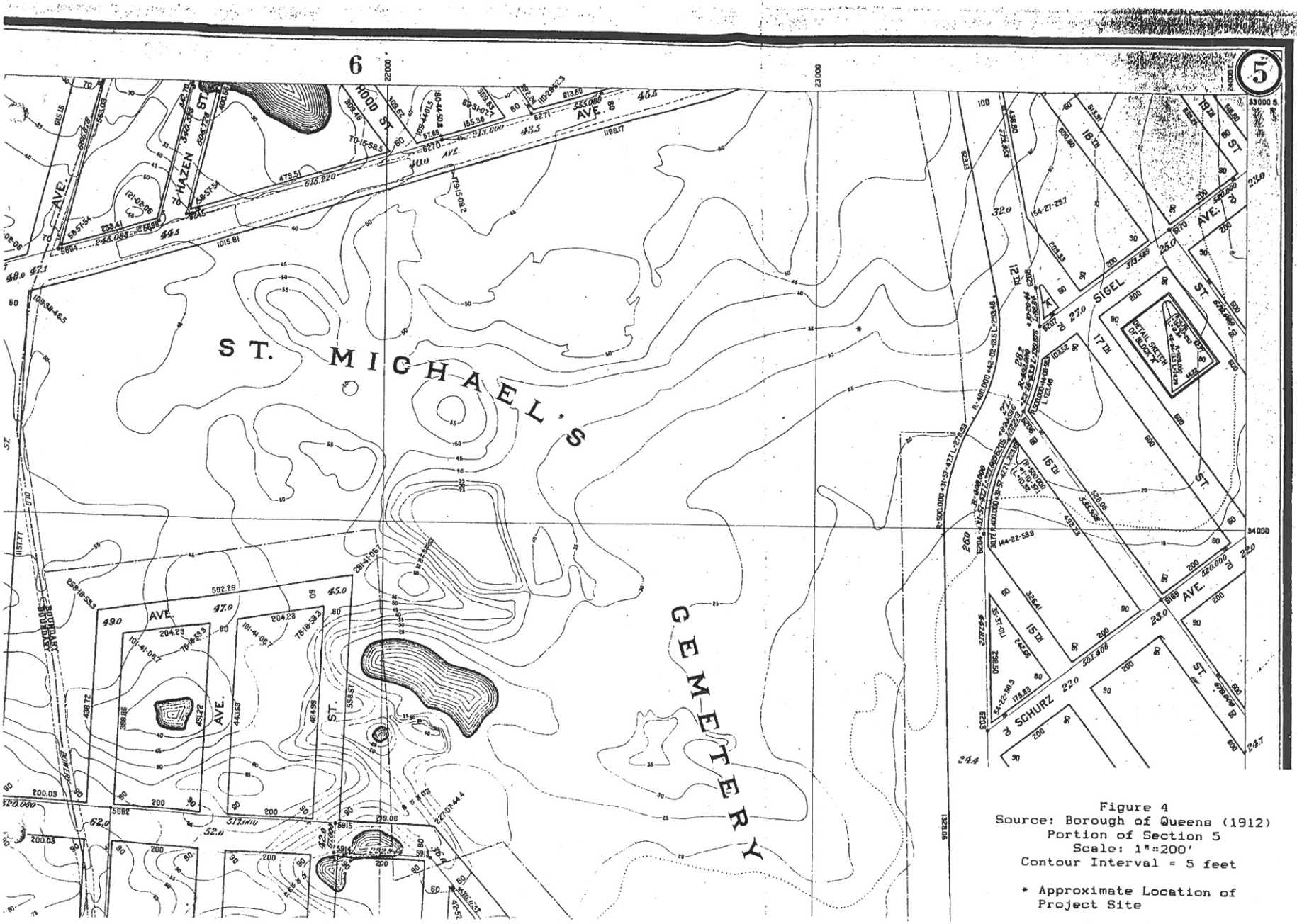
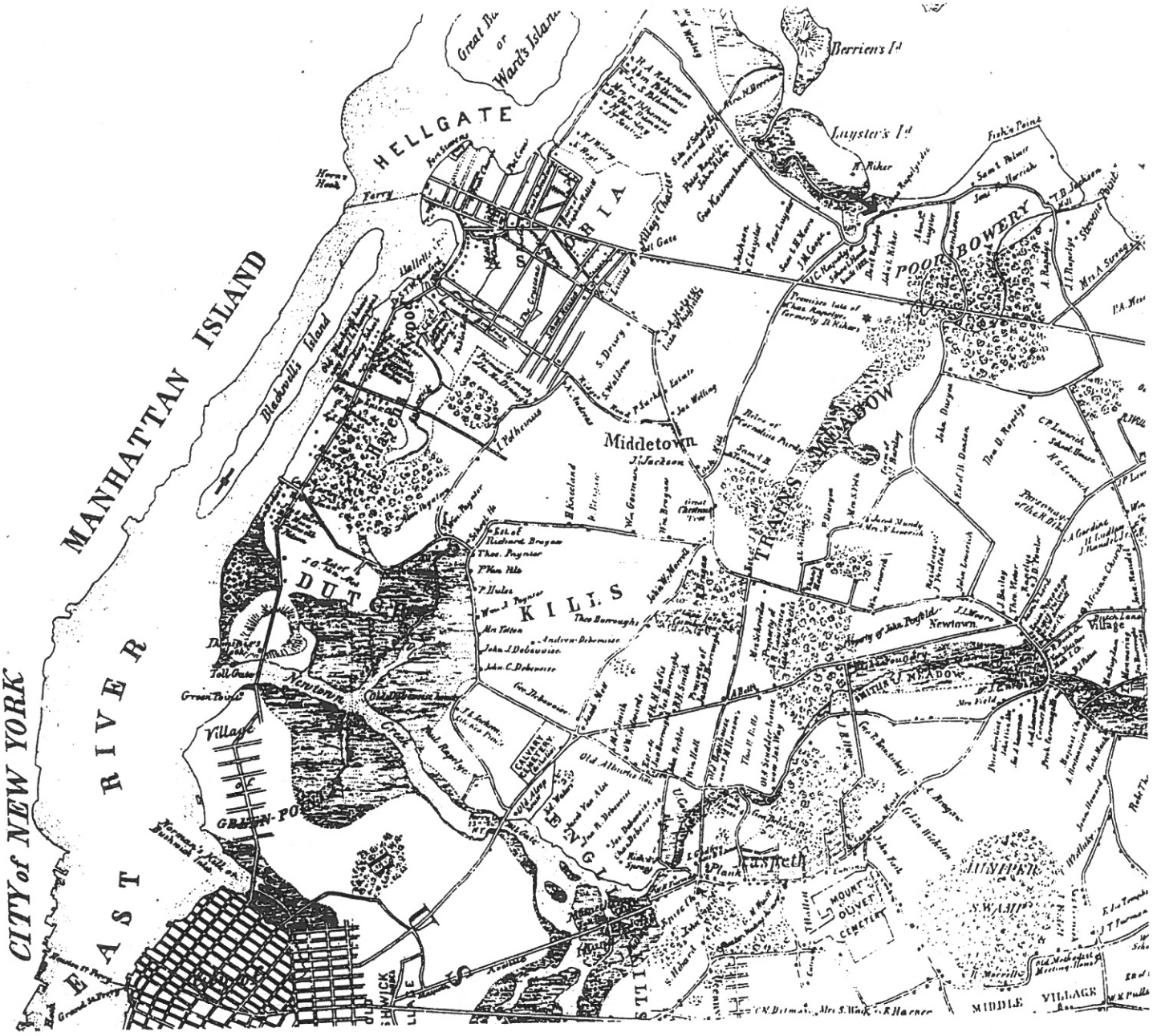


Figure 4
Source: Borough of Queens (1912)
Portion of Section 5
Scale: 1"=200'
Contour Interval = 5 feet

* Approximate Location of Project Site

Figure 7
Source: Dripps (1874)
Scale of Original: 1"=600'



* project site, approx.

