

PHASE IA LITERATURE REVIEW AND GROUND PENETRATING RADAR SURVEY

Brooklyn Public Library, New Lots Branch Block 4090, Lot 1

New Lots Library Brooklyn Kings County, NY

HAA 5947-11

Submitted to:

Brooklyn Public Library 665 New Lots Avenue Brooklyn, NY 11207

Prepared by:

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New Lots Library, 665 New Lots Avenue, Brooklyn, Kings County, New York Phase IA Literature Review and Ground Penetrating Radar Survey

MANAGEMENT SUMMARY

SHPO Number: N/A

Involved Agencies: New York City Landmarks Preservation Commission (LPC)

Phase of survey: Literature review

LOCATION INFORMATION

Municipality: Brooklyn (New Lots)

County: Kings County

ARCHEOLOGICAL SURVEY OVERVIEW

Survey Area: 0.45 acres

RESULTS OF ARCHEOLOGICAL SURVEY

There were several anomalies identified in the east parking lot area. When compared to recent studies of the adjacent Schenck park, it is believed that the undocumented African American burial ground extends into the New Lots Library APE.

RECOMMENDATIONS

It is recommended that any ground disturbing activities performed within the New Lots Library APE have an archeologist on site to record any undocumented human remains. The creation of an archeological management plan will be created.

Close coordination between DRP, Landmarks, the descendant communities and other community stakeholders should be considered to ensure that the archeological monitoring plan adequately addresses concerns with respect to the handling, study, care, and reinternment of human remains, should they be encountered during construction.

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Date of Report: October 4, 2023

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PHASE IA LITERATURE REVIEW AND GROUND PENETRATING RADAR SURVEY

1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase IA archeological literature review and ground penetrating radar survey for the proposed New Lots Library (Project) located in the City of Brooklyn, Kings County, New York. The investigation was conducted according to the Landmarks Preservation Commission (LPC) *Guidelines for Archaeological Work in New York City* (Sutphin, et al. 2018), and will be reviewed by LPC.

2 Project Information

The Project entails the proposed reconstruction of the existing New Lots Branch of the Brooklyn Public Library, south of Sankofa Park (formerly Schenk Park) in the New Lots Section of Brooklyn, Block 4090, Lot 1. The Project is bounded by Schenck Avenue, New Lots Avenue, and Barbey Street. Site plans for the proposed library are in development. The area of potential effects (APE) includes the entirety of the Project parcel and measures 0.45 acres (Map 1).

3 Environmental Setting

3.1 Bedrock Geology and Soils

According to the geologic Map of New York, the bedrock within the Project consists of two formations, the Raritan Formation and the Magothy Formation. The Magothy formation is part of two larger groups, the Monmouth Group and the Matawan Group. Both formations within the Project were deposited during the Upper Cretaceous Period consisting of coastal plain deposits. The constituents of both formations consist of clay, silt, sand, and gravel. Neither of the formations are chert bearing, and there are no bedrock outcrops within APE.

Soil surveys provide a general characterization of the types and depths of soils that are found in an area. This information is an important factor in determining the appropriate methodology if and when a field study is recommended. The source of this data is the Soil Survey Geographic (SSURGO) Database, maintained by the Natural Resources Conservation Service, United States Department of Agriculture (2018). The Project is situated in an urban landscape that has been heavily modified from its natural state.

Table 1. Soils in the Study Area

Symbol	Name	Depth	Textures	Slope	Drainage	Landform
UFA	Urban land-	0 to 6 inches	variable	0-3%	variable	Urban settings
	Flatbush	6 to 20 inches				
	complex	20 to 60 inches, C				
		horizon of gravelly sand				

3.2 Topography and Hydrography

The site is situated in an area that is less than 3% slope. Historic maps depict the headwaters of a small stream approximately one block east of the Project. No other natural water sources are known to have existed in this vicinity.

4 Documentary Research

Hartgen conducted research using the New York State Cultural Resource Information System (CRIS), which is maintained by the New York State Historic Preservation Office (SHPO) and the Division for Historic

Preservation (DHP) within New York State Office of Parks, Recreation and Historic Preservation (OPRHP). CRIS contains a comprehensive inventory of archeological sites, State and National Register (NR) properties, properties determined eligible for the NR (NRE), and previous cultural resource surveys. In addition, the website for the LPC for New York City was searched for designated landmarks and archeological reports.

4.1 Archeological Sites

An examination of CRIS identified three reported archeological sites within one mile (1.6 km) of the APE (Table 2). Previously reported archeological sites provide an overview of both the types of sites that may be present in the APE and the relation of sites throughout the surrounding region. The presence of few reported sites, however, may result from a lack of previous systematic survey and does not necessarily indicate a decreased archeological sensitivity within the APE.

Table 2. Archeological sites within one mile (1.6 km) of the APE

Site No.	Site Identifier	Status	Description	Proximity to APE
04701.024904	Schenk Park Cemetery	Undetermined	Site of a historic cemetery used between the late 17 th to early 19 th centuries, then was abandoned until 1950 when the property was graded and paved for construction of a playground. Some of the remains were indicated to have been enslaved and free people of color.	Approx. 100 feet north
04701.025331	New Lots Reformed Church Cemetery	Undetermined	The extant historic cemetery associated with the Dutch Reformed Church constructed in 1824. The cemetery property was purchased by 1840, replacing the older north cemetery (now known as the Schenk Park Cemetery).	70 feet south
NYSM 3607	Unnamed Site	Undetermined	Site of a precontact or historic shell midden recorded by A.C. Parker in 1922.	3,300 feet south

4.2 Historic Properties

An examination of CRIS and the LPC databases identified six inventoried properties within the vicinity of the APE, including two properties listed on the NR, and no NRE properties (Table 3). One property, the New Lots Reformed Church, is an LPC-designated property.

Table 3. Inventoried properties within the vicinity of the APE

Property No.	Property Name	Status	Description	Proximity to APE
04701.000170, 90NR01280, LP-00169	New Lots Reformed Church	NR, SR Listed	Constructed in 1824, the church has a stone foundation, clapboard siding, and a pitched, gable front roof. It retains its original, simple Gothic details, including pointed arched windows and a square tower.	90 feet south
04701.017371	New Lots Branch, Brooklyn Public Library	Undetermined	Constructed in 1957 in its current location.	Within
04701.023921	New Lots Family Center	Undetermined	Constructed in 1972.	90 feet southwest
04701.013874	Jerome-Livonia Signal Tower	Undetermined	Constructed in 1922 in association with the 7 th Avenue Express Line, a two-story, steel-framed wood and cement board paneled structure; appears to have been demolished.	170 feet north
04701.014834, 90NR01280	New Lots Reformed Church Cemetery	NR, SR Listed	Established by 1840, associated with the Dutch Reformed Church (described above).	70 feet south

Property No.	Property Name	Status	Description	Proximity to APE
04701.024897	Comfort Station	Not Eligible	Constructed c. 1956, currently used as a park	25 feet north
			restroom.	

4.3 Previous Surveys

Reviews of CRIS and LPC identified three previous surveys within the immediate vicinity of the APE (Table 4). The Sankofa Park project, located on the northern edge of the current Project, was for proposed improvements to the existing playground. The Phase IA study determined that the playground was situated in the location of the old New Lots Cemetery, dating back to the 1680s (Hartgen Archeological Associates 2016b). The cemetery had been utilized by the enslaved peoples of New Lots during the 18th century and early 19th century and was subsequently used by the freed Black community. It was recommended that prior to construction, a Ground Penetrating Radar (GPR) survey be implemented to locate and identify potential targets associated with cemetery related deposits and to better refine a field testing plan.

The GPR survey identified eight anomalies and Hartgen recommended that each be investigated in test units (Hartgen Archeological Associates 2016a). Phase IB investigation of the GPR results identified human remains and grave related materials were encountered in five of the eight test units. The depth of human remains recovered varied, with disarticulated human remains being identified beneath the asphalt and stone subbase layer at depths as shallow as 20-30 cm (8 in – 12 in) below ground surface. Human remains, coffin material, and personal affects continued to be identified at depths exceeding 1.52 m (5 ft). Additionally, modern utilities and trenches where documented truncating portions of grave shafts. The surface of the playground was level, resulting from grading activities. Examination of historic photos further confirmed grading activities which displayed the development of the park. Photographs indicated an upward slope, proving this location was extensively graded (Hartgen Archeological Associates 2018). Hartgen recommended that an archeological management plan be developed to minimize additional impacts to the human remains and intact burials, and that the descendant communities be considered in the creation of this plan.

In 1986, a detailed Phase IA was conducted for the Christian Duryea House, formerly located on the north side of New Lots Road along Barbey Street, east of the current Project (Technical Preservation Services Center 1986). The mid-century house was eventually moved in 1886 to open the street grid for development. It was relocated to 563 Jerome Street but was destroyed by fire in 1989 and no longer extant (Dunlap 1989). Archeological fieldwork was recommended along Jerome Street, but it does not appear that any excavations were conducted.

In 2008, Phase IA and IB survey work was conducted in advance of a seven-story mixed use building and associated parking lots (Greenhouse 2008a, b). The archeological survey was located within the 18th century land holdings of the Duryea family. No associated finds or features were identified during backhoe trenching associated with the Duryea House or family. Additionally, the survey employed 1x1 meter units to determine if evidence of the historic cemetery was within the Project. However, due to the extensive 20th century disturbance, it was determined that the former topsoil was removed. Instead, the stratigraphy consisted of modern construction debris overlying sterile subsoil.

Table 4. Relevant previous surveys within or adjacent to the APE

Project/Phase	Summary	Citation
The Christian Duryea House,	Detailed Phase IA report on the Duryea house site on	(Technical Preservation
Phase IA	Barbey Street and its relocated site on Jerome Street. No	Services Center 1986)
	fieldwork was conducted.	

Project/Phase	Summary	Citation
New Lots Plaza Rezoning, Phases IA and IB	Phase IA and IB testing for a lot bounded by Barbey Street and New Lots Avenue, just east of the current APE. Focused on locating the Duryea house and associated deposits and features, as well as the New Lots Cemetery. No evidence of cultural material before the late 19th century were recovered.	(Greenhouse 2008a, b)
Schenk Playground, African Burial Ground Square Block 4090, Lot 6, Phase IA, IB, and GPR Survey	Following Phase IA investigation, a GPR study was conducted within portions of the park to identify areas of interest for excavation, as well as potential disturbances; eight locations were selected for subsurface investigation based on the GPR study. Human remains were encountered in several test units; the development of an archeological management plan for future work on the lot was recommended to minimize additional impacts to human remains.	(Hartgen Archeological Associates 2016a, b, 2018)

5 Historical Background

In addition to the sources cited in this section, several additional sources were consulted to obtain a more detailed understanding of the cemetery and the property's subsequent use. Hartgen was unsuccessful in attempts to contact the New Lots Reformed Church for any records relevant to the burials within the project area. Neither the Flatbush Dutch Reformed Church nor Rutgers University, which is the repository for the Dutch Reformed Church's National Archives, possess relevant records. The Municipal Archives were consulted for records pertaining to any actions taken by the city after the report of its intent to disinter the graves in 1924. No records pertaining to the park were located in the Municipal Archives.

5.1 Introduction

The Borough of Brooklyn (coterminous with Kings County), and since 1898 part of the consolidated city of greater New York as one of its five boroughs, is located on the western end of Long Island, a terminal moraine formed by the receding Wisconsin glacier, approximately 17,000 years ago. At the western end, occupied by Brooklyn, a string of hills and kettles typify the central portions of the island, while low-lying outwash plains are located to the south. Battle Hill (elev. 220 ft above sea level) is the highest natural point. The entire borough covers an area of 69.5 square miles (Manbeck 2005).

