Phase 1B Archaeological Investigation

126th Street Bus Depot

Block 1803, Lot 1
East Harlem, New York, New York

Prepared for:

New York City Economic Development Corporation
110 William Street
New York, NY 10038

Prepared by:

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March 2, 2016

Management Summary

SHPO Review Number:	15PR02521
Involved Agency:	New York City Economic Development Corp.
Phase of Survey:	Phase 1B Archaeological Survey
Location Information	
Location:	2460 Second Avenue, New York, New York Block 1803, Lot 1
Minor Civil Division:	06101
County:	New York
USGS 7.5 Minute Quadrangle Map:	Central Park
Survey Area	
Length:	Approximately 165 meters (540 feet)
Width:	Approximately 61meters (200 feet)
Total Area Surveyed:	Approximately 2.42 acres (105,505 square feet)
Number of Backhoe Trenches:	4
Size of Backhoe Trenches:	Variable
Depth of Backhoe Trenches:	Variable
Results of Archaeological Survey	
Prehistoric Sites Identified:	None
Historic Sites Identified:	Harlem African Burial Ground
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Date of Report:	March 2, 2016

General Summary

INTRODUCTION

The 126th Street Bus Depot site on Second Avenue between 126th and 127th streets has seen many uses over the years. It was once situated within the Dutch village of *Nieuw Haarlem*, then a sparsely populated agricultural area far removed from the densely developed settlement of New Amsterdam at the southern tip of Manhattan. Over 350 years ago, the Reformed Low Dutch Church of Harlem was constructed in this Dutch settlement just south of the Depot site and near the shore of the Harlem River. The Harlem River was wider then and extended through the northeastern corner of the Depot block. Overtime the shoreline was filled in, expanding the block to its current dimensions, and the site was developed into an amusement park and casino, and later, into a movie studio. The property's historic development culminated with construction of the existing Bus Depot in 1947.

Like much of colonial America, Dutch and English settlements in Harlem were built and maintained with the labor of enslaved individuals of African descent. Though these individuals were often excluded from historical documentary records, their continued presence in the area since the days of *Nieuw Haarlem* is documented through their use of a burial ground on the land behind the former Reformed Low Dutch Church of Harlem, an area now occupied by the Bus Depot. In use from the late-1660s through the mid-19th century, the cemetery was originally referred to as the "Negro Burying Ground" in various historical documents but is now known as the Harlem African Burial Ground.

The transition of the land from church property to the community of individuals of African descent is poorly documented, as are the burial customs and conditions of its use as a cemetery. After burials on the property ceased in the 1850s, the privately-owned land went through numerous stages of development and redevelopment. The landscape of the burial ground and the surrounding area was modified as portions of the Harlem River were filled in and the site's ground surfaces were leveled through cutting and filling during the late 19th and early 20th centuries, including construction of the Depot.

Despite the erasure of all surface signs of the burial ground as a result of over 150 years of development, area residents, elected officials, and other concerned parties organized to ensure that the site would be recognized as the site of the Harlem African Burial Ground. The goal of these efforts was to ensure the proper recognition and respect of this population so important to the development of the area. The reclamation of the past and restoration of the dignity of those interred on the site will be a lengthy process. However, the first steps have been taken through documentary research and subsurface testing to confirm the presence of human remains on the site. These investigations, completed in compliance with city and state historic preservation requirements, are summarized below and described in detail in the following report.

PHASE 1A ARCHAEOLOGICAL DOCUMENTARY STUDY

Due to the complexity of doing archaeology in densely urbanized areas like New York City, project sites are typically first examined through documentary research. Known as a "Phase 1A Archaeological Documentary Study," these studies involve analysis of historic maps and photographs, property records, census data, and other records that provide information about how sites were developed and who may have lived and worked there.

In 2011, the Metropolitan Transportation Authority (MTA) commissioned Historical Perspectives, Inc. (HPI), an archaeology firm based in Westport, Connecticut, to complete a Phase 1A Archaeological Assessment of the 126th Street Bus Depot site. Their documentary study identified the property as having archaeological potential for historic period resources including human burials or remains associated with the Harlem African Burial Ground. The study also documented a range of later 19th century and early 20th century development activities that could have disturbed the site before the 1947 construction of the Bus Depot.

PHASE 1B ARCHAEOLOGICAL INVESTIGATION

As mentioned above, the next step of an archaeological investigation is to conduct preliminary subsurface testing. This type of testing, known as a "Phase 1B Archaeological Investigation," is designed to figure out if important buried resources are present through sampling in areas of greatest potential. A Phase 1B is not intended to be exhaustive. Given the results of the Phase 1A, the New York City Economic Development Corporation (EDC), retained AKRF, Inc., an environmental planning and engineering firm based in New York, NY, to conduct a Phase 1B survey of the Depot and to prepare a report summarizing its findings.

AKRF initiated fieldwork in mid-August and testing was completed in late September 2015. This work was conducted in coordination with the MTA and in consultation with the Harlem African Burial Ground Task Force, the Elmendorf Reformed Dutch Church, which is the descendant church of the Reformed Low Dutch Church of Harlem, the New York City Landmarks Preservation Commission (LPC), and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP).

PHASE 1B METHODS

The Phase 1B involved digging four large trenches with a backhoe through the Depot's foundation slab: one in the western portion of the Depot (Trench 3), an area sensitive for historic shaft features such as wells; two within the boundaries of the former cemetery (Trenches 1 and 4); and one (Trench 2) partially within the cemetery and partially within the boundaries of what was originally the Harlem River northeast of the cemetery (the site plan and the locations of the test trenches are shown in **Figure 3**). Once the concrete and upper disturbed soils were removed, the archaeologists carefully examined the underlying soils for evidence of features or artifacts.

All of the soils of archaeological concern were carefully sifted and recovered artifacts (including items such as nails, rusted window glass, small fragments of broken dishes, a thimble, and other historic artifacts) were collected by the archaeological team and transported to AKRF's archaeological laboratory, where they were cleaned and analyzed. In addition, the archaeological team completed supplemental documentary research which when combined with the information presented in the Phase 1A study provided additional information about how the landscape of the project site had been modified by development after the cemetery was no longer used for burials.

PHASE 1B RESULTS

No archaeological features (such as graves, historic foundations, or shaft features) or human remains were observed in Trenches 1, 3, or 4. In the largest trench—Trench 1—which was excavated in the approximate center of the former cemetery, the archaeologists observed undisturbed sands and gravels starting only a couple feet below the Depot's foundation. There was no evidence of the former cemetery. The sands found hadn't even been disturbed by later 19th and 20th century construction. This indicates that soils were removed from the area before the construction of the Depot. This is supported by historic maps that suggest that an elevated bluff was present along the former bank of the Harlem River adjacent to the cemetery and that leveling, cutting, and filling occurred across the block between the 1850s and the early 20th century.

It is not known what happened to the soils containing human remains that were historically present at the burial ground; however some of the soils may have been used as fill materials when the Harlem River was filled in the northeast corner of the block in the mid-19th century. This possibility is supported by the discovery of human skeletal remains in the portion of Trench 2 located north of the northern boundary of the cemetery, an area that was part of the Harlem River until mid-19th century landfilling.

DISCOVERY OF HUMAN REMAINS

The discovery of human remains in Trench 2 occurred on August 25, 2015. The first observed remains were an essentially intact human skull and a small number of additional human skeletal remains. Careful examination by the consulting forensic anthropologist—Dr. Vincent Stefan of Lehman College of the City University of New York—and the team archaeologists confirmed that the bones were human. The examination also determined that the bones were not situated in their original burial locations and that they were not within an identifiable burial shaft or grave. Instead, the remains were disarticulated—meaning, that they were separated from the other bones of the same body—and randomly distributed in a layer of disturbed and redeposited soils. The bones appeared to be in fair to poor condition and many were fragmentary and in danger of further deterioration.

During an on-site meeting, the Task Force and an LPC representative agreed that the exposed remains were in danger of deterioration and that because intact graves were not identified, the bones' significance was not contingent upon their preservation in-place. The human remains were therefore carefully removed by the archaeologists for examination by Dr. Stefan and temporarily stored at the Depot in a secure and temperature-controlled environment. Following the initial discovery, hundreds of cubic feet of soil were hand-excavated from the trench and screened, leading to the discovery of well over 100 additional human bones or bone fragments. No evidence of burial shafts or coffin remains was observed, although a variety of historic artifacts were recovered that do not appear to be associated with the human remains and therefore they do not appear to represent grave offerings or items that were intentionally placed in graves. The recovered human remains were encountered in a low-density distribution in an identifiable horizontal layer of fill.

As with the remains identified during the initial discovery, the additional remains within the trench were generally fragmentary and were in fair to poor condition. In all cases, the remains were recovered in a disarticulated state within disturbed and redeposited soils. Although more than 100 bones were recovered, due to the types of bones that were observed, the consulting forensic archaeologist was able to determine that the bones represent the remains of a minimum of two individuals, although it is possible that a greater number of individuals may be represented. Dr.

Stefan conducted a qualitative examination of the almost complete human skull and concluded that it was likely that of an "adult female of African ancestry." On a separate occasion, a team of four forensic anthropologists from the New York City Office of the Chief Medical Examiner (OCME), led by Dr. Bradley Adams, conducted an examination of the almost complete human skull and concurred with Dr. Stefan's qualitative assessment.

CONCLUSIONS

The most important conclusion of the Phase 1B is that at least some of the soils that were originally located within the cemetery on the higher elevation bluff (south of Trench 2) were used to fill in the formerly lower lying and marshy northeast portion of the block. As those soils contained human burials, disarticulated skeletal remains became incorporated into the fill materials. The archaeologists were able to identify a buried soil layer beneath the layer of human remains that represented what would have been the then exposed, marshy, natural ground surface at the time that the human remains were deposited. No skeletal remains were present within the buried ground surface itself, suggesting that the lower-elevation area to the north of the cemetery and adjacent to the Harlem River was not used for burials.