Figure 8
Source: Riker (1852a)
Copy from Geismar (1987:15)

Figure 9
Source: Taylor and Skinner (1781)
Scale of Original: 1"=1 mile

* Approximate Project Site Location

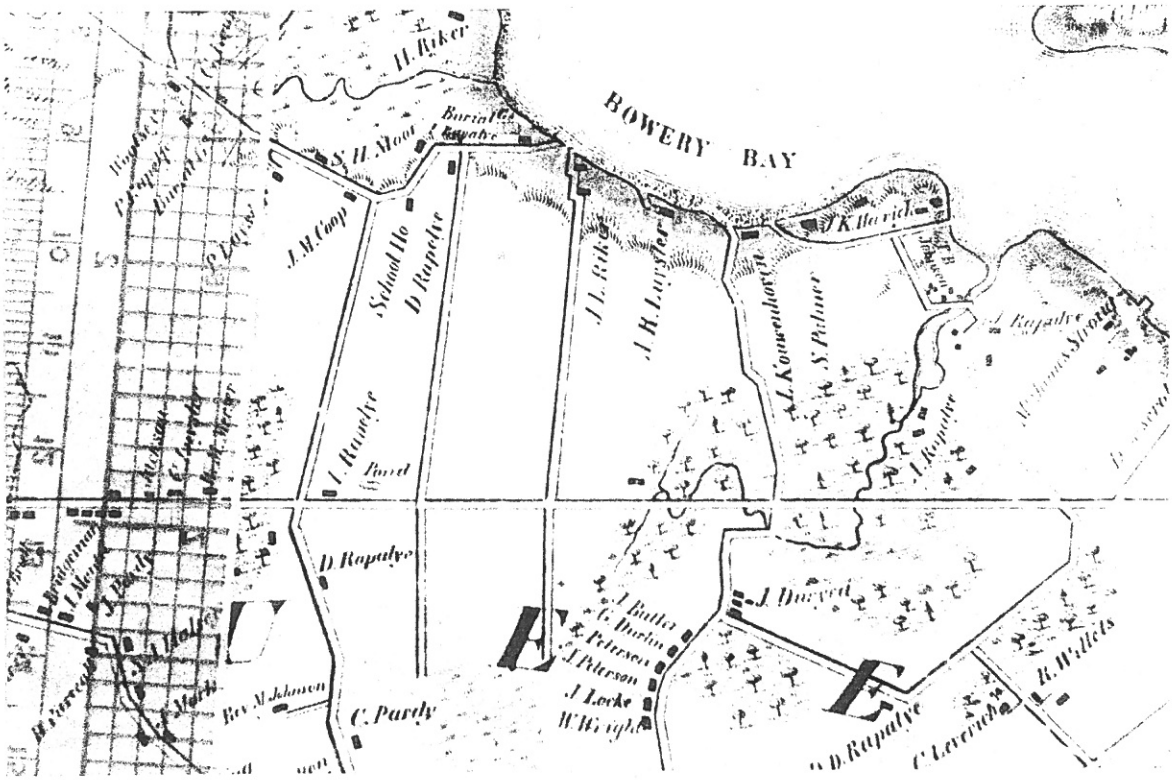


Figure 10
Source: Sidney (1849)
Scale of Original: approximately 1.4"=1 mile

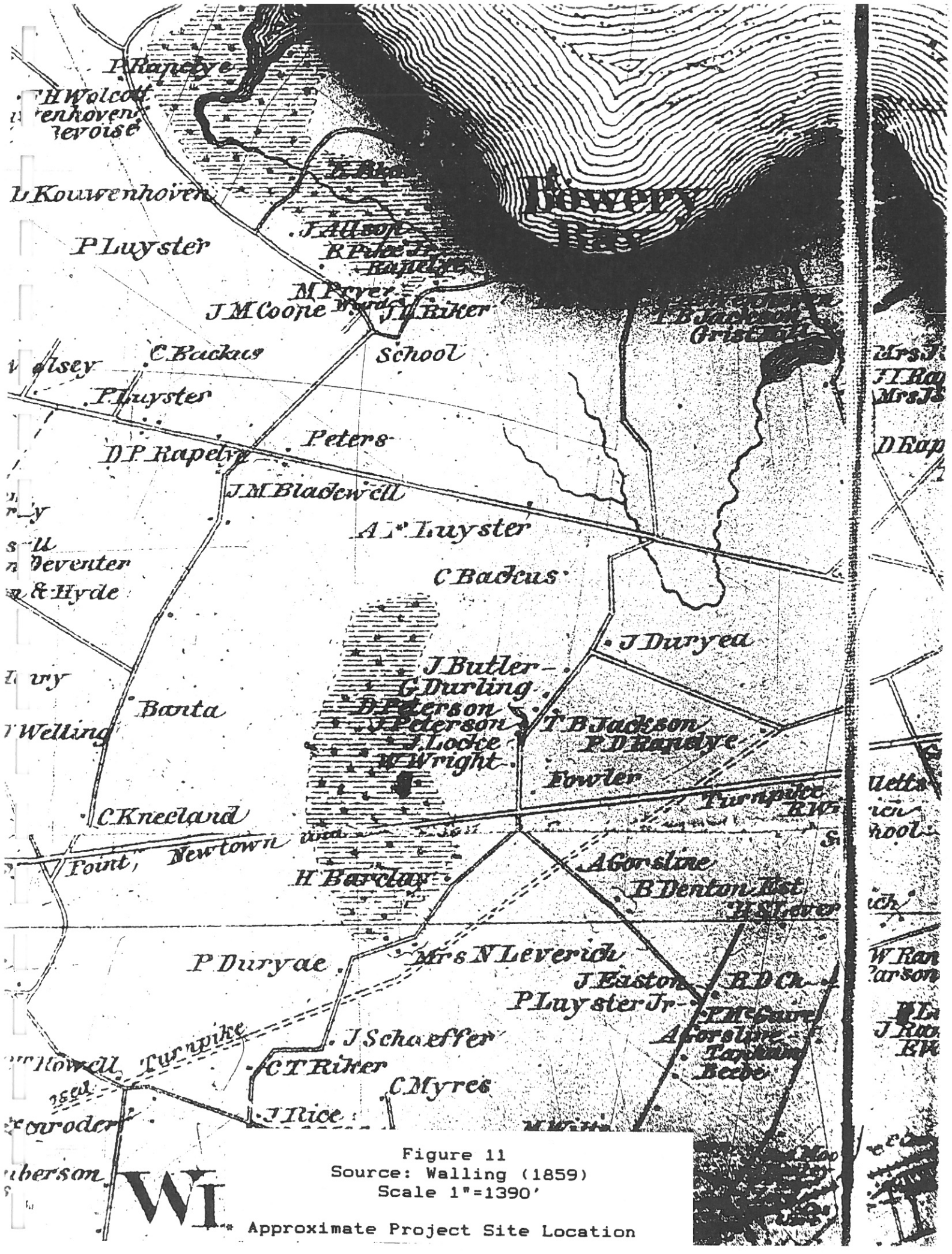


Figure 11
Source: Walling (1859)
Scale 1"=1390'

