

## **PHASE IB ARCHEOLOGICAL FIELD RECONNAISSANCE**

**Schenck Playground, African Burial Ground Square**

**Block 4090, Lot 6**

**New York City Department of Parks and Recreation**

816 Livonia Avenue, Schenck Avenue and Barbey Street  
Brooklyn (New Lots)  
Kings County, New York

HAA # 5003-21

**Submitted to:**

New York City Parks and Recreation  
Olmsted Center, Flushing Meadows Corona Park  
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## MANAGEMENT SUMMARY

SHPO Project Review Number: *N/A*

Involved State and Federal Agencies: *None, New York City Parks and Recreation*

Phase of Survey: *IB*

## LOCATION INFORMATION

Municipality: *Brooklyn (New Lots)*

County: *Kings*

Block and Lot: *4090 (6)*

## SURVEY AREA

Length: *200 feet*

Width: *217 feet*

Acres: *37,736 square feet (0.86 acre)*

## ARCHEOLOGICAL SURVEY OVERVIEW

Number and Interval of Shovel Tests: *N/A*

Number and Size of Units: *Eight (8) 1 m x 1 m units*

Width of Plowed Strips: *N/A*

Surface Survey Transect Interval: *N/A*

## RESULTS OF ARCHEOLOGICAL SURVEY

The archeological survey has confirmed archeological remains associated with the Schenck Park Cemetery. Human remains recovered from disturbed burials, dis-interred burials, and evidence of partially intact burials within the playground, along with grave markers, coffin hardware, and likely personal items. Human remains found throughout the soil column beneath the existing asphalt and gravel subbase. It appears many burials have been disturbed from construction, demolition, and utility installation during the late 19<sup>th</sup> and 20<sup>th</sup> centuries.

## RECOMMENDATIONS

Care in the design of planned park improvements should be taken to minimize additional impacts to human remains and intact burials. The creation of an archeological management plan once plans are developed is likely warranted. Close coordination between New York City Department of Parks and Recreation, Landmarks Preservation Commission, the descendant communities and other community stakeholders should be considered to ensure that the archeological management plan adequately addresses concerns with respect to the handling, study, care, and reinternment of human remains, should they be encountered during construction.

Report Authors: *Elizabeth Gregory, Adam Luscier, and Matthew J. Kirk, R.P.A.*

Date of Report: *August 27, 2018*

## ABSTRACT

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase IB Archeological Investigation for the Schenck Playground located in the East New York (New Lots) section of Brooklyn (Kings County), New York on behalf of New York City Department of Parks and Recreation (DPR). The playground is situated on a 0.8-acre parcel, known as Block 4090, Lot 6 fronting on 816 Livonia Avenue and bounded by Schenck Avenue, Barbey Street and an adjacent parcel owned by the Brooklyn Public Library that fronts on New Lots Avenue.

New York City Parks and Recreation is undertaking plans for capital improvements to Schenck Playground. Recently, a number of historical and archeological studies determined that the former site of the playground was part of a cemetery dating back to the 1680s. Some have speculated that this portion of the cemetery, removed from the frontage along New Lots Avenue, may have been utilized by the enslaved peoples of New Lots during the 18<sup>th</sup> century and early 19<sup>th</sup> century and subsequently by the freed black community. A new cemetery associated with the New Lots Dutch Reformed Church was opened nearby and an undetermined number of interments were moved throughout the latter half of the 19<sup>th</sup> and early 20<sup>th</sup> centuries into the new burial ground. It is believed that the former cemetery, which eventually fell into disrepair, contains both disturbed interments, moved interments, and intact interments.

Schenck Playground was formally developed in a city park around 1956, although between 1922 and 1955 the parcel was part of a school playground. Construction associated with the school, playground, residences, and the later, nearby public library all likely adversely impacted the original cemetery in some way.

Prior to field reconnaissance a Ground Penetrating Radar (GPR) study was conducted within portions of the park. The purpose of the GPR study was to identify areas of interest for excavation, to identify potential disturbances such as buried utilities, and to provide a sense of the soil stratigraphy in advance of excavation.

Prior to beginning excavations, eight locations were selected based on the GPR study. A total of eight (8) tests measuring 1x1 meter were placed judgmentally to provide data relating to the depth of fill soil on the site, utility trench locations, other areas of deep disturbance, and the locations of grave shafts. Three tests were placed to target possible grave-related anomalies (Units 1, 2, and 3). Two tests were placed adjacent to the comfort station, where the depth of impacts will be deepest (Units 7 and 8). The remaining tests were dispersed throughout the APE to assess general integrity of archeological features and deposits (Units 4, 5, and 6). Effort was taken to avoid placing tests within utility trenches, where disturbed burials are most likely to be encountered. However, upon excavations of Units 1–3 and 7, it was found that these contained buried utilities.

Human remains were encountered in Units 1-3, 6, and 7. A possible grave shaft was truncated by a sewer pipe in Unit 2. The other units did not expose evidence of intact burial shafts. No human remains were encountered in Units 4, 5 or 8. More information may be needed to determine whether intact graves remain within the boundaries of the former cemetery. Some grave-related artifacts were recovered as well. A piece of marble, likely from a headstone, was recovered within the first 30 cm of Unit 3. Another headstone fragment was recovered from Unit 1 around the same depth as the bone fragment, approximately 70-90 cm below the ground surface. A sandstone grave marker was also recovered, likely part of a footstone, from the trench fill in Unit 3.

The depths to cemetery-related materials appear to be rather shallow relative to modern grade, particularly in Units 2, 6, and 7. A historic photo shows what appears to be an upward slope to the north and west, now graded (Photo 24). Map 1 also indicates an upward slope in the western half of the Project, in agreement with Photo 24. Based on this information it appears the area has undergone significant grading, and the possible grave shaft in Unit 2 may have been truncated. As a result, human remains may be found at depths shallower from the modern ground surface than that historically encountered.

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## PHASE I CULTURAL RESOURCES SURVEY

### 1 Introduction

Hartgen Archeological Associates, Inc. (Hartgen) conducted a Phase IB Archeological Investigation for the Schenck Playground located in the East New York (New Lots) section of Brooklyn (Kings County), New York on behalf of New York City Department of Parks and Recreation (DPR). The playground is situated on a 0.8-acre parcel, known as Block 4090, Lot 6 fronting on 816 Livonia Avenue and bounded by Schenck Avenue, Barbey Street and an adjacent parcel owned by the Brooklyn Public Library that fronts on New Lots Avenue (Maps 1, 2 and 3).

The investigation was conducted according to the New York Archaeological Council's *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. This report has been prepared according to OPRHP's *State Historic Preservation Office (SHPO) Phase I Archaeological Report Format Requirements* (2005).

### 2 Project Background

New York City Parks and Recreation is undertaking plans for capital improvements to Schenck Playground. Recently, a number of historical and archeological studies determined that the playground occupies an area that was once part of a cemetery dating back to the 1680s. Some have speculated that this portion of the former cemetery, removed from the frontage along New Lots Avenue, may have been utilized by the enslaved peoples of New Lots during the 18<sup>th</sup> century and early 19<sup>th</sup> century and subsequently by the freed black community.

The area that is today the playground, was set aside in the 17<sup>th</sup> century for use by the Dutch Reformed Church and its associated school. In time, the lot was used both for a school house and a cemetery lot (originally associated with the main church in Flatbush).

In 1824, the New Lots Dutch Reformed Church was built on the south side of New Lots Avenue. By about 1840, the church purchased the surrounding property and organized a more formal cemetery. Within the next twenty years or so, the old New Lots cemetery fell into disuse and was eventually abandoned. It is believed that a number of the local families removed some of the burials from the old lot and re-interred them into the new cemetery. But unfortunately, no records or plans of the interments are known to exist today.

The western portion of the lot may have housed a school since the late 18<sup>th</sup> century. The small wooden framed school was rebuilt several times throughout its history. In 1886, a new, large brick school (PS No. 72) was built on the lot, and subsequently expanded a decade later. The school remained in the western portion of the lot until the 1950s and Public School 72 (PS 72) was demolished by 1954. Shortly thereafter, a branch of the Brooklyn Public Library was erected on the southern portion of the lot along New Lots Avenue, with a city playground in the rear of the lot (first constructed in 1922), as it remains today (Hartgen Archeological Associates 2016b).

#### 2.1 Location

Schenck Playground is located within the New Lots section of East New York. The playground is bounded by Livonia Avenue, Barbey Street, and Schenck Avenue. A branch of the Brooklyn Public Library covers the southern part of the block fronting on New Lots Avenue (Maps 1 and 2).

A historical plaque within the park describes the origins of the park's name:

The Schencks, for whom this playground and Schenck Avenue are named, first lived in Brooklyn in colonial times, and members of the family served in political office over several generations. The Schencks descended from Johannes Schenk (1656-1748), who was born in Holland, married Maria Magdalena de Hes (1660-1729), and immigrated to America in

1683. A year after their arrival, the Schenks affiliated themselves with the Collegiate Reformed Dutch Church in New York. In 1685, they moved upstate to Esopus (now Kingston), where Johannes taught at the Reformed Dutch Church for five years. The couple moved back to Brooklyn, and Johannes took a new teaching post and became the town clerk of Flatbush. This was not surprising, for it was common at the time for schoolmasters to serve as town clerks as well. Johannes held both posts until 1712, when he and his family moved to Bushwick. In 1719, Johannes Schenk was elected to represent the town in the Board of Supervisors of Kings County (NYCPR 2016).

The playground is situated within Block 4090, Lot 6 and was formally developed as a city park around 1956, over what is believed to have been the location of, the old New Lots, Dutch Reformed Church cemetery. Between 1922 and 1956 this portion of the lot was used as a school playground.

## **2.2 Description of the Project**

Schenck Playground is principally a covered city lot with a number of recreational facilities and appurtenances. These include:

- Park benches, seating, and gaming tables;
- A comfort station (one-story brick and concrete);
- A handball court;
- Basketball court;
- Child's play area with climbing apparatuses and slides;
- A drinking fountain;
- A flag pole;
- Mature tree plantings (decorative pear, silver linden, and regent scholar trees);
- Various fencing (chain link, concrete and iron rail).

The playground is covered with a variety of surface treatments including asphalt, concrete pavers, brick, concrete, a rubberized safety surface, and various granite and hard stone curbing. Street lampposts are located on the sidewalks surrounding the playground, as are several fire hydrants, and drainage structures.

### **2.2.1 Utilities and disturbances**

The playground is serviced by a number of utilities, some of which are shown in the 1992 “as built utilities plan” (Hartgen Archeological Associates 2016b). These include a gas line to the comfort station, water lines, sanitary sewer lines, and storm water drainage lines. In addition, a number of dry wells are located throughout the park.

## **2.3 Description of the Area of Potential Effects (APE)**

The area of potential effects (APE) includes all portions of the property that will be directly altered by the proposed undertaking. The APE encompasses all portions of the existing playground except the handball and basketball courts. Ultimately, the project will create a space within the park to recognize and honor the cultural history of the site.

At present, it is anticipated that the project's impacts will typically be 18 inches deep. Adjacent to the existing comfort station, the depth of impacts will be roughly equal to the depth of the building's foundation.

## **3 Archeological Survey**

The archeological field investigation was undertaken to determine the presence or absence of human remains associated with historic cemetery. The study will also assess the archeological potential of the lot for

containing intact portions of the historic cemetery by closely examining the stratigraphy and level of prior disturbance.

A “focus area” for the archeological work was identified by New York City Parks encompassing about 6,110 square feet in the southeast portion of the playground (Fig. 1-2). This became the study area for the Ground Penetrating Radar (GPR) study and the Phase IB field reconnaissance. The Ground Penetrating Radar (GPR) study was completed in December of 2016, in effort to identify areas with the most potential for intact grave shafts, or the excavations used to inter burials<sup>1</sup> (Hartgen Archeological Associates 2016a).

Eight (8) 1x1 meter test units were placed throughout the study area based on anomalies and stratigraphic data identified by the GPR survey (Photos 1-5). Unit excavations provided data relating to the depth of fill soils, utility trench locations, other areas of deep disturbances, and the potential locations of grave shafts.

### **3.1 Methodology**

#### **3.1.1 Surface Treatments**

The study area is currently covered by asphalt. A hand-held power cutter was used to cut the asphalt at each of the eight (8) unit locations. The loose slabs were removed as each unit was excavated. The asphalt slabs were used to temporarily restore each location following the completion of the Phase IB fieldwork. Full restoration was completed at a later date by using concrete.

#### **3.1.2 Unit Excavation**

Units were square with dimensions of 1-by-1 meters (3.3 by 3.3. ft). Obvious fill levels were not screened. All other soil levels were excavated and passed through 0.25-inch hardware mesh and examined for cultural materials and human remains. Soil depths, Munsell colors, textures, artifact content, and other relevant observations were recorded (Munsell Color 2000). Profiles and plan views were drawn when appropriate. The location of each unit was mapped with a Trimble GeoXH GPS unit and plotted on the project map. Photographs were taken of the fieldwork and of the plan views and stratigraphic profiles within each unit.

Excavations were conducted as levels, in some instances levels were based on cultural or natural soil strata. In some instances, arbitrary levels within strata were excavated. For ease of discussion, and to allow comparison across units, cultural and natural soil strata are addressed in the report. These strata were interpreted during and after excavations based on the soil color, texture, inclusions, and the like. These interpretations are presented in Table 2, see below.

#### **3.1.3 Artifacts and Laboratory**

Coal, ash, cinder, brick, and modern materials were sampled and noted. All burial related artifacts were retained, as were historic artifacts such as glass, ceramics, food remains, hardware, and miscellaneous items. Artifacts were cleaned and entered into a Microsoft Access database that is included in tabular format in this report (Appendix 2). No precontact (Native American) cultural materials were identified during the fieldwork.

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<sup>1</sup> The GPR is able to detect soil anomalies, or disturbances to the natural soil strata, and large features such as stone foundation, metal storage tanks, metal pipes, and the like. The methodology generally lacks to ability to discern human remains or burials themselves within the ground, but rather can detect the excavated grave shafts within which burials may have been placed. The GPR also lacks the ability discern between disinterred or disturbed grave shafts and those likely to be intact.

All bone recovered by the excavations were left on site and later examined by Nystrom Osteology, whose full report is in Appendix 3. The bones were found while excavating and sifting in an effort to identify potential burial shafts. All remains were treated with respect and protected to the greatest extent possible. All of the bones, except one fragment, were identified as human. The protocol used during the excavations is contained in Appendix 4.

### **3.2 Curation**

Any artifacts collected during execution of this work will be transferred to the DPR at the conclusion of the study. The human remains are stored on site, and will be reburied within the park at a future, as yet undetermined, date.