As mentioned previously, a Phase 1B investigation examines only a small portion of a site. As such, no additional excavation was completed beyond the four trenches already described. However, it is clear that more human remains are present to the west, as additional remains were visible in the western wall of Trench 2 in a continuation of the redeposited soil layer. (These remains were documented, protected, and left in place before the trench was re-filled following the conclusion of the archaeological investigation.) It is also likely that human remains continue to the north and east of Trench 2, since the redeposited soil layer that contained the remains continues in those directions as well. No human remains were recovered from the southern third of the trench—that part of the trench that overlaps with the mapped boundaries of the cemetery—and it therefore appears unlikely that additional remains are present to the south, which is supported by the absence of human remains in Trench 1, located 10 feet further to the south.

RECOMMENDATIONS

Since only a small portion of the depot has been subject to archaeological testing, the location and extent of additional remains elsewhere in the Depot is unknown, although it would be reasonable to assume that they are most likely present throughout the landfilled areas of the former Harlem River in the areas closest to the former cemetery. It is recommended that additional archaeological fieldwork occur prior to development of the Bus Depot site. However, since the additional remains are currently in a stable, protected environment, there is no necessity for additional fieldwork to be completed at any particular time.

The next step in this process should be to determine the complete distribution of the human skeletal remains across the site through what is referred to as a "Phase 2 Archaeological Evaluation." The Phase 2 Evaluation would be followed by completion of a complete data recovery—also known as a Phase 3—and/or archaeological monitoring during ground-surface-disturbing activities. The Phase 2 and Phase 3 efforts would result in the definition of the site's boundaries, the collection of significantly more data, and the recovery and protection of any existing human remains that could be disturbed by future development within the boundaries of the Bus Depot. Any future demolition, removal of subsurface infrastructure, or construction would require preparation of an appropriate protocol completed in coordination with LPC, OPRHP, and the Task Force.

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Chapter 1: Introduction

A. INTRODUCTION

The New York City Economic Development Corporation (EDC) has sponsored the present Phase 1B Archaeological Survey to determine the presence or absence of archaeological resources at the 126th Street Bus Depot in the East Harlem neighborhood of Manhattan. The depot is located on Block 1803, Lot 1 and is bounded by East 126th and East 127th Streets and First and Second Avenues and includes the adjacent sidewalks (see **Figure 1 Project Location**). This effort is being completed in compliance with City Environmental Quality Review (CEQR) and pursuant to the New York State Historic Preservation Act (SHPA) of 1980, as set forth in Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law. This work is also being conducted in coordination with the Metropolitan Transportation Authority (MTA), the Harlem African Burial Ground Task Force (the "Task Force"), and the Elmendorf Reformed Dutch Church.

The Bus Depot site is currently occupied by the existing MTA bus depot, an approximately 103,000-square-foot, 2- to 3-story brick structure that rests on a thick concrete foundation slab, which was built in 1947. Though the depot has been decommissioned, the MTA still maintains a long-term lease for the property and controls access to the depot. The structure has a partial basement extending along a portion of its East 126th Street side, has a series of offices and work areas extending along the southern and eastern sides of the main floor, and has a series of support columns extending east to west across the center of the structure (see **Figure 2 Site Plan and Testing Locations**).

For a predecessor MTA project, a Phase 1A Archaeological Assessment ("Phase 1A") (described below) was prepared to determine the Bus Depot site's developmental history. That study (HPI 2011) identified the site as having archaeological potential for historic period resources including human burials. To confirm the presence or absence of human remains on the project site, AKRF conducted a Phase 1B Archaeological investigation of the Bus Depot site in August and September 2015. As described in the present report, that effort led to the recovery of an assemblage of several hundred historic artifacts, almost 200 animal bone fragments, several soil and wood samples, and well-over 100 often fragmentary human bones recovered in a disarticulated context from a disturbed and redeposited soil layer. All archaeological work performed at the site by AKRF or its subcontractors was performed under an MTA entrance permit and adhered to the standards set forth in the CEQR Technical Manual as well as the standards and guidelines issued by the New York City Landmarks Preservation Commission (NYCLPC) in 2002, the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) in 2005, and the New York Archaeological Council (NYAC) in 1994. All archaeological analysis was completed or supervised by a Registered Professional Archaeologist (RPA) who meets the qualifications specified by the Secretary of the Interior (36 CFR part 61).

B. PROJECT BACKGROUND

PHASE 1A ARCHAEOLOGICAL ASSESSMENT

In 2011, MTA was considering the replacement or rehabilitation of the depot and commissioned a Phase 1A mentioned above to determine the Bus Depot site's developmental history. The Phase 1A was prepared by Historical Perspectives Inc. (HPI) in August 2011 and submitted to the New York

State Office of Parks, Recreation, and Historic Preservation (OPRHP) and to the New York City Landmarks Preservation Commission (NYCLPC).

The Phase 1A determined that between the 17th and 19th centuries, historic land uses across portions of the Bus Depot site included the following: (1) 18th and 19th century residential development; (2) 17th through 19th century burials associated first with the Reformed Low Dutch Church of Harlem (RLDCH) and later the "Negro Burial Ground" or "Negro Burying Ground," also known as the "Harlem African Burial Ground"; and (3) the mid-19th century landfilling of Harlem River water lots on the eastern portion of the Bus Depot site. During the late 19th through early 20th centuries the site was redeveloped for use as an amusement park, casino, and movie studio, before area clearing and construction of the depot in the 1940s.

The Phase 1A determined that shaft features, structural remains, and human remains are potentially present on the Bus Depot site and that they may extend deep enough below the current grade to have survived the later disturbance to the block caused by the construction of 19th and 20th century structures and the extant bus depot.

The Phase 1A concluded that the Harlem African Burial Ground and the adjacent RLDCH Burial Ground:

> *…are potentially significant for both (1) the history of Africans and African-Americans in New Amsterdam and Harlem from at least the 1770s through the 1850s, and (2) the early history of New Harlem's European settlers* (HPI 2011: 30).

Given this assessment, the Phase 1A recommended archeological testing—including the preparation of an archaeological testing protocol— in advance of any redevelopment of the Bus Depot site.

MTA PROPERTY MANAGEMENT PROTOCOL FOR SUBSURFACE FACILITIES WORK

In December 2011, MTA prepared a property management protocol for subsurface facilities work in the depot (the "Property Maintenance Protocol"). The Property Maintenance Protocol describes the procedures to be followed in advance of, during, and following all activities involving excavation into the Bus Depot site's ground surface as part of the general maintenance and routine operation of the depot. The Property Maintenance Protocol was not intended to serve as an archaeological testing protocol. Specifically, the main components of the MTA Property Maintenance Protocol included:

1. Education and training of depot personnel in advance of excavation activities;
2. Establishment of standards and procedures during excavations activities;
3. Documentation and management procedures after completion of the activities; and
4. Notification procedures in the event that human remains were identified during the excavation activities.

PHASE 1B ARCHAEOLOGICAL TESTING PROTOCOL

In advance of initiation of the present survey, a Phase 1B Archaeological Testing Protocol (May 29, 2015) was prepared in consultation with LPC, SHPO, MTA, and the Task Force. The Testing Protocol detailed the specific objectives and methods that would be followed during the investigation and the steps to be followed in the event that human skeletal remains were discovered.

Chapter 2: Research Design, Research Objectives, and Methodology

A. INTRODUCTION

This chapter provides a description of the Phase 1B research design and objectives and describes the methods followed during implementation of the survey's various tasks.

THE NEW YORK AFRICAN BURIAL GROUND

The archaeological investigation of the New York African Burial Ground in Lower Manhattan in the early 1990s (New York African Burial Ground Project 2009) changed the way that race is addressed through archaeological investigations both in New York City and across the nation (Orser 2007). In particular, the investigation transformed how archaeologists work with descendant communities, the individuals and organizations with a demonstrated interest in an undertaking or property, and balance the communities' interest with that of the research design. That project also led to greater sensitivity in the terminology used in cemetery projects and the avoidance of racialized terms that may result in incorrect interpretations of the identities of the population being analyzed through the archaeological investigation (LaRoche and Blakey 1997; Blakey 2008). Similarly, in recent years, archaeological research has focused on the ways that "segregated spaces," such as African cemeteries, have helped to foster a new version of African-American identity and promoted a "sense of self and belonging among African Americans that may have come from racially exclusive spaces" (Matthews and McGovern 2015: 14). Sites such as that of the Harlem African Burial Ground therefore have the potential to provide information about the self-established identity and materiality of Africans and African-Americans living in New York City during the 17th through the 19th centuries.

IDENTIFICATION OF THE DESCENDANT COMMUNITY

Previous documentary research has identified the Elmendorf Reformed Dutch Church (ERDC), located on East 121st Street in Harlem, as the descendant church of the Reformed Low Dutch Church of Harlem (RLDCH), which had first established the cemetery that would become the Harlem African Burial Ground in later years (HPI 2011). The Harlem African Burial Ground Task Force was formed from a group of local historians, concerned citizens, politicians, and representatives from the ERDC to memorialize the historic and cultural significance of the Harlem African Burial Ground site. Manhattan's Community Board 11 has formally endorsed the Task Force's efforts. The ERDC and the Task Force were consulted before, during, and after the investigation and the Task Force provided comments and input on the Phase 1B Testing Protocol before testing commenced and visited the site several times during the field effort.