* Approximate Project Site Location

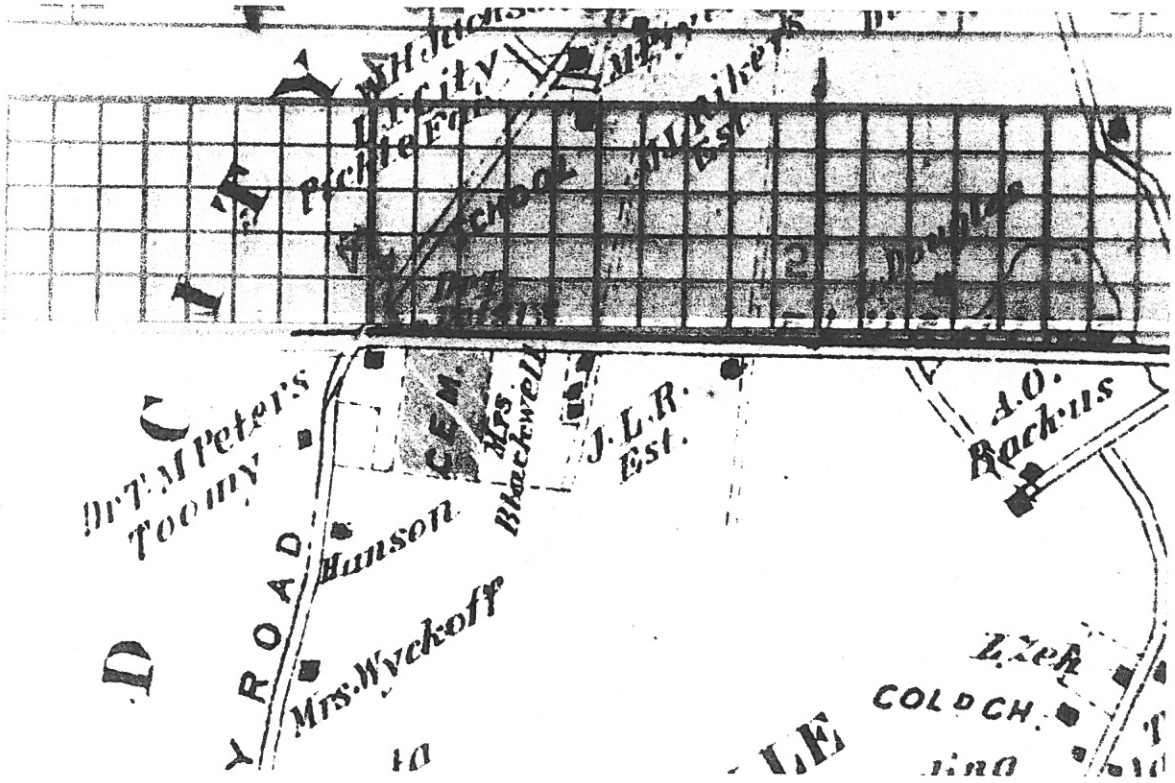


Figure 12
Source: Beers (1873)
Detail Showing Cemetery
Scale of Original: 1"=1/2 mile

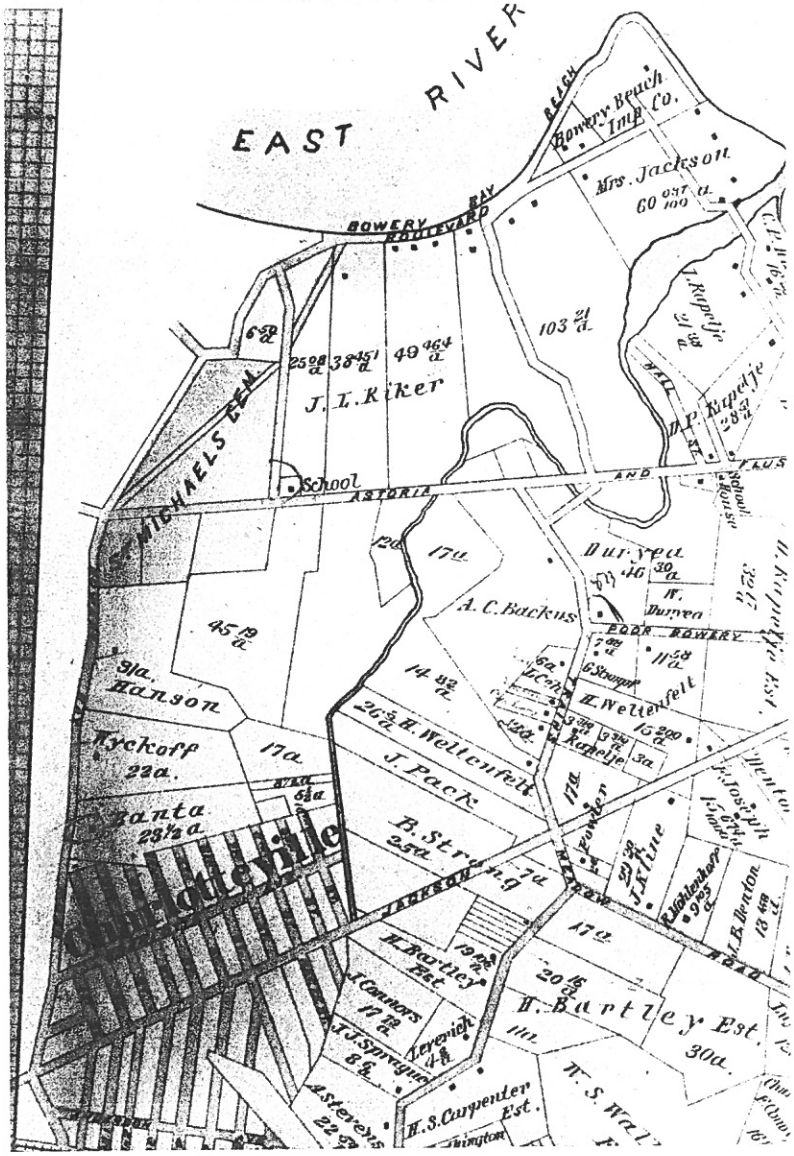


Figure 13
Source: Wolverton (1891:30)
Scale of Original: 1"=1/2 mile

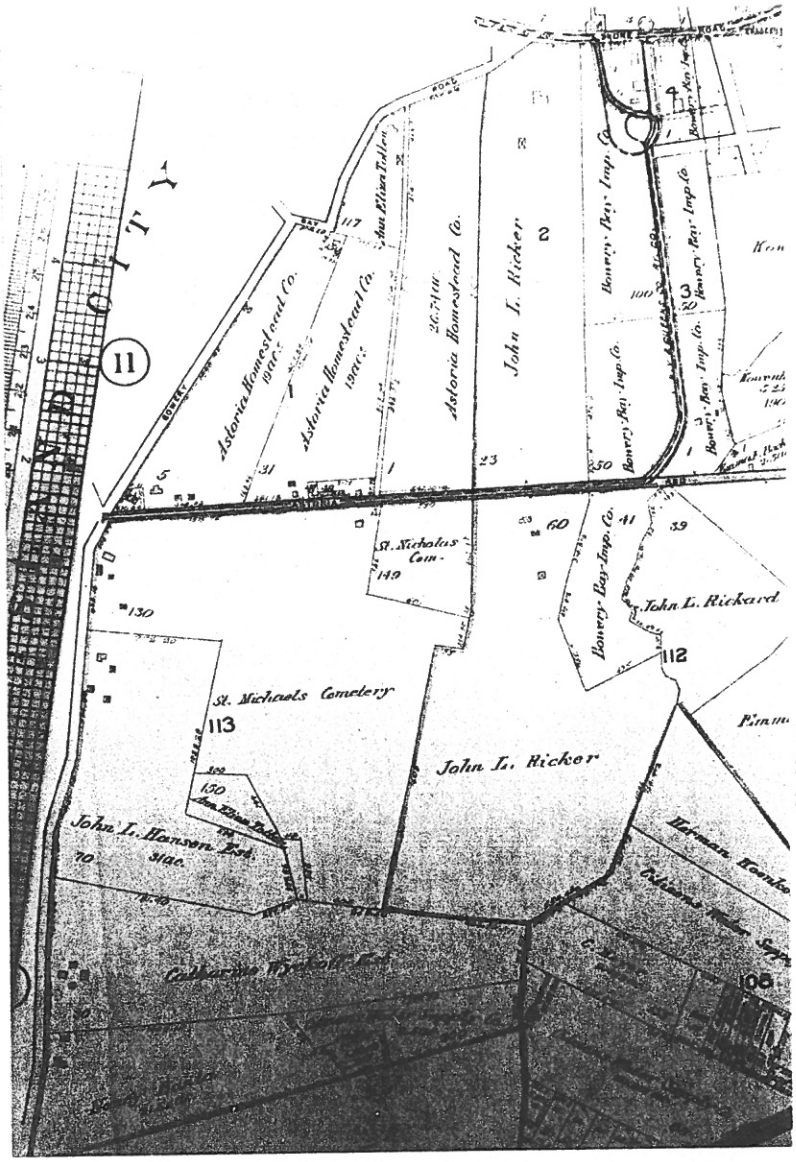


Figure 14
Source: Hyde (1903:30)
Scale of Original: 1" = 600'