5.2 Indigenous Communities Occupation and Euro-American Settlement to the Revolution

Before 1636, members of the Canarsie tribe occupied lands now comprising Kings and parts of Queens counties. Euro-Americans began purchasing tracts within today's Kings County, the initial push of European settlement into Indigenous territory provoked conflict. Between 1640 and 1676 hundreds were killed in outbreaks of violence (Grumet 1995:218). The first general conflict occurred between 1640 and 1645 (known as Governor Kieft's War) and was initially centered on New Amsterdam and Raritan. But soon, fighting fanned out in all directions including western Long Island. The Peach War (1655), and later the Esopus Wars (1658-64) mostly centered in the Hudson Valley, helped to keep Dutch settlement nucleated in small villages close to New Amsterdam (Manhattan) (Grumet 1995:219).

The first settlement, Breuckelen (Brooklyn) was established in the 1640s at the head of the Gowanus Bay. Five towns were established by Dutch settlers within the county during the course of the next 30 years: Brooklyn, New Amersfoort (Flatlands), Midwout or Vlacke Bosche (Flatbush), New Utrecht, and Boswick (Bushwick). Gravesend was established by English settlers in 1643. In 1683, once relative peace had been assured, the six towns were united within the administrative jurisdiction of Kings County. The last of Indigenous-owned lands were sold in 1684, the lands of New Lots appear to have been sold in 1670 by a group of Rockaway Indians

(Landesman 1977:12). By the 1680s, this portion of Brooklyn was referred to as Oostwoud (Dutch for east woods) to distinguish it from the larger towns to the west.

By the end of the 17th century, the population of Kings County was just over 2,000 people, approximately 15 percent of whom were enslaved Africans, or of African descent. Kings County was primarily a farming district and benefitted from a close proximity to New York City. The profitability of farming dissuaded owners from selling, and so agricultural pursuits predominated in Kings County into the early 19th century (Manbeck 2005). As a result, a significant number of New World Dutch farmhouses remained until the early 20th century, a pattern that was particularly evident in New Lots.

"New Lots" was established as part of a patent to a consortium of residents from Flatbush in 1677 granted by Governor Andros. The new lots were found east of Flatbush, where many of the "old lots" had already been set out and settled (Landesman 1977:3; Stiles 1884:306). The lots were formally laid out into 47 "plantations" in 1680. The plantations included provisions for the Flatbush Dutch Reformed Church and educational purposes. The "school lot" in the center (No. 25), is now part of the Study Area, and was jointly administered by the church and the school. Other common lands include pastures along the salt meadows between the First Kill and Spring Creek. The "woodlands" south of what is today New Lots Avenue were also held in common for a period of time (Landesman 1977). New Lots Avenue, was likely a well-travelled Indigenous pathway that likely followed a ridge of high ground above the salt meadows.

To the east of the School Lot, Lot 24 was purchased by Peter Gillasme (Cornells) and to the west by Rem Remse (No. 24) (Landesman 1977:17). Rem Remse is noted as a schoolmaster, and may have been awarded his lot in compensation for his services (Landesman 1977:46). By 1680, there were likely just over 10 families living in the "New Lots" (Landesman 1977:19). Between 1680 and 1750, the lots were slowly sold and developed into profitable farmlands. Many of the families that emigrated to New Lots were from the Flatbush area, and most were of Dutch descent.

The strategic importance of Kings County in controlling Manhattan Island and the port resulted in its becoming an arena of action during the Revolutionary War and even the War of 1812 (Armbruster 1912:57). The largely Dutch-descended farming population was widely thought to be sympathetic to the British cause (correctly or not) and many of their farms in Flatbush, Flatlands, Gravesend and New Utrecht were burned before the arrival of the British. In August 1777 Americans and British met in the first major engagement of the Revolution, at Gowanus Creek (Hodges 2005).

The principal American position at Gowanus was outflanked by General Clinton and Lord Howe. After landing in southern Brooklyn from Staten Island. Upon landing, the British engaged the main American position with a small force. The remainder of the troops, nearly 10,000 strong, marched eastward through New Lots and to the lightly defended Jamaica Pass (Armbruster 1912:61-62). From there, the British turned north to Bedford and encircled the left flank of the Americans stationed between Flatbush and Bedford. The Americans under the command of General Washington on Brooklyn Heights were surrounded and eventually were forced to flee under the cover of darkness to save the army. The Americans retreated to Manhattan and eventually northward into the Hudson Valley. The British took control of Manhattan and Brooklyn which they occupied until late 1783 (Hodges 2005).

5.3 Development of Study Area in New Lots

Lot 26 was eventually settled by Christian Duryea, a French Huguenot. Duryea was a scion of a rural farming family from Long Island and New Paltz, centers of French Protestant settlement. The Duryea family arrived in New Lots by the 1750s. He may have come to the property through his wife's family connections to the Lott family, one of the original patentees of New Lots. The Duryea family land covered nearly 100 acres in 1869 although it was by three family members (Technical Preservation Services Center 1986). The Duryea house was situated to the northeast of the Project, between today's Jerome (formerly John) and Barbey Streets (Figure 1).

The 18th-century house was situated in the later street grid, as a result, sometime around 1886/7 the house was relocated to the platted lots of Jerome Street (Landesman 1977).

The Van Siclen family occupied old lot No. 23 (originally the Cornell lot) between about 1730 and 1890 (The Brooklyn Daily Eagle 1891). Their farmhouse fronted on 596 New Lots Avenue (Figure 2), and included part of today's Schenck Avenue, Hendrix Street, and Van Siclen Avenue. John Van Siclen served in the War of 1812 as a postal carrier (Armbruster 1942:351).

While the adjacent park was originally named for the Schenk family, their family farmstead was actually located to the north along Jamaica Avenue. Additionally, the adjacent Schenck Avenue was laid out about 1854 by Charles Miller, a speculative investor in the area (Armbruster 1942:355). Although a prominent family in the early town, the Project was affected more by the families, church and businesses that developed along New Lots Avenue. However, development along New Lots Avenue does not appear to have occurred until the 1890s and early 1900s (see Map 3a).

Three major events helped to shape the Project as it now appears:

- the development of the school lot in 1680 and later incarnations of a community schoolhouse;
- the establishment of a community graveyard, along with a second, more formal cemetery south of New Lots Avenue;
- and finally, the demolition of the public schoolhouse 72 and construction of the New Lots Branch
 of the Brooklyn Public Library.

The context for these events is also explored in evolution of the area from a Dutch enclave of farmers to the 26th Ward of the City of New York. Focus is also placed on the African American community of the area, from its period of enslavement in the 17th and 18th centuries to gradual freedom in the 19th century.



Figure 1. The Duryea House c. 1913 at its relocated site along Jerome Street. Originally the house stood just east of the Schenck Playground. http://www.tapeshare.com/NewLotsW.html



Figure 2. The Van Siclen House, New Lots Road [Avenue] and Van Siclen Avenue, 1905 ca, v1981.15.130; Ralph Irving Lloyd lantern slides, v1981.15; Brooklyn Historical Society. The house was built about 1730 and was likely one of the oldest in the area until its demolition in the 1940s.

5.3.1 New Lots/East New York

The evolution of New Lots from a rural farming district to a ward of the City of New York began slowly but quickly accelerated in the late 19th century. The Town of New Lots was recognized as a separate political entity of Kings County in 1853, when it set off from Flatbush. By that time efforts were already underway to transform the area into an emerging urban center. In 1835, John C. Pitkin purchased several of the old adjacent farm lots (including the Study Area) to amass a one mile by two-mile square parcel. Within the parcel, Pitkin set out hundreds of smaller urban lots and renamed the area East New York in anticipation of the expansion of the city to the east. With the Financial Panic of 1837, however, and the dramatic drop in real estate, the venture became bankrupt, and the lots reverted back to the original farm families (Armbruster 1942:322-324; Stiles 1884:306). Many of these families remained on their lands until the end of the 19th century.

The population of New Lots increased exponentially from a mere 48 families in 1638, to 2,261 in 1855 to 10,765 in 1875. The town became the first of several in 1886 to vote to annex itself to Brooklyn. In part, the vote was for better schools and access to the city water supply (Landesman 1977:169-170). The neighborhood of New Lots now became the 26th Ward of the City of Brooklyn. Within a decade, Brooklyn would itself be annexed by New York City and thus New Lots consolidated into the larger metropolis.

5.3.2 African American Population of New Lots

African Americans were a critical part of the development of New Lots since colonial times (Wortis 1974:36). Most of the original farming families of Dutch descent used enslaved people to assist with the labor-intensive

practice of agriculture. This practice was supported and encouraged first by the colonial Dutch authorities and later the English (Wortis 1974:37). The black population of New Lots during the 17th and 18th century is unknown, but census figures for all of Flatbush provide some indication. In 1698, there were 71 enslaved individuals out of a total population of 476 people (15%) (Landesman 1977:18). Nearly 100 years later, during the 1790 census, the total population doubled to 932 people, including 378 enslaved individual or 40% of the total population (Landesman 1977:18). Kings County lagged the rest of Long Island in the process of manumission, as only 3% of the black population was free. In distinction, over 50% of the black population of Suffolk County in 1790 was already freed (Wortis 1974:42).

A clearer picture of the population of New Lots is presented in the 1820 census when the town of New Lots was enumerated separately from Flatbush. At that time, there were 62 farming families, of which more than half owned slaves. In a town of 338 whites, there were 91 slaves and/or freed blacks. Families typically owned one or two slaves, but one family owned as many as eight enslaved individuals (Landesman 1977:195).

Slaves were often quartered on separate floors of the farmhouse or within separate buildings (Landesman 1977:197). Spatial segregation formalized the slave/master relationship and was used to influence the social hierarchy within the larger community. The Abraham Van Siclen farm was described as an old complex of buildings with many unusual features including "one of the most interesting features…the pen where the slaves were kept" (The Brooklyn Daily Eagle 1891).

The The Brooklyn Daily Eagle (1891) article continued on to describe how:

old Abraham had some n*****rs, and young Abraham, father of Jacob T. Siclen, who lives next door to the old house, had several slaves, and besides had several little blacks bounded to him for life.

The racist language of the later reporter notwithstanding, the article presents the complex relationship that emerged in the second quarter of the 19th century, as uneven emancipation occurred in New York.

Freedom to enslaved people in New York came gradually, first with Gradual Emancipation Act in 1799 that legislated the freedom of persons born into slaves after 1799 by the age of 25 for females and 28 for males. The process of gradual emancipation led to a spate of manumissions by owners who could no longer afford slaves with the loss of a ready market for their sale. The legislation ultimately proved untenable with a large mix of enslaved and free black population. As a result, the state formally abolished slavery in 1827 (Hodges 2005). Despite freedom from slavery, however, newly freed blacks faced legal, political, and economic discrimination under New York laws until well after the Civil War.

Many of the newly freed blacks in New Lots in the 1830s lacked education and labor skills. Additionally, caught in the whirlwind of the 1830s and 1840s depression, many found themselves still tethered to the same farms upon which they were held as slaves, performing the same agricultural tasks they had previously. Although their legal status had changed, the structural inequalities of the free labor market remained stacked against the black community.

Segregation occurred within the slave owning farmsteads, and afterwards with the nucleation of small black settlements within the town, and even within the community cemetery. Local farmers assessed that the black population of New Lots began to overtake the white population, however the census records present a very different story. In 1855, only 50 blacks were residents within the town, and most were single individuals (likely farm hands). Five black families were noted: Samson and Susan Townsend, Michael and Sarah Papon, Henry and Isabella Anderson, Cornelius and Mary Jarvis, and Catherine Brown and daughter. One only individual, Henry Henderson appears to have owned his own farm (Landesman 1977).

The African American population of New Lots remained relatively small throughout the late 19th century. The census data indicates 81 black residents in 1865, 129 in 1870, and 173 in 1875 (Landesman 1977:217). In the early 20th century, despite a dramatic rise in the population of New Lots, only 1% of the population was

identified as black (in the 1930 census 2, 224 were enumerated) (Landesman 1977:200). Although other parts of Brooklyn witnessed a rise in African American populations throughout the 19th and early 20th centuries (Wortis 1974), New Lots remained mostly white until later in the century.

Despite the perception of a dramatically rising African American population, as evidenced in the historical newspapers of the late 19th and early 20th centuries, there is little evidence that the racial composition of New Lots changed very much during this time.