### **3.3 Results**

The Phase IB archeological field reconnaissance was conducted October 23-27, 2017. The field crew consisted of John Ham, Elizabeth Gregory, Jamie Penk, Adam Gersten, and David Wendell, supervised by Adam Lusier. The weather was seasonable to warm, with occasional rain. With the exception of postponing excavations due to rain one day, the weather had no effect on visibility or artifact recovery.

Each unit was excavated until sterile subsoil was reached, in effort to provide a complete vertical record of the soils beneath the asphalt surface of the playground. When subsoil was reached, a sondage was excavated in the corner of each unit to confirm that there were no deeper cultural bearing levels. Three (3) of the units did not encounter sterile subsoil because they were located within utility trenches. The units reached a depth range of 150 to 185 cm (59 to 73 in [5 to 6 ft]) below the surface of the playground.

Overall the soils encountered in the units suggest that disturbance within the study area is widespread. Excavations did not encounter a soil profile indicative of what would have been the “natural terrain” that was likely present at the time that the cemetery existed. The profiles exhibit evidence of several episodes of disturbance that likely occurred in the mid-1950s when Public School 72 (PS 72) was demolished and the library and playground were constructed.

#### **3.3.1 Explanation of Site Stratigraphy**

The asphalt surface of the playground was established in the mid-1990s when the park was last renovated (New York City Department of Parks & Recreation 2018). The asphalt is underlain by a subbase of compacted stone dust and gravel. These three (3) layers compose the modern surface of the playground that is  $\pm 20$  to 25 cm (8 to 10 in) thick.

The playground surface is underlain by a demolition layer that was likely created when PS 72 was demolished. It appears, based on a 1954 aerial, that the entire block, including the cemetery, was graded after the school was razed (Photos 6 and 7).

Archeological evidence of this was found in the demolition layer. It was composed of brown, organic silt-sand (10YR 3/3) mixed with brick, concrete, rebar and other assorted building rubble. The amount of building debris as well as the thickness of this layer varied across the study area. It ranged between  $\pm 10$  and 50 cm (4 and 20 inches) and fell within a depth range of  $\pm 35$  to 75 cm (14 to 30 inches) below the surface of the playground. This layer also contained displaced human remains and grave related artifacts amongst building debris and it was this evidence that suggests that the cemetery was graded and mixed with debris from the PS 72 building.

Ultimately, the demolition layer was underlain by sterile subsoil. This soil consists of coarse yellow-brown sand (10YR 5/4 to 5/4) that in some instances contains fine, smoothed pea-gravel. The composition of this soils is typical of glaciofluvial sediment that covers the southern half of Long Island, south of the Ronkonkoma terminal moraine.

### 3.3.2 Utility Trenches

In addition to the stratigraphic levels described above, excavations also encountered utility trenches, which affected the depth of deposits (Fig. 2). Utilities included a storm sewer of the playground and a waste water line that connects with the comfort station building. Both extend east through the study area into Barbey Street. Both utility trenches produced human remains and grave related items (Map 3).

#### 3.3.2.1 Storm Sewer Line

The storm sewer crosses west-east through the north side of the study area. It became progressively deeper from west to the east, respectively within Units 1, 2 and 3. The top of the clay drain pipe was encountered between 157 cm (62 in) to 185 cm (73 in), west to east, below the surface of the playground. The bottom of the trench likely extends another  $\pm 40$  cm (16 in), based on the diameter of the drain pipe (Fig. 2)(Map 3).

The utility trench is widest at the top and gradually tapers toward the pipe at the bottom. The maximum width is unknown because it extends outside of Units 1, 2, and 3. The trench fill included building rubble, mixed lenses of organic soil, human remains and grave related items. The section of the clay drain pipe exposed in Unit 3 had a maker's mark "*Universal Water Pipe Corporation*" that suggest it was installed in the mid-1950s when the playground was initially constructed.

#### 3.3.2.2 Comfort Station Waste Water Line

The comfort station is also an original fixture of the playground (Photo 7). The waste line extends from the middle, front (east) side of the building and continues east to Barbey Street. The top of the waste pipe was encountered 90 cm (35 in) below the surface of the playground in Unit 7; the pipe was about 15 cm (6 in) in diameter and made of cast iron. At some point, the waste pipe was abandoned and removed. The section closest to the comfort station was left in situ and plugged with a garbage bag. There were two trenches for the waste pipe; one for its installation and the other for its abandonment/removal. The original trench was much wider than the abandonment trench and contained building rubble and human remains.

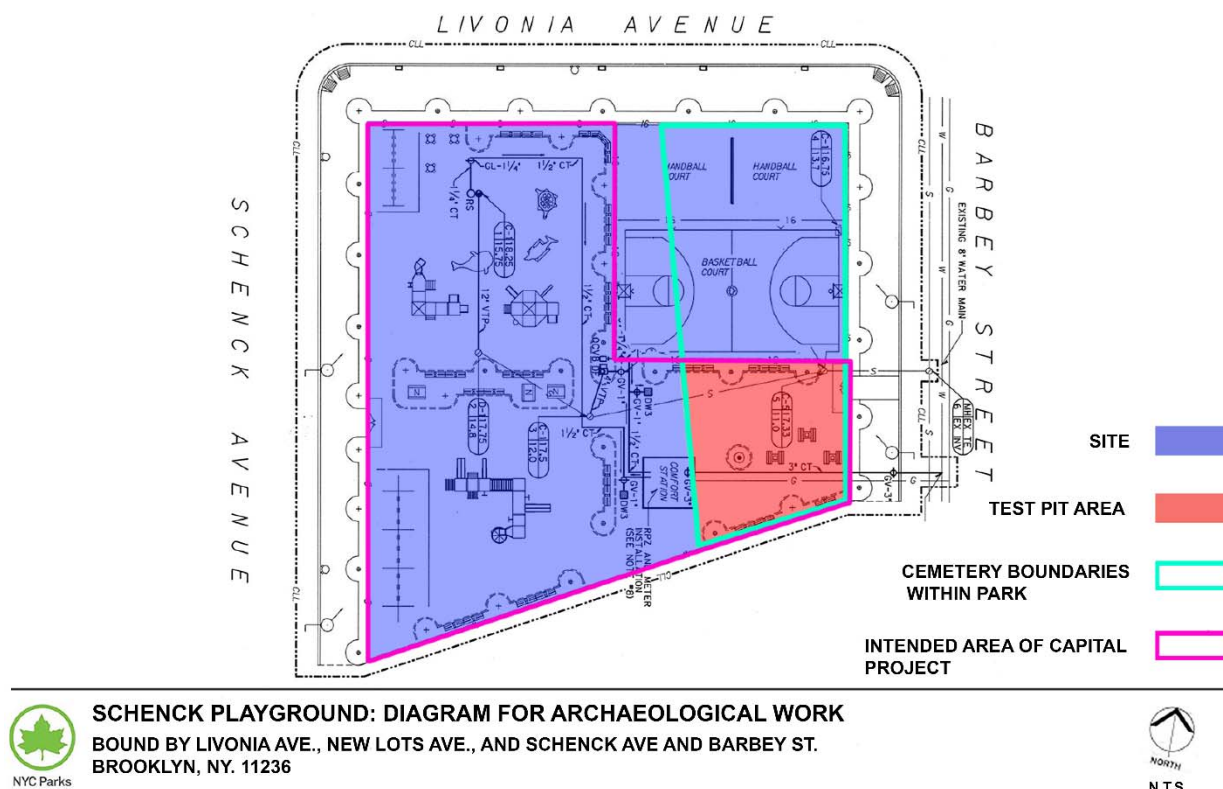
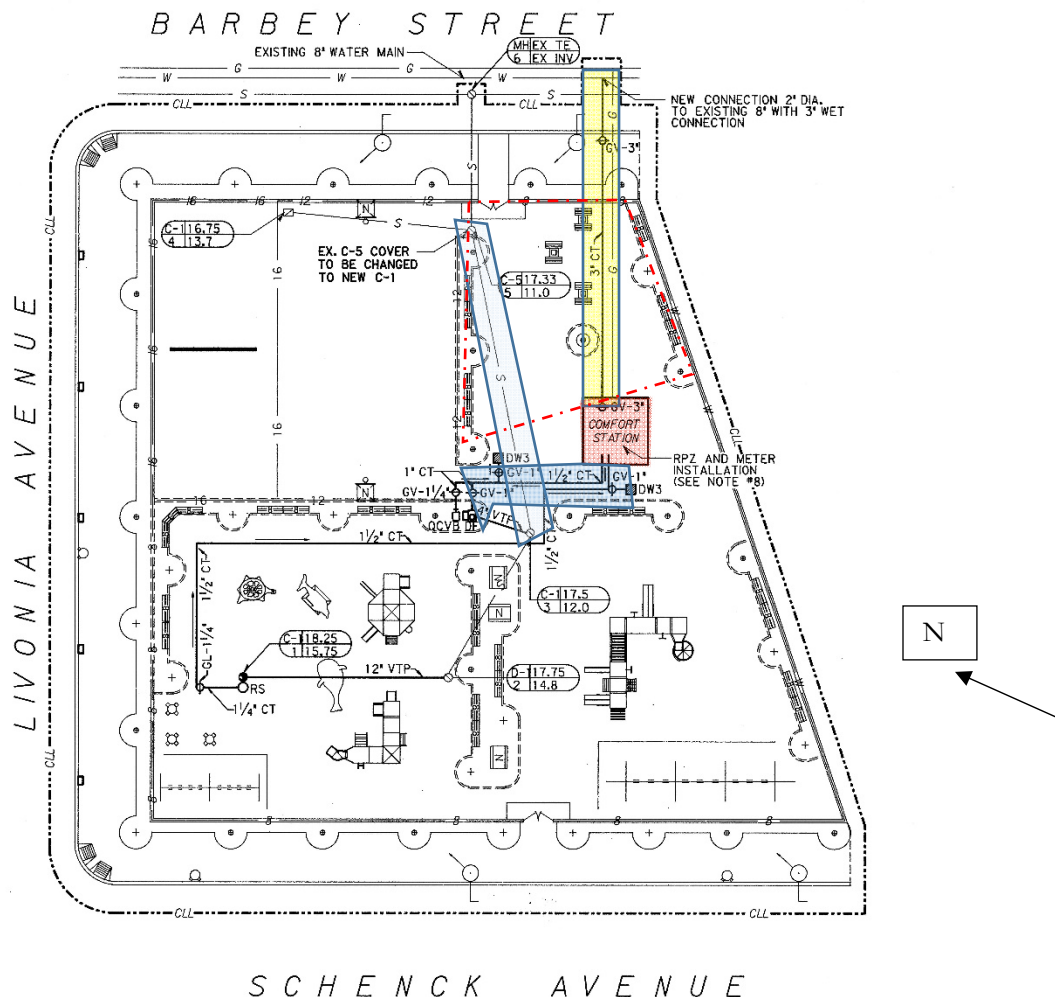


Figure 1. The playground with current archeological study areas and approximate boundaries of cemetery.



## Utilities Plan

Figure 2. The 1992 “as-built” plans, the archeological study was focused on the east side of the comfort station (red) serviced by a gas line (yellow) and water and sewer lines (blue).

### 3.3.3 Human Remains

As described above, human remains were identified in the two (2) stratigraphic contexts that included the demolition layer and utility trenches. Nearly all of the remains were identified in disturbed contexts. The exception was a potential grave identified in Unit 2 that was truncated by the storm sewer trench.

This feature was identified 65 cm (25 in) below the surface of the asphalt, extending from the west wall of Unit 2. It was defined by a straight edge of heavily decayed wood with nails. Immediately inside the line of wood was human long bones that appeared in situ. The feature fill was a dark, organic (10YR 3/3) sandy silt. However, only a small 10-by-20 cm (4-by-8 in) section of the feature was exposed before it was truncated by the sewer trench and extended outside of the west wall of Unit 2. With only this small part exposed not enough of this feature was excavated to support a conclusive interpretation.



### 3.3.4 Archeological Site 1

Table 1. Summary of Archeological Site 1

Characteristic	Site information
Site Name	Schenk Park Cemetery
Description	Cemetery was used between c. late-1600s and early-1800s, then stood abandoned for decades. Was graded in the 1950s for the construction of a NYC Parks playground. Today human remains and grave related artifacts are located below the paved surface of the playground.
Date	17 <sup>th</sup> to 19 <sup>th</sup> century.
Function	cemetery
Size	Approximately ±568 square meters (6,110 sq ft)
Location	NAD 83, UTM Zone 18T, 594167.83 Easting, 4502224.53 Northing

### 3.4 Unit Descriptions

In all, eight 1x1 meter square units were excavated within the southeast portion of the park between the comfort station and Barbey Street. Each was placed in areas of archeological interest as determined by the GPR study.

#### 3.4.1 Unit 1

Unit 1 was placed about 5.4 meters (18 ft) north of the northeast corner of the comfort station, where an anomaly was identified by the GPR survey (Maps 2 and 3). Excavation found that this unit was entirely contained within the storm sewer trench. The trench was filled with building rubble and various lenses of disturbed soils. Fragments of whiteware, green American “majolica,” blue transfer-printed porcelain, bottle and window glass, safety glass, and nails were recovered from the trench fill. At a depth of about 68 cm (27 in) a fragment of marble headstone was identified with dark soil adhered to it. In the sandy fill below it, at about the same depth, a human long bone (left tibia) was identified. Both were in the disturbed trench fill. The top of the storm sewer drain was encountered 157 cm (62 in) below the surface of the playground (Photos 8 and 9 and Figure 3).

#### 3.4.2 Unit 2

Unit 2 was placed about 3 meters (10 ft) east of Unit 1, over an anomaly identified by the GPR survey (Maps 2 and 3). This unit caught the southern edge of the same sewer trench that was identified in Unit 1. At a depth of 66 cm (26 in) a possible grave was encountered that had been truncated by the storm sewer trench.

As previously described, it was defined by a straight edge of heavily decayed wood with nails. Immediately inside the line of wood was a human long bone that appeared in situ. The feature fill was a dark, organic (10YR 3/3) sandy silt and only a small 10-by-20 cm (4-by-8 in) section of the feature was exposed before it was truncated by the sewer trench and extended outside of the west wall of this unit (Photo 10). The feature was not excavated further and was left in situ.

Excavation continued in the northeast corner of the unit, within the sewer trench that truncated the possible grave. This identified building rubble, small nails with wood attached, and loose human bones, and a fragment of a marble gravestone at a depth of about 150 cm (59 in). In level 4 a fragment of an unsided radius was recovered, and in Level 5 eight long bone fragments including a right proximal ulna, distal ulna diaphysis, right radial tuberosity (proximal muscle attachment site near the neck of the bone)) (2 pieces), two other midbone segments of radius, and two unidentified long bone fragments. These were likely displaced from the grave that was truncated by the sewer trench and is supportive evidence that the feature identified in Unit 2 is potentially part of an intact grave (Photos 10-13 and Fig. 4a and b). In all, 11 fragments of human remains were recovered from the trench fill.