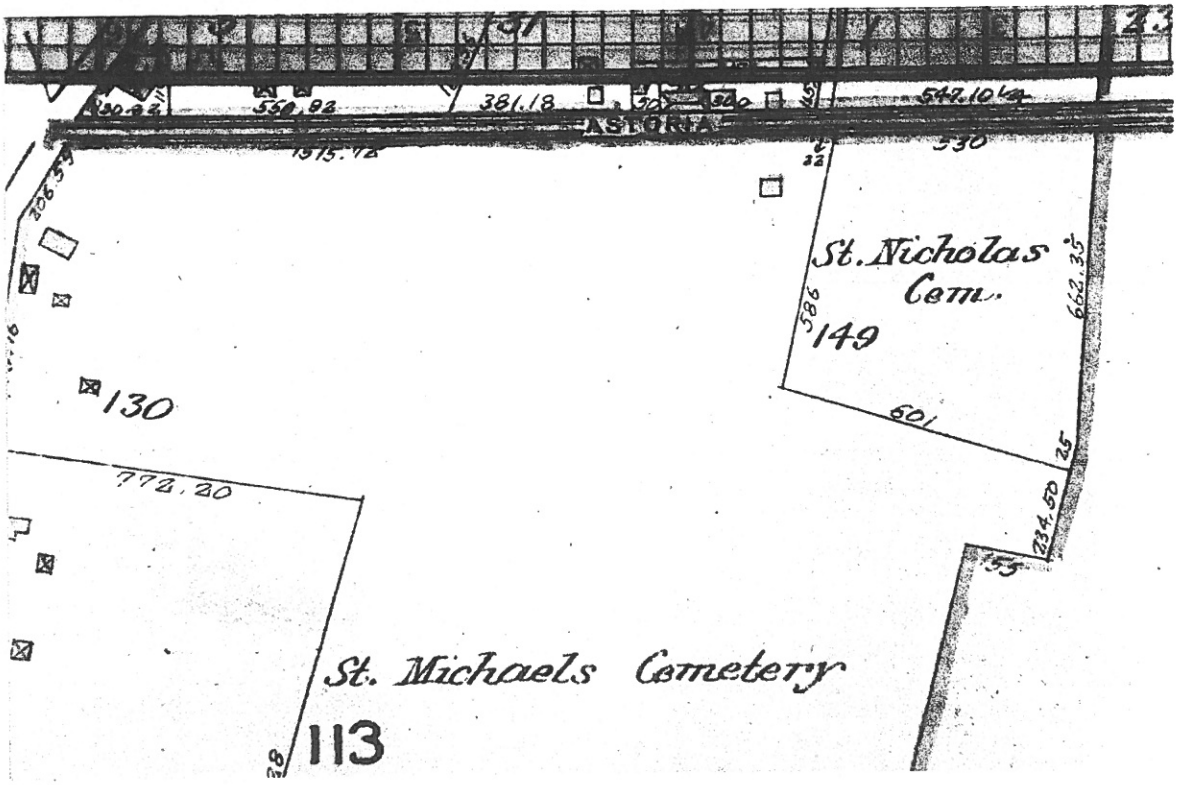


Figure 14b
Source: Hyde (1903:30)
Detail Showing Cemetery Lots

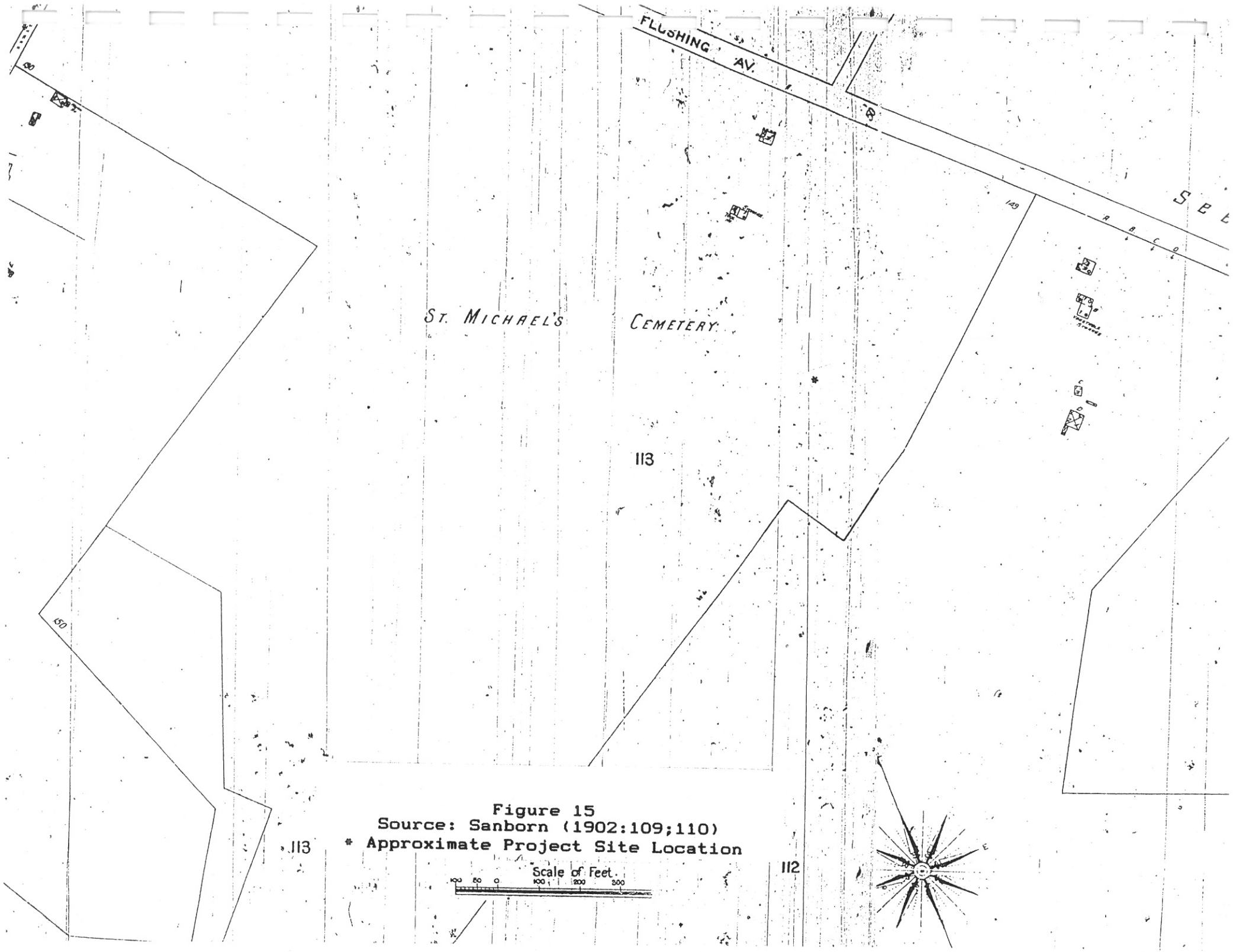


Figure 15
Source: Sanborn (1902:109;110)