Landesman was able to correlate a number of individuals (identified as black or of mixed race) in the federal and state censuses with the New Lots Dutch Reformed Church (Landesman 1977:197-198). This indicated that some members of the free black community were active church members and likely buried in both the old and new cemeteries.

5.3.3 Education

5.3.3.1 Early Schoolhouses

It is unclear when a school was first erected in New Lots, however, in 1680 the Flatbush Dutch Church records indicate that Dirck Storm, a schoolmaster, was living in New Lots (Landesman 1977:26 and 46). He served the church as a teacher until 1685. No complete list of the schoolmasters exists, but Landesman provides the following speculation:

- Jores Van Speyck (1685-1689)
- Mr. Davit (1689-1690)
- Daniel Martineau (1692-1700)
- Jan Langstreet (1701-1706)
- Rem Remse (1701-1712?)
- Jan Suydam (1718-1719)
- Peter Neefus (1806-1810)
- Mr. Seeba (1810-?)
- Mr. Hall (?)
- Jacob Bergen (?)
- William Laurence (1835-1838)
- John Woodman (1838-1844)
- H.J. Hamilton (1844-1853)
- Georgis North (1853-1856)
- C.W. Hamilton (1856-1857)
- William Vradenburgh (1857-1860)
- J. Kelly (1860-1862)
- Abraham Van Keuren and Dr. Kimberly (1862-1863) (Landesman 1977).

The historical references to schoolmasters gathered by Landesman, especially in the Dutch Church Records, suggest that that New Lots community had a long standing tradition of childhood education, and it appears there was a near continuous presence of a community school within the Project area from the 17th century until the 1950s. If we include the present Brooklyn Public Library branch, an educational building may have stood on the parcel for over 330 years.

There is compelling evidence that a schoolhouse was placed on the lot no later than the beginning of the 18th century. This first incarnation of a schoolhouse was subsequently updated in 1736, according to church records. Exactly where this building stood (or its predecessor) is not clear. A second schoolhouse, built on the lot, was constructed about 1740. This too was replaced in 1806 (Armbruster 1912:56) or 1810 with a more substantial structure (Landesman 1977:52). The structure is described as being a 2 story frame structure measuring 20 x 32 feet in size (Armbruster 1912:57; 1942:321). Its location is more precisely known as it appears on later 19th and early 20th century maps (Maps 3a-b).

In 1835, the school was partially converted to a residence for the schoolmaster. This practice was short-lived as the school needed the room for the growing student population. Around the 1850s, the schoolmaster "boarded around from house to house, taking turn about with all the pupils, generally staying a week with each one" (The Brooklyn Daily Eagle 1891). Jacob T. Van Siclen remembered "the school room well. ABC's to geometry right in that one room. The little boys and girls sat on little wooden benches, and the big boys and girls on big ones…" (The Brooklyn Daily Eagle 1891).

The school was remodeled again in 1873, perhaps in response to the burgeoning community population (Landesman 1977:53). The school provided for a fairly sizable rural population. In the mid-19th century, there were approximately 50 to 100 students attending the school (Landesman 1977:53). By 1874, the average attendance was 140 students, despite a population of nearly 890 school-aged children (Hamilton 1874:46). In 1884, the structure was described as a "two-story frame school house" by Warren Hamilton (Stiles 1884:306). The school how was used until about 1886-1888, when it was salvaged and moved to 639 Barbey Street, about one block to the northeast [(Armbruster 1942:321); Figure 3]. The schoolhouse has since been demolished for townhouses.

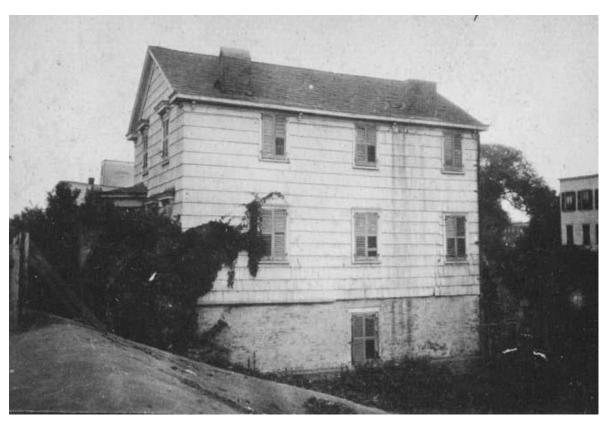


Figure 3. The relocated New Lots District School, c. 1913. The schoolhouse was purportedly moved to 639 Barbey Street about 1888 after the construction of the new, larger brick structure known as Public School 72 (Peter Rapelje collection, http://www.tapeshare.com/NewLotsW.html).

5.3.3.2 Public School 72

With the relocation of the smaller wood-framed schoolhouse, a significantly larger, one-story brick school was constructed between 1886 and 1888 in its place (Armbruster 1912:57). The new school was known as Public School No. 72 (Armbruster 1942:321). Additional stories and wings were added after its initial construction. The school expanded in 1896 (likely adding the second story and several wings at this time), during a period of classroom shortages, by this time the school encompassed nearly the entire western third of the block (Armbruster 1942; The Brooklyn Daily Eagle 1896a, b). Another expansion took place around 1908, when "water closets" or indoor privies were added to the west and east sides of the building (Map 3b; (Figure 4).

The old New Lots cemetery (discussed in more detail below) remained on the eastern side of the school. This caused much consternation in the local community which grew frustrated that the cemetery was seemingly abandoned and left in a dilapidated state. Numerous individuals agitated for the cemetery's removal and the conversion of the lot into a playground for the nearby school—a trend seen throughout the City at that time—(Brooks 1905; Leader-Observer 1913; The Brooklyn Daily Eagle 1899, 1900, 1902, 1913; The Daily Standard Union 1902). The School Board in 1899 investigated the ownership of the adjacent cemetery in hopes of disinterring the burials and making a school playground, but the initiative never moved forward. Local residents, such as William Macmillan, wrote to the local newspapers in an effort to raise public support for the idea (The Brooklyn Daily Eagle 1900). At the beginning of the 20th century, the school and cemetery properties were separated by a "high board fence" (The Daily Standard Union 1902). In 1913, a local newspaper speaks of the School Board considering the purchase of a "plot of land" to the east for school expansion (Leader-Observer 1913). This does not appear to have ever occurred, despite efforts from a State Senator to introduce a bill to facilitate the process (The Brooklyn Daily Eagle 1913). By 1922 the city converted the old cemetery into a school playground, during which time the high board fence was replaced with a wire fence (Figure 5; Figure 6).

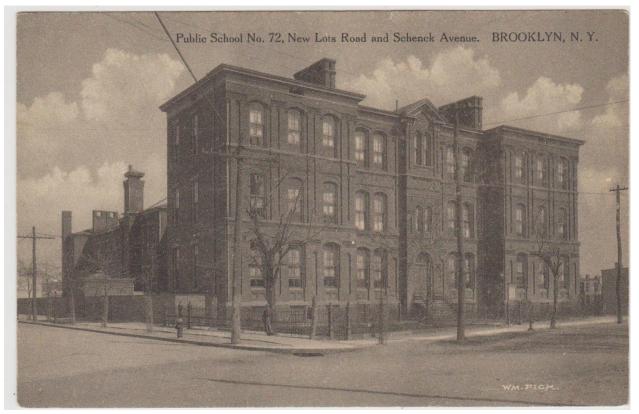


Figure 4. A c. 1900s postcard, that depicts Public School 72 looking northeast. The old New Lots cemetery is not visible in this view.



Figure 5. Public School 72 c. 1931. By this time the city had taken control of the cemetery to the east and converted the lot into a playground. The new playground is just out of view to the right. http://digitalcollections.nypl.org/items/510d47dc-dc04-a3d9-e040-e00a18064a99

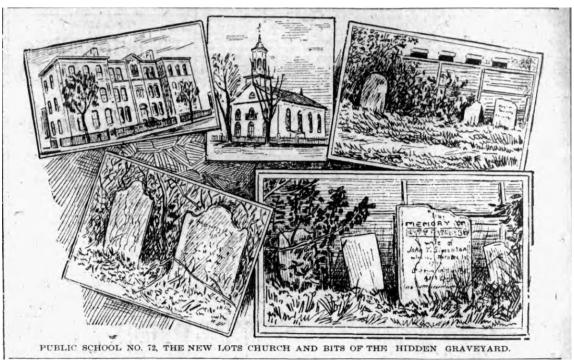


Figure 6. These renderings of the cemetery in 1902 appear to confirm the presence of the high-board wooden fence between the school and the cemetery, as well as the generally dilapidated state of the cemetery at the time. (The Daily Standard Union 1902)

5.3.4 Dutch Reformed Church

The residents of New Lots were part of a larger church community centered in Flatbush. Eventually a second church was established in nearby Flatlands, and the New Lots community was largely divided between the two congregations. At the beginning of the 19th century, the New Lots community had sufficiently grown to warrant their own church building. In 1823, Abraham Van Siclen, the farmer on Lot 24 to the west of the Study Area, deeded over a plot of land ¼ acre in size to the church for a building on the south side of New Lots Avenue. This was likely necessary as the school occupied the lot (previously set aside for both the church and school) to the north as well as the old cemetery (Landesman 1977:46-54).

The first pastor of the church, William Crookshank, also served at the Flatlands Church. He served the churches until 1835, after which time Reverend J. Baldwin was appointed pastor of both parishes (Strong 1842:103-104). Under Rev. Baldwin, the New Lots church created a new cemetery located to the south of the church. In 1852, New Lots appointed its first full time pastor Rev. John Van Buren (Landesman 1977). The church remained a vital part of the community for the next hundred years. A parsonage on the north side of New Lots Avenue was added in 1873 and a later one in the rear of the church, c. 1920s. A substantial Sunday School building, c. 1870s, was constructed to the west of the church, and later a daycare facility that replaced both the parsonage and school buildings (c. 1970s) on the south side of New Lots Avenue (Maps 3a, 3b, 3c; Figure 7 and Figure 8). Today, the church is known as the New Lots Community Church.



Figure 7. Photo of New Lots Dutch Reformed Church and its associated Sunday School building (date unknown, likely 1910s). The view is to the southeast, http://dcmny.org/islandora/object/photosnycbeyond%3A23471



Figure 8. View of the New Lots Dutch Reformed Church and the "New Cemetery," as viewed to the northwest (c. 1929), http://digitalcollections.nypl.org/items/510d47dc-dc08-a3d9-e040-e00a18064a99.

5.3.5 Dutch Reformed Church Cemeteries

The eastern half of the current Project is located within the footprint of old Dutch Reformed Church cemetery, north of present-day New Lots Avenue. A second cemetery was started in the 1840s on the south side of New Lots Avenue, just northeast of the Dutch Reformed Church (Landesman 1977:61-64). The reasons for opening a second cemetery are explored in more detail below, but brief overview of the reasons include: lack of formal organization, overcrowding, fear of roadway expansions, non-denominal cemeteries, better control of religious grounds, and racial motivations. There continues to be a notion that the Old Cemetery was primarily used for slaves and later free black in the New Lots community (Hodges 2005; Palmer 1906a, b; The Brooklyn Daily Eagle 1886b).

5.3.5.1 Old Cemetery

The exact date of the opening of the old cemetery is not clear, but local tradition suggests it began in the 1680s with the creation of the school and church lot. The lot was to be reserved for a community school operated under the auspices of the Flatbush Dutch Church. Almost immediately it appears the church did utilize the lot for a community school. As the community of New Lots did not receive its own church until 1824, it is possible that the Flatbush church set aside part of the lot for a community cemetery under their control.

As the original 1680 lots were cut through by the urban street grid and subdivided into smaller urban plots, the size of the extant cemetery was reduced. The 1837 street grid was overlaid onto the old lots forming new property boundaries slightly askew to the old. As a result, it is probable that portions of the old cemetery now lie under Livonia Avenue and Barbey Street, under some developed lots north of Livonia Avenue, and since New Lots Avenue has been straightened and widened over time, it is also probable that a portion of the cemetery lies under that roadway as well. A 1906 newspaper article indicated that graves were exhumed during construction of a fence and sewer along Van Siclen Avenue as well (Palmer 1906a). An archeological study on the east side of Barbey Street documented modern disturbance and did not locate any evidence of the cemetery (Greenhouse 2008a, b).