### 3.4.3 Unit 3

Unit 3 was placed 2 meters (6 ft) east of Unit 2 (Maps 2 and 3). This unit also caught the storm sewer trench, which covered almost the entire unit (Photo 14). Only the south edge,  $\pm 25$  cm (10 in), of the unit was outside of the trench. Excavation encountered various levels of fill soils and building rubble within the disturbed trench. A fragment of a sandstone grave stone (containing no markings) was recovered from a depth range of 43 to 72 cm (17 to 29 in) (Photo 15). Small fragments of human bone was identified dispersed at various depths within the trench fill.

In Level 2, four small fragments were recovered. They included trabecular bone (2), a possibly burned or calcined long bone, and a long bone fragment (either humerus or femur). In Level 4, 11 fragments were recovered. Almost all were trabecular bones, with one fragment likely a part of the os coxae (or pelvis) near the ischium/acetabular transition (lower front). This bone had copper staining, perhaps from a belt or coffin hardware included with the burial. In all, 15 pieces of human remains were recovered from this unit.

The top of the vitrified, clay sewer pipe was encountered  $\pm 185$  cm (73 in) below the surface of the playground. Subsoil was identified outside of the trench on south side of unit (Photos 14 and 15 and Figure 5).

### 3.4.4 Unit 4

Unit 4 was placed in the northwest corner of the study area, about 7.5 meters (25 ft) north of the northwest corner of the comfort station (Map 2). This unit encountered a thin, 10 to 12 cm (4 to 5 in), demolition layer below the surface of the playground and subsoil. Subsoil was encountered  $\pm 40$  cm below the surface of the playground. No human remains or grave related artifacts were recovered from this unit (Photo 16 and Figure 6).

### 3.4.5 Unit 5

Unit 5 was placed along the southern edge of the study area about 7.5 meters (25 ft) east of the comfort station (Maps 2 and 3). This unit contain a thick demolition layer that was composed of mottled sandy fill and lenses of organic soils mixed with building rubble that extended about 83 cm (33 in) below the surface of the playground. This layer was underlain by natural subsoil, indicative of natural glaciofluvial sediments that was excavated to a depth of 185 cm (73 in). No human remains or grave related artifacts were recovered from this unit (Photo 17 and Figure 7).

### 3.4.6 Unit 6

Unit 6 was also placed along the southern edge of the study area, about 1.2 meters (4 ft) west of Unit 5 (Maps 2 and 3). The stratigraphic profile of this unit was very similar to that encountered in Unit 5, as the demolition layer was composed of mottled sands, lenses of organic silt and building rubble. The bottom of this level and the top of subsoil was encountered  $\pm 55$  cm (22 in) below the surface of the playground. Subsoil was excavated to a final depth of 185 cm (73 in) (Photo 18 and Figure 8).

Human remains and grave related items were dispersed within the demolition layer. The grave items included a fragment of marble, possibly from a gravestone, and an ivory button, perhaps from clothing in a burial (Photos 19-20).

In all, seven fragments of human remains were recovered in this unit. All were from Level 2. Just below the transition between Levels 1 and 2 a fragment of a highly weathered long bone was recovered. The weathering suggests the bone was exposed to the elements for a period of time before being reburied, likely with the construction of the asphalt park surface. The six other fragments were found scattered throughout Level 2. They included four cranial pieces, a long bone fragment, and a possible rib.

### 3.4.7 Unit 7

Unit 7 was placed in front the comfort station about 2 meters (6 ft) from southeast side of the building (Map 2). At the transition between the upper levels of demolition debris (Stratum 2) and a utility trench (Strata 3 and 4), a human cranial fragment was recovered. This unit was entire contained with a utility trench for a waste water pipe from the comfort station. The trench fill include mixed levels of silt and mottled sandy fill that contained building debris. However, the fragments of the concrete and brick were smaller and then what was encountered in most of the units. The top of the waste pipe was encountered at  $\pm 90$  cm (35 in) and the base of the trench at  $\pm 120$  cm (47 in) below the surface of the playground. Subsoil was identified below the trench and was excavated to a final depth of 164 cm (65 in) (Photo 21 and Figure 9).

In the upper portion of the unit, thin the demolition debris (Strata 2) a small cranial fragment was recovered. The remainder of human remains in the unit were all found in the utility trench fill below Strata 2.

Small fragments of human bone (n=12) were identified recovered dispersed within the fill of the trench, Level 3. These were described by the osteologist as cortical bone generally “too small for identification.” Three large pieces appear to be cranial elements however.

A larger long bone (distal end of a left humerus) was identified protruding from the west wall of the unit at a depth of  $\pm 95$  cm (37 in) below the surface of the playground within Strata 3 (Photo 22). This bone was in a disturbed context but was left in situ. Also nearby were five additional bone fragments, however, only four are thought to be human. They are all likely cranial elements.

### 3.4.8 Unit 8

Unit 8 was placed in the southwest corner of the study area, about 3 meters (10 ft) from the comfort station (Map 2). Excavation identified the base of the demolition layer about 50 cm (20 in) below the surface of the playground. This transitioned to sterile subsoil that was excavated to a depth of  $\pm 160$  cm (63 in). No human remains or grave related artifacts were recovered from Unit 8 (Photo 23 and Figure 10).

## 3.5 Summary

### 3.5.1 Soil Stratigraphy and Disturbances

Table 2 below lists all of the excavations levels from the eight (8) 1-by-1 meter (3.3-by-3.3 ft) units as they were excavated within particular strata. Unit profiles, illustrate the east wall of each excavation are displayed in Figures 3-10. Each unit encountered a demolition and construction stratum, associated with historic development of the park from the 19<sup>th</sup> century to modern times.

Unit 1, 2, and 4 appear to have encountered one iteration of the storm sewer in the park. Similarly, Unit 7 appears to have encountered a waste water utility trench, immediately south and east of a gas line, rendered in the same area on the 1992 plan.

Table 2. Summary of Soil Profiles.

Strata	Unit							
	1	2	3	4	5	6	7	8
Asphalt	LV 1a [0-6 cm]	LV 1a [0-4 cm]	LV 1a	LV 1a [0-6 cm]	LV 1a [0-4 cm]	LV 1a [0-23 cm]	LV 1 [0-25 cm]	LV 1a [0-23 cm; SE: 0-15 cm]
Stone dust [10 YR 3/1]	LV 1b [6-10 cm]	LV 1b [4-26 cm]	LV 1b (W: 0-31 cm; NE: 0-27 cm; SE: 0-22 cm)	LV 1b [0-12 cm]	LV 1b [4-32 cm]	LV 1b [0-23 cm]	LV 1b [0-25 cm]	LV 1 [0-23 cm; SE: 0-15 cm]
Crushed stone [10 YR 6/2]	LV 1c [10-17 cm]	LV 1c [4-26 cm]	LV 1c (W: 0-31 cm; NE: 0-27 cm; SE: 0-22 cm)	LV 1c [0-20 cm]	LV 1c [4-32 cm]	LV 1c [0-23 cm]	LV 1c* [0-25 cm]	LV 1 [0-23 cm, except in SE]

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Strata	Unit							
	1	2	3	4	5	6	7	8
Demolition Layer Mottled sand/silty sand fill (10 YR 3/3; 10 YR 4/4)	LV 2 (17- 20 cm)	LV 2-3 (SW: 26-70 cm; SE: 26- 83 cm)	LV 2 */** (W: 31-40 cm; NE: 27-40 cm; SE: 22-40 cm)	LV 2 and 3 (20-34 cm),	LV 2 (32-49 cm ) LV 3 (49-70 cm)	LV 2 ** (N: 23-66 cm; S: 23-56 cm)	LV 2 ** (30-80 cm)	LV 2 -6 (23-63 cm)
Fill layers (mottled)			LV 3 (43-72 cm) LV 4 (72-107 cm); LV 6 LV 8 LV 9 (55-85 cm)	LV 4 (70-90 cm)		LV 3 (80-95 cm)		
Storm Sewer Trench feature – sand (10 YR 6/6)	LV 2 ** (NW: 20- 32 cm; NE: 20-60 cm; S: 20-89 cm) LV 3 (NW: 32- 55 cm; NE: 60-82 cm; S: 89-115 cm)	LV 4-5 ** (NW: 26- 160 cm; NE 26-58 cm)	LV 7 (85-200)					
Waste Water Trench feature – Sand (10 YR 3/3)							LV 3 ** (N: 44-91 cm) LV 4 ** (S: 44-76 cm) LV 4-6 ** (NE: 91-99 cm; SE: 76-98 cm; NW: 91- 122 cm; SW: 76-122 cm)	
Sandy subsoil with smooth gravel (10 YR 5/4)			LV 5 (E: 107-144 cm)	LV 4 (34-215 cm)	LV 5 (90-140 cm; cm; SW: 90- 122 cm; SE: 90-197 cm)	LV 4-6 (N: 90-122 cm; SW: 90- 122 cm; SE: 90-197 cm)		Lv 7 (63-130 cm)
** Human remains present in strata								

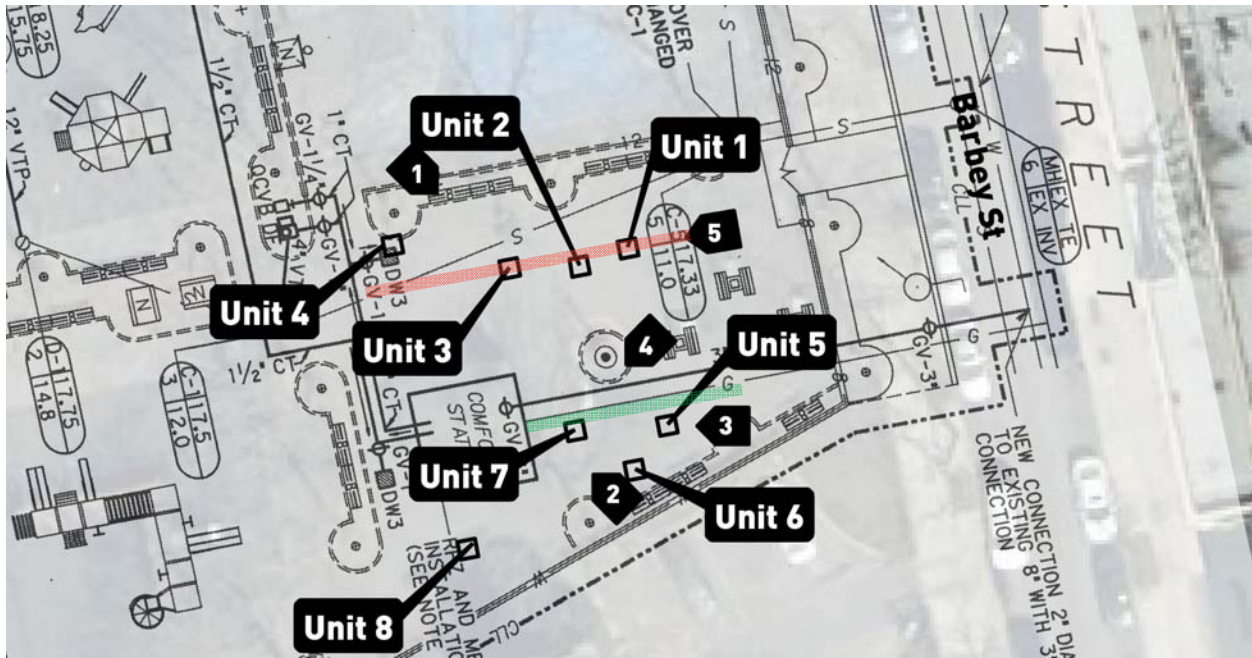


Figure 12. The archeological units relative to noted utility trenches within the excavations. The red line indicates at least one iteration of the storm sewer line and the green line indicates an iteration of the sanitary sewer from the comfort station to the street.

### 3.6 Human remains

Human remains were recovered from five of the eight excavation units. In Units 2 and 7, elements were left in situ. Within Unit 3, it is believed that only a small portion of the left side of a burial and its associated coffin remain intact have the excavation of a utility trench in the 20<sup>th</sup> century. Otherwise virtually all of the human remains were found within disturbed contexts, some at relatively shallow depths. A weathered long bone fragments, suggests that some human remains were pulled to surface at some point in the past, and then subsequently reburied during later construction activities.

Most of the bones were relatively small in size, and therefore often could not be identified to a particular element, side, or sex. A variety of skeletal elements were represented with a relatively limited amount of excavations. These include cranial and post-cranial fragments. No teeth, small hand or feet bones, or vertebrae were recovered. Perhaps many of these smaller bones and teeth have decomposed over the years, especially after numerous disturbances.

Human remains are found throughout the soil columns below the modern asphalt and its gravel/sand base. The construction and demotion of the former nearby school, the public library, and the installation of park facilities and the related utilities have all likely contributed to the disturbance of burials and dispersal of human remains.

The park likely contains intact burials, partially disturbed burials, dis-interred burials (with varying amount of human remains left behind), and completely disturbed burials. Based on the GPR data and the initial archeological excavations, there does not appear to be a consistent pattern (although the excavation were limited in extent). In the absence of DNA testing, it is no possible at this point to correlate the recovered human remains with ethnic or cultural groups that is members of the Dutch Reformed Church or the enslaved and free black population of the area, both of whom are known to be interred within the cemetery.

Table 3. Identified Human Remains within the Excavation Units.

Unit	Cranial frag.	Long Bones	Pelvis	Ribs
1		1 tibia		
2		3 radial elements (3 mending fragments) 2 ulna frag. 4 unid. 1 left humerus?, left in situ		
3		1 tibia 1 femur or humerus	1	
6	4	2 unid		1
7	17	1 humerus, left in situ		

### 3.7 Grave Markers and Grave Goods

The excavations also revealed at least five broken grave markers. At least one appears to be a head stone. The others could be headstones, footstones, or family (group) markers. The markers all appear to be late 18<sup>th</sup> to mid-19<sup>th</sup> century in date. Earlier headstone in this area, where more likely to be from native stone and fieldstone (Stone 2009:150). Stone has suggested that Long Island cemeteries nearer to New York City (like New Lots) would be more likely to have grave markers from New Jersey or New York sources. While those further east tended to have more New England stone (Stone 2009:155-156). The limited data provided here is unfortunately equivocal. However, stone sourcing could prove to be an interesting research question should additional archeology be undertaken.

The most complete example appears to be composed of Westchester (NY) marble, likely from the 1830s. This appears to be a pre-cut, commercial stone, likely locally inscribed. A script “S” and print “m” are the only letters present. A speculative transcription might be:

Sacred  
to the  
memory of .