* Approximate Project Site Location

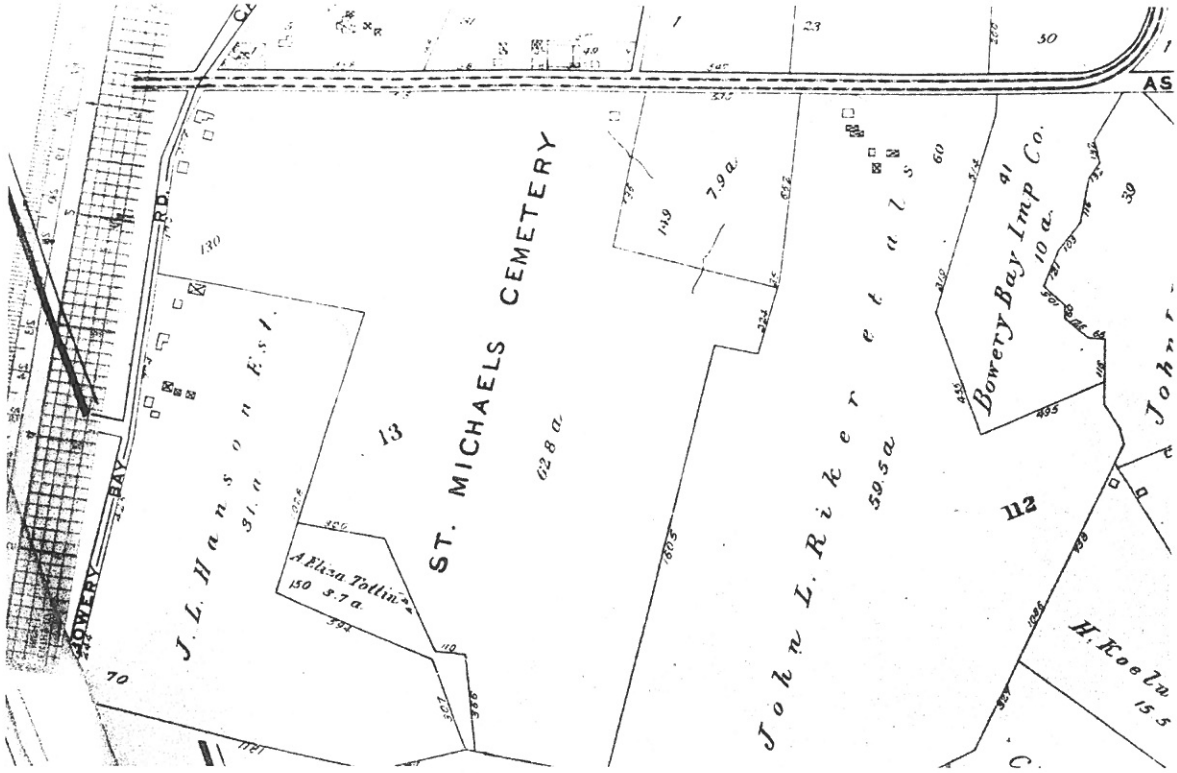


Figure 16
Source: Bromley (1909:17)
Scale of Original: 1"=400'

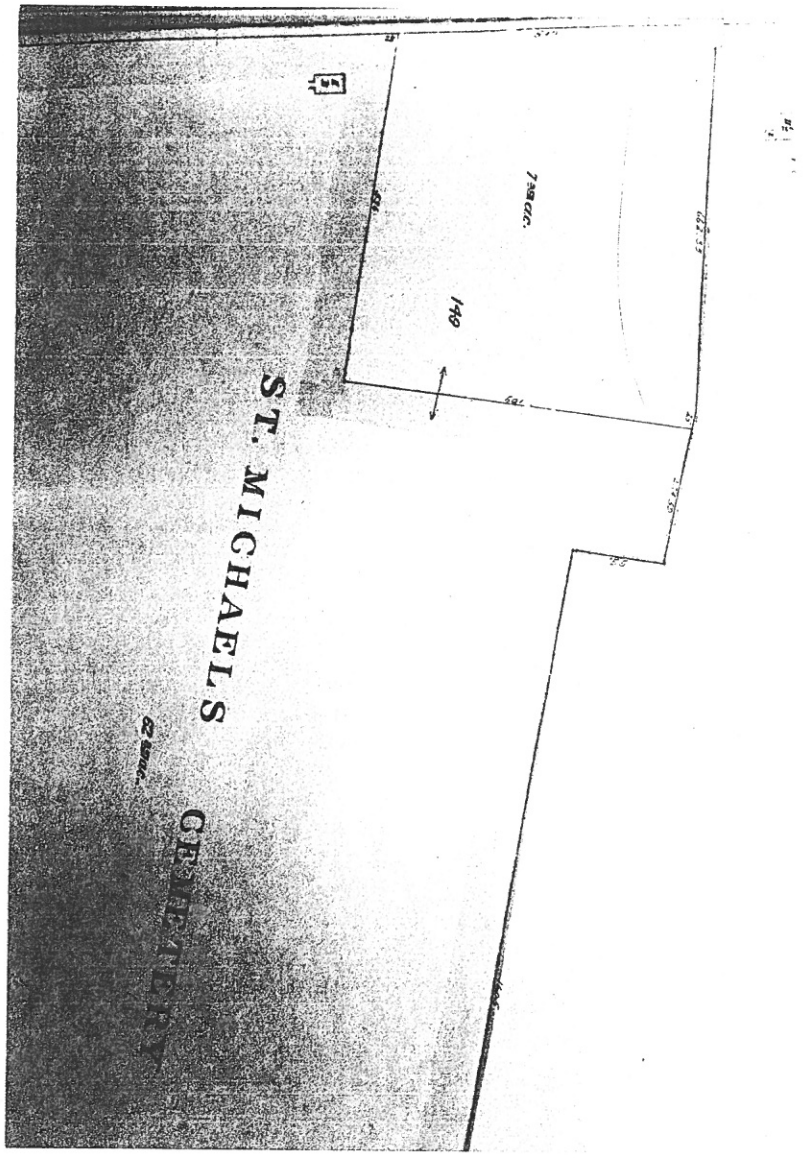
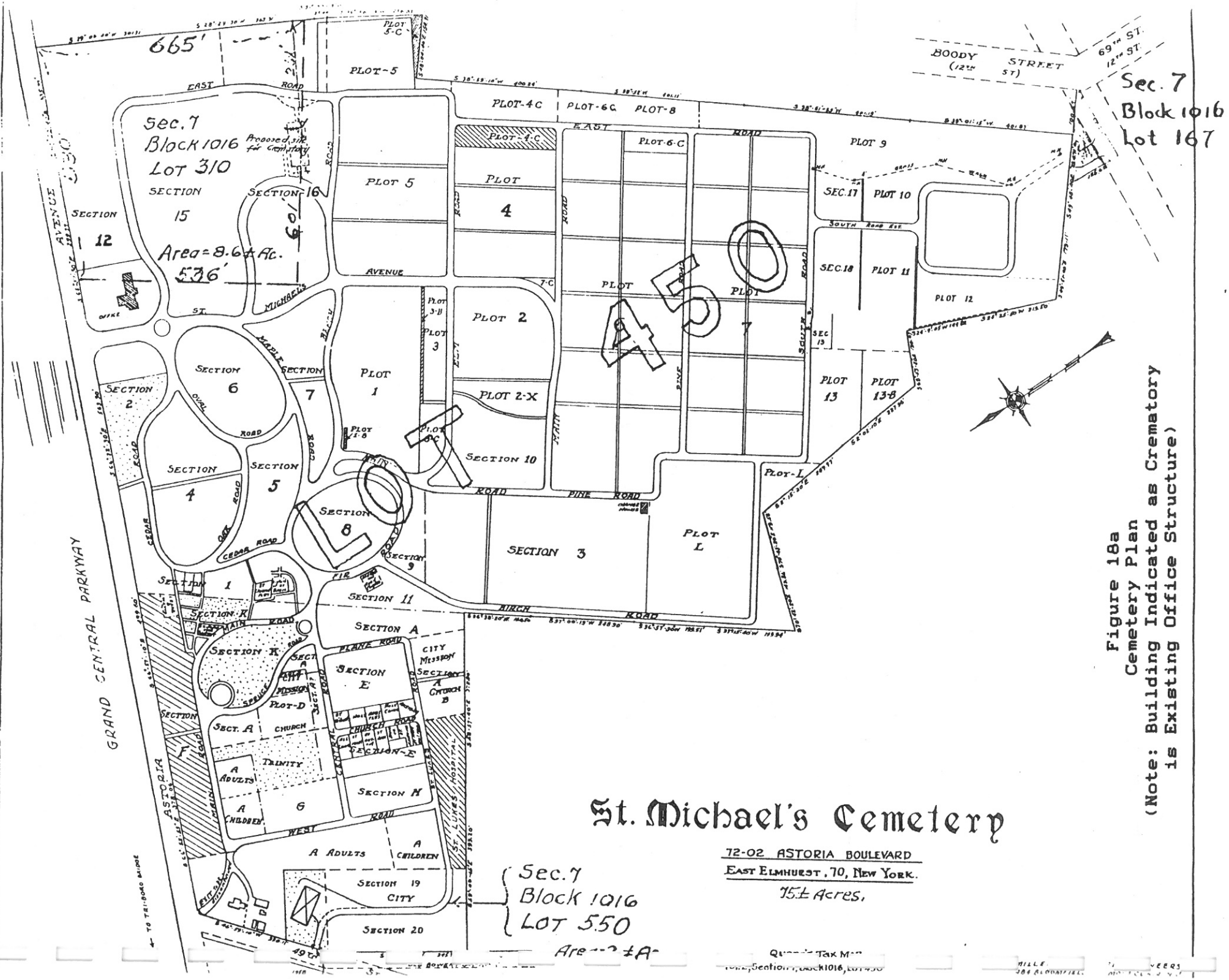