The earliest recorded headstone in the lot dated to 1791. Undoubtedly, however, there are earlier interments that were not marked or marked with less durable materials. N.F. Palmer stated that the cemetery contained "Revolutionary War soldiers, English officers, and negro slaves within its boundaries" (Palmer 1906a). Most of the headstones still legible in the late 19th century were from earlier in that same century (Bergen, et al. 1940, 1941a, b).

There does not appear to have been any formal organization of the old cemetery (Figure 9 and Figure 10). Jacob T. Van Siclen, a descendant of one of the early Dutch families, recounted, "I never saw any records of the old cemetery, or heard of any one [sic] who held a title deed to it" (The Daily Standard Union 1902). However, there was apparently some internal organization that was predicated on family lineage and race.

Van Siclen further added: "There seemed to be an understanding that one part of the land, in general, belonged to one family, and another part to another family... but there were no lots laid out and bounded, as in a modern cemetery" (The Daily Standard Union 1902). The haphazard nature of interments was likely the result of a lack of a community church, as oversight of the cemetery fell to the church at Flatbush. The sextons were responsible for burying the dead in the cemetery for a period of time, and as such, maps or written records are unlikely (Palmer 1906a).

As for race, there is some apparent confusion concerning the nature of the old cemetery. By the late 19th century, some locals began to refer to the old cemetery as "the old Slave Cemetery" (The Brooklyn Daily Eagle 1900). This notion continues today. "Slaves were apparently buried on the north side of the street [the old cemetery], while their Dutch masters were buried on the south side, near the Reformed Church…" (Inskeep 2000). However, there were some re-interments to the south side due to construction and later development, according to Inskeep.



Figure 9. Eugene Armbruster's c. 1922 view of the old New Lots Cemetery looking northwest towards Livonia Avenue and the IRT Line (elevated tracks) that were completed about that year. Towards the left is the rear of Public School 72 and its associated wooden high-board fence, (New-York Historical Society, http://dcmny.org/islandora/object/photosnycbeyond%3A20397).

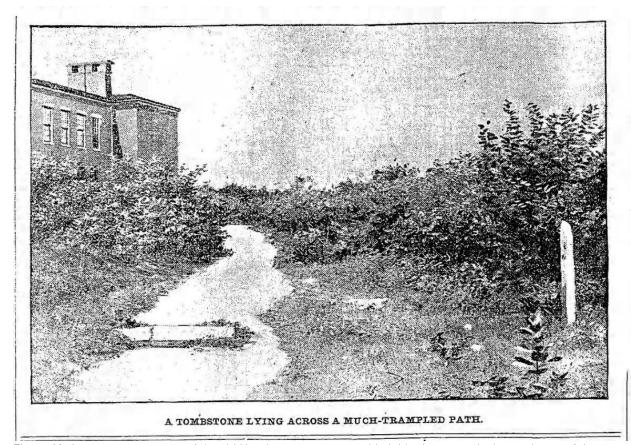


Figure 10. A newspaper account of the old New Lots cemetery provided this view towards the northwest of the cemetery with the northeast corner of Public School 72 visible. Although there is some distortion in the photograph, the ground appears to slope upwards towards the north and west. (The Brooklyn Daily Eagle 1900)

It is clear, however, that the cemetery originally contained burials of both the white and black community members of New Lots. "One part of the graveyard was set apart for the burials of slaves owned by different families," as described in a latter-day account of the cemetery (The Brooklyn Daily Eagle 1899).

According to the reminiscences of a life-long resident and member of the Dutch Reformed Church, Stephen Vanderveer, and the investigation of a local reporter in 1886, the cemetery was described as follows:

On the north side of the road is located the old burying ground. It seems to be the age claimed for it by Farmer Vanderveer, for the undergrowth is of that stubby nature which takes a long time to grow. There is no care taken of the place except in the negro part, which speaks well for them. I ventured in, and after wading through the high grass for a short distance, came across a stone marked "Daniel Rapelje, died October 15, 1822." There were many other headstones in that vicinity, all covered with woods and vines, but I did not try to decipher them, preferring to get over nearer the road where the old timers are said to sleep. I had not gone far before an open grave received me with hospitality. It was one of those from out of which a body had been taken and transferred to the new cemetery...– J.K. (The Brooklyn Daily Eagle 1886b, 1896a, b).

Stephen Vanderveer further concluded about the racial nature of the cemetery:

In the early days there were as many negroes as whites in the neighborhood. The latter were buried in front by the roadside and the former away back near the swamp...In 1841 we saw the necessity of having a new burying ground, as the black people were overcrowding us in

the old one. Therefore, we purchased the ground alongside the Church and removed a great many of the dead from across the road. I have not taken up all my people yet, but I expect to do so ere long (Landesman 1977:62; The Brooklyn Daily Eagle 1886b).

Other local residents at the turn of the last century also speculated about the apparent racial division within the organization of the cemetery.

One part of the cemetery, it is said, was set apart for the burial of the slaves owned by the old Dutch settlers, but there is little evidence of that to be found, judging by the names on the stones...It is impossible to distinguish the graves of the masters from those of their slaves. It is probable, however, that most of them are the graves of the blacks, for the remains of the masters have been moved in many instances to the cemetery across the street (The Brooklyn Daily Eagle 1900).

Since it was unlikely that slaves were marked with headstones, and later free blacks had the economic ability to afford expensive stone markings, it is not surprising that by the early 20th century there was no indication of interments from the black community. It is likely however, based on precedent from other nearby church cemeteries that a clearly distinguished portion of the parcel was utilized by the black community.

For instance, the old New Utrecht cemetery in Brooklyn appears to have been organized similarly but in a more formal manner. Here the northwest corner of the lot was separated out with a fence for the interment of enslaved people and freed blacks. Stone markers within this portion of the lot were few, however the area remained maintained into the 20th century despite the lack of interments for nearly 20 years to that point (Brooks 1905).

Stephen Vanderveer's later recollection of a distinct area within the rear of the cemetery, "near the swamp" for the black community is a plausible scenario. The exact location of these interments is more difficult to discern in the modern landscape. As there were still a few headstones within the Study Area in the first part of the 20th century, it may be that the Study Area includes both Dutch family interments and those of the black community, then unmarked. The local reporter who described the "negro part" of the cemetery did not indicate its location (The Brooklyn Daily Eagle 1886b). By this time, Livonia Avenue was in place, however it was not mentioned if this section of the cemetery was north or south of the road (Robinson and Pidgeon 1886). Armbruster speculated that "north of Livonia Avenue, formerly called Linington Avenue, extended one hundred feet northward on sloping ground, was the burial place of the slaves" (1942:352). It remains unclear exactly where the African American section of the cemetery is to be found, as the accounts are somewhat contradictory, and the 1886 descriptions does not provide enough detail.

It was clear by the 1880s, however, that the former boundaries of the cemetery were slowly being encroached upon from the opening of new streets and the allied development associated with forming smaller lots. The situation was not necessarily unique to New Lots, during this time, many of the other Dutch Reformed Church cemeteries in Brooklyn were removed from their original locations and moved to Greenwood Cemetery, as developmental pressures mounted (The Brooklyn Daily Eagle 1886a).

According to another early 20th-century newspaper article

Some of the graves in the cemetery were disturbed with the widening of New Lots Avenue. According to one story, passers-by could see exposed bones on the side of the road until about 1895 [(Palmer 1906b) --see also Inskeep (2000)].

Other articles decried the effects that development rendered upon the old cemetery: `

Where Public School No. 72 now stands was formerly the burial place of the slaves, and concerning what the school covers, little can be learned. On the side opposite the school [Livonia Avenue] there was a street put through some years ago, and it being necessary to cut

down some depth, many of the graves with their contents were removed. That is, the graves were removed, but in many cases the bones were left lying on the side of the bank. Some residents of the neighborhood say that the bones might be seen there until within the last five years. If this be true, it shows on the part of the responsible persons a lack of veneration amounting almost to vandalism...

Indeed, with its (sic) broken down fences, overturned tombstones and generally dilapidated appearance. The place has been for a long time an eyesore and a good deal of a nuisance to the residents of that part of East New York. And another bad feature is the fact that directly alongside of it is located the handsome brick structure known as Public School No. 72, with hundreds of young pupils in daily attendance. That the children make use of the graveyard at the present time for a playground is well known, and as most people entertain some respect for the graves and the tombstones of the dead, it is evident that the plot is no place for children to congregate for play, and especially so when tramps and hoodlums are in the habit of making it their stamping ground. If cleared of the tombstones and put in good condition it would make one of the best playgrounds in the city. Not so long ago it was no uncommon thing to pick up on the streets blocks away from the cemetery pieces of tombstones bearing the name of people at one time comprising the aristocracy of Long Island. Even now not only do the hoodlums romp on the graves, but they destroy the few remaining monuments that have stood for a century or more. It is said that some of the descendants of the old families transferred the remains of their former relatives to the New Lots Reformed church yard. As said before, the other graves are allowed to go to ruin. One part of the cemetery, it is said, was set apart for the burial of the slaves owned by the old Dutch settlers, but there is little evidence of that to be found, judging from the names on the stones (The Brooklyn Daily Eagle 1900).

Noyes Palmer writes of the dilapidated condition of the cemetery in 1906. He states that the cemetery contained a former schoolmaster and church sexton who was responsible for digging the graves. The two burials had recently been "wantonly dug up" and the bones scattered over the old stones (Palmer 1906a). After years of community agitation and complaints, in 1922, the City "took over the old burying ground for school purposes and agreed to move the remains of the bodies" (Armbruster 1942). It is unclear if the remains were ever disinterred, however. Between 1922 and 1956, the cemetery served as a school playground and afterwards a city park.

A number of transcriptions of the old headstones have been made over the years, the earliest and most notable being Teunis Bergen's in 1878. His inscriptions were updated and revised in 1913 and eventually published in the early 1940s (Bergen, et al. 1940, 1941a, b; see also Hartgen Archeological Associates 2016b). Unfortunately, Bergen makes no distinction between the old cemetery and the new cemetery near the church. According to the records, over 120 of the stones (of about 260) can be clearly dated to before 1841 and the opening of the new cemetery. As such, it is reasonable to assume that old cemetery contained well over 120 burials, even if some of these were relocated between 1841 and 1878. Noyes Palmer was only able to find 58 headstones in the old cemetery lot in 1906 (Palmer 1906b).

5.3.5.2 New Cemetery

About 1845, New Lots Avenue was straightened and re-aligned. About the same time, the new church and burial ground on the south side of the New Lots Avenue, was established (Palmer 1906b). In 1848, the state passed a law allowing the establishment of non-denominational rural cemeteries across the state. As a result, the Cypress Hill Cemetery and Evergreen cemeteries were established in the northern section of New Lots (Hamilton 1874:59-63).

A number of factors likely contributed to the opening of a new cemetery on the south side of the road, which include:

- The trend towards non-denominational, rural cemeteries (Hodges 2005:295);
- The lack of organization in the former cemetery
- General overcrowding within the old cemetery
- Fear of disturbance from the new street grid (proposed in 1838) (Palmer 1906a, b)
- Efforts of the Dutch Reformed Church to have greater control over the new cemetery, since it lost that control in the old cemetery as it developed into a community cemetery, as opposed to a religious one.
- And finally, there may have been racially motivated actions. As stated by Stephen Vanderveer, the belief among the old farming families was that the old cemetery was now turning into a black community burial ground (Hodges 2005; The Brooklyn Daily Eagle 1886b).

Regardless of the motivations, after about 1850, it appears that some members of the Dutch Reformed Church disinterred the remains of family members and moved them from the north side of the road to the new cemetery on the south side. The trend seems to have accelerated in the later 19th century as it became apparent the old cemetery was in the process of being abandoned altogether. The exact number of removed bodies from the old cemeteries is unknown. Archeologically, the process is important, as it is possible to find GPR anomalies of potential grave shafts, that may have been re-excavated, and the remains removed.