USE OF TERMINOLOGY

Among the concerns expressed during the investigation of the NYABG was the traditional use of outdated terminology to describe the race of individuals interred at the cemetery (e.g., "Caucasoid," "Negroid," and "Mongoloid") (LaRoche and Blakey 1997). Terminology such as this "constructs an identity that is culture-less, history-less, and biologically shallow" (ibid: 89). Similarly, the use of terms such as "slaves" similarly dissociates an individual from their pre-enslavement cultural heritage, and terms such as "enslaved Africans" were used throughout the NYABG investigation (Blakey 2008). Similarly, though historically known as the "Negroes Burying Ground," the cemetery was renamed the NYABG to restore the cultural identity of those interred there and because historic

research indicated that "Africans named their institutions 'African' in New York City as soon as they obtained the freedom to put such nomenclature on record in the early nineteenth century" (ibid: 22). This investigation, therefore, continues this use of culturally significant terminology, including the use of the name "Harlem African Burial Ground" rather than the phrases "Negro Burial Ground" or "Negro Burying Ground," except when referring to its name as cited in historic documents or quotations.

B. RESEARCH DESIGN

The present investigation follows previous documentary analysis (HPI 2011) and extensive research completed by members of the descendant community and the Task Force. That documentary research confirmed the presence and approximate limits of the Harlem African Burial Ground and indicated that the burial ground had been disturbed at several points in history as a result of the development and redevelopment of the site. As stated in the CEQR Technical Manual, although documentary research determines archaeological potential, "the resources the site actually contains cannot be known until the site is physically tested" (2001 Section 513.1: 3F-16). This Phase 1B archaeological investigation was designed to confirm the presence or absence of intact or disarticulated human remains within the project site. Supplemental background research was also conducted as part of this survey in order to reconstruct the site's landscape and to determine how it was altered in an attempt to identify any locations outside the mapped cemetery boundary that may contain human remains as a result of the movement of land through grading and filling. The types of archaeological resources that are expected to be present on the Bus Depot site and potential research questions/research goals are described below.

C. RESEARCH OBJECTIVES

The objectives of the Phase 1B Archaeological Investigation of the 126th Street Bus Depot Site were to (1) ascertain the presence or absence of human remains within the footprint of the existing bus depot and in the adjacent sidewalk; (2) determine the presence or absence of historic archaeological deposits and buried backyard shaft features on the project site dating to the 19th century; and (3) to determine the significance of any non-osteological resources that are recovered. The determination of significance is largely dependent on the types of potential archaeological resources that could be encountered on the project site and on the specific research questions that can be answered through the analysis of those resources.

POTENTIAL ARCHAEOLOGICAL RESOURCES ON THE PROJECT SITE

As described previously, the 2011 Phase 1A study identified seven general locations of archaeological potential within the Bus Depot site (HPI 2011). Each of these locations was characterized by a different historic use (e.g., residential occupation; religious use; or human interments) and was therefore sensitive for different types of archaeological resources. The assessments established in the Phase 1A for each of these historic land uses are summarized in **Table 2-1** and are depicted in **Figure 2**.

HUMAN REMAINS ASSOCIATED WITH THE HARLEM AFRICAN BURIAL GROUND AND RLDCH CEMETERIES

The boundaries of the Harlem African Burial Ground are clearly defined on 19th century maps (see **Figure 5**). The cemetery historically occupied an irregularly-shaped parcel of land situated on what was the historic waterfront within the eastern half of what is now Block 1803. As described in Table 2-1, despite the fact that the cemetery occupied only a portion of the site, the entire block—as well as portions of the blocks surrounding the site—has been identified as potentially sensitive for

disarticulated human remains due to the possibility that deposits from the historic cemetery may have been redeposited elsewhere on the Bus Depot site as a result of redevelopment or disturbance. Portions of the Ingraham Lane, the historic road that ran to the southwest of the Harlem African Burial Ground, were also identified as potentially sensitive for disarticulated human remains. The site of the Harlem African Burial Ground itself was identified for its potential for disarticulated remains or intact burials that may have survived disturbance associated with 19th and 20th century development. Given the potential inaccuracy of historic maps and the potential that burials may have taken place outside of the mapped boundaries of the cemetery, it is assumed that a buffer zone of at least 15 feet surrounding the mapped location of the cemetery (extending into portions of the Judah, Ingraham, and Williams Lots) may also be sensitive for intact burials.

The types of archaeological features expected in a cemetery context include burial shafts, skeletal remains, and associated artifacts such as coffin remains, metal fasteners, and mortuary furniture.

Table 2-1
Summary of Archaeological Potential as Defined in the Phase 1A Study

Historic Use and Location	Resource Types that may be Present	Date of Potential Resource(s)
Block 1803 (entire Site)	Disarticulated human remains	Ca. 1667/68 to 1856
Ingraham Lot (west half of Site)	Residential structure, truncated shaft features	Pre-Revolutionary War to 1880
Williams Lot (south central)	RLDCH-related truncated shaft features	Ca. 1667/68 to ca. 1686
	Truncated residential shaft features	Ca. 1800 to 1850s
Ingraham Lane (south central)	Possibly disturbed human remains associated with the Harlem African Burial Ground	Ca. 1667/68 to ca. 1686
Harlem African Burial Ground (southeastern central)	Possibly disturbed human remains associated with the Harlem African Burial Ground	Ca. 1667/68 to ca. 1856
Judah Lot (southeast corner)	Truncated tavern/residential shaft features	Pre-Revolutionary War to 1867
	Truncated shaft features associated with the summer/sanitary house	Ca. 1820
Harlem River Water Lots (northeast corner)	Mid-19th century fill	Ca. 1854/1855 to 1859
Source: HPI 2011		

SHAFT FEATURES AND FOUNDATION REMAINS ASSOCIATED WITH 17TH, 18TH, AND 19TH CENTURY RESIDENTIAL OCCUPATION AND RELIGIOUS USE

As described in Table 2-1, the Ingraham, Williams, and Judah Lots were identified as potentially sensitive for truncated shaft features associated with 17th through 19th century residences, a tavern, and the former RLDCH. These shaft features could include privies, cisterns, and wells in the historic lots' rear yards. Privies—the shaft features constructed beneath outhouses—are typically expected to be located at the rear of the historic property or at greater distances from structures while wells and cisterns are typically located closer to a dwelling. These features would have remained in use until municipal water and sewer networks became available in the mid- to late-19th century, and possibly for decades after. These features, especially privies, may have also been used for the disposal of refuse and may therefore contain dense deposits of artifacts associated with the historic occupation of the site. Finally, the Phase 1A determined that foundation remnants associated with 17th and 18th century structures, including the ca. 1667 RLDCH, may also be present within these areas.

LANDFILL AND LANDFILL RETAINING STRUCTURES

The northeastern portion of the Bus Depot site is made up of artificially made land that was formerly inundated by the Harlem River. Water lots were granted by the City of New York to private citizens during the mid-19th century and were filled in at that time (HPI 2011). This portion of the site could therefore contain archaeological resources including landfill-retaining structures (e.g., wooden cribbing) and landfill deposits that may have included household and industrial refuse.

RESEARCH TOPICS FOR THIS ARCHAEOLOGICAL INVESTIGATION

According to the guidelines for cultural resources as laid out in the *CEQR Technical Manual*, the determination of significance of a project site is directly related to whether the identified resource type "is likely to contribute to current knowledge of the history of the period in question" (2001 Section 321.2.5: 3F-9). In order to determine if any archaeological resources from the Bus Depot site would be considered to have significant research value, a list of research issues has been developed. These research topics are specific to the types of potential archaeological resources that could be encountered as described in the previous section.

HUMAN REMAINS ASSOCIATED WITH THE HARLEM AFRICAN BURIAL GROUND AND RLDCH CEMETERY

The Phase 1B testing was designed to physically test the site to determine the presence or absence of human remains (including both disarticulated human remains and intact burials). No additional research (e.g., disinterment, analysis of mortuary practices, etc.) was proposed as part of the initial testing protocol. However, when disarticulated and fragmentary human remains were encountered within one of the test trenches, it was determined that leaving them in place would contribute to their further decomposition. Therefore, in consultation with the Task Force, and in accordance with the procedures detailed in the Phase 1B Testing Protocol, the disarticulated human remains were removed from the trench as described in greater detail in **Chapter 4**.

SHAFT FEATURES AND FOUNDATION REMAINS ASSOCIATED WITH 17TH, 18TH, AND 19TH CENTURY RESIDENTIAL OCCUPATION AND RELIGIOUS USE

Archaeological resources recovered from shaft features located on the Bus Depot site could produce data about the individuals who resided, worked, or worshipped there during the 17th, 18th and 19th centuries. For historic period archaeological resources, shaft features—such as those that may be located within the former rear yards of the historic lots that make up the site—can contain important archaeological resources. These types of features were frequently filled with domestic refuse.

Artifacts recovered from trash or surface deposits are the material remains of what an individual purchases and/or uses on a daily or routine basis and they can provide insight into certain aspects of his or her life. Such consumption patterns are strongly influenced by socioeconomic status, occupation, household composition, and ethnicity. Information that can be gathered from domestic shaft features can be used to make generalizations about what life was like for the individuals and families that resided on a property. This information can then be compared and contrasted with data associated with similar populations elsewhere in the city. Similarly, if resources associated with the industrial use of the site are encountered, they can be compared and contrasted with other archaeological sites in the region to identify broader patterns. These comparisons could yield previously unknown insights into the ways of life of the individuals living in northeastern Manhattan during the Colonial period through the 19th century.

In addition to the shaft features, historic features can include foundation walls, paving/drainage stones, retaining walls, trash deposits, foundations of buildings and outbuildings such as barns,

stables, storage sheds, etc. The foundation remains associated with early homes and the church located on the site could provide additional information on the exact location of these structures as well as information on early-American construction methodologies.