These appear on a panel or tablet with a tympanum (or arched top) which is slightly flattened at the very top. The shoulders are very small on the side of the tympanum, which along with the materials also suggests a 19<sup>th</sup> century date (Farber 2003). The tympanum did not appear to be decorated. Lack of motifs on headstones may be common in Dutch Reformed cemeteries of the time (Stone 2009:153).

A fragment of a brownstone marker, perhaps from Connecticut, evidenced chisel marks along one edge suggest a decorative design. It is possible that this was part of a shoulder or the side of a more elaborate tympanum, but without addition detail this is somewhat speculative. Three fragments of marble markers (likely from three separate markers based on thickness, color, and texture were also found. These are possible from Vermont quarries. As these were quite small fragment, little else can be determined from these.

In all, five separate grave markers were recovered during the excavations. All have been heavily damaged, some from natural weathering, and other from later construction and demolition activities, and from the installation of various utilities.

Aside from the nails and wood from the coffin located in Unit 2, there were only two other nails recovered likely to be from wooden coffin. These were collected and stored with the human remains from Unit 4, Level 4 the storm sewer trench. It is possible they were originally associated eighth the intact burial from the same unit. The nails were fairly small and still had wood adhering to the rusting metal.

Finally, a four-hole bone button, could have been associated with clothing from a disturbed burial. While shrouds were also likely in the cemetery no pins were recovered from any of the excavated units. No other personal items, or hardware like handles or hinges from coffins were recovered (Bell 1990).

The all of the remaining recovered nails were or a size and length to suggest they were used in architectural fabric, as opposed to the smaller nails, brads and tacks more commonly used in the construction of wooden coffins. In the 18<sup>th</sup> and 19<sup>th</sup> centuries, coffin were often fabricated by furniture or cabinetmakers.

## **4 Conclusion**

The historic cemetery that is today covered by the playground, is believed to have existed as early as the late-1600s. The lot was set aside by the Dutch Reformed Church and its associated school for a school house and a cemetery. Based on the early date of the cemetery, it is not unreasonable to think that the topography at time was natural and may have had subtle features that are no longer visible. A photograph of the cemetery in 1900 shows it in an abandoned, overgrown condition, with a path worn though the middle. Although the photo has some distortion the path seems to follow a subtle rise to the north, northwest. This suggest that the cemetery set on a subtle hill (Photo 24).

Archeology suggests that the flat surface of the playground is artificial; but, more importantly that this surface was arrived at through grading. In 1953, the NYC Parks took possession of the PS 72 property with the intension of constructing a playground (New York City Department of Parks & Recreation 2018). It appears that when PS 72 was razed the entire block was flattened, likely in preparation for the playground. This is visible in the 1954 aerial and in the stratigraphic profiles of the study area.

The demolition layer encountered below the surface of playground is the result of grading across the entire block. It's composed of organic sandy silt mixed with rubble from the PS 72 building and human remains and fragments of gravestones from the historic cemetery. The demolition layer occurs between  $\pm 20$  to 75 cm (8 and 30 in) below the surface of the playground.

The content of the demolition layer is indicative that some graves were destroyed. However, the potential remnant of a grave shaft identified in Unit 2 suggest that some graves may have survived. This feature was identified 65 cm (25 in) below the surface of the playground, at a shallow depth for a grave. However, it is likely that grading brought it closer to the existing surface. It was unfortunately disturbed further by the storm water utility trench, which made a conclusive interpretation difficult without expanding Unit 2.

The establishment of infrastructure for the playground represents a second phase of disturbance identified by the archeology. These include the comfort station itself, its utilities and storm water drains. These disturbances are localized but much deeper than grading. The storm water trench extends  $\pm 157$  to 185 cm (62 to 73 in [5 to 6 ft]) below the surface and the comfort station waste water trench extends  $\pm 120$  cm (47 in [4 ft]) below the surface. Although human remains and grave related items were identified in the trenches, the likelihood for intact graves may be low due to these disturbances.

The archeology has shown conclusive evidence that the Schenck Park Playground covers the remnants of the historic cemetery. The potential for disturbed human remains is high within the demolition layer 20 to 75 cm (8 and 30 in) below the surface of the playground and across the entire study area. The potential for intact graves is highest at base of the demolition layer, outside the utility trenches and footprint of the comfort station.

Care in the design of planned park improvements should be taken to minimize additional impacts to human remains and intact burials. The creation of an archeological management plan once plans are developed is likely warranted. Close coordination between New York City Department of Parks and Recreation, Landmarks Preservation Commission, the descendant communities and other community stakeholders should be considered to ensure that the archeological management 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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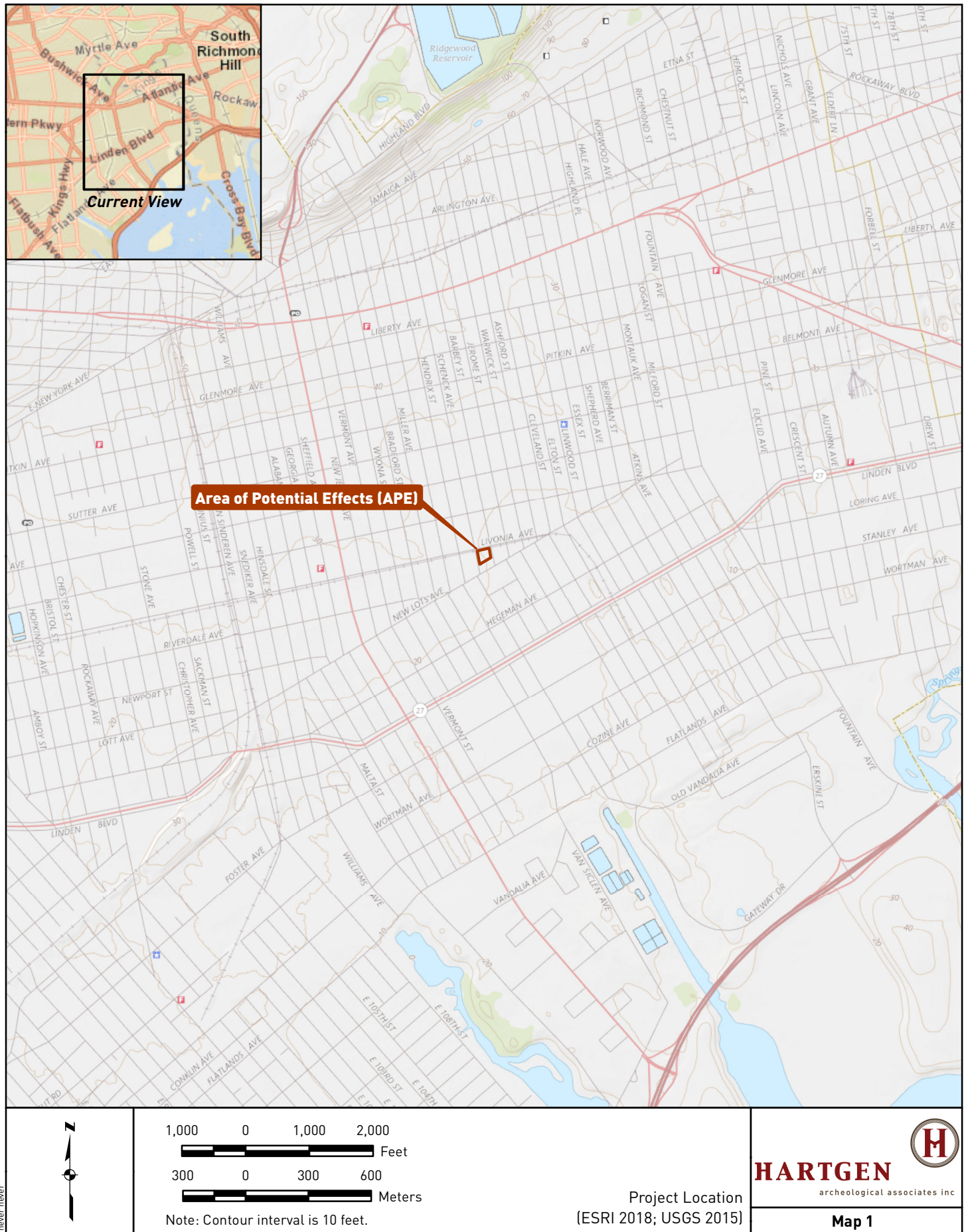
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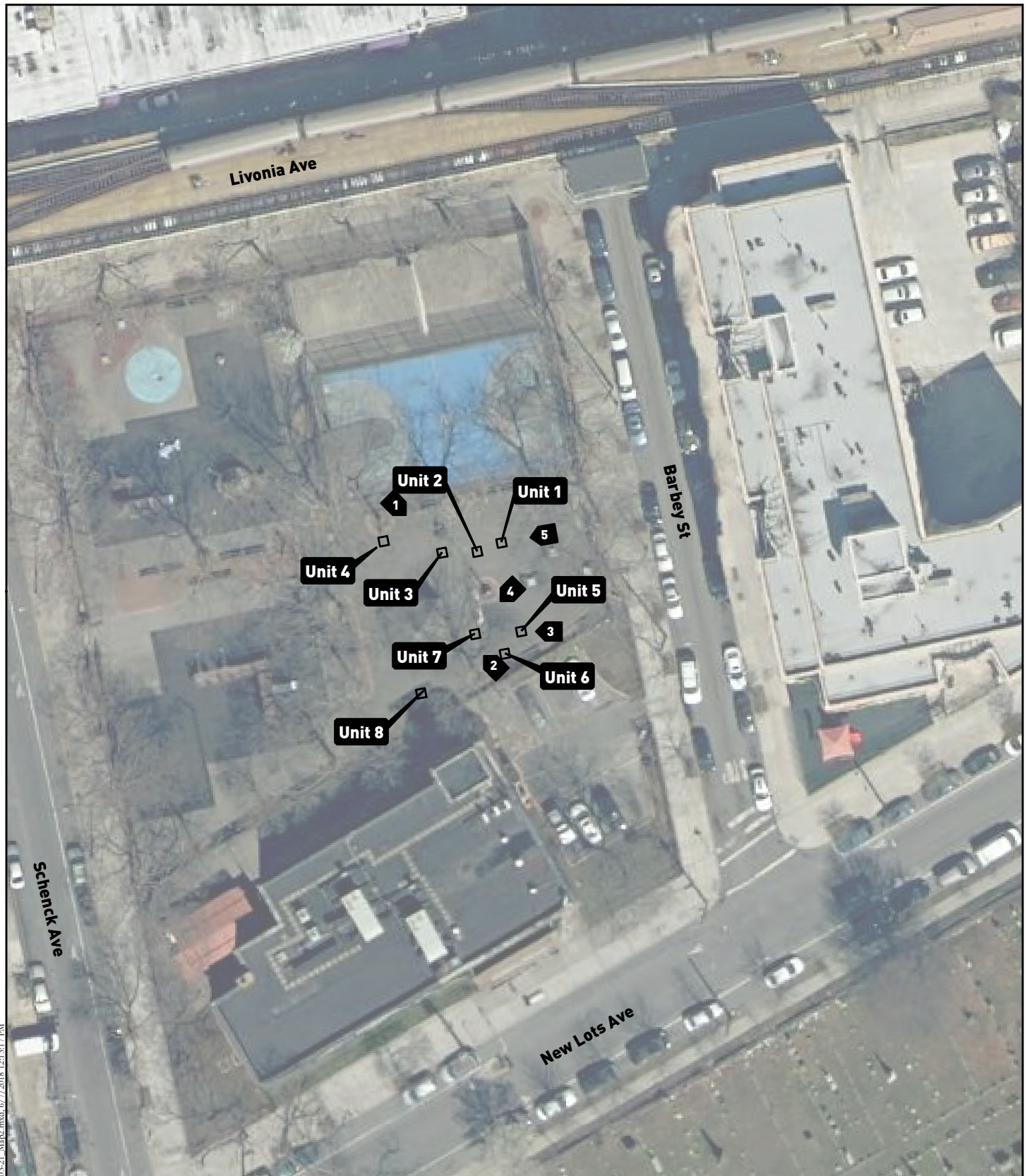
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Phase IB Archeological Field Reconnaissance

## Maps

Schenck Playground, Livonia Avenue between Barbey Street and Schenck Avenue, Brooklyn, NY  
Phase 1B Archeological Field Reconnaissance







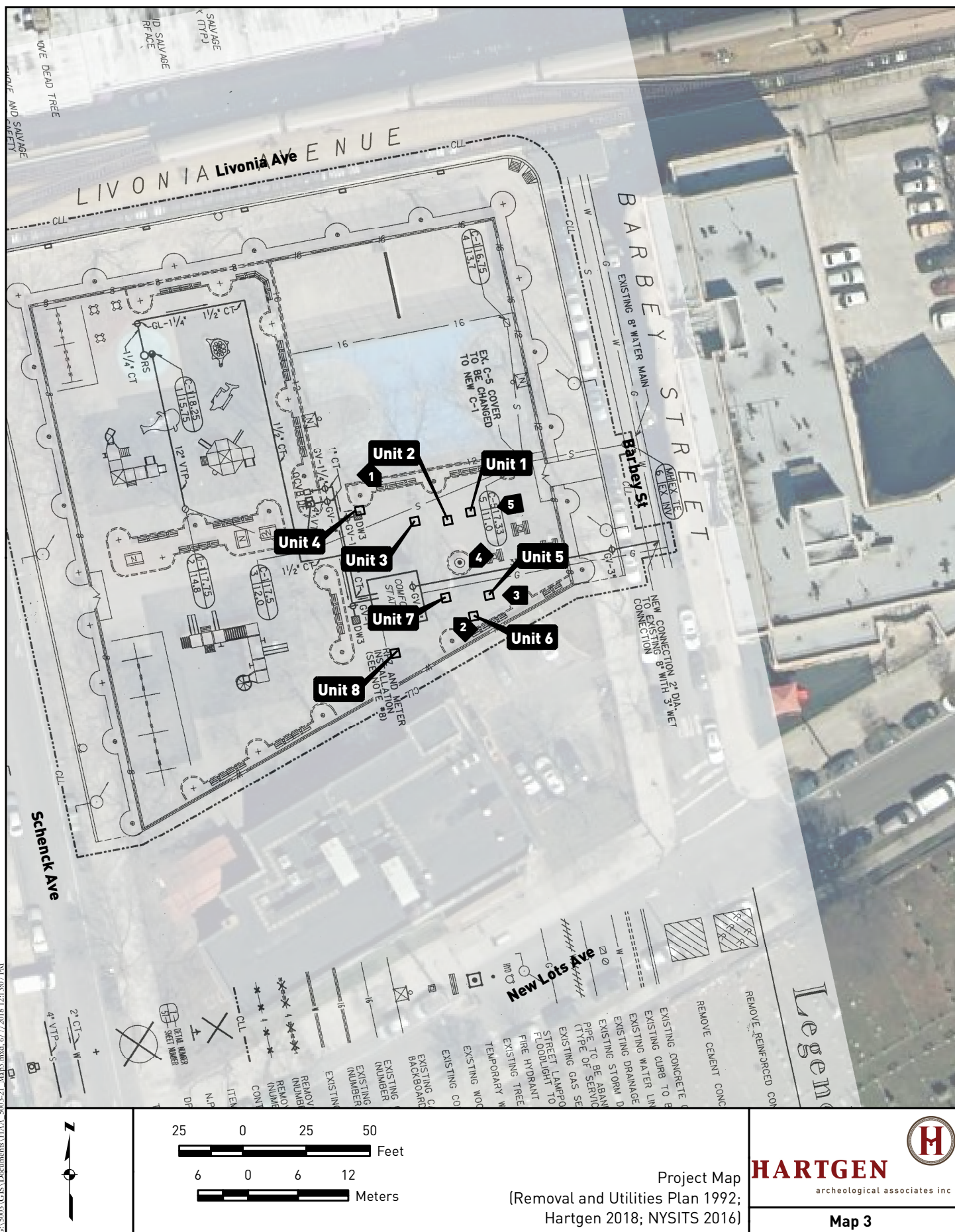
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Project Map  
(Hartgen 2018; NYSITS 2016)



Map 2



Schenck Playground, Livonia Avenue between Barbey Street and Schenck Avenue, Brooklyn New York City Parks  
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## **Photographs**





Photo 1. Archeologists excavate Units 1-3 on the north side of the Project, in the areas identified as "possible burials" by the GPR survey. View looking southeast towards Barbey Street, Unit 3 is in the foreground.