By 1874, according to the local business directory, the practice of burials was increasingly commercialized (Hamilton 1874). The directory lists four undertakers and 10 marble works specializing in headstones in the East New Yok area (Figure 11). The advent of a more formal burial tradition (especially one outside of the church) also likely contributed to slow abandonment of the old cemetery and preference for burial in the newer, more organized lot. Archeologically, it would be expected that elaborate, formal coffins or funerary practices in the old cemetery are limited. Instead, the burials were likely simple in nature with a wooden coffin with little adornment or grave gifts, and/or simple burial shrouds.

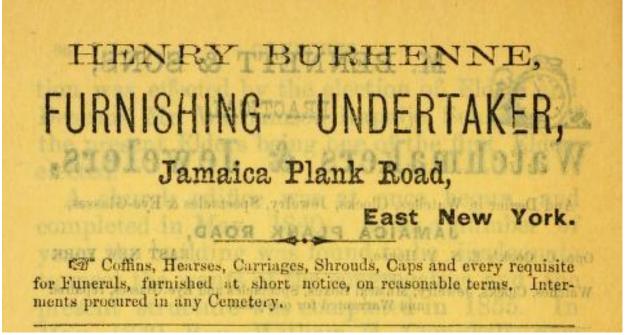


Figure 11. A business directory advertisement in Brooklyn that suggests the growing concern with formal burials and funerals, that included more ornate coffins and burial rituals in the late 19th century (Hamilton 1874).

6 Historical Map Review

A number of historical maps (Anonymous 1776a, b, 1838; Beers 1873; Conner 1852; Dripps 1868, 1872; Esri Inc. 2015, 2016a, b; Johnson 1879; Robinson and Pidgeon 1886; Sanborn Map and Publishing Company 1887; Sanborn Map Company 1908, 1928, 1951; Smith 1844; Ullitz 1898, 1916; United States Geological Survey (USGS) 1956, 1979, 1995, 2016) and historical aerial images (1924 and 1951, 1954, 1966, 1980, and 1994) were consulted as part of the study. Selected maps are reproduced in Maps 3a-3c.

Several historic maps of the area render the location of the "Old Burying Ground" east of the schoolhouse and the later Public School No. 72 (Beers 1873; Dripps 1868, 1872; Robinson and Pidgeon 1886; Sanborn Map and Publishing Company 1887; Ullitz 1898). Predominantly the cemetery is indicated running parallel to Barbey Street and extending into the adjacent parcel, north of Livonia Avenue. The extents of the cemetery vary between each of the maps. By 1908, the parcel of the Old Cemetery is still rendered but no indication of the cemetery is depicted (Sanborn Map Company 1908). Drafting of the insurance maps corresponds with when local frustrations were at the highest regarding the cemetery and the desire to remove and build a playground at the onset of the 20th century. The "Old Burying Ground" is rendered again in 1916, and is likely attributed to the cartographer having local knowledge of the cemetery and drafting previous atlases of the area (Ullitz 1898, 1916).

As early as 1928, maps begin depicting the area of the Old Cemetery as a playground (Sanborn Map Company 1928, 1951). Historic aerial images from 1924 and 1951 corroborate with the historic maps, showing the "Old Cemetery" areas as being cleared of vegetation (Map 2b). The distinction of the playground east of Public School No. 72 continues until its demolition prior to 1954. The footprint of the demolished school is visible in the 1954 historic aerial. The remainder of Block 4090, Lots 1 and 6, appears to have also been affected by the demolition effort. By 1966, the New Lots Branch of the Brooklyn Public Library is first showing in historic imagery and maps (United States Geological Survey (USGS) 1956, 1979, 1995).

The New Lots Branch of the Brooklyn Public Library was constructed in 1955. The extant building is situated at the south end of Block 4090, Lot 1, fronting New Lots Avenue. The library is a two-story stone and brick structure. Though no sections of the foundation are exposed on the south and eastern elevations of the structure, entrances to a below ground basement are visible from the western elevation. It is unclear if the basement extends the entire footprint of the structure or is limited to the western half. Given the size of the structure the building likely has a 7 to 8 ft deep basement used for utilities. The location of the library encompasses rough location of the southern portion of former Public School No. 72, which also fronted New Lots Avenue.

Based on historic depiction of the parcel associated with the Old Cemetery, "Old Burying Grounds," or the playground the cemetery area was limited to the eastern half of present-day Lot 1. Given discrepancies with the extents of the cemetery it is unclear if a portion of the cemetery is within the current footprint of the library. The majority of the area where the cemetery was identified in historic maps is currently beneath a small parking area east of the library.

7 Present Land Use and Current Conditions

A site visit was conducted by Matthew Hunt and Samuel Bourcy on March 22nd, 2023, to observe and photograph existing conditions within the APE. Block 4090 is bisected east-west by an iron fence with Snakofa Park to the north. The Project is currently home to the New Lots Branch of the Brooklyn Public Library, which takes up the majority of Block 4090 Lot 1. Loose stone is present along the north and west elevations of the library, which acts as a drainage channel to disperse water from the basement. The entire property is bordered with iron fencing. A 27 m (90 ft) section iron fencing was replaced with wire fencing along the southern elevation of the library.

The remainder of the parcel consists of asphalt hardscaping to north and west of the library and an asphalt parking lot is located to east of the library with access to Barbey Street. There are small sections of green space

located in front of the library, near the intersection of New Lots Avenue and Schenck Avenue, and around the parking lot. Buried utilities were visible along the north and western sides of the library. The parking lot appears to have the least amount of disturbance in the form of utilities that would have caused deep trenching. The lack of utilities in this section is a good indicator that intact burials may still be present.

8 Archeological Sensitivity Assessment

The New York Archaeological Council provides the following description of archeological sensitivity:

Archaeologically sensitive areas contain one or more variables that make them likely locations for evidence of past human activities. Sensitive areas can include places near known prehistoric sites that share the same valley or that occupy a similar landform (e.g., terrace above a river), areas where historic maps or photographs show that a building once stood but is now gone as well as the areas within the former yards around such structures, an environmental setting similar to settings that tend to contain cultural resources, and locations where Native Americans and published sources note sacred places, such as cemeteries or spots of spiritual importance (NYAC 1994:9).

The parcel has been occupied for over 300 years as both a schoolhouse and the Old Cemetery. It is unclear about exactly when the first school was erected within the Project, records indicate a schoolmaster living nearby as early as 1680. At the latest a schoolhouse was erected within the project during the early 18th century. Historical maps indicate that the schoolhouses were located predominately along the western portions of Block 4090, Lot 1. The eastern half of the parcel is located within the map documented boundaries of the Old Cemetery. Though the Old Cemetery is first rendered in the 19th century on historic maps, other documentary sources indicate that the area was used as early as the late 17th century for burials.

Given the use of the land during the late 17th century for both a schoolhouse and cemetery the Project is sensitive for 17th and 18th century deposits.

9 Archeological Potential

Archeological potential is the likelihood of locating intact archeological remains within an area. The consideration of archeological potential takes into account subsequent uses of an area and the impact those uses would likely have on archeological remains.

Since the lot was used by a relatively small schoolhouse throughout the 17th to late 19th centuries, there was likely little disturbance to potential archeological deposits. However, the construction of the larger Public School 72, and its various additions and expansions, as well as later demolition likely disturbed or destroyed archeological deposits. Similarly, the construction of the library branch may have adversely affected the archeology of the study Area. While the archeology of New Lots Library and surrounding area may have been adversely affected from construction, there is still the potential of artifacts related to the use of the area as a school and burial ground to be recovered during excavations and monitoring. The Flatbush African Burial Ground found four miles west of the New Lots Library, was a burial ground which a school house was built on, which disturbed and capped archeological deposits in the early 20th century. Both school related artifacts of pencil leads, slate pencils, incised slate, shell, and glass and human remains such as teeth were recovered from excavations (Schneiderman-Fox 2001).

The northern and western areas have the lowest potential due to disturbances and large-scale urban activities. The area of the northeast corner of the east parking lot has the highest potential for producing archeological deposits associated with the Old Cemetery. This area is marked on Map 2a. Additionally, recent archeological investigations for Snakofa Park, north of the current Project, identified and recovered human remains near the eastern parking lot (Hartgen Archeological Associates 2018).

10 Survey Methodology

A site visit was conducted to take photographs of the existing New Lots Library structure and neighboring New Lots Reformed Church and Cemetery. A geophysical survey was also performed to record any underground anomalies that would suggest evidence of undocumented human burials.

10.1 Geophysical Survey

A Ground Penetrating Radar (GPR) survey was conducted prior to any ground disturbing activities and utilized a Geophysical Survey Systems, Inc. (GSSI) SIR 4000, 350 MHz Hyper Stacking (HS) GPR unit hereafter referred to interchangeably as a GSSI 350HS or GPR unit. The GSSI 350HS emits radar signals into the ground and captures the return signals. The radar signals reach a maximum depth of 2 meters. This depth can be variable based on changes in ground conditions, especially recent rain.

Grids with standard dimensions of 20 meters by 20 meters are typically planned and laid out on site. Grids is the term used to define the specific area data was collected. A survey area is made of multiple grids. Each grid has four corners and is either square or rectangular in shape. Data was collected from within these grids by pushing the GPR unit along grid spanning transects located at 0.5-meter intervals along the edges of the grid boundaries. Transects were collected in either unidirectionally or zigzag depending on the accessibility of the transects for each grid. The location of each grid was mapped with an EOS Arrow 100 GNSS unit.

Collected GPR data was processed using GSSI proprietary software RADAN 7. Selected images of collected data are presented here in both vertical and horizontal formats to create a three-dimensional picture of the survey areas that details depth and distance within the grid. Anomalies in the data are then identified and analyzed through the images to locate potential subsurface features to be aware of before excavations on site begin.

These select images will be presented both overlain on aerial imagery with no marks or highlights and copies of those images with highlights will be added in-text under survey results.

11 Survey Results

A GPR Survey was conducted on March 22nd, 2023. The field crew was GPR Specialist Samuel Bourcy, MA RPA and Project Manager Matthew Hunt, MS RPA. The weather was clear and sunny.

The purpose of this GPR survey was to identify the location of anomalies prior to the start of reconstruction. We laid out three grids with variable dimensions on three sides of the New Lots Library of the Brooklyn Public Library system. Typically, we attempt to maintain regular grid dimension of 20 meters by 20 meters however due to the irregularity of the survey area we had to create grids with dimensions of 9 meters by 14 meters (Grid 001), 17 meters by 27 meters (Grid 002), and 4 meters by 42 meters (Grid 003) (Map 2a-2b). Each of these grids were created to maximize the area covered while also accounting for the overall shape of the APE.

In this report we will only be discussing data up to depths of 2 meters as that is as deep as the GPR was able to penetrate in most grids and also because across those readings that did penetrate that deep there was nothing of note identified.

11.1 Grid 001 Highlighted Anomalies

Grid 001 was set up in the grass space west of the library. The overall summary of Grid 001 was that of a highly disturbed subsurface environment dominated by a large amorphous signature likely comprised of various buried utilities. The soil here were very sandy allowing for the signal to travel deeper here than anywhere else on site with an average depth of approximately 3 meters. This area is likely highly disturbed, and any work here will need to take into account the significant presence of utilities.

11.1.1 Black Circle

This feature is noted on the horizontal slices in context with the green highlights as it denotes the associated test well surface feature likely directly connected to the buried line.

11.1.2 Green Highlight

This curved highlight is not an exact representation of the subsurface signature in this location as this signature first appears at approximately 30 centimeters below surface (cmbs) starting on the western edge of the survey area and extending east then northeast towards the black circle (Figure 12). The signature continues past the black circle it continues heading NE and dives down to 40 cmbs. The signature is also identifiable at 50 cmbs and 60 cmbs, though this is likely a shadow of the actual subsurface object. What this signature likely represents is a pipe/utility line that connects directly with the test well identified with the Black circle. It runs from the library (The east side) to the street (the west side) while diving deeper into the ground suggesting a building utility tying into a city utility line.