LANDFILL AND LANDFILL RETAINING STRUCTURES

Waterfront land constructed prior to the mid-19th century in North America has increasingly been the focus of archaeological inquiry. The physical structure of landfill-retaining devices and the fill contained within them can be examined to learn a great deal about the social, cultural, and economic contexts of made land. In New York City, several archaeological investigations have examined wharves, slips, and bulkheads along the East River waterfront of Lower Manhattan and Brooklyn. Few landfill sites in northern Manhattan have been archaeologically investigated and any data recovered from such sites could be compared to data from similar sites in Lower Manhattan to identify variations in landfilling technology and methodology across Manhattan.

D. SUPPLEMENTARY DOCUMENTARY RESEARCH METHODS

As part of this Archaeological Investigation, additional documentary research was completed to complement the research previously conducted by HPI as part of the 2011 Phase 1A study (see **Chapter 3: Background Research**). This research effort draws on the information already collected for previous archaeological investigations and takes advantage of newly accessible records, including newly digitized historic maps and new materials provided by MTA regarding the existing Bus Depot. As part of this supplementary research, greater effort was placed on studying historic elevation information and georeferencing historic maps in an attempt to reconstruct the historic landscape of the Bus Depot site.

E. FIELD METHODS

Subsurface testing consisted of a combination of monitoring mechanically-excavated trenches and hand-excavated test units and shovel test pits (STPs). The type of testing strategy employed and the number and type of units excavated was dependent upon encountered site conditions, such as identification of a historic ground surface (or a suspected ground surface). Extreme care was taken throughout all subsurface excavation to ensure that potential human remains were not disturbed.

The backhoe trenches varied in length from 9.5 feet to 30 feet depending upon infrastructure constraints such as buried utility lines or the presence of underground tanks. When possible, each backhoe trench was excavated to the depth of sterile subsoil to confirm the presence or absence of archaeological resources. OSHA site safety standards were followed and a 4-gas meter and a Dusttrak meter were used on-site in the immediate vicinity of each trench to monitor the air during the performance of fieldwork inside the depot.

The encountered soils were documented using standard nomenclature including the Munsell soil color chart. The location of each trench and excavation unit was established using measuring tapes and an on-site datum. To provide additional information concerning the soil processes occurring at the site and the depositional history, geomorphologist Joseph Schuldenrein, Ph.D., of Geoarcheology Research Associates, Inc. (GRA), made two separate site visits during the course of the survey. Though Dr. Schuldenrein did not prepare a report, the site visits were video recorded and the relevant observations have been included in Chapter 4, Section B. Throughout the survey artifacts were collected as necessary and placed into labeled plastic bags. Fieldwork was documented through notes, photographs, video, and drawings. Hand testing took the form of STPs measuring approximately 18 inches in diameter or square test units measuring 2 to 3 feet on each side. All hand-excavated soils were screened through quarter-inch steel mesh. Artifacts were systematically collected from hand-

excavated soils and placed in labeled plastic bags. Standard field documentation through notes, photographs, and field sketches were collected during fieldwork.

F. HUMAN REMAINS DISCOVERY PROTOCOL

Procedures for ensuring the proper management and treatment of human remains are detailed in the May 29 Archaeological Testing Protocol. Those procedures were established in accordance with the guidelines of NYCLPC, NYSOPRHP, and NYAC, and include notification procedures to ensure that all involved consulting parties were appropriately notified of the discovery of human remains or suspected human remains, including the Office of the Chief Medical Examiner (OCME). Per NYC Department of Health requirements, a permit was issued through a registered funeral director before removal of human remains from the project site to AKRF's NYC offices for temporary storage. This permit will be modified once a long term site for the disinterred remains has been identified by the consulting parties.

The dignified, respectful recovery of the human remains located within the site was of the utmost importance during this Phase 1B investigation. No intact graves or burials were observed in any of the four excavated trenches. Similarly, no human remains or evidence of burial trenches or intact soil levels associated with the cemetery were observed within Trench 1, which was excavated through the center of the cemetery's mapped boundaries. Disarticulated, redeposited human remains in a generally poor state of preservation were observed in situ within the northern half of Trench 2, which is situated to the north of the Harlem African Burial Ground's northern border.

The first human remains were discovered during the hand excavation of a 3 feet by 3 feet excavation unit and they were recovered from a single identifiable layer of fill. All excavation of this soil layer continued by hand using trowels and small hand equipment. Soil from the vicinity of skeletal material was excavated using small wooden implements or brushes. One hundred percent of the soil layer determined to be sensitive for human skeletal remains was carefully screened and all bones and bone fragments recovered through screening (human or faunal) were bagged separately from other artifacts. Where troweling exposed in situ remains, those remains were left in place and were marked with a toothpick wrapped with ribbon to ensure visibility. Most remains were photographed in situ and the provenience of each bone and bone fragment relative to the trench grid was recorded. As necessary, some remains were covered with dirt or plastic bags to ensure their protection and to prevent them from losing moisture. Where possible, excavation continued around exposed and marked bones and bone fragments, which were left on unexcavated pedestals. Exposed remains and unexcavated floor surfaces were protected from further disturbance and destruction through the use of wood and foam barriers, cloth, and plastic wrap.

Bones and bone fragments were examined in situ by Dr. Vincent Stefan, the consulting forensic anthropologist. Following Dr. Stefan's preliminary examinations, and after consultation with the consulting parties per the Phase 1B Testing Protocol and receiving a disinterment permit, the exposed remains were removed and transported to an on-site work space used as a temporary laboratory within the Bus Depot. The work space was a secure, air conditioned room with adequate lighting and storage shelves. In the on-site laboratory, Dr. Stefan conducted a more thorough examination of each bone, including collection of metrical information and where possible the identification of sex, age, and ancestry/race. Dr. Stefan followed standards and procedures detailed in Bass (2005), Buikstra and Ubelaker (1994), Jantz and Ousley (2005), and Rhine (1990).

Following the completion of the more thorough analysis, some of the excavated remains were again photographed in the laboratory. The remains were then wrapped in acid-free tissue paper and encased in aluminum foil to minimize further breakage or crumbling. The wrapped remains were then placed

in plastic bags. Efforts were made to prevent condensation from developing within the bags. The nearly-complete human cranium recovered during the investigation was found within a deposit of large rocks and the facial bones had been damaged during its re-deposition. Because of its severe fragility, the cranium was carefully wrapped in acid-free tissue paper and bubble wrap and placed in its own acid-free box. Fragments of broken facial bones that were disarticulated from the cranium after its removal from the trench were placed in paper bags within the same box.

The human remains were stored in the locked, air-conditioned on-site laboratory throughout the course of the Phase 1B investigation. Following the investigation, the remains were transferred to and securely stored within the AKRF Laboratory. While the remains were photographed in situ and in the on-site laboratory, out of respect for the individuals whose graves were disturbed, no photographs of human remains have been included in this report.

G. ARTIFACT PROCESSING AND ANALYSIS

ARTIFACT PROCESSING

All laboratory activity was conducted in compliance with guidelines established by the United States Department of the Interior for the Curation of Federally-owned and Administered Archaeological Collections (36 CFR 79 and 66). Artifact washing was completed in the AKRF archaeological laboratory. Trained technicians processed the artifacts using standard archaeological techniques. Artifacts were washed with a mild, non-ionic detergent using soft-bristle brushes and were air-dried on porous racks. Fragile artifacts and those with non-stable surfaces were treated separately either without brushing or without water. Once fully dried, artifacts were sorted by type and re-bagged in clean, archivally stable, polyethylene zip-lock bags labeled with provenience information.

ARTIFACT ANALYSIS

To the extent possible, recovered artifacts were examined and classified according to material, temporal or cultural/chronological association, function, and style, using standard archaeological references. Where possible, this analysis included the identification of the *Terminus Post Quem* (TPQ)—the earliest possible date that can be attributed to an artifact—for each context and the generation of mean beginning and end dates for the assemblage. This information was then used to establish the contemporaneity of contexts and strata, and to determine which assemblages represent primary or secondary deposits. A detailed artifact catalog was prepared to identify each artifact and to classify it by context, count, provenience, group, class, material, and function.

The terms Group and Class are used in the catalog in accordance with National Parks Service (NPS) guidance to indicate an internally consistent set of related kinds of artifacts (e.g., Group: Ceramics and Class: Dishes). The term "Type" is also used in the catalog to more explicitly identify the types of activities expected to have occurred there.

While more specific Group and Class categories are traditionally used in artifact cataloging (i.e., use of "Kitchen" to specifically denote ceramic artifacts associated with serving dishes and "Furniture" to indicate decorative ceramic objects such as flower pots) because of the nature of the artifacts collected during this investigation, simplified Group/Class categories were used. For example, the majority of the ceramics collected were highly fragmentary and it was often difficult to differentiate between kitchen-related ceramics and those that might have been used for other purposes.

ANALYSIS OF FAUNAL REMAINS

A variety of faunal materials (animal bone, including mammal and bird) were collected during the archaeological investigation. These remains were examined by Reaksha Persaud, a doctoral candidate

at Brooklyn College with a specialization in osteology. Theoretically, faunal identification and analyses can supply information about the consumption and use of animal products. Accordingly, Ms. Persaud analyzed the faunal assemblage and created an inventory of the bones that identified the species of each as well as other information. The index also made note of any identifiable features of the bones, such as evidence of butchering. Faunal analyses followed the recording codes of the North Atlantic Biocultural Organization, Zooarchaeology Working Group, 9th Edition, 20 May 2008 (Updated 1 Feb. 2010).

FLOTATION AND MACROBIOLOGICAL ANALYSIS

Soil and wood samples were collected from various contexts but have not been processed to date.