Photo 2. Archeologists begin Unit 4 (near the west fence) and finish Unit 3, at the northwestern section of the Project. The comfort station is visible to the left of the photo. View looking northwest.





Photo 3. Archeologists excavate Units 5 (center) and 6 (left). The comfort station is visible towards the middle of the photo, and Unit 4 is in progress to the right. View looking west.



Photo 4. Archeologists excavate Units 7 (center) and 8 (left). The comfort station is visible to the upper right, and the library is visible to the upper left. View looking southwest.



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Photo 5. Upon completion of excavations, each unit was backfilled and the asphalt replaced. Completed Units 1-4 are shown here. View looking west.



Photo 6. This 1954 aerial shows the lot completely leveled shortly after PS 72 was razed. The study area is outline in red.





Photo 7. 1966 aerial shows the New Lots Library with the playground. The shadow of the comfort station is shown within the study area.



Photo 8. View of east wall profile of Unit 1. The entire unit was located within the storm sewer trench. The clay pipe was identified at 157 cm (62 in) in the southeast corner. Human remains and a gravestone fragment were recovered from the trench fill.





Photo 9. Front and back sides of the fractured gravestone from the storm sewer trench fill in Unit 1. Erosion on the back shows that it is made from snowflake marble.



Photo 10. View of the disturbed grave shaft and burial on the west side of Unit 2 during the excavation. The dark staining and bone were bordered by a line of decayed wood and nails that passes the point of the trowel. This may be the remnant edge of the coffin. A close up view is on the top left.





Photo 11. A speculative reconstruction of the original configuration of the burial is outlined in blue. The burial was truncated by the storm sewer trench outlined in green. The intact portion of the burial is outlined in red.



Photo 12. View of east wall profile in Unit 2. The deep excavation was within the storm sewer trench, where several long bone fragments were recovered. The grave shaft and burial is outlined in red and was left in situ.



Photo 13. Small edge fragment of a marble gravestone recovered from the storm sewer trench in Unit 2.





Photo 14. View of the east profile of Unit 3, showing the storm sewer trench to the left of the scale stick. The top of the clay pipe was on the bottom left (northeast corner) of the excavation at 185 cm (73 in). The trench contained human remains and the fragment of a gravestone.



Photo 15. Fragment of a Connecticut brownstone grave marker recovered from the storm sewer trench in Unit 3. A finished, chiseled edge is apparent on the stone (arrow), which was likely placed between about 1780 and 1880.



Photo 16. View east wall profile in Unit 4. The demolition layer was very thin and the underlying sterile subsoil was identified at a shallow depth of 35 cm (14 in).





Photo 17. The east profile in Unit 5. The demolition layer is thick, extending about 75 cm (30 in) below the surface. The dark lens at the bottom of likely evidence of a low area that was filled by grading. No human remains were recovered.



Photo 18. View of the east profile in Unit 6, showing about 55 cm (22 in) of the demolition layer with a sharp transition to subsoil. Human remains were recovered from the demolition layer.



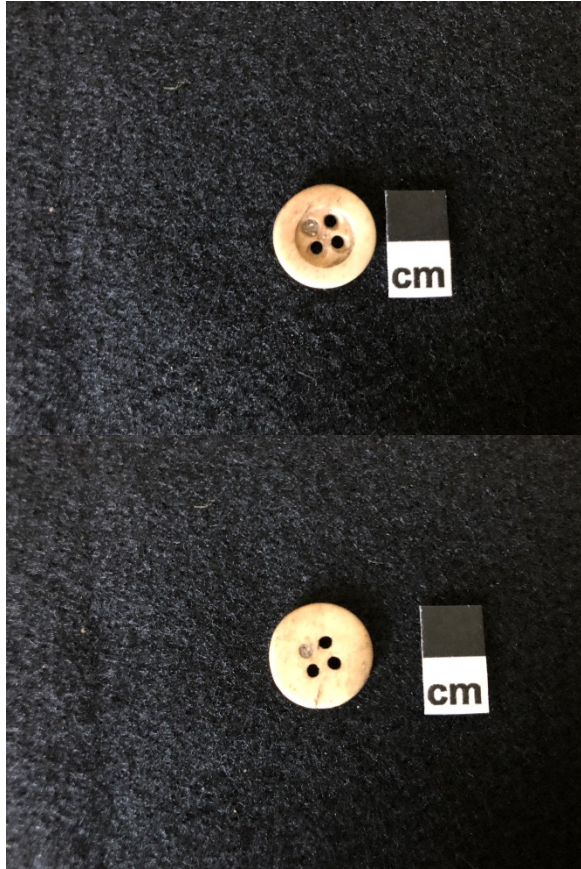


Photo 19. A four-hole, bone button recovered from Unit 6, may have been personal items included within a burial, but is now disassociated from later disturbances.



Photo 20. A small fragment of Vermont marble, likely from a grave marker placed between about 1790 and 1890, when the stone was commercially available around New York City, recovered from Unit 6.





Photo 21. View of the west profile in Unit 7 showing the trench for the comfort station waste water pipe. The abandoned cast iron pipe is on the bottom right (northwest) corner. Human remains were recovered from the base of the trench at the same approximate depth as the long bone protruding from the west wall (with arrow).

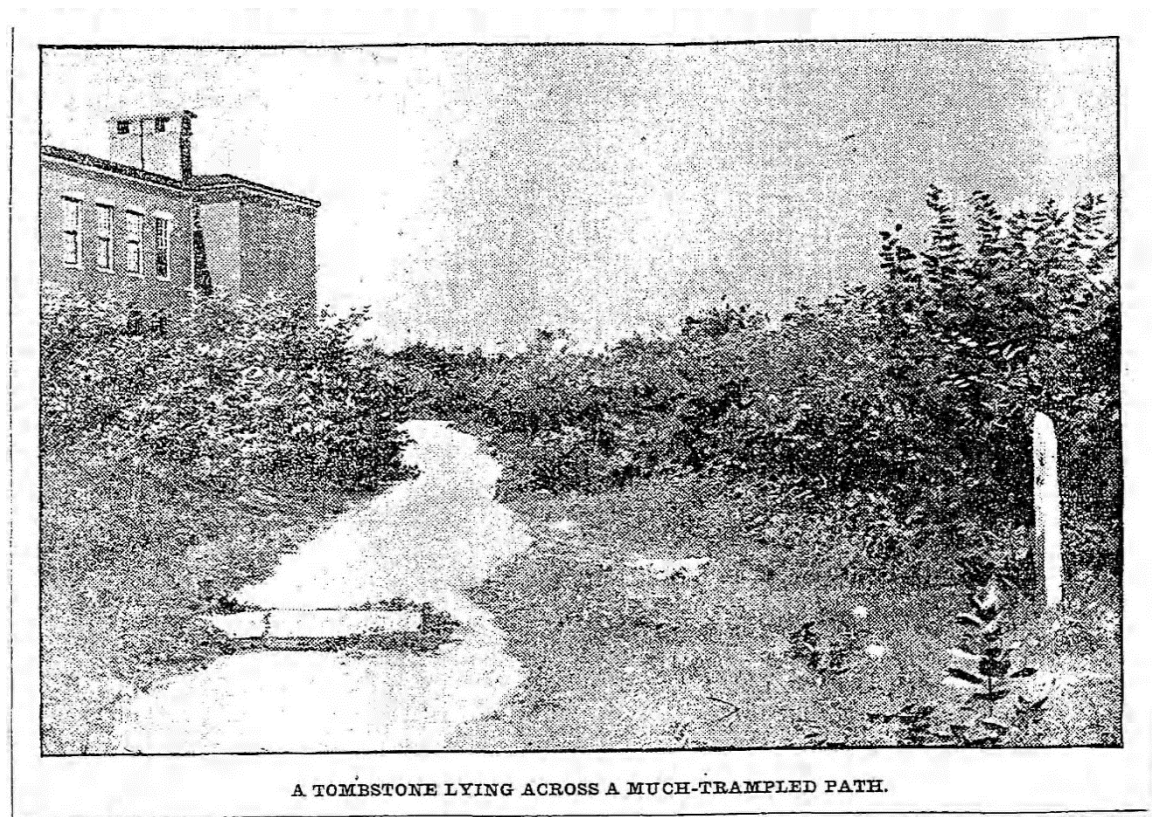


Photo 22. A human long bone protruding from the west wall of Unit 7. The strata the bone was located in is thought to be utility trench fill. The bone appears to be the distal end of a left, adult humerus, with its pronounced olecranon fossa. Much of the articular surface is missing.





Photo 23. Unit 8 contained building rubble, particularly in the northwest corner of the unit.

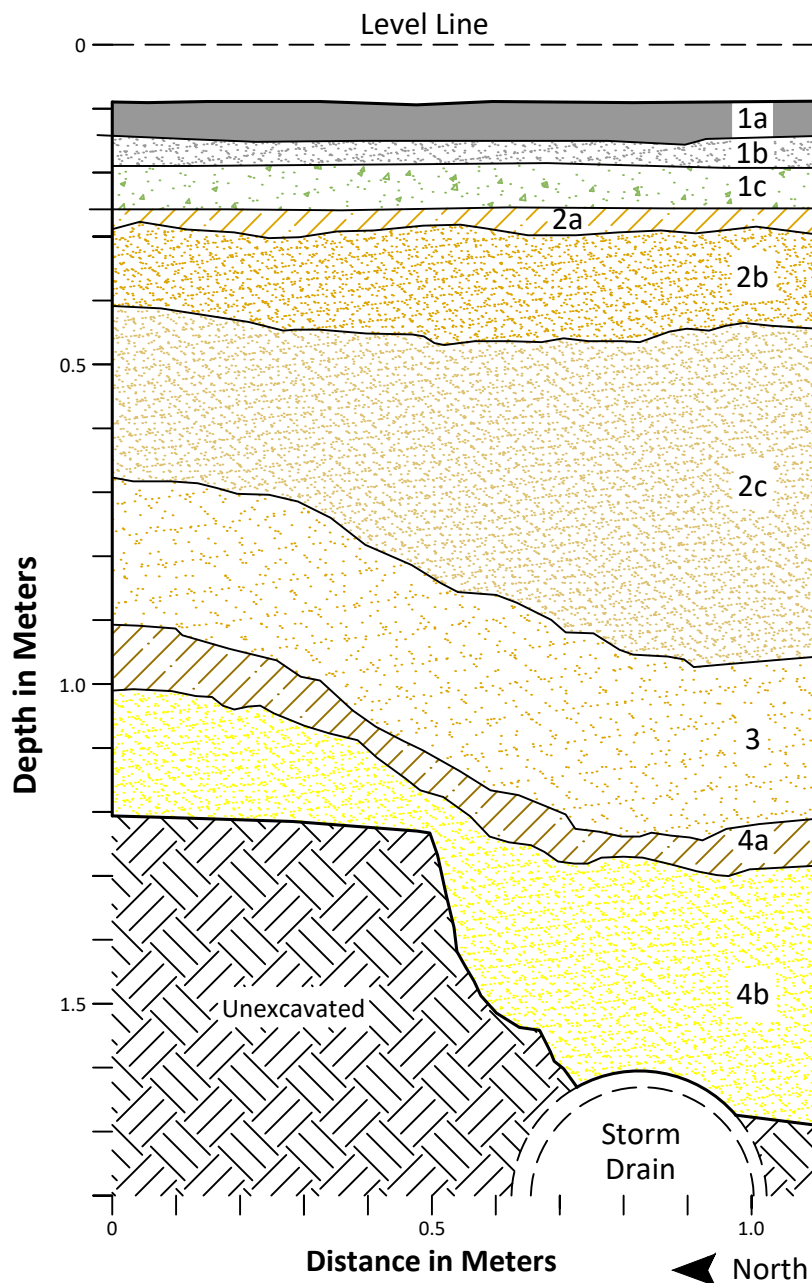


A TOMBSTONE LYING ACROSS A MUCH-TRAMPLED PATH.

Photo 24. 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).