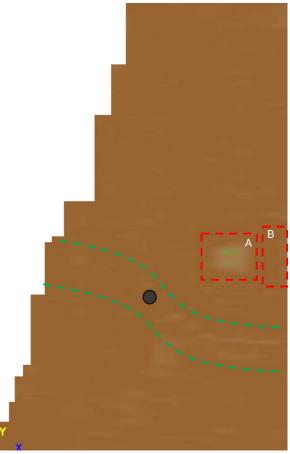


Figure 12: Grid 001 Subsurface Anomalies at 30 cmbs with highlights.

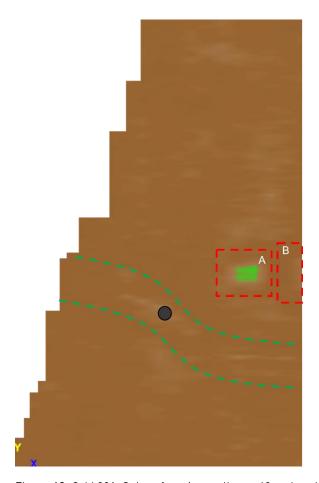


Figure 13: Grid 001, Subsurface Anomalies at 40 cmbs with Highlights.

The green highlighted signature can be also seen in Lines 008 - 019 (Figure 14 - Figure 17) concentrated in the upper corner of the line profiles and moving in a southerly direction as the line number increase. The sharp and small signatures suggest an irregular surface to the utility line or natural features, such as rocks or other debris surrounding the line and obscuring its true shape. The utility is likely of a significant size with an approximate diameter somewhere between 50 -70 cm.

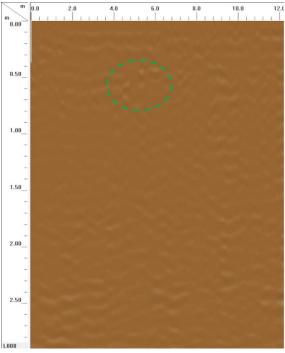


Figure 14: Grid 001, Line 008 Profile with Highlights

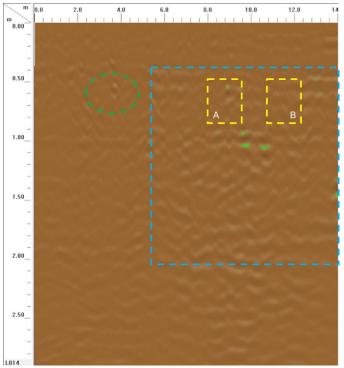


Figure 15: Grid 001, Line 012 Profile with Highlights

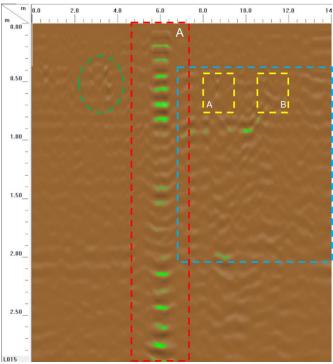


Figure 16: Grid 001, Line 015 Profile with Highlights

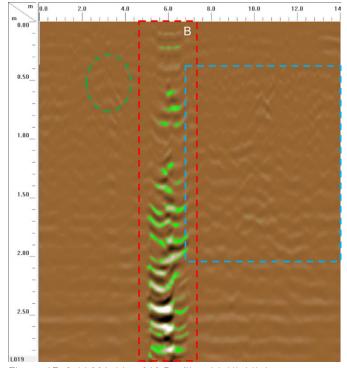


Figure 17: Grid 001, Line 019 Profile with Highlights

11.1.3 Red Highlight A

This signature, a red dashed box labeled 'A,' is visible at all levels of the survey (Figure 12 and Figure 18 - Figure 24) and is representative of a cement pad with a sewer access panel. This signature is also visible in Lines 015-017 (Figure 12 and Figure 16) as a strong, regular, and highly reflective rectilinear signature that extends all the way from the surface to the maximum depth of the radar signal.

11.1.4 Red Highlight B

This signature, a red dashed box labeled 'B,' is partially visible at all levels (Figure 12 and Figure 18 - Figure 24). Its inconsistency is in part due to its close proximity to the library structure and limited presence within the survey area. This signature is a metal grate set in a cement pad, visible on the surface, and connected to the library. It is also visible in Lines 018 and 019 (Line 019 pictured in Figure 17) as a strong, irregular, and highly reflective rectilinear signature extending the entire depth of the radar signal. This form of this signature is due to the radar signal meeting minimal resistance as it passes through an open space before suddenly ricocheting off the cement walls.

11.1.5 Yellow Highlight A

This signature, a yellow dashed box labeled 'A,' first appears at 50cmbs and extends to 70cmbs heading in a NW-SE direction (Figure 18 and Figure 19). There is potential for it to extend deeper however it becomes subsumed at 70 cmbs by the amorphous signature of the blue highlight. It is discernable on all Lines from 011 to 015 (Figure 15 and Figure 16) and appears variably as a distinct highly reflective signature as well as semi-reflective surface signatures. This could be suggestive of a larger root with highly reflective bark and a less reflective interior.

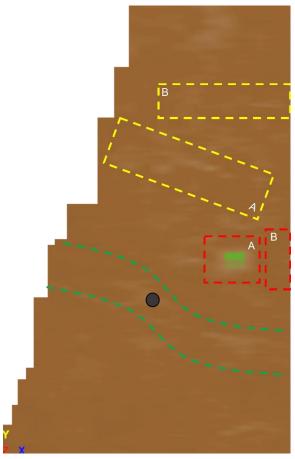


Figure 18: Grid 001, Subsurface Anomalies at 50cmbs with Highlights

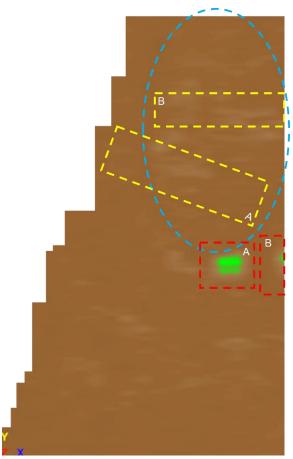


Figure 19: Grid 001, Subsurface Anomalies at 70 cmbs with Highlights

11.1.6 Yellow Highlight B

This signature first appears at 50cmbs and extends to 70cmbs heading in a W-E direction (Figure 18 and Figure 19). There is potential for it to extend deeper, however, as with Yellow Highlight A it becomes subsumed by the amorphous signature of the blue highlight. It is discernable as three distinct signatures in the profiles while it is visible from Line 012 to Line 015 (Figure 15 and Figure 16).

Both Yellow Highlight A and Yellow Highlight B have the potential to be a couple of different things. In the most likely scenario, they both could represent utility lines attached to the larger feature visible in the blue highlight. They could also be individual utility lines or the edges of a larger subsurface feature, potentially a concrete utility box or buried concrete utility interchange. These anomalies could also be a pair of larger roots extending out from the tree that takes up a large portion of the western edge of the survey area. It is not uncommon for roots to seek out sewer or water lines and entangle themselves in them.

11.1.7 Blue Highlight

This is the large amorphous signature apparent from at least 70 cmbs to approximately 200 cmbs (Figure 19 - Figure 24). For the most part it is rectilinear with rough edges. At 80 cmbs it takes on a fairly distinct rectilinear shape before becoming more amorphous again at 90 - 100 cmbs (Figure 20 - Figure 22). As the signature continues deeper it fluctuates between rectilinear and amorphous. This could, in part, be due to root intrusion as I mentioned in the description of the yellow highlights. The large shape and rectilinear nature coupled with its close proximity to the sewer access (Red Highlight A) and sewer ventilation (Red Highlight B) suggests that this is likely a utility concentration of some kind and a significant one.

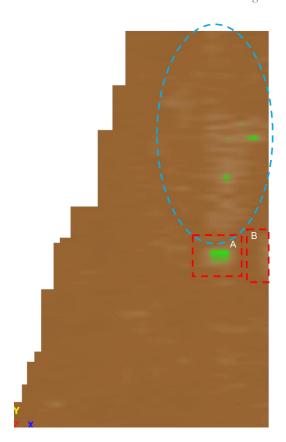


Figure 20: Grid 001, Subsurface Anomalies at 80 cmbs with Highlights.

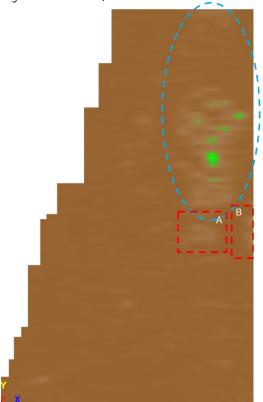


Figure 21: Grid 001, Subsurface Anomalies at 90 cmbs with Highlights

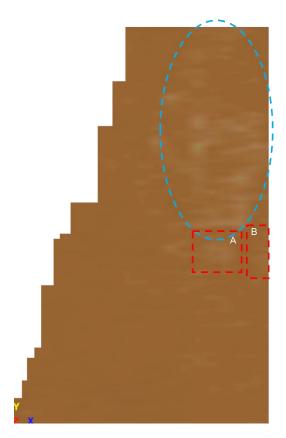


Figure 22: Grid 001, Subsurface Anomalies at 100 cmbs with Highlights

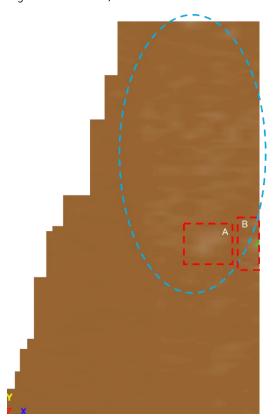


Figure 23: Grid 001, Subsurface Anomalies at 150 cmbs with Highlights

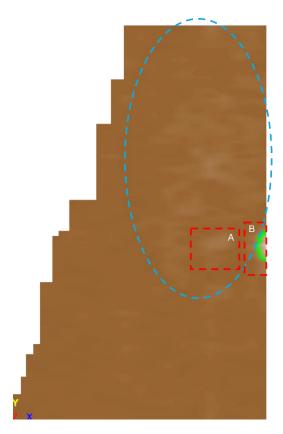


Figure 24: Grid 001, Subsurface Anomalies at 200 cmbs with Highlights

11.2 Grid 002 and Grid 003 Highlighted Anomalies

Overall, the majority signatures in this survey area cluster under the parking lot (Grid 002). There is a circular signature starting at a shallow depth, close to the library, that has the potential to be a filled and capped well or something involved with utilities for the library. There is a large amorphous concentration of signatures towards the center north of the parking lot starting at 140 cmbs and continuing to 200 cmbs and at approximate burial depth. Though the signatures appear irregular there is a strong potential that this area could contain burials especially since this is within an area that historic maps refer to as "Old Burying Grounds" (Map 3a). There are many anomalous signatures throughout this survey area, but these are the most apparent and likely most significant subsurface anomalies. The Black Highlights throughout the images are simple representations of the curbs lining the parking area (Black dashed boxes) and a drain (Black Filled in box) to keep the parking lot from flooding.

There also appears to be a buried surface about 10-15 cmbs across most of the transect profiles. This was not highlighted in the images as there is a possibility that this has to do with a change in surface composition from natural ground to paved surface along the lines in the parking lot. There are also two green circles present on the highlighted images which are a tree and bush (moving from west to east) that interrupted continuous collection of two transects.

11.2.1 Red Highlight

This circular signature, indicated with the red dashed boxes, partially appears at 10 cmbs (Figure 30), is clearer at 20 cmbs (Figure 31) and extends to a depth of 110 cmbs in the horizontal slices (Figure 25 - Figure 29). In the profiles it appears on line 003 with diminishing size down to approximately 170 cmbs. The round form of the anomaly has a smaller circle of low reflectivity embedded in a larger circle of higher reflectivity. As such this appears in the profiles to cause the signature to separate then reform. The signature is visible in the profiles from line 002 to 010 (Figure 25 - Figure 29) in Grid 002.