Chapter 3: Supplemental Background Research

A. INTRODUCTION

As described in **Chapter 1: Introduction**, a Phase 1A Archaeological Documentary Study of the Bus Depot site was completed by HPI in 2011. That study included a thorough summary of the site's historic occupation and development. Relevant portions of that survey have been summarized in this chapter. Additional information has been provided regarding the site's environmental setting, soils and topography, the development of the site, and a new assessment of the landscape transformation of the area. Importantly, this supplementary research involved studying historic elevation information and georeferencing historic maps in an attempt to reconstruct the historic landscape of the Bus Depot site. This chapter also includes a brief summary of the potential for prehistoric archaeological sites to be present in the project area.

B. ENVIRONMENTAL SETTING

The island of Manhattan is found within a geographic bedrock region known as the Manhattan Prong of the New England (Upland) Physiographic Province. This region is composed of heavily metamorphic and sedimentary rocks (including gneiss, schist, quartzite, and marble) that date to the Cambrian and Ordovician ages and are more than 450 million years old (Isachsen, et al. 2000). The Bus Depot site is situated within the Harlem Lowland, a lower lying area underlain by Inwood Marble (Schuberth 1968). The site was historically adjacent to the Harlem River and the northeast third of Block 1803 was originally inundated. Historic maps (e.g., Randel 1820 [see **Figure 5**]; Bridges 1811; and Viele 1865) depict what appears to be an elevated ridge or bluff oriented parallel to the Harlem shoreline and extending along the East Harlem coastline from about 400 feet southeast of the Bus Depot to the northwest. The Viele map shows small pond to the southwest of the Bus Depot site at the base of a small hill.

The *New York City Soil Reconnaissance Survey* published by the National Resource Conservation Service (2005) indicates that soils expected at the site are included within the "Pavement and Buildings-outwash substratum" complex. These highly urbanized areas typically have 0 to 5 percent slopes more than 80 percent of which is covered by impervious pavement or buildings (New York City Soil Survey Staff 2005).

C. PREHISTORIC ARCHAEOLOGICAL RESOURCES IN THE VICINTIY OF THE PROJECT SITE

PREVIOUSLY IDENTIFIED PREHISTORIC SITES

Information regarding previously identified prehistoric archaeological sites was obtained from various locations including the site files of OPRHP—accessed through the CRIS database—and from previous cultural resources assessments and published accounts. The Bus Depot site is located within an area of generalized archaeological sensitivity as mapped in CRIS. These areas represent buffer zones delineated around previously recorded archaeological sites that have been reported to OPRHP.

As seen in **Table 3-1**, five prehistoric archaeological sites have been identified within a one mile radius of the Bus Depot site as mapped in CRIS. The majority of these sites were originally reported

in Arthur C. Parker's 1922 work, *The Archaeological Historic of New York.* Additional Native American sites are identified in Bolton's 1922 work, *Indian Paths in the Great Metropolis*. Many of these sites were identified during the 19th or early 20th centuries by avocational archaeologists and, unfortunately, none were excavated according to today's technical standards. In some instances the exact locations of these sites are unknown and it is likely that intensive land transformation and construction which has taken place in recent centuries has obliterated any trace of their existence.

Table 3-1
Previously Identified Prehistoric Archaeological Sites

Site Name and Number	Approximate Distance from Project Site	Time Period	Site Type and Information	Other Reference(s)
Conykeest OPRHP: 06101.000541 NYSM: 4064	0.3 miles (1,600 feet)	Prehistoric	*Reckgawawanack* camp or fishing place with shell midden on waterfront near intersection of 121st Street and Pleasant Avenue. OPRHP files note that this may be the same site as NYSM site 4063.	Bolton 1922
NYSM: 4063	0.4 miles (2,200 feet)	Prehistoric	*Reckgawawanack* village, camp or fishing place near the waterfront at the end of 110th Street. OPRHP files note that this may be the same site as NYSM site 4064.	Parker 1922
NYSM: 7248	0.3 miles (1,600 feet)	Prehistoric	Traces of Occupation	Parker 1922
NYSM: 7249	0.8 miles (1,600 feet)	Prehistoric	Traces of Occupation	Parker 1922
Source: New York State Cultural Resource Information System (https://cris.parks.ny.gov); Bolton 1922.				

As shown in Table 3-1, these sites appear to all be linked to the main settlement of *Conykeest*. Maps in Bolton's book (1922) identify a campsite on the bluffs lining the waterfront of the Harlem River east of modern Pleasant Place between 119th and 122nd Streets. To the west of the site was a stream buffered by marshland that drained into the Harlem River. Bolton also depicts a road marked as "The Indian Trail" that ran parallel to and south of the former Church Lane that led to the project site in the early historic period. The site was first reported by historian James Riker, who identified the site after it was discovered during the excavation of a basement in the area (Riker 1881). Riker described stone tools and debitage made of imported "buff-colored flint" (ibid: 137). Bolton (1922) described it as "a site of some importance…affording extensive hunting, fishing, and oystering facilities" for the chieftaincy of the *Reckganaweck*, the local population at the time of European Contact (Bolton 1922: 73). It is likely that the camp was occupied seasonally (ibid). It is likely that additional seasonal camp or occupation sites would have existed throughout East Harlem.

PREHISTORIC ARCHAEOLOGICAL SENSITIVITY OF THE PROJECT SITE

In general, prehistoric habitation sites are most often located in coastal areas with access to marine resources, near fresh water sources and areas of high elevation. Further indication of the potential presence of prehistoric activity near a project site is indicated by the number of precontact archaeological sites that have been previously identified in the vicinity of a given site. The Site is located in close proximity to several previously identified prehistoric sites, most notably the prehistoric village of *Conykeest* and was originally adjacent to the Harlem River waterfront (and partially inundated). The varied resources offered by the marshes would have made the Bus Depot site and its immediate vicinity an attractive camping or settlement location. However, as described below, the site was extensively developed in the 19th and 20th century. As such, the prehistoric ground surface was likely disturbed and the site was not considered to be sensitive. Despite this

apparent potential, no prehistoric archaeological resources were encountered during the Phase 1B testing.

D. HISTORIC PERIOD DEVELOPMENT AND OCCUPATION

The early history and use of the Harlem African Burial Ground is thoroughly described in HPI's 2011 Phase 1A Archaeological Documentary Study of the Bus Depot site. This history will be briefly summarized here. Additional information has been provided on the development and redevelopment of the site following the end of its use as a place for human interment in an attempt to determine how and when the graves within the cemetery were disturbed and the skeletal remains redeposited elsewhere across the block outside of the mapped boundaries of the cemetery[1].

17TH AND 18TH CENTURY ORIGINS OF THE HARLEM AFRICAN BURIAL GROUND

The first Reformed Low Dutch Church of Harlem (RLDCH) was constructed near the intersection of First Avenue and East 126th Street in 1665 (Tilton 1910). By 1668, a cemetery was established within the church's property and the cemetery's boundaries were expanded during its early years of usage (HPI 2011). The RLDCH was later relocated a couple blocks further to the south and they established a new cemetery south of East 125th Street in 1686 (Tilton 1910). By 1771, the original RLDCH cemetery was formally identified as the "Negro Burying Ground" on historic maps, though the exact date that it ceased being used by the RLDCH is not known, it may have occurred around 1686, when the church relocated (ibid). Adjacent properties were used for residential purposes and the adjacent landowner, Daniel P. Ingraham, who was involved with the RLDCH, appears to have rented the burial ground in the early 19th century even though it was in continued use as a burial location through at least 1856 (ibid). As described in the 2011 Phase 1A, no records exist to document the earliest burials at the church, which could have included individuals of both African and European descent as well as enslaved Africans.

In 1853, the RLDCH sold the property on which the Harlem African Burial Ground was situated to its neighbor, Daniel P. Ingraham (HPI 2011). At the same time, additional efforts were made to develop and fill the waterfront along the Harlem River and the water lots in the northeast corner of the site were filled at this time (ibid). Early 19th century maps of the site depict a marshy area lining the water's edge (as well as the cemetery's edge) within the northeastern corner of the site (Figure 6). However, an 1855 United States Coastal Survey prepared by F.H. Gerdes depicts an unusual line with right angles between what appears to be dry land and marsh. This irregular line may reflect the landfilling process that was occurring on the project block during this time. Burial activities appear to have ceased by 1857, and "it is unclear if the cemetery was closed…at this time or simply abandoned in situ as part of Daniel Ingraham's larger estate" (HPI 2004: 12).

19TH CENTURY TRANSFORMATION OF BLOCK 1803 & SULZER'S HARLEM RIVER PARK

The 1870 Perris map (reprinted as Figure 19 in HPI's 2011 Phase 1A) is the first map to depict Block 1803 as entirely filled. The Ingraham family, whose mansion still stood on the western portion of the block, had acquired the land to the east, including the former cemetery, and the Perris map depicts their property as covering the western two-thirds of the Block. No structures or other developments are shown in the vicinity of the cemetery on that map.

[1] As discussed in Chapter 4, human skeletal remains were recovered to the north of the northern boundary of the cemetery in a disarticulated state (i.e. not oriented as they would have been in their original burial configuration).

In 1877, the Ingraham family leased (and later sold) the property to Herman Sulzer, who converted Block 1803 into "Sulzer's Harlem River Park," a popular park, dance hall, beer garden, and casino (HPI 2011). The 1879 Bromley atlas indicates that the former Ingraham home had been expanded to the east with a stable or barn that served as a park facility. While Second Avenue was a main thoroughfare in the neighborhood at this time and was developed with an elevated railroad, the 1879 map indicates that 126th and 127th Streets were mapped but not yet constructed east of Second Avenue. A bird's eye drawing published the same year by Galt-Hoy depicts additional recreational facilities to the east of the expanded mansion, including what appears to be a carousel and two small structures in the vicinity of the cemetery.