Figure 17
Source: Hyde (1912:14)
Scale of Original: 1"=160'



St. Michael's Cemetery

72-02 ASTORIA BOULEVARD
EAST ELMHURST, 70, NEW YORK.
75± Acres.

Figure 18a
Cemetery Plan
(Note: Building Indicated as Crematory
is Existing Office Structure)

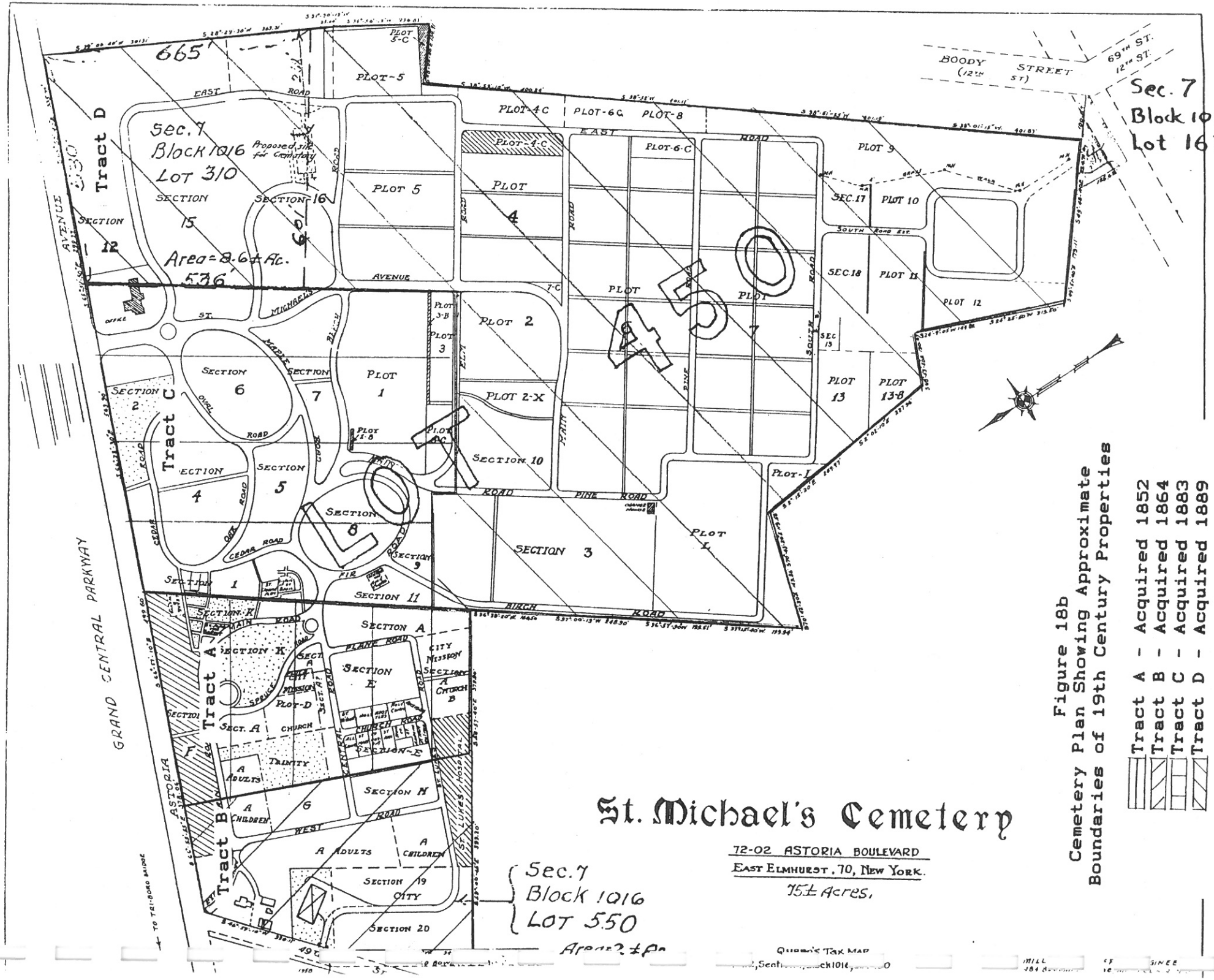

Sec. 7
Block 1016
Lot 167
Sec. 7
Block 1016
Lot 310
Area = 8.64 Ac.
536
Proposed site for Cemetery
Sec. 7
Block 1016
Lot 550
Area = 2 ± Ac.
St. Michael's Cemetery
72-02 ASTORIA BOULEVARD
EAST ELMHURST, 70, NEW YORK.
75± Acres.
Figure 18b
Cemetery Plan Showing Approximate
Boundaries of 19th Century Properties
Tract A - Acquired 1852
Tract B - Acquired 1864
Tract C - Acquired 1883
Tract D - Acquired 1889
GRAND CENTRAL PARKWAY
ASTORIA
BOODY STREET (12TH ST)
69TH ST.
12TH ST.
EAST ROAD
AVENUE
ST. MICHAEL'S
MAPLE
OVAL ROAD
CEDAR ROAD
OAK ROAD
PINE ROAD
BIRCH ROAD
FIR ROAD
PLANE ROAD
WEST ROAD
MAIN ROAD
SOUTH ROAD
ELM
MAIN
PINE
SPRUCE
CHURCH
TRINITY
ST. LUKE'S HOSPITAL
TO TRI-BORO BRIDGE
Tract A
Tract B
Tract C
Tract D
SECTION 1
SECTION 2
SECTION 3
SECTION 4
SECTION 5
SECTION 6
SECTION 7
SECTION 8
SECTION 9
SECTION 10
SECTION 11
SECTION 12
SECTION 13
SECTION 15
SECTION 16
SECTION 19
SECTION 20
SECTION A
SECTION E
SECTION H
SECTION K
SECTION R
PLOT 1
PLOT 1-A
PLOT 1-B
PLOT 2
PLOT 2-X
PLOT 3
PLOT 3-B
PLOT 4
PLOT 4-C
PLOT 5
PLOT 5-C
PLOT 6-C
PLOT 7
PLOT 7-C
PLOT 8
PLOT 9
PLOT 10
PLOT 11
PLOT 12
PLOT 13
PLOT 13-B
PLOT D
SEC. 17
SEC. 18
SEC 13
CITY MISSION
CHURCH B
A ADULTS
A CHILDREN
A CHURCH
CITY
665
536
450
550