## Figures





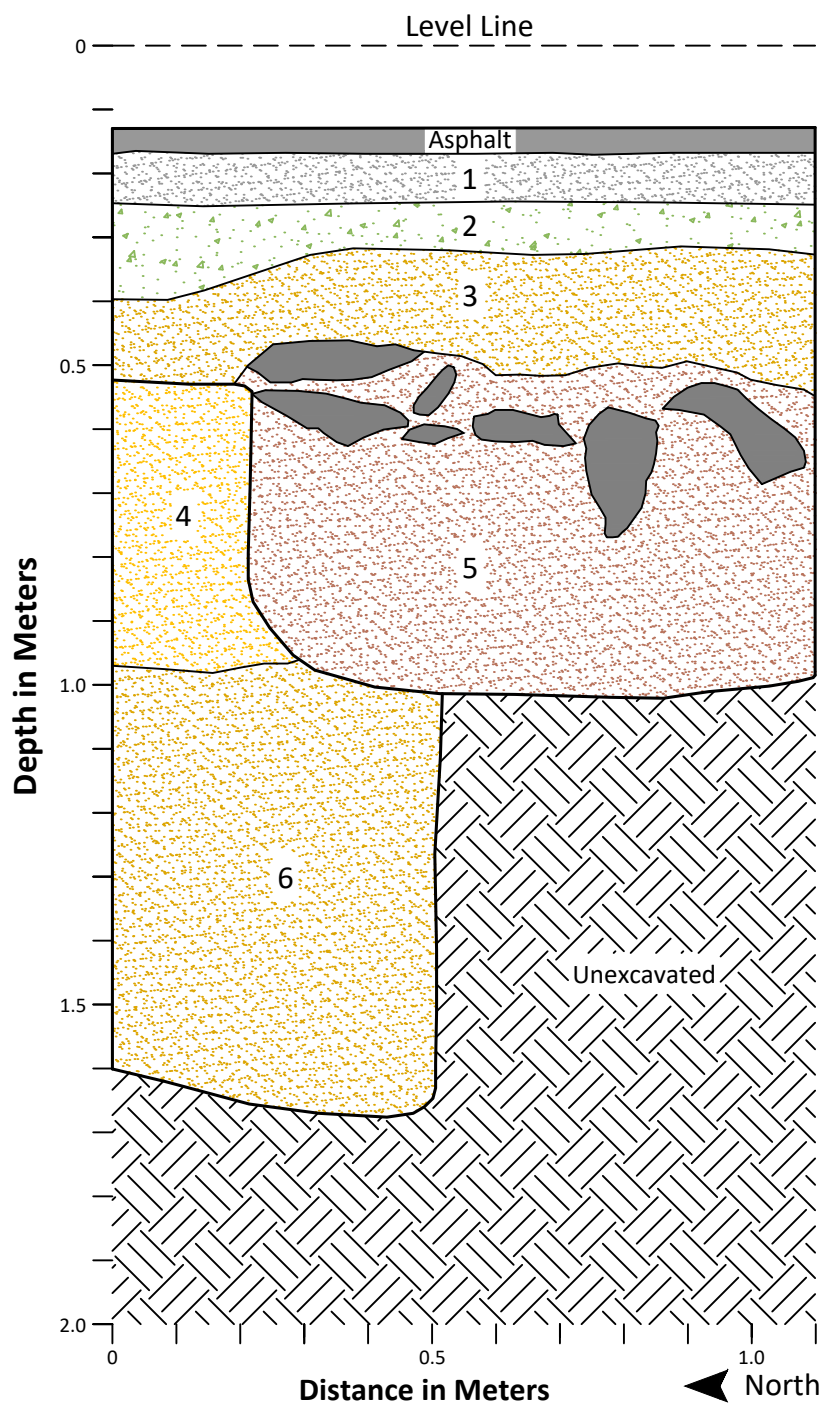
Stratum 1a: Asphalt pavement  
Stratum 1b: Very dark gray (10YR 3/1) stone dust and sand (fill)  
Stratum 1c: Light brownish gray (10YR 6/2) crushed stone and sand (fill)

#### Demolition Stratum

Stratum 2a: Dark yellowish brown (10YR 4/6) silty sand (fill)  
Stratum 2b: Dark yellowish brown (10YR 4/4) sand (fill)  
Stratum 2c: Brownish yellow (10YR 6/6), yellowish brown (10YR 5/6), and dark yellowish brown (10YR 4/4) coarse sand and building debris/rubble (fill)

#### Storm Sewer Trench Stratum

Stratum 3: Dark yellowish brown (10YR 4/4) and brownish yellow (10YR 6/6) coarse sand (trench fill)  
Stratum 4a: Dark brown (10YR 3/3) silty sand (trench fill)  
Stratum 4b: Yellow (10YR 7/6), very pale brown (10YR 8/3), and brownish yellow (10YR 6/6) sand (trench fill)



Stratum 1: Very dark gray (10YR 3/1) stone dust and sand (fill)

**Demolition Stratum**

Stratum 2: Crushed stone and sand (fill)

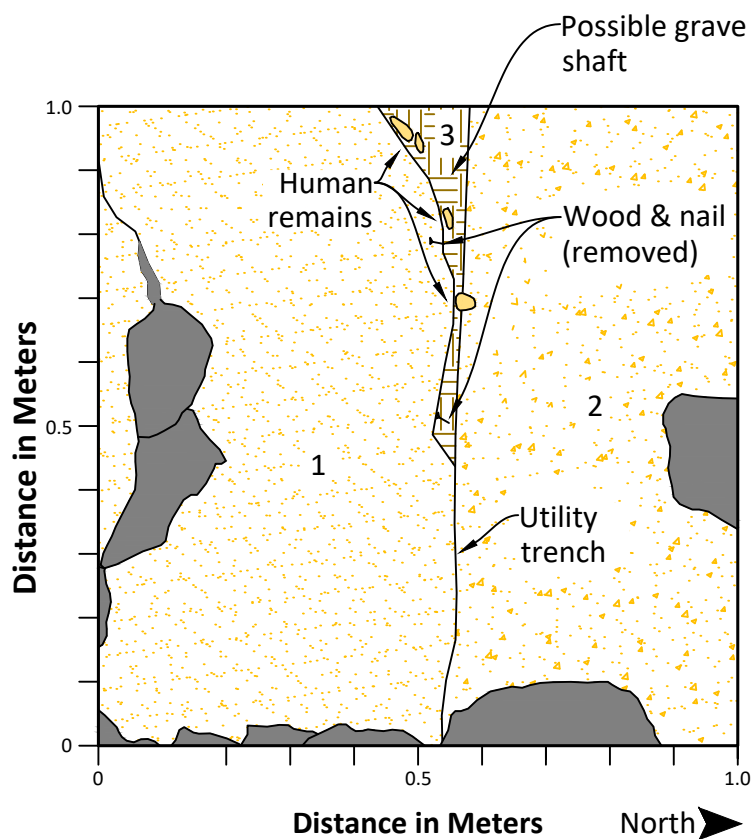
Stratum 3: Dark yellowish brown (10YR 4/4, 4/6) and light yellowish brown (10YR 6/4) sand (fill)

**Storm Sewer Trench Stratum**

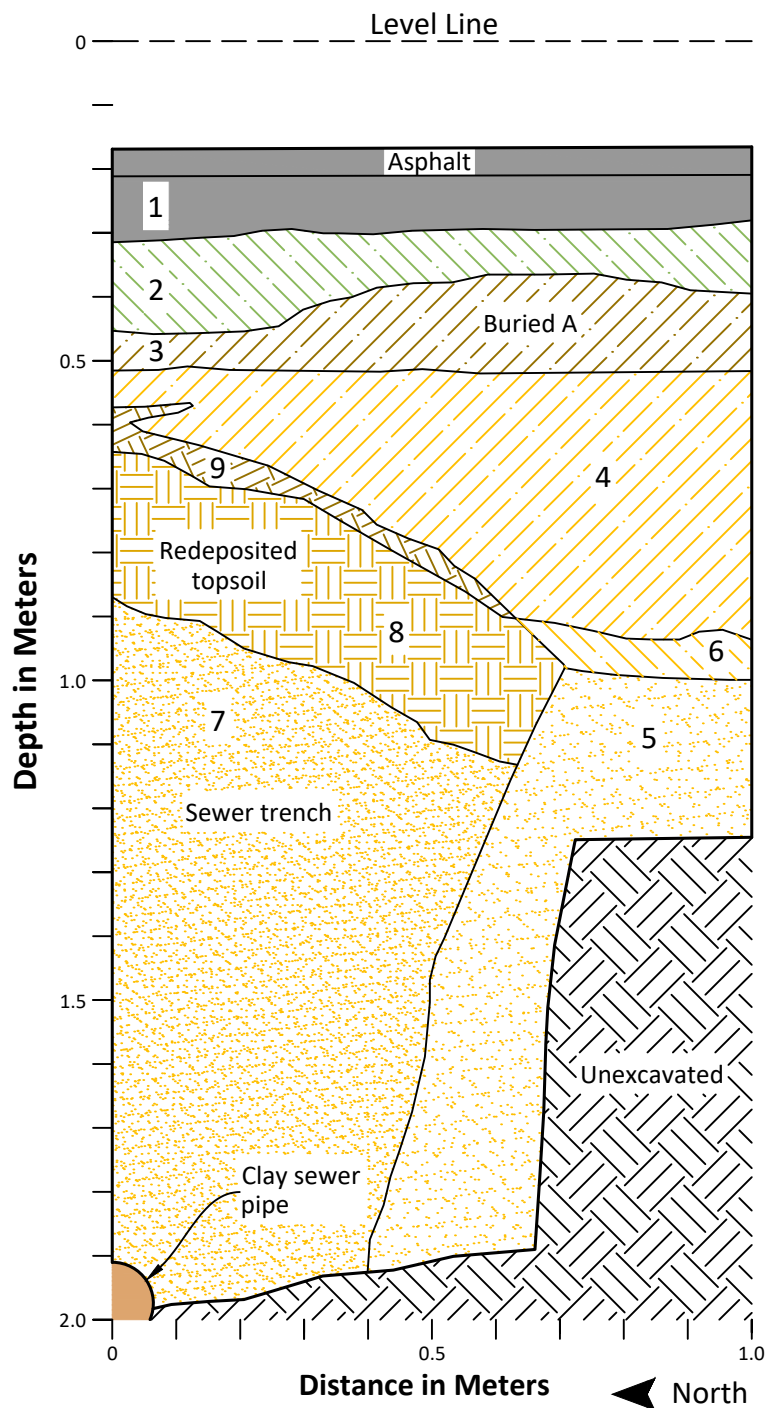
Stratum 4: Yellowish brown (10YR 5/4) and brown (10YR 4/3) sand (subsoil)

Stratum 5: Brown (10YR 4/3) and yellowish brown (10YR 5/4) sand (trench fill)

Stratum 6: Dark yellowish brown (10YR 4/6), very pale brown (10YR 7/4) and yellowish brown (10YR 5/4) sand (subsoil)



- Stratum 1: Yellowish brown (10YR 5/4) coarse sand (subsoil)
- Stratum 2: Yellowish brown (10YR 5/4), brown (10YR 4/3), and black (10YR 2/1) sand and rubble fill
- Stratum 3: Dark brown (10YR 3/3) sandy loam (possible grave shaft)



#### Demolition Stratum

Stratum 1: Very dark gray (5Y 3/1) asphalt

Stratum 2: Light brownish gray (10YR 6/2) silty sand

Stratum 3: Dark brown (10YR 3/3) silty sand (buried A)

Stratum 4: Yellowish brown (10YR 5/4) silty sand (fill)

Stratum 5: Light yellowish brown (10YR 6/4) sand (subsoil)

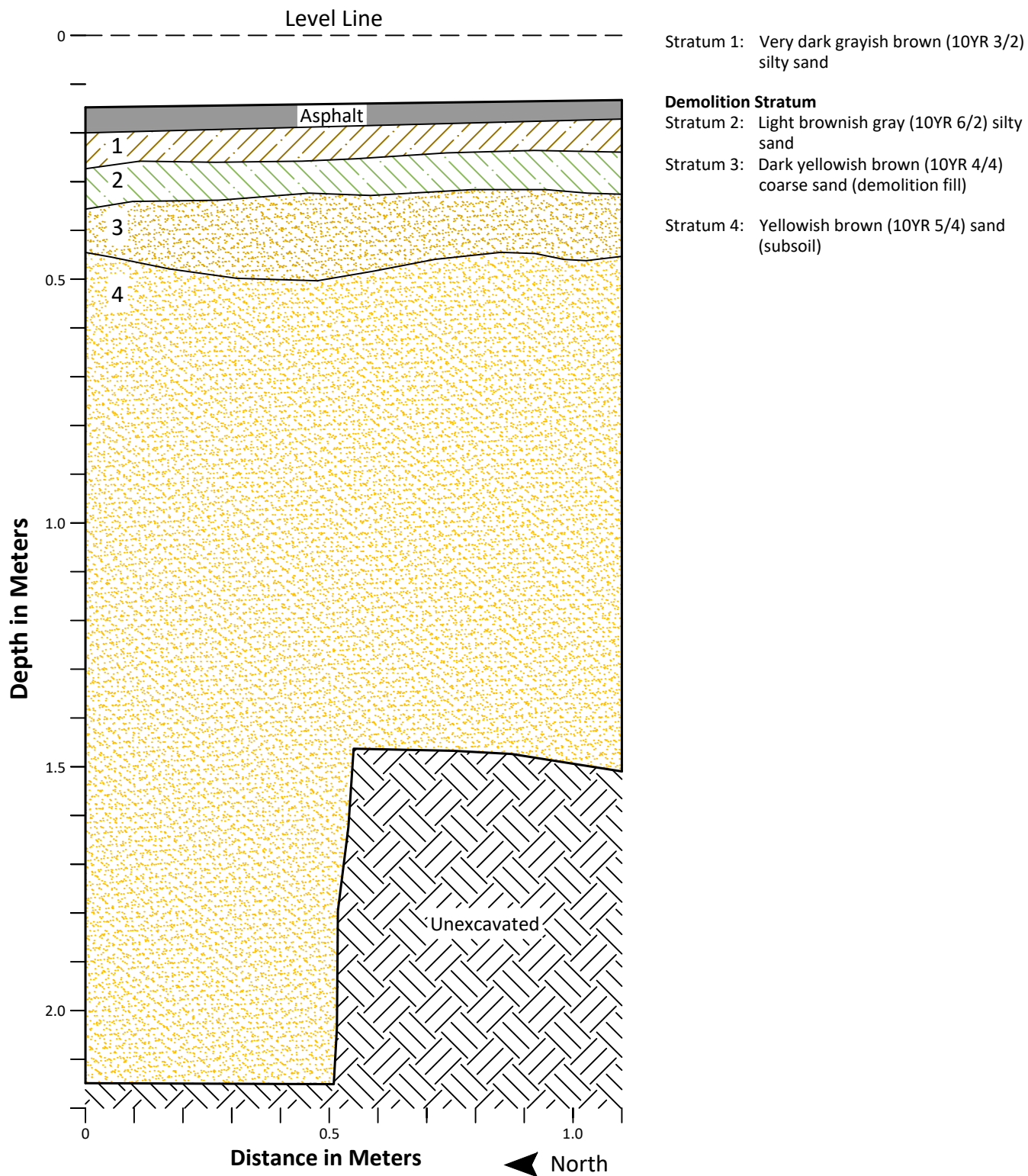
Stratum 6: Yellowish brown (10YR 5/6) silty sand (fill)