By the publication of the 1885 Robinson Atlas (Figure 7), the former park buildings had been demolished and new brick and wood structures were constructed in the northwest corner of Block 1803. Additional small wood-frame recreational structures were constructed within the eastern portion of the Bus Depot site, including in the location of the Harlem African Burial Ground, in the late 19th century. Sanborn maps published in 1886 and 1896, and the 1891 and 1897 Bromley atlases depict round or octagonal structures (possibly gazebos or carousels) as well as other small rectangular and square wood structures. However, these maps depict these structures in slightly different configurations, suggesting that the buildings may have been temporary or insubstantial facilities, such as booths, that were easily moved. The 1896 Sanborn depicts numerous small structures directly on top of the cemetery location and indicates that the extreme eastern end of the Block was used as a lumber yard. The 40-foot wide lumber yard includes the 25-foot portion of Block 1803 that was subsequently incorporated into First Avenue after the construction of the Willis Avenue Bridge (HPI 2011). The bridge was opened in 1901 and the surrounding land, including property adjacent to the Harlem African Burial Ground was acquired through eminent domain (HPI 2001; HPI 2011).

Following a 1907 fire, the main buildings housing the casino and dance hall were rebuilt at the northwest corner of Block 1803 (HPI 2011). It is unclear how the fire affected the structures to the east, in the vicinity of the Harlem African Burial Ground. The 1911 Sanborn map depicts similar structures, but provides greater detail about their use, identifying them as booths, swings, music stands, and a lunch room. Among the more substantial structures shown in the location of the Harlem African Burial Ground was a 1-story structure housing a carousel, which appears to have been exposed to the open air on previous maps. In addition, a large oval area is designated near the center of the block, overlapping with the northern end of the cemetery, which may indicate the presence of a trotting course or race track. After years of financial difficulty the park closed in1916 (ibid).

20TH CENTURY USE AS A MOVIE STUDIO

Following the early 20th century closure of the park, Block 1803 was redeveloped as a movie studio for Cosmopolitan Pictures and the International Film Service Company (HPI 2011). A Bromley atlas published between 1921 and 1923 indicates that the studio complex included several buildings, including the former 3-story casino at the northwest corner of the block. Several small 1- and 2-story brick structures were located at the southwest corner of the block and a large 1-story brick addition was located in the center of the block, covering a portion of the Harlem African Burial Ground site. The remainder of the block is depicted as vacant. While no maps indicate that this structure had a basement, a Certificate of Occupancy on file at the New York City Department of Buildings that was issued in 1921 for the 1-story movie studio addition indicates that the building was constructed with a basement.

The 3-story building that served as the headquarters of Cosmopolitan Productions (founded by William Randolph Hearst) and the International Film Service Company—which produced news reels—was destroyed by a fire in 1923 (New York Tribune 1923). The following year, Hearst sold the

studios to Metro-Goldwyn-Mayer (MGM), which is identified as the owner on subsequent maps and atlases (Variety 1924). The 1939 Sanborn map indicates that the building was originally constructed in 1908 and was "remodeled" in 1924, presumably after the fire. A 1924 aerial photograph of the site depicts the reconstructed studio, including the studio building that extended onto the site of the former cemetery. What appears to be a fence surrounded the northeastern portion of the block, but angled to the southwest to exclude the southeast corner from the property. The unusual angle of the fence line is similar to that separating the "Judah lot" from the remainder of the project Site (see Figure 3). A small structure or stockpiled materials are depicted within the fence in the location of the cemetery.

An article published in the New York Herald in November 1927 indicates that the Ingraham family sold a portion of Block 1803 to the movie studio, finally giving the movie studio full control of the block. That article noted that upon the movie studio's initial purchase of the property:

> …title insurance…was refused because there was no deed on record from the Dutch Reformed Church of Harlem to the Negro church. It was finally decided that inasmuch as the Negroes at that time were slaves they could not hold property. This is believed to be the reason why there was no deed of record (New York Herald 1927: 18).

In 1928, MGM signed a new lease and planned to alter the buildings on the lot to transition from the production of silent films to movies with sound (New York Times 1928). By the publication of the 1939 Sanborn map, the property had been acquired by George Wittbold, Inc. Wittbold's company manufactured exhibits and created the General Motors "Futurama" panorama that was featured at the 1939 World's Fair (New York Herald Tribune 1939). The 1939 Sanborn map does not indicate that Wittbold had made significant changes to the former movie studio facility, though the presence of hoses throughout the 1-story extension that partially covered the cemetery site suggests the presence of fire suppression infrastructure by that time. The buildings were demolished in 1941 and a series of photographs documenting the demolition are available at the New York Public Library and are reproduced in the 2011 Phase 1A. Following the demolition, a large debris pile was located on the eastern half of Block 1803, including on the location of the former cemetery.

20TH CENTURY CONSTRUCTION OF THE EAST 126TH STREET BUS DEPOT

The existing bus depot was constructed in 1947. An extensive assessment of disturbance caused during the construction and subsequent renovations of the depot is presented in the 2011 Phase 1A. In addition, as part of this Phase 1B investigation, AKRF reviewed available utility plans, conducted a site visit, and consulted with Brian Linehan, MTA Project Coordinator, East New York Depot, regarding the location of the operational subsurface oil/water separator system at the depot. See Figures 4a, 4b, and 4c for plans of the oil/water separator system and associated tanks. See Figure 2 for the location of the currently operational oil/water separator system and other underground tanks. Note that the southern portion of the current bus depot structure includes a basement.

E. LANDSCAPE ALTERATION AND ANALYSIS OF HISTORIC ELEVATION INFORMATION

The Phase 1A states that at the time that report was prepared, little information was available regarding the elevation of the historic ground surface of the Bus Depot site (HPI 2001). As part of this Phase 1B investigation, historic maps containing historic elevation information were reviewed in order to re-assess alterations of the block's historic landscape. Changes that have been observed in street corner elevations—the only locations in the vicinity for which historic elevation data is

available—adjacent to the property are presented in **Table 3-2**, below, and depicted in **Figures 5 through 7**.

As seen in Table 3-2, the elevations of the street corners surrounding the Bus Depot site were obtained from six historic and modern maps: the ca. 1820 Randel Farm maps;[1] the 1850 Hayward profile drawing of Northern Manhattan; the 1885 Robinson atlas; the 1891 Bromley atlas; the ca. 1937 Rock Data Map; and the 2013 LIDAR Data relative to the North American Vertical Datum of 1988 (NAVD88).[2]

Table 3-2
Street Corner Elevations as Identified on Historic Maps

Map/Year	Map Datum	Elevation (in feet) at the Intersection of:		
		First Avenue and 126th Street	**Second Avenue and 126th Street**	**Second Avenue and 127th Street**
ca. 1820 Randel Map	"*Medium between low and high tides"**	6.94	[not provided]	[not provided]
1850 Hayward Map	Not given	2.8	13.8	15
1885 Robinson Atlas	*"Above high tide"*	6	14.33	10.11
1891 Bromley Atlas	*"Above high tide*"	6	12.25	10.08
Ca. 1937 Rock Data Map (updated through 1965)	Manhattan Borough Datum	Legal Grade: 6 Grade at NW corner of 126th and 1st (Boring 166): 6.3	Legal Grade: 12.2 Grade at SE corner of 126th and 2nd (Boring 23): 11.8	Legal Grade: 10.1 Grade at NW corner of 127th and 2nd (Boring 52): 11.5
1930 Bromley	"*Above high water"*	6	12.2	10
1955-1966 Bromley	*"Above high water*"	6	12.2	10
2013 LIDAR Data	NAVD88	7.5	14.8	12.8

Notes: The 1885, 1891, 1930, and 1955-1966 maps and atlases appear to be depicting the city's legal grade at these intersections; this may not have been the same as the actual elevation. Only the ca. 1937 Rock Data Map identifies both the legal and actual grades at certain locations. *Rose-Redwood 2003; indicates mean of high and low tide.

A significant problem with the comparison of these data sets is the lack of an accurate, consistent datum across all maps. A datum is the point from which surface elevations are measured (where the elevation is considered to be 0). Elevations of the same ground surface, recorded at the same time, but taken relative to different datum points, will obviously differ despite the fact that they refer to the same location. As shown in Table 3-2, datums have historically been linked to tidal action, either mean sea level (representing the average of high and low tide) or the high water mark. Therefore, understanding the datum from which an elevation was measured is critically important to an analysis of historic elevations and landscape change. However, given historic surveying techniques and inaccuracies that may exist in measuring tides and elevations, especially during the 19th century, as well as sea level rise, there may be discrepancies when comparing current and historic elevation data.

Two of the earliest maps that show elevation information, the 1811 Bridges map of the city's proposed street grid (based on surveys by John Randel) and John Randel's ca. 1820 farm maps, were both created by the same cartographer. However, elevations were measured relative to different datum points (Rose-Redwood 2003). The datum used for the 1811 map has been identified as the modern Manhattan Borough Datum, which is 2.75 feet higher than the National Geodetic Vertical

[1] Two sets of Randel farm maps exist; this section refers to the ca. 1819-1820 version (Plate 67), which has recently been digitized and made available on the website of the Museum of the City of New York. A second version was produced in 1819 (Plate 63) also exists and is included as Figure 9 of the 2011 Phase 1A prepared by HPI. The 1819 version as reproduced in the Phase 1A does not include elevation information.

[2] The 1865 Viele map also includes street corner elevations for some portions of the city, however, elevations are absent in northern Manhattan in the location of the Site.

Datum of 1929 (NGVD29), an approximation of mean sea level at Sandy Hook, New Jersey (ibid: 125).[1] Geographer Reuben Rose-Redwood completed an extensive analysis of the datum used on Randel's ca. 1820 Farm Maps and concluded that the Farm Map datum was 5.63 feet below the 1811/Manhattan Borough Datum and 2.88 feet below NGVD29. The NGVD29 datum has largely been replaced by the North American Vertical Datum of 1988 (NAVD88), the 0-point of which is approximately 1.1 feet higher than the 0-point of NGVD29. See **Table 3-3** for a comparison of historic and current datum information.