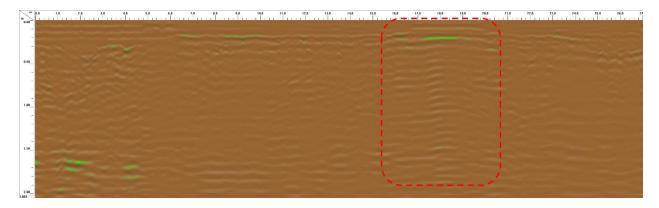


Figure 25: Grid 002, Line 002 Profile with Highlights

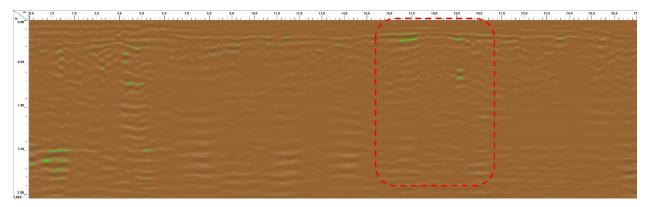


Figure 26: Grid 002, Line 004 Profile with Highlights

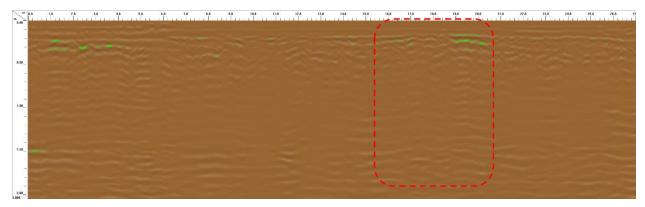


Figure 27: Grid 002, Line 006 Profile with Highlights

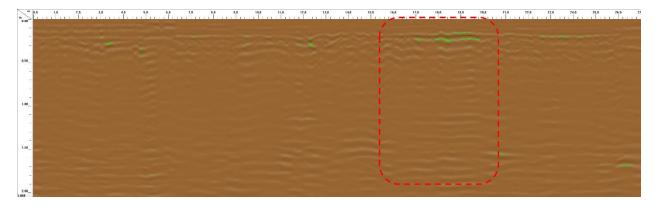


Figure 28: Grid 002, Line 008 Profile with Highlights

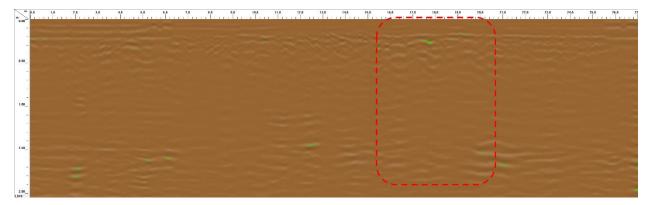


Figure 29: Grid 002, Line 010 Profile with Highlights

These signatures are flat and extend for approximately 4-5 meters which indicates a wide flat surface reflecting back the radar signal. Its circularity and depth immediately suggest a potential well that has been filled in and capped. Brick, stone, or concrete would produce a signature of higher reflectivity while soil fill would provide a much lower reflectivity. Line 002 of Grid 002 (Figure 25) seems to suggest a subsurface anomaly that first appears 15-20cmbs and continues down to 170 cmbs. This could be the outer wall of the potential well but there is no clear evidence of the opposite side also having an intact edge. There is a signature visible in Line 008 that has the potential to match that description if that part of the outer well wall has collapsed and/or deteriorated away. There were no indications from a brief look through historic maps and aerials that there is surface evidence of a well. For now, there still remains the potential that this could be a utility associated with the library.

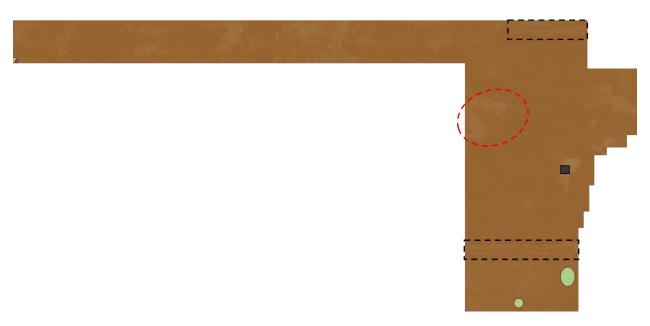


Figure 30: Grid 002 & 003, Subsurface Anomalies at 10 cmbs with Highlights



Figure 31: Grid 002 & 003, Subsurface Anomalies at 20 cmbs with Highlights

11.2.2 Yellow Highlight

This signature, indicated with yellow dashed lines and circles, is clearly visible in all of the Grid 003 profiles (Lines 001 to 009) and is a distinct form repeated for the entire length of the survey area. The signature is easier to identify in the profiles rather than the horizontal images. Approximately 10-15 cmbs there is a planar signature that extends nearly the entire length of the survey grid (Figure 32 - Figure 36). At around 30 to 30.5 meters along the length of the transects there is a distinct bend down in the signature. Planar anomalies are made by a flat consistent surface be it a cement pad, pavement, or significantly compacted soil. As long as the anomaly returns the radar wave at a consistent rate while it falls within a transect, it will appear in this form on images. The fact that the signature here is consistent for all transects suggests a large, buried surface. Potentially, this signature could be associated with the former public school that crossed this area (Map 4) as part of the old foundation. Its regularity suggests a cement or concrete pad, so the potential also exists that it came after the removal of the school. There are few 'irregularities in the anomaly along all the transects that could be due to degradation of the feature over time and/or smaller objects on the surface of the anomaly.

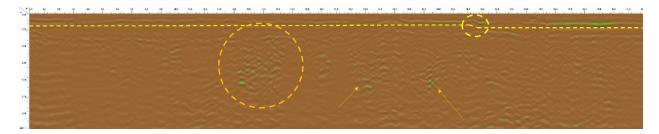


Figure 32: Grid 003, Line 001 Profile with Highlights

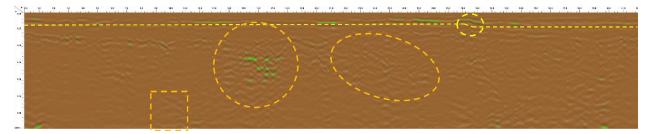


Figure 33: Grid 003, Line 003 Profile with Highlights

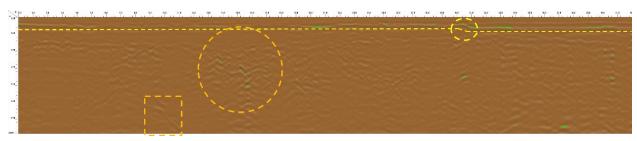


Figure 34: Grid 003, Line 005 Profile with Highlights

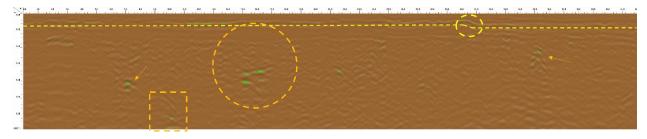


Figure 35: Grid 003, Line 007 Profile with Highlights

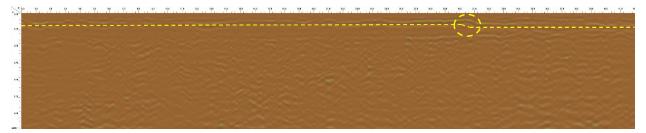


Figure 36: Grid 003, Line 009 Profile with Highlights

Running approximately parallel and 10-15 cm below this signature is a less consistent planar signature that could potentially be indicating the original ground surface. It is visible across all profiles but with varying consistency and strength. If the upper signature is a cement pad, then this is likely the base of that pad which may be resting directly on a former ground surface or a modified surface, though its irregularity suggests a

highly deteriorated state. The presence of a consistent cement pad, or other equally solid/dense material, could also explain why the signal depth reached in this grid only reached a depth of 1.7 meters rather than the 2 meters from Grid 002 or the approximate 3 meters in Grid 001.

11.2.3 Orange Highlight

These are a variety of anomalies, indicated with orange dashed circles, boxes, and arrows, ranging in depth from 60 cmbs to 170 cmbs (Figure 32, Figure 33, Figure 34, Figure 35, Figure 37, and Figure 38). These are pointed out with circles, squares, and arrows. For the most part the arrows are pointing to what are likely isolated objects or features. The circles are likely trenches or some other excavated anomaly as they could be associated with 'openings' in the consistency of the Yellow planar anomaly. Openings are meant to indicate locations along the yellow anomaly that become less reflective and more irregular in form.

The square in these profiles is a highly reflective object that was identified near the maximum depth of readings but was partially 'cut-off' by the secondary surface below the yellow highlight. The 'cut-off' is most visible in Line 004 (Figure 37) where only half of a typical hyperbola is visible. There is a more complete hyperbola on Line 006 (Figure 38) suggesting that there is more to this anomaly than readily visible in the profile. This could potentially be a large, buried rock or an architectural feature associated with some of the previous structures in this location.

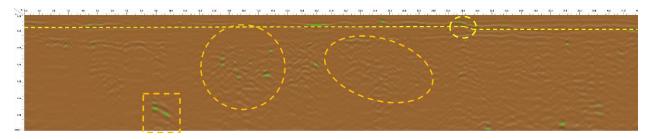


Figure 37: Grid 003, Line 004 Profile with Highlights

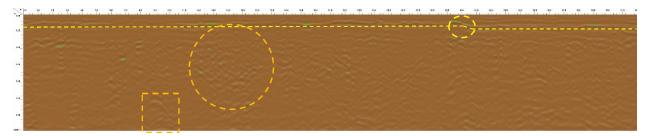


Figure 38: Grid 003, Line 006 Profile with Highlights

There also exists the possibility that the orange circles are identifying concentrations of tree roots extending from the nearby trees. Roots have a way of moving things out of their way, if need be, and will often destroy cement. This option is possible as it is not clear that the orange feature, when view horizontally, crosses the entire width of the grid to connect with the library.

11.2.4 Green Highlight

This is a large concentration of various subsurface signatures as well as three outer signatures, indicated by the green dashed circles and boxes, from 140 cmbs to 200 cmbs (Figure 39 - Figure 41). These anomalies have the potential to be the bases of burials that have taken on water or are holding moisture. The depth and isolated nature of the overall concentration and the matching depth of the three outer anomalies suggest burials although they do not exhibit some of the more tell-tale signs of burials.

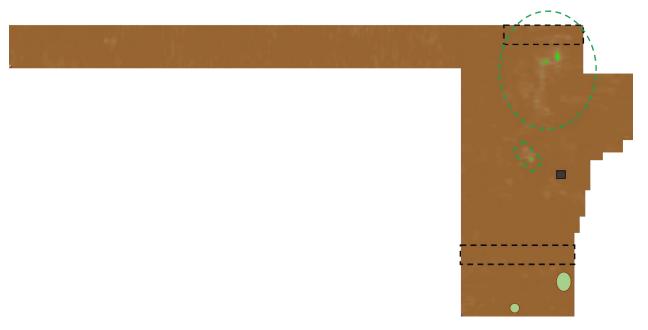


Figure 39: Grids 002 & 003, Subsurface Anomalies at 140 cmbs with Highlights

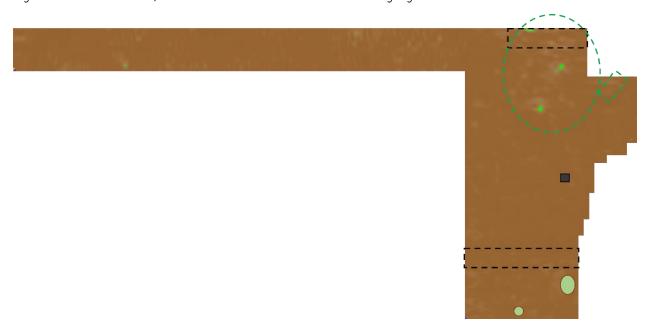


Figure 40: Grids 002 & 003, Subsurface Anomalies at 170 cmbs with Highlights

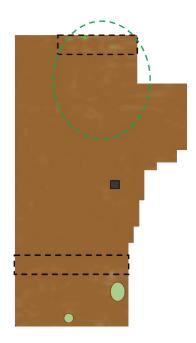


Figure 41: Grid 002, Subsurface Anomalies at 200 cmbs with Highlights.