#### Storm Sewer Trench Stratum

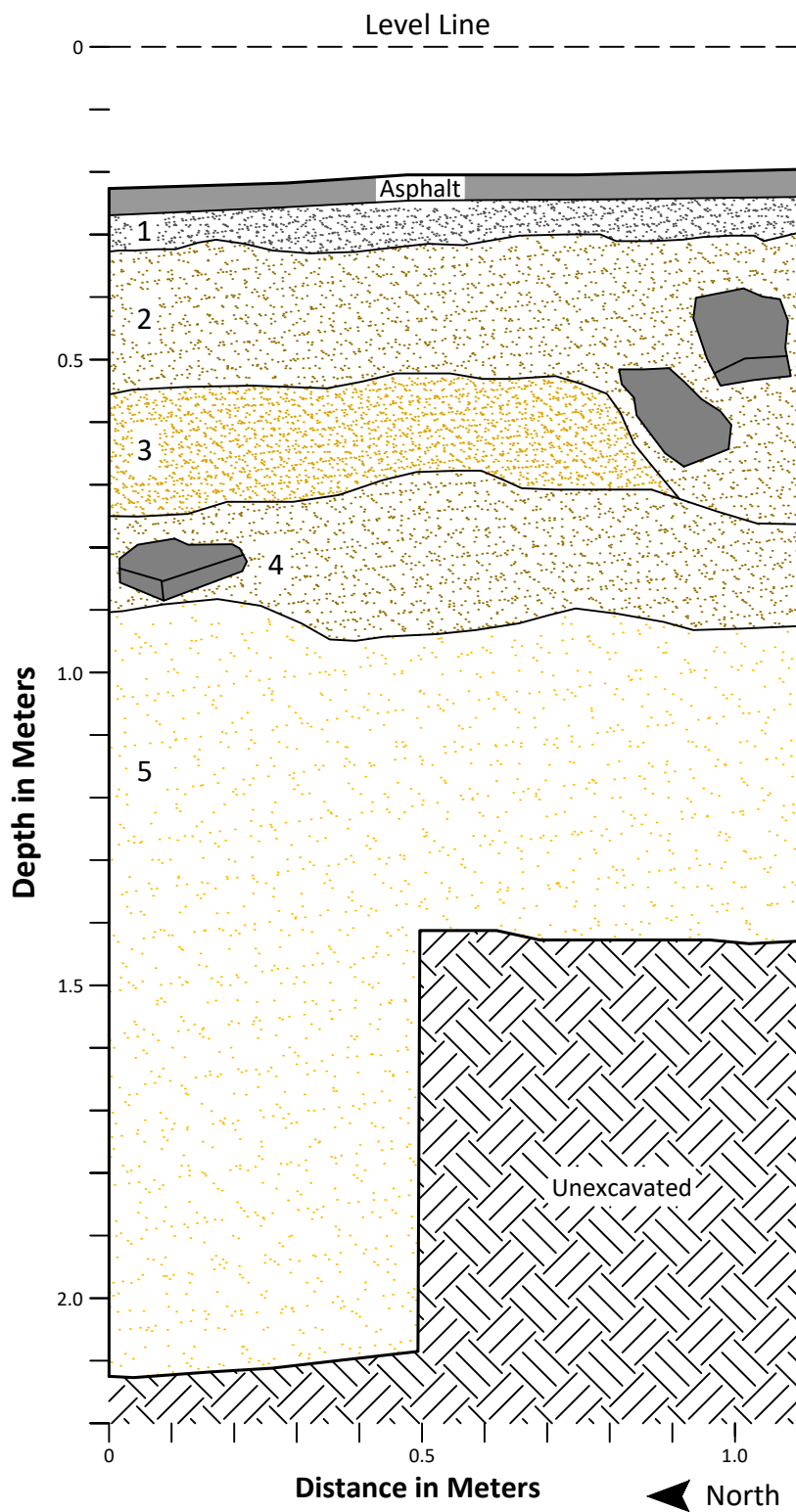
Stratum 7: Yellowish brown (10YR 5/4) sand (trench fill)

Stratum 8: Dark yellowish brown (10YR 4/4) sandy loam (fill)

Stratum 9: Very dark grayish brown (10YR 3/2) sandy loam (fill)







Stratum 1: Black (10YR 2/1) sand (fill)

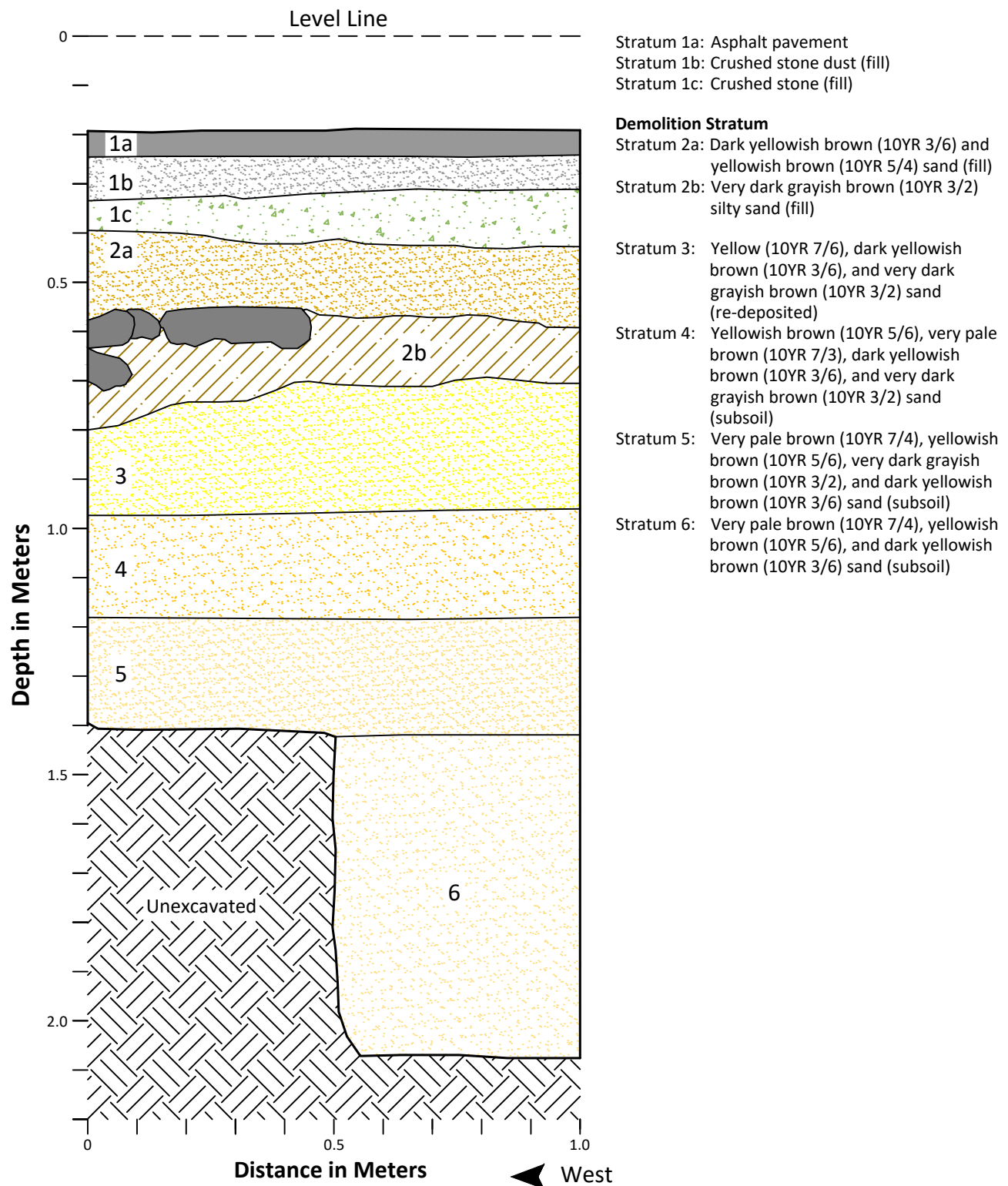
**Demolition Stratum**

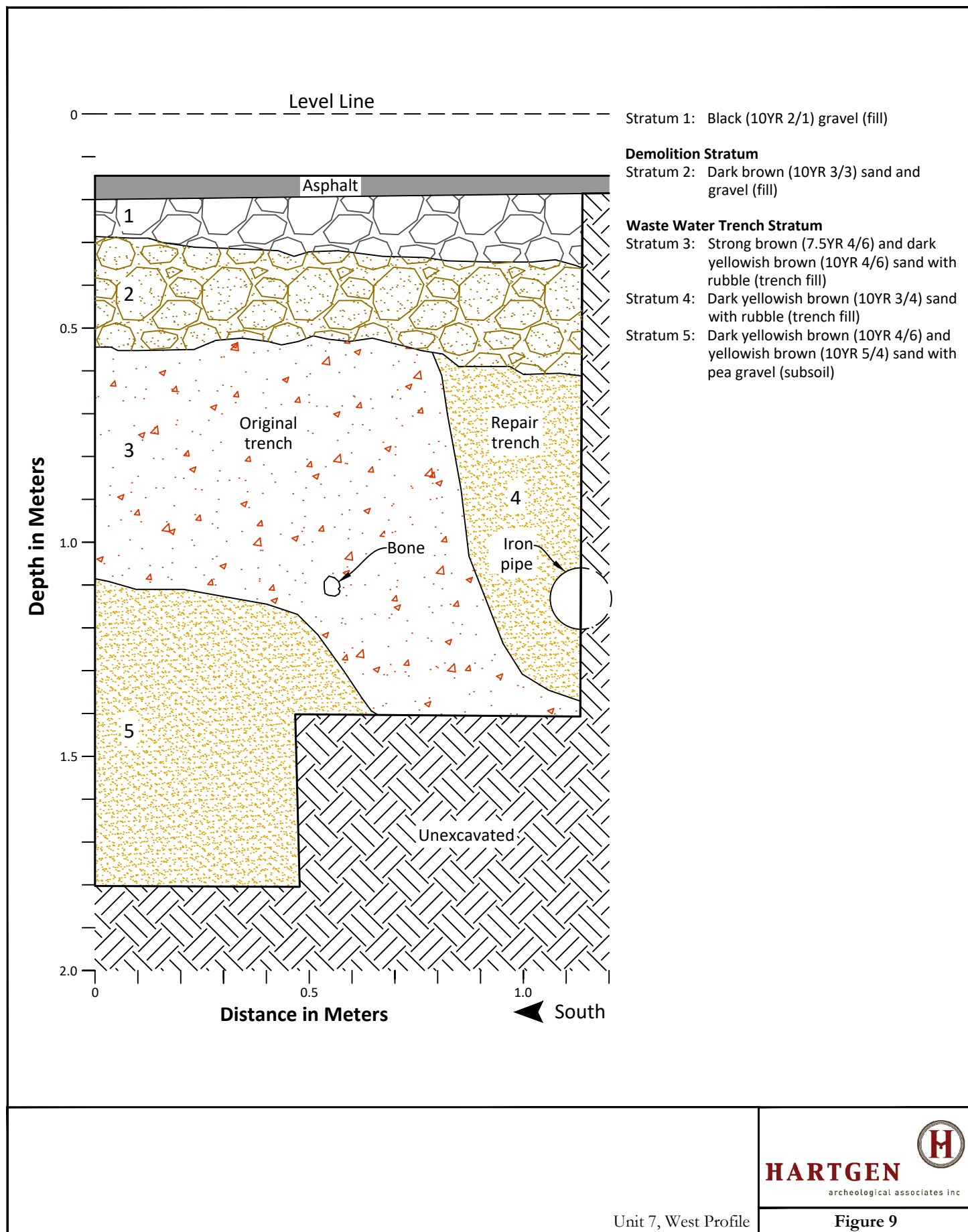
Stratum 2: Dark brown (10YR 3/3) sandy fill with rubble

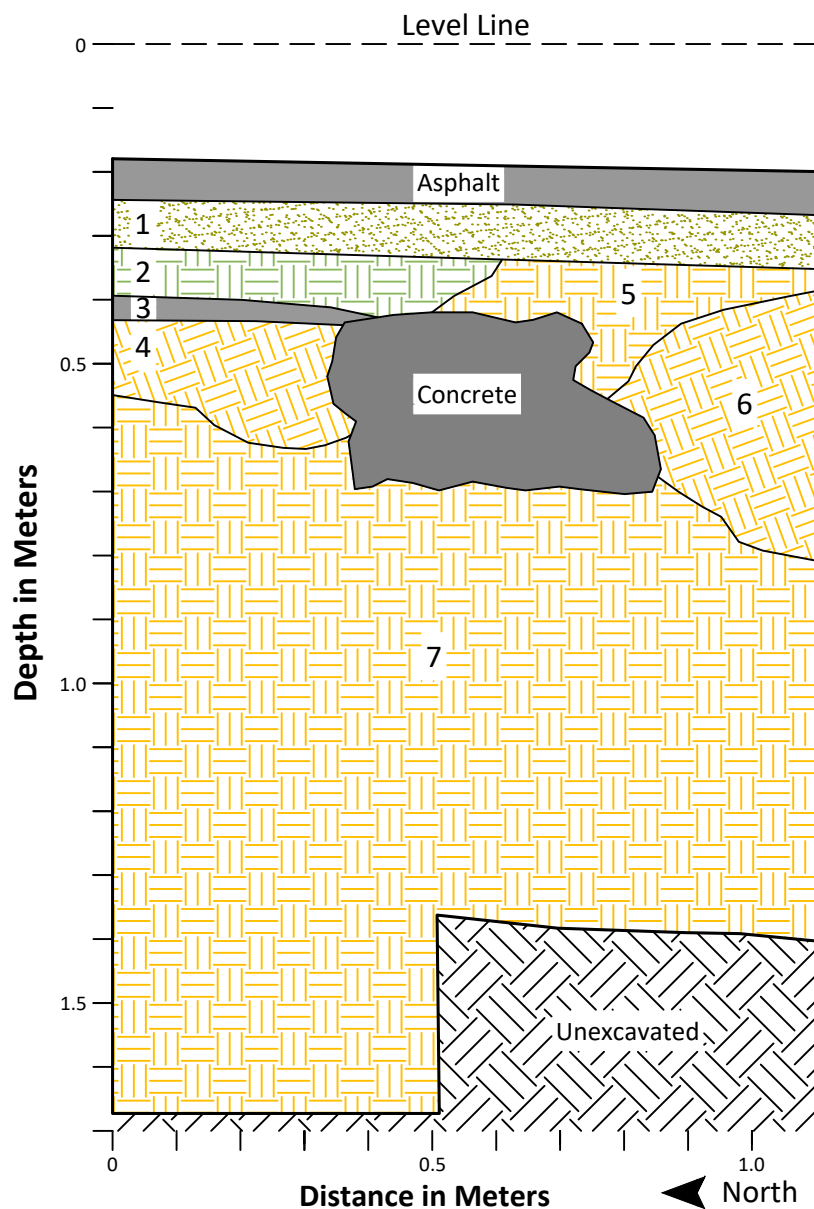
Stratum 3: Dark yellowish brown (10YR 4/4) sandy fill with rubble