Table 3-3
Comparison of Historic Datum Elevations

	ca. 1820 Randel Farm Map Datum*	NGVD29	NAVD88	Manhattan Borough Datum
Elevation (in feet)	5.63	2.75	3.85	0 (datum)
	3.98	1.1	0 (datum)	-1.65
	2.88	0 (datum)	-1.1	-2.75
	0 (datum)	-2.88	-3.98	-5.63
Source: *Rose-Redwood (2003).				

The 1811 map does not provide elevation information for the site's immediate vicinity. The closest elevation is identified near the intersection of First Avenue between 125th Street and 126th Streets, where the ground surface was at 14.17 feet (above high the water mark) in 1811. Randel's ca. 1820 Farm Maps identify the elevation of the northwest corner of the intersection of First Avenue and 125th Street as 17.61 feet (above a point between high and low tide). Using Rose-Redwood's calibration method, the ca. 1820 elevation would be calculated as 11.98 feet relative to the Manhattan Borough Datum as depicted on the 1811 map and 14.73 feet below NGVD29. Small differences in elevation between historic maps may therefore vary according to the datum that was used to calculate the elevation as well as the exact point where the elevation was measured, which likely also varied as some cartographers measured the center of intersections and others measured specific street corners. Furthermore, the National Oceanic and Atmospheric Administration (NOAA) has calculated that since 1850, the mean sea level near the Battery at the southern end of Manhattan has risen at a rate of approximately 0.11 inches per year, or almost 1 foot over the course of a century. Therefore, while the location of sea level should not contribute greatly to differences in elevation as depicted on historic maps, some variation may be the result in the change of sea level itself or in inaccurate ways of measuring sea level and high tide during the historic period.

Table 3-4 includes datum information from three of the most reliable maps, the ca. 1820 Randel, the ca. 1937 Rock Data Map, and modern elevations converted to NAVD88 datum for comparison. The 1850 Hayward map—while not necessarily reliable because the datum from which these elevations were measured was not given—is also included as it provides elevation information for the streets shortly before they were constructed. It is assumed that the elevations on that profile drawing were relative to the Manhattan Borough Datum or a similar measurement, as adding 2.75 to the elevations creates elevations similar to those seen on other maps. The higher elevations seen on that atlas along Second Avenue may reflect the original street surfaces before they were graded in association with the construction of the avenue.

[1] Therefore, the same ground surface that is measured at 0 feet relative to the Manhattan Borough Datum would be measured at 2.75 feet relative to NGVD29.

This comparison appears to indicate that the elevation in the vicinity of First Avenue and 126th Street has been raised by approximately 3 to 5 feet and the elevation in the vicinity of Second Avenue and 127th Street has been lowered by at least 3 feet (no elevation information is available for this intersection on the ca. 1820 Randel Map).

Regardless of the datum confusion, historic maps reflect significant landscape modification within Block 1803. Several early maps—including the 1782 British Headquarters Map (and its 1900 copy by B.F. Stephens), and the 1811 Bridges, ca. 1820 Randel (see Figure 5), and 1836 Colton maps—depict a bluff or ridge at the northeastern edge of the landform at that time. This area has since been filled in and is located within the northeastern portion of the site. It is therefore clear that the northeastern portion of the site was at a lower elevation/down slope from the remainder of the property.

Table 3-4
Street Corner Elevations as Identified on Historic Maps Converted to NAVD88

Map/Year	Elevation in feet at the Intersection of:		
	First Avenue and 126th Street	Second Avenue and 126th Street	Second Avenue and 127th Street
ca. 1820 Randel Map	2.96	[not provided]	[not provided]
1850 Hayward Map (assuming Manhattan Borough Datum)	4.45	15.45	16.65
Ca. 1937 Rock Data Map (updated through 1965)	Legal Grade: 7.65 Grade at NW corner of 126th and 1st (Boring 166): 7.95	Legal Grade: 13.85 Grade at SE corner of 126th and 2nd (Boring 23): 13.45	Legal Grade: 11.75 Grade at NW corner of 127th and 2nd (Boring 52): 13.15
2013 LIDAR Data	7.5	14.8	12.8

To the northeast of the bluff, the ca. 1820 Randel map (Figure 5) indicates that salt marsh lined the coast of Manhattan. The map depicts several channels cut through the marsh grasses at the ends of docks—including one on the Ingraham property—permitting boats to travel between boat houses and the Harlem River. The marsh is also depicted on several versions of a coastal survey prepared by F. Gerdes in 1855. One of these surveys appears to depict the beginnings of the filling of the marshes of the northeast portion of the site. The map depicts the dock on the Ingraham property (which had been significantly extended since the ca. 1820 Randel map) and shows an irregular, stair step-shaped coastline shaded with a stippled pattern unlike that used for either fast land to the west or the adjacent salt meadows. The stepped shaded area features right angles that mimic the line of the street grid, which had not yet been constructed through the site. Therefore, this map may reflect the filling in of individual water lots and the expansion of Block 1803 into the Harlem River. The 1867 Dripps map also appears to indicate that additional filling had occurred, and only the northeastern corner of the block within the River. By the publication of the 1879 Bromley atlas, the entire block was filled in and while the streets surrounding it were mapped, the atlas indicates that they were not yet open.

A. INTRODUCTION

As previously described, the Phase 1B investigation of the 126th Street Bus Depot project site was designed to determine the presence or absence of archaeological resources on the site. The survey consisted of supplemental documentary research (included in Chapter 3), fieldwork, on-site analysis of human skeletal material recovered from one of the excavation trenches, laboratory analysis of the several hundred artifacts and faunal remains collected during the survey, and analysis. The results of these investigations are summarized below.

B. RESULTS OF FIELDWORK

Phase 1B fieldwork was initiated on August 16, 2015 and completed by September 26, 2015. Fieldwork consisted of the archaeologically-monitored excavation of four large trenches with an excavator, shovel skimming, and the hand excavation of units and/or shovel test pits in 3 of the trenches. **Table 4-1** provides a summary of the location, size, and findings of the trenches. Refer to Figures 2 and 3 for a depiction of the areas of archaeological sensitivity and the test trench locations. Photos 1 through 18 provide photographs of each trench location and select views of the encountered stratigraphy. The results of each trench are provided below.

Table 4-1
Summary of Findings

Trench	Historic Lot	Dimensions	Summary of Findings
1	Harlem African Burial Ground	38 feet east–west; 13 feet north-south; maximum depth – 6.5 feet	No evidence of former cemetery; undisturbed sands below 2 feet of disturbed soil
2	Harlem African Burial Ground/ Water Lots	25 feet north-south; 6 feet east-west; maximum depth – 9 feet	Disarticulated, redeposited, and often fragmentary human skeletal remains in fill level in former water lots; no evidence of landfill-retaining structures
3	Ingraham Lot	17 feet north-south; 3.5 feet east-west; maximum depth 9.5 feet	Disturbed soils to a depth of 10 feet below ground surface; no evidence of historic features
4	Harlem African Burial Ground	9.5 feet east-west; 6 feet north-south; maximum depth – 5.5 feet	No evidence of former cemetery; disturbed soils associated with construction of Bus Depot and utility lines

EXCAVATION OF TRENCH 1

Trench 1, the largest trench, was excavated in the northern center of the former cemetery, an area initially determined as most likely to contain burials or disarticulated human remains. **Table 4-2** provides a description of the soil levels encountered in Trench 1. Beneath the 8-10 inch thick rebar-reinforced concrete slab, excavation encountered a compact layer of fill likely associated with site clearing and preparation for construction of the bus depot. The team hand excavated two shovel test pits into this fill layer to examine the encountered soils and sample for artifacts. Fills and disturbed

sands containing small quantities of mixed 19th and 20th century refuse continued to a depth of approximately 2 feet below ground surface, at which point layers of undisturbed sands and gravels were encountered. The undisturbed sands sloped downward to the east, towards the Harlem River, and to a lesser extent to the north. Fine striations of brown oxidized minerals stood out markedly from the lighter brown fine sands. These oxidized striations are a result of a fluctuating water table. Excavation next encountered a layer of heavy gravel and coarse sand. This level also sloped downward to the east. Figure 8 provides a drawing of a portion of the south wall profile of Trench 1.

Table 4-2
Trench 1 Stratigraphy

Level	Deposition	Thickness	Closing Depth	Soil Description
1	Concrete Slab	6-8 inch	6-8 in	Concrete reinforced with steel rebar
2	Fill	5 inch	1 foot	Rubble fill; begins a few feet east of west end of trench, thicker to the east; dark fill with brick rubble; 10YR 3/4 dark yellow brown silty sand with gravel
3	Fill	12 inch	2 feet.	Sandy fill; clean, compact, and with few inclusions; slopes downward from west to east; 10YR 4/3 brown fine silty sand
4	Fill	6 inch	2.5 feet	Dark fill; disturbed and probably redeposited and stained sands from lower lying level; slopes downward from west to east; begins approximately 10 feet from west end of trench; 10YR 4/4 dark yellow brown sand
5	Natural	20 inch	3-4 feet	Natural sandy layer of 10YR 5/4 yellow brown fine sand with fine parallel striations of 10YR 4/4 dark yellow brown oxidized material; slopes downward from west to east at an ~8 percent slope
6	Natural	> 2 feet	6.5 feet	Heavy gravel with coarse sand; appears to be glacial till or river margin; 10YR 5/4 yellow brown coarse sand with heavy gravel; slopes downward from west to east an ~8 percent slope; appears to be identical to gravels at southern end of Trench 2

Trench 1 was excavated to a depth of approximately 4 feet below ground surface and the entire trench's floor was shovel skimmed and closely examined and the trench walls were scraped with shovels and trowels. No evidence of burials, burial shafts, or human remains was observed in Trench 1. The excavator excavated a narrower 3 feet by 10 feet trench into the floor of Trench 1 to expose the deeper lying soils. Loose coarse sands and gravels continued in this smaller excavation to a depth of approximately 6.5 feet below the surface of the concrete foundation. No artifacts or evidence of human remains were observed in this deeper trench. These sand and gravel layers continued northward into the south half of Trench 2, where they slope downward toward former Harlem River.