There are various locations, as seen on the profiles (Figure 42 - Figure 44), that would fall within the concentration and match an approximate burial size of 1 meter by 2 meters) while the three outer anomalies are approximately 1 meter by 2 meters as well.

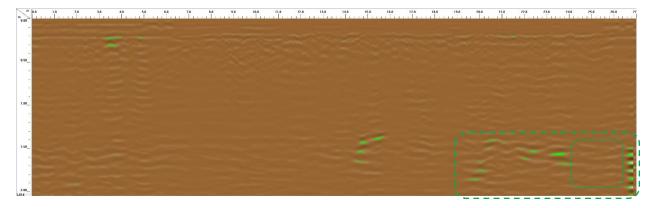


Figure 42: Grid 002, Line 014 Profile with Highlights

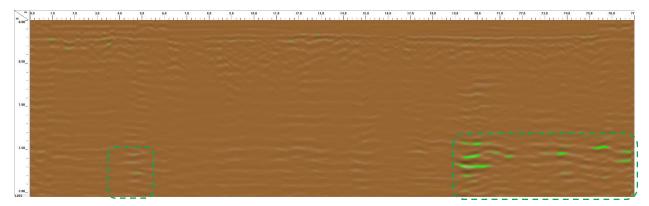


Figure 43: Grid 002, Line 016 Profile with Highlights

New Lots Library, 665 New Lots Avenue, Brooklyn, Kings County, New York Phase IA Literature Review and Ground Penetrating Radar Survey

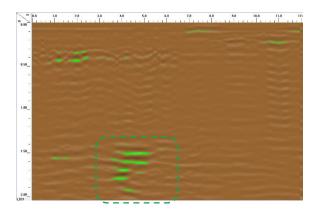


Figure 44: Grid 002, Line 031 Profile with Highlights

Another factor supporting the suggestion that these could be the remnants of burials is the age of the historic documentation. Without knowing the exact dates of the burials, the presence of an area labeled "Old Burying Place" or "Old Burying Grounds" on historic maps (Map 3a) supports the notion that these could be burials dated 200-250 years old. If this is the case, then they would likely be in a highly degraded state and not truly exhibiting the typical form of more modern burials.

As is visible in the green highlighted areas there are several groupings of highly reflective signatures (Figure 39 - Figure 44). Now these could either be water pooling within the burial (where the body lies) or it could be at the base of the burial (underneath the body), either way the burial area potentially extends from 140 cmbs to 200 cmbs (Map 2a) These potential graves are much deeper than the previous graves identified by GPR in the 2016 Phase IB survey. This could be due to the recorded grading that took place in that north section of the block effectively 'raising' the depth of burials in that location while maintaining original burial depth with the area of this survey. Ultimately, whatever objects, structures, or bodies are buried here they are likely not in an intact state and would be fragmentary, similar to those seen in the 2016 GPR survey performed by Hartgen Archeological Associates (Hartgen Archeological Associates 2016a).

12 Recommendations

The parcel at 665 New Lots Avenue has been utilized since the late 17th century or early 18th century. The two principal uses of the property through the mid-20th century were as the site of a series of schools and as a burial ground. The construction of Public School 72 between 1886 and 1888, its expansion in 1896, its demolition, and the construction of the existing New Lots Branch of the Brooklyn Public Library and associated utilities in 1955 have disturbed a large portion of the APE. It is unlikely that any deposits associated with the schoolhouses predating Public School 72 have survived intact. Hartgen recommends no field investigation of remains of Public School 72.

Hartgen recommends:

- No further archeological investigation for impacts within the fill/modern asphalt surface and subbase.
- Phase IB archeological testing in the northeastern portion of the property where the GPR survey suggests there is the highest potential for intact burials.
- Archeological Monitoring of construction for impacts deeper than the depth of modern asphalt and subbase outside the footprint of the library to aid in the recovery of fragmentary human remains. An Archeological Monitoring Plan should be developed in advance of this work.

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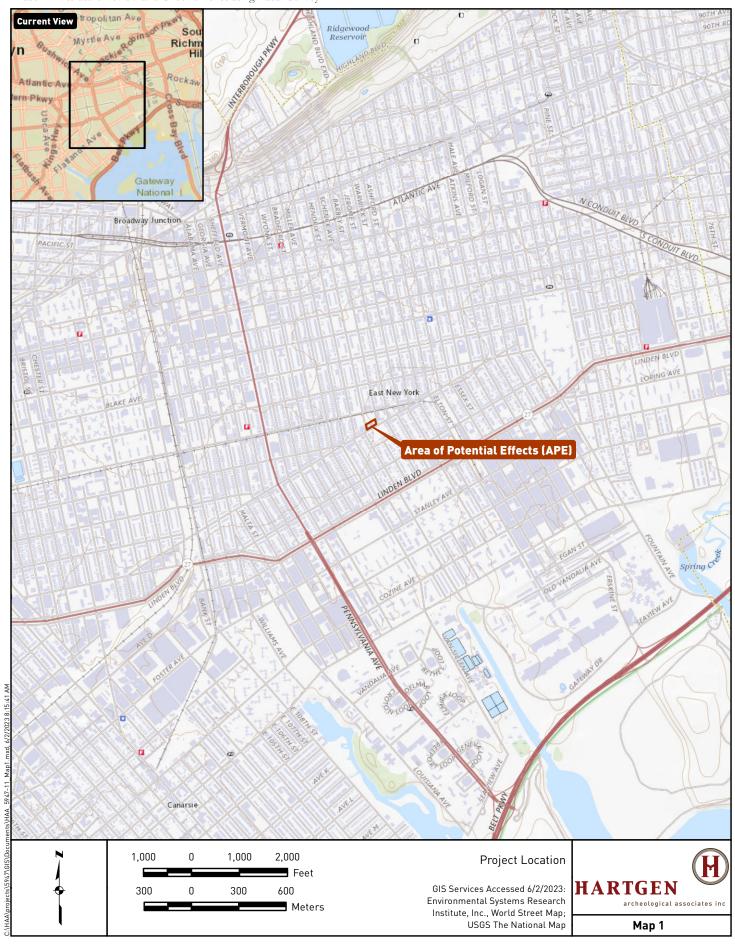
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New Lots Library, 665 New Lots Avenue, Brooklyn, Kings County, New York Phase IA Literature Review and Ground Penetrating Radar Survey

Maps





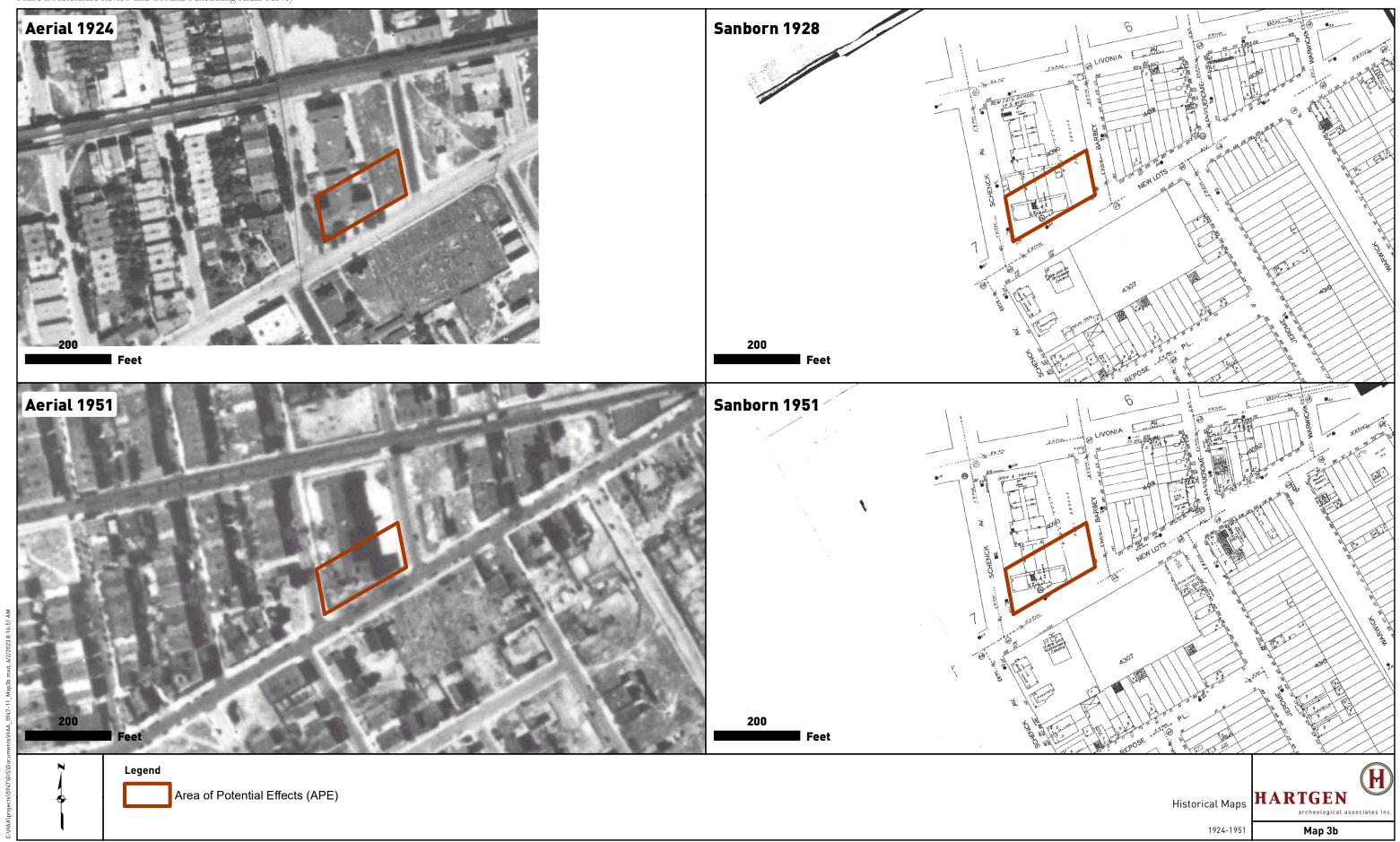




1873-1916

Map 3a

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Photographs

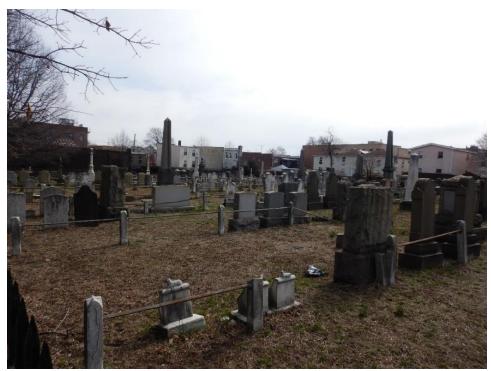


Photo 1. New Lots Reformed Church Cemetery facing southeast.



Photo 2. Facing south towards New Lots Cemetery from New Lots Library.



Photo 3. View facing north side of New Lots Reformed Church.



Photo 4. View facing south side of New Lots Library.



Photo 5. View facing east side of New Lots Library.



Photo 6. View facing north across east parking lot with GPR transects in place.



Photo 7. GPR survey of the east parking lot.



Photo 8. GPR survey of the west lot of the New Lots Library.



Photo 9. GPR transects along the western lot.



Photo 10. GPR transects on the east parking lot.



Photo 11. View facing northwest towards Schenck Playground.



Photo 12. View facing northside of New Lots Library.



Photo 13. View facing southeast corner of New Lots Library.



Photo 14. View facing northeast corner of New Lots Library.



Photo 15. View facing northwest corner of New Lots Library.



Photo 16. View facing southwest corner of New Lots Library.