Plate 1
Western Portion of Proposed Construction Site
Existing Office Structure at Left
View Northeast

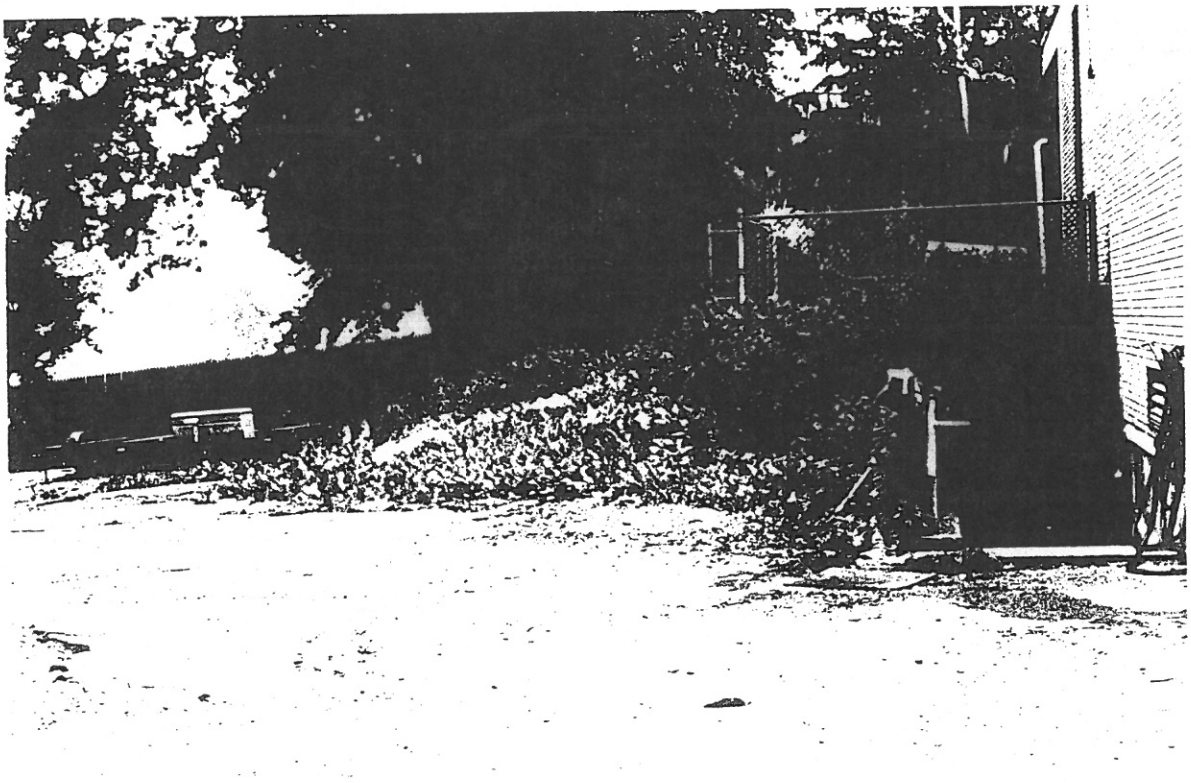


Plate 2
Eastern Portion of Proposed Construction Site
South Wall of Existing Office Structure at Right
View West