Stratum 4: Very dark grayish brown (10YR 3/2) sand with slag fill

Stratum 5: Yellowish brown (10YR 5/4) coarse sand (subsoil)







Stratum 1: Dark greenish gray (GLE Y1 4/10Y) sand (fill)

Stratum 2: Light brownish gray (10YR 6/2) sandy loam (fill)

#### Demolition Stratum

Stratum 3: Thin asphalt strip

Stratum 4: Yellowish brown (10YR 5/4) and dark yellowish brown (10YR 4/4) sandy loam (trench fill)

Stratum 5: Yellowish brown (10YR 5/4) sandy loam (trench fill)

Stratum 6: Yellowish brown (10YR 5/6) sandy loam (trench fill)

Stratum 7: Yellowish brown (10YR 5/4) sandy loam (subsoil)

## **Appendix 1: Artifact Inventory**



# Phase IB Archeological Investigation, Schenck Park

## Artifact Inventory, HAA# 5003-21

<u>Provenience</u>	<u>Level</u>	<u>Feature</u>	<u>Bag</u>	<u>Item</u>	<u>Count</u>	<u>Artifact Description</u>	<u>Material</u>	<u>Weight (g)</u>
U 1	2	5	1	1	2	whiteware	refined earthenware	4.8
U 1	2	5	1	2	1	American "majolica"	refined earthenware	4.1
U 1	2	5	1	3	1	porcelain	porcelain	0.9
U 1	2	5	1	4	2	bottle	glass	20.7
U 1	2	5	1	5	1	window	glass	9.0
U 1	2	5	1	6	1	architectural element	glass and iron	7.2
U 1	2	5	1	7	2	nail	iron alloy	9.3
U 1	2	5	2	1	1	architectural element	ceramic	1,487.8
U 1	2	5	3	1	1	brick	brick	1,596.7
				1.1	1	brick, brick, machine molded, "...WAU", W 9.0, T 6.4 cm		1,596.7
U 1	2	5	4	1	1	brick	brick	1,730.5
				1.1	1	brick, brick, machine molded, trefoil design, with mortar, L 19.4, W 8.5, T 5.7 cm		1,730.5
U 1	2		5	1	1	grave stone	marble	15,048.2
				1.1	1	grave stone, marble, engravings, but no legible words, T 4.8 cm		15,048.2
U 2	3		6	1	1	brick	brick	782.5
				1.1	1	brick, brick, W 9.0, T 5.6 cm		782.5
U 2	3		6	2	1	wire	iron alloy	1.4
U 2	3		6	3	2	wood	wood	5.3
U 2	5		7	1	1	grave stone	marble	105.9
U 2	5		7	2	3	unidentified	iron alloy	5.9
U 3	4		8	1	1	grave stone	sandstone	2,118.3

# Phase IB Archeological Investigation, Schenck Park

## Artifact Inventory, HAA# 5003-21

<u>Provenience</u>	<u>Level</u>	<u>Feature</u>	<u>Bag</u>	<u>Item</u>	<u>Count</u>	<u>Artifact Description</u>	<u>Material</u>	<u>Weight (g)</u>
U 3	1	1	9	1	1	brick	brick	1,018.3
				1.1	1	brick, brick, machine molded, "w", W 8.5, T 5.7 cm		1,018.3
U 3	2		10	1	2	bottle	glass	3.8
U 3	2		10	2	1	vessel	glass	0.1
U 3	2		10	3	4	window	glass	11.7
U 3	2		10	4	1	roofing slate	slate	4.4
U 3	2		10	5	1	slag	mineral	6.0
U 3	2		10	6	16	unidentified	iron alloy	63.2
U 3	4		11	1	4	bottle	glass	3.3
U 3	4		11	2	2	jar	glass	2.5
U 3	4		11	3	4	vessel	glass	5.5
U 3	4		11	4	10	window	glass	11.4
U 3	4		11	5	1	unidentified	glass	3.5
U 3	4		11	6	3	sanitary pipe	ceramic	15.2
U 3	4		11	7	3	mortar	mortar	90.7
U 3	4		11	8	2	slag	mineral	13.4
U 3	4		11	9	1	unidentified hardware	iron alloy	66.7
U 3	4		11	10	3	nail	iron alloy	13.0
U 3	4		11	11	1	wire	iron alloy	5.2
U 3	4		11	12	2	unidentified	iron alloy	11.1
U 3	5		14	1	1	mortar	mortar	120.6
U 3	5		14	2	1	tile	ceramic	8.8

# Phase IB Archeological Investigation, Schenck Park

## Artifact Inventory, HAA# 5003-21

<u>Provenience</u>	<u>Level</u>	<u>Feature</u>	<u>Bag</u>	<u>Item</u>	<u>Count</u>	<u>Artifact Description</u>	<u>Material</u>	<u>Weight (g)</u>
U 3	5		14	3	1	nail	iron alloy	3.8
U 3	5		14	4	1	unidentified	iron alloy	7.7
U 4	2		12	1	3	bottle	glass	10.6
				1.1	1	bottle, finish, glass, colorless, screw top		5.9
				1.2	1	bottle, body, glass, bright green, mold blown		1.3
				1.3	1	bottle, body, glass, colorless, mold blown		3.4
U 4	2		12	2	1	drinking	glass	1.4
				2.1	1	drinking, rim, glass, colorless, mold blown		1.4
U 4	2		12	3	5	vessel	glass	6.2
U 4	2		12	4	3	window	glass	8.4
U 4	2		12	5	2	architectural element	stoneware	90.5
U 4	2		12	6	1	unidentified	ceramic	1.4
U 4	2		12	7	12	nail	iron alloy	72.0
U 4	2		12	8	2	unidentified	iron alloy	13.6
U 4	3		13	1	1	window	glass	1.8
U 4	3		13	2	5	nail	iron alloy	42.5
U 5	3		15	1	2	electrical hardware	glass	2.5
U 6	2		16	1	4	semi-porcelain	refined earthenware	6.7
U 6	2		16	2	7	bottle	glass	110.7
U 6	2		16	3	1	drinking	glass	3.8
U 6	2		16	4	2	window	glass	16.6
U 6	2		16	5	2	unidentified	glass	40.5
U 6	2		16	6	1	button	ivory	0.6
				6.1	1	button, four hole sew through, ivory		0.6

# Phase IB Archeological Investigation, Schenck Park

## Artifact Inventory, HAA# 5003-21

<u>Provenience</u>	<u>Level</u>	<u>Feature</u>	<u>Bag</u>	<u>Item</u>	<u>Count</u>	<u>Artifact Description</u>	<u>Material</u>	<u>Weight (g)</u>
U 6	2		16	7	1	unidentified	marble	134.5
U 6	2		16	8	1	nail	iron alloy	15.5
				8.1	1	<i>nail, iron alloy, cut</i>		15.5
U 6	2		16	9	1	shell	shell	11.7
U 7	2		17	1	2	bottle	glass	41.3
				1.1	1	<i>bottle, finish, glass, colorless, lipping-tooled</i>		31.3
				1.2	1	<i>bottle, body, glass, colorless, mold blown</i>		10.0
U 7	3		18	1	1	nail	iron alloy	4.9
U 7	3		18	2	1	unidentified	iron alloy	4.0
U 7	4		19	1	2	toothbrush	bone	0.9
U 7	4		19	2	1	unidentified	iron alloy	4.4
U 7	4		20	1	1	pipe	iron alloy	2,385.9
U 8	4		21	1	1	nail	iron alloy	14.5
U 8	3		22	1	1	nail	iron alloy	4.0
				1.1	1	<i>nail, iron alloy, cut</i>		4.0
U 8	3		22	2	1	textile	synthetic	1.4



## **Appendix 2: Nystrom Osteology Report**

## Nystrom Osteology

10 Janet Street  
Kingston, NY 12401

April 28, 2018

Upon request by Justin DiVirgilio of Hartgen Archaeological Associates I visited the Schenck Park project site on April 24, 2018. The following is a description of osteological material observed in the field. There were a total of 11 containers holding a combination of matrix and fragmentary bone.

*Schenck Park - TU 3 LV 5 - 10/24/2017 – JP, AG*

Description: Several small pieces of bone, composed mostly of exposed trabecular bone are mixed in with the matrix. There is one small fragment that has an intact, slightly convex, articular surface, possibly from the talar articulation of the tibia (Figure 1).

Figure 1: *TU 3 LV 5*



*Schenck Park – Unit 7 LV 3 – 10/25/2017*

Description: Small fragments (approximately 12) of extremely fragile cortical bone that are too small for identification. There are three fragments that are slightly larger. In these, the cortical bone is quite thin and so it may represent fragments of cranial bone (Figure 2).

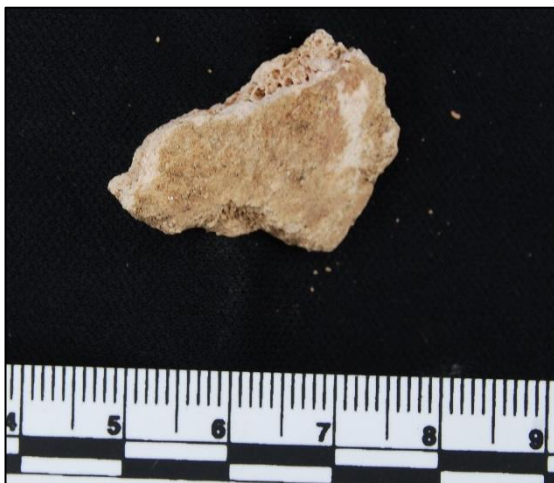
Figure 2: *Unit 7 LV 3*



*Schenck Park – Unit 7 LV 2 – 10/25/2017 – AL, DW*

Description: One small fragment of cranial bone (Figure 3).

Figure 3: *Unit 7 LV 2*



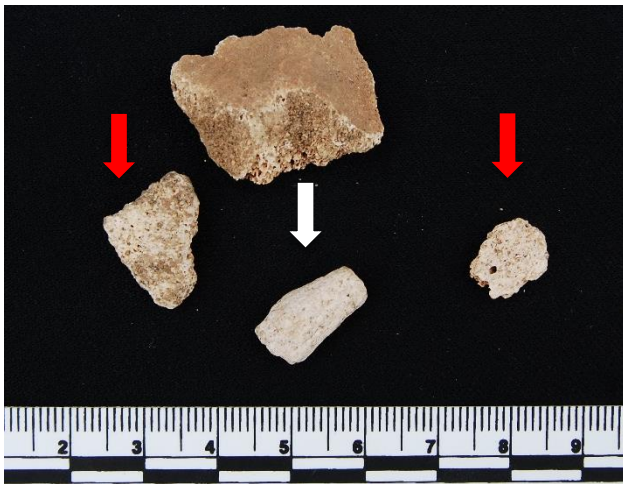
## Nystrom Osteology

10 Janet Street  
Kingston, NY 12401

*Schenck Park – TU 3 LV 2 (30-40 cm)– 10/23/2017 – AG, JP*

Description: Four small fragments of bone (Figure 4). Two are small chunks consists entirely of trabecular bone and are not identifiable to element (red arrows in Figure 4). One fragment appears to have been burnt/calined (white arrow in Figure 4). The remaining piece is a long bone fragment, possibly from the humerus or femur (Figure 4)

Figure 4: *TU 3 LV 2 (30-40 cm)*



*Schenck Park – TU 3 LV 4 – 10/23/2017 – JP, AG*

Description: There are 11 unidentified bone fragment, most of them consisting predominantly of trabecular bone. One large fragment, possibly a portion of the os coxae near the ischium/acetabular transition, exhibits cooper staining (Figure 5).

Figure 5: *TU 3 LV 4*





## Nystrom Osteology

10 Janet Street  
Kingston, NY 12401

*Schenck Park – Unit 7 Level 5 – 10/26/2017 – DL, AL*

Description: There are five bone fragments in total. Two are fragments of cranial bone, containing both intact inner and outer tables (Figure 6). Two fragments have one side that is cortical bone and the other is exposed trabecular bone. The cortical bone on these fragments is flat, suggesting that these come from cranial bones. The remaining fragment is distinct, being more ivory/white in color with thicker cortical bone and coarser trabecular bone – which suggests this bone is non-human (Figure 7).

Figure 6: *Unit 7 Level 5*



Figure 7: *Unit 7 Level 5*



## Nystrom Osteology

10 Janet Street  
Kingston, NY 12401

*Schenck Park – Unit 2 Level 4 – 10/24/2017 – DW, AL*

Description: Three fragments of long bone were observed. One of the fragments is likely from the diaphysis of a radius, though it is unsided (Figure 8). Two pieces of corroded metal with wood attached were also observed (Figure 9).

Figure 8: *Unit 2 Level 4*



Figure 9: *Unit 2 Level 4*



*Schenck Park – Unit 2 Level 5 – 10/24/2017 – DW, AL*

Description: All 8 fragments from this context are from long bones. Identified elements include the following: right proximal ulna and distal (unsided) ulnar diaphysis (Figure 10), right radial tuberosity, isolated, unsided radial diaphysis (Figure 11). There were also two refitted long bone diaphyseal fragments.

Figure 10: *Unit 2 Level 5*



Figure 11: *Unit 2 Level 5*



*Schenck Park – TU 6 LV 2 – 10/25/2017 – EG, JH*

Description: There are 6 total bone fragments in this context. Four of the fragments are from cranial elements (Figure 12). The remaining pieces include a long bone fragment and 1 possible rib fragment.

Figure 12: *TU 6 LV 2*



*Schenck Park – TU 6 LV 2 (interface between LV 1 & 2) – 10/24/2017 – JH, EG*

Description: There was only a single bone fragment in this context. It was highly weathered and friable. It is unidentified but it is most likely a fragment of a long bone (Figure 13). There are also small pieces of burnt material in the matrix.

Figure 13: *TU 6 LV 2 (interface between LV 1 & 2)*



## Nystrom Osteology

10 Janet Street  
Kingston, NY 12401

*Schenck Park – TU 1 LV 3 – 10/23/2017 – JH, EG*

Description: There was only a single element in this context - left tibia diaphysis (Figure 14). There is some osteoblastic activity on the anterior crest. The posterior surface of the diaphysis exhibits more postmortem damage.

Figure 14: *TU 1 LV 3*



### *Summary*

In sum, the fragmentary material covered from these contexts, except for a single instance in Unit 7 Level 5, are consistent with human skeletal elements.

Kenneth Nystrom, PhD