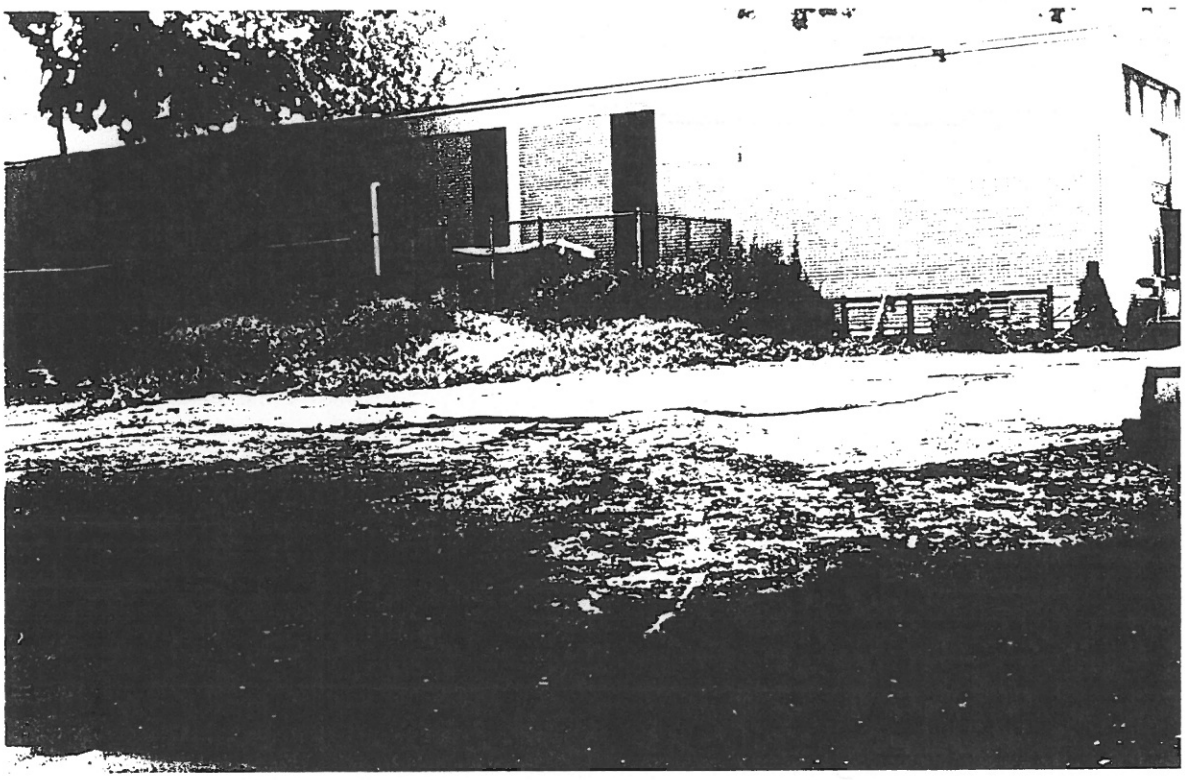


Plate 3
Eastern Portion of Proposed Construction Site
View Northwest

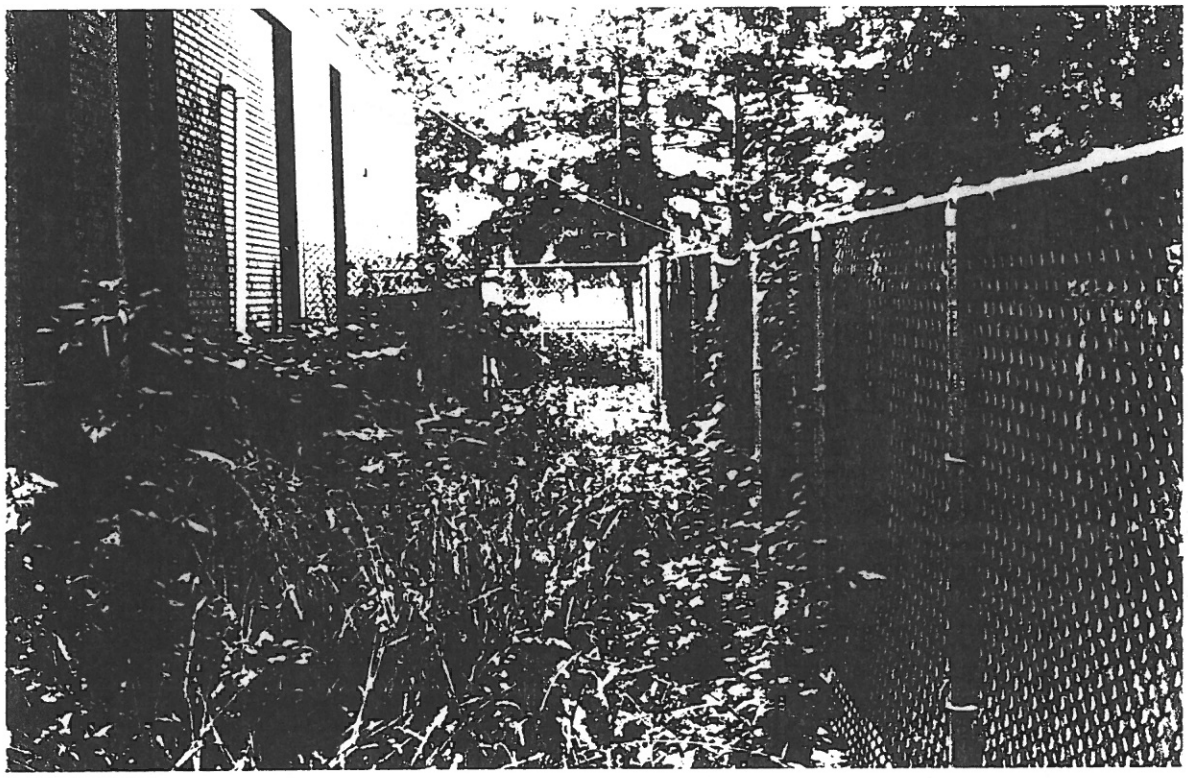


Plate 4
Portion of Construction Site
Adjacent to South Wall of Existing Building
View East

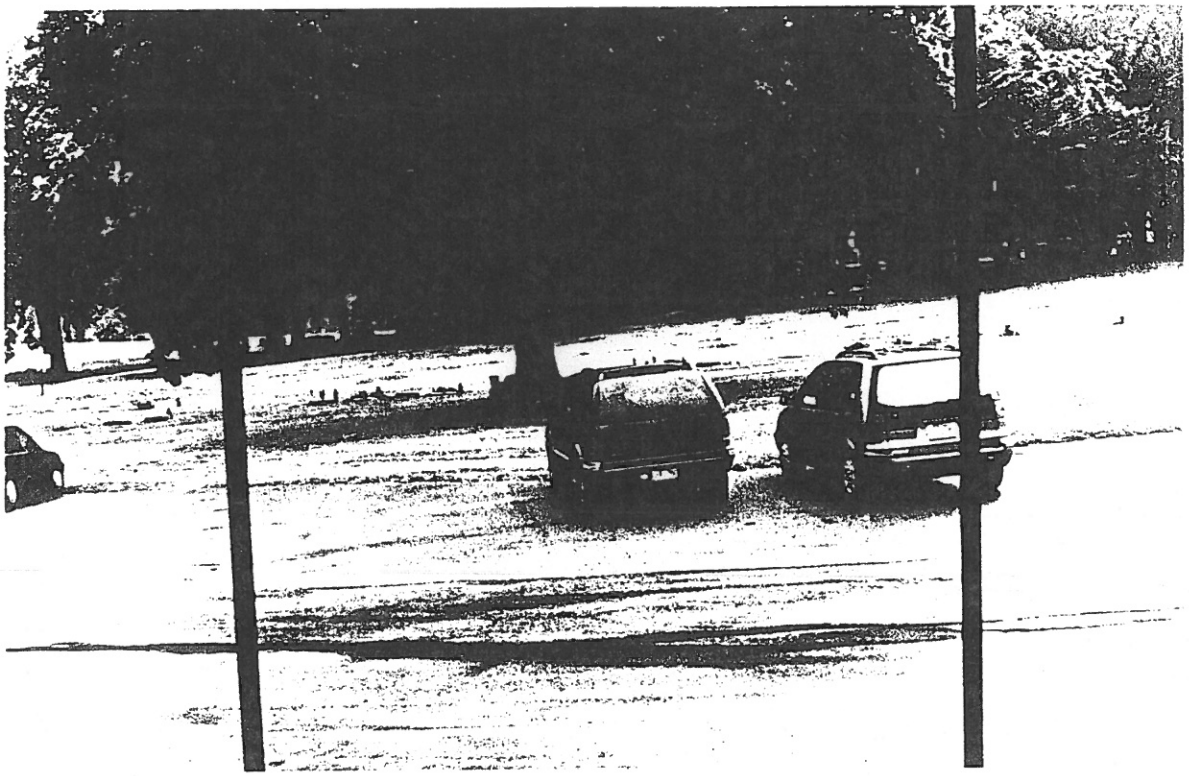


Plate 5
View West from Entrance of Existing Building Toward
Section 6 Showing Nearest Grave Markers West of Tree

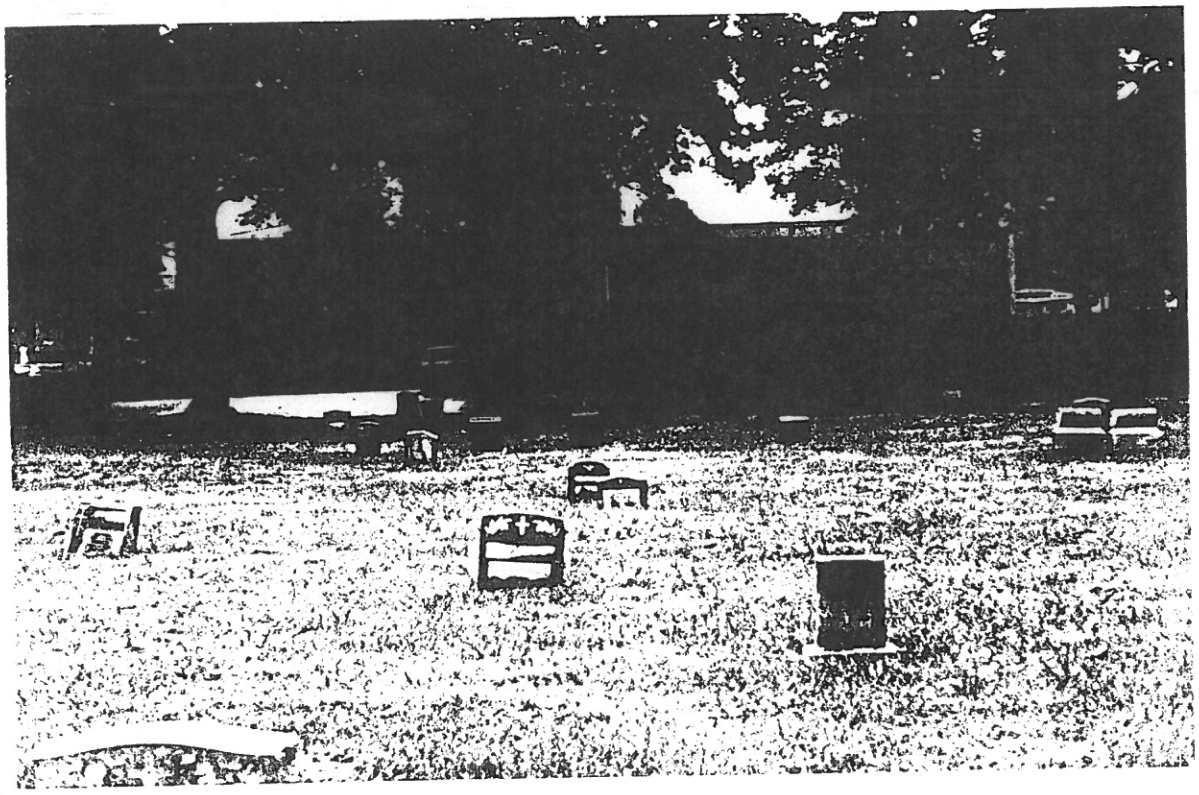


Plate 6
View North from Plot 5 Toward Project Site
and Existing Building