The presence of undisturbed layers of sands and gravels 2 feet below ground surface in an area that was formerly a cemetery suggests that grading prior to construction of the depot resulted in removal of the historic ground surface and a lowering of the area's ground surface. The small quantity of historic artifacts recovered from the upper fill layers are discussed in Section D of the current chapter.

EXCAVATION OF TRENCH 2

OVERVIEW

North-south oriented Trench 2 was excavated at the northern corner of the Harlem African Burial Ground, north of Trench 1, and extended northward into the water lots located to the north of the

cemetery (Figures 2 and 3), which were filled in by 1850s. **Table 4-3** provides a summary of the soil and fill levels encountered in Trench 2. Figure 9 provides a depiction of Trench 2's north profile wall. Also see Photographs 8 through 16, though poor lighting made photography difficult. As with Trench 1, a compact subgrade fill was encountered beneath the rebar-reinforced concrete slab. However, unlike in Trench 1, multiple additional levels of fill were encountered in Trench 2, extending to a

Table 4-3
Trench 2 Stratigraphy

Level	Deposition	Thickness	Closing Depth	Soil Description
1	Concrete Slab	8-10 inch	8-10 inch	Concrete slab reinforced with steel rebar
2	Fill	8-12 inch	1.5 feet	Subgrade bedding - very compact; 2.5YR 4/2 dark gray brown silty sand; generally level
3	Fill	8-10 inch	2 feet	Yellow fill - compact and mixed; Gley 1 6/2 and 10YR 5/6 silt; does not extend to southern end of trench
4	Fill	4-2 inch	2 feet 9 inch	Fill lens - possible temporary, pre-depot ground surface; level upper surface; covers north half of trench; 10YR 4/2 dark gray brown sandy silt with 10YR 5/2 medium fine sand
5	Fill	6-8 inch	3 feet	Dark Fill 1 - undulating; extends across most of trench; 10YR 3/3 sandy silt with grays and browns
6	Fill	4-6 inch	3.5 feet	Dark Fill 2 - level upper surface but slopes downward to the north; possible temporary ground surface; 10YR 3/3 sandy silt
7	Fill	8-10 inch	3-4 feet	Chaotic mixed fill - disturbed mix of soils from other layers; 10YR 6/1, 10YR 4/3 compact silt; slopes downward to the north
8	Fill	4-6 inch	4 feet 10 inch	Dark Fill 3 - possible sheet midden; only present in northern end of trench; undulating; 10YR 3/3 silty loam
9	Fill	12 inch	4 - 5 feet 10 inch	Patchwork Fill - redeposited mixture of ~1 foot-wide pockets of uniform soil; 10YR 4/4, 10YR 3/3, 5Y 4/2; slopes downward to the north; **very sensitive for human skeletal material**
10	Natural	4-6 inch	4.5 feet	Upper Buried A - historic ground surface; slopes gently downward to the north; 10YR 3/4 sandy silt
11	Natural	8 inch	6.5 feet	Riverine deposits - likely deposited through tidal or flood activity; slopes downward to the north; 10YR 3/4 dark yellow brown fine sandy silt
12	Natural	5 inch	7 feet	Riverine deposits - likely deposited through tidal or flood activity; oxidized medium-coarse sands; slopes downward to the north; 7.5YR 3/3 dark brown
13	Natural	5 inch	7.5 feet	Riverine deposits - likely deposited through tidal or flood activity; slopes downward to the north; mucky and damp; 10YR 4/2 dark gray brown silty sand with gravel
14	Natural	~10 inch	8 feet	Lower Buried A – earlier historic ground surface probably at margin of Harlem River; water-saturated; 10YR 3/2 very dark gray brown clayey silt with dense mat of peaty material; slopes downward to the north; only present in northern half of trench
15	Natural	Un-determined	4-8 feet	Deep sands and gravels - encountered at 3.5 feet below ground surface at southern end of trench and 8 feet at the northern end; slopes downward to the north; 10YR 5/3 brown; at southern end coarse sand with heavy gravel similar to deeper sands encountered in Trench 1; darker sands at center of trench

depth of 4 to 5 feet below the surface of the foundation (the fills extended to a lower depth at the trench's northern end than its southern end). These fill layers were comprised of soils that varied distinctly from one another based on several readily observable criteria: color; uniformity; composition of sand, silt, and clay; size and types of inclusions such as gravel; degree of compaction; interfaces with above- and below-lying soil levels (i.e. flat or undulating); and the types and quantities of artifacts discovered in the level. Roots were observed in some levels indicating that landfilling was gradual or intermittent, permitting the growth of vegetation.

Geomorphologist Dr. Joseph Schuldenrein of GRA, Inc. conducted two site visits to examine the upper 4 to 5 feet of soil and fill levels. Dr. Schuldenrein observed extensive redoximorphic mineralization (the breakdown and sorting of the natural minerals in a soil), which is evidence of hydromorphic activity (a fluctuating vertical water table or lateral seepage). He was not able to determine if the water activity occurred at the location of Trench 2 or if the soils were subject to these processes elsewhere, before redeposition. Dr. Schuldenrein also observed rising sand and gravel deposits at the southern end of Trench 2. These deposits appear to be a continuation of the natural undisturbed sands and gravels encountered below disturbed soils in Trench 1. The slope of these sands appears to reflect the dropping topography at the margin of the mainland and the Harlem River.

DISCOVERY OF HUMAN SKELETAL REMAINS

At a depth of approximately 2.5-3 feet below the foundation surface, the field team encountered a layer of darker sandy soil (Level 5) beneath the overlying subgrade and yellow fill. After shovel skimming, the field team established two 3-foot by 3-foot excavation units (Unit 2-1 and Unit 2-2) at the top of Level 5 and hand excavated through this dark fill level and additional lower-lying layers of fill. All soils were screened, resulting in the collection of small quantities of fragmentary historic artifacts. The hand excavation of Unit 2-1 stopped after about 1.5 feet but excavation of Unit 2-2 extended deeper.

On August 25, 2015, during the hand excavation of Unit 2-2, an essentially-intact human skull and a small number of additional human skeletal remains were discovered by the team of archaeologists at a depth of approximately 4 feet below ground surface. These remains were identified in a fill layer later named Level 9. The 3-foot by 3-foot area was carefully cleared of soil and an intrusive layer of heavy, compact gravel and the skull and 5 additional bone fragments were exposed and left in situ on pedestals of soil. While in situ, the skull rested at an angle on its right temporal bone (the side where the right ear would have been located) with the bones of the face oriented approximately to the northwest; this positioning is as opposed to the typical supine burial position where the skull is facing upwards. The skull's jaw was missing and large rounded cobbles were situated beneath the temporal and occipital bones to the north of the skull (on the skull's right side) and under the maxilla (face) to the northwest. Two long bones, an arm and a leg bone, were found within several inches of the skull. Only a small fraction of the bones that would constitute an intact burial were present in the area.

The group of remains was discovered about 12 feet north of the trench's south wall, approximately 23 feet north of the central east-west axis of the bus depot (the row of vertical support columns that extend the entire length of the depot from the structure's west wall to its east wall) and between 0 and 3 feet east of the trench's west wall.

Careful examination by the team forensic anthropologist, Dr. Vincent Stefan, and the team archaeologists, confirmed that the bones were human and determined that they were not configured in their original orientation at the time of their initial burial state. Instead, the remains were disarticulated and apparently randomly distributed in a low density horizontal layer. Additionally, close examination of the remains' stratigraphic context determined that they had been buried in a

layer of disturbed and redeposited soils and not within an identifiable burial shaft or feature. No evidence of burial shafts or pits was identified in this soil level or anywhere within Trench 2.

Immediately after discovery of the human skull and additional human skeletal remains, the Office of the Chief Medical Examiner (OCME), MTA, EDC, OPRHP, LPC, and the Task Force were contacted per the procedures laid out in the testing protocol. Within an hour of the discovery, on August 25, 2015, several representatives of the Task Force visited the site and were able to see the remains in situ and ask questions of the archaeologists and forensic anthropologist. On August 26, 2015 the OCME reviewed digital photographs of the skeletal remains determined to be human and informed the project team that the remains were historic and that no further notifications or consultation were necessary with OCME for additional similar remains at the site. A second Task Force visit occurred on September 1, 2015, this time including the New York City Council Speaker (a Task Force member) and several members of her office.

Additional remains were discovered to the north of the skull on September 2, 2015. Representatives of the Task Force made a third visit to the site, this time accompanied by Dr. Arthur Bankoff, representing LPC. During this consultation, the assembled parties made the following decisions:

1. The exposed remains were in danger of deterioration.
2. The significance of the recovered remains was not contingent upon their preservation in place.
3. The human skeletal remains should be removed from Trench 2 for examination by the team physical anthropologist and temporarily stored at the depot in a secure and temperature-controlled environment.

Removal of the remains also facilitated completion of the Phase 1B Archaeological Survey as further excavation was not possible without removal of the exposed remains. AKRF received verbal approval from the EDC and the Task Force on September 2, 2015 to remove the exposed remains. Per NYC Department of Health requirements, removal of the human remains required a permit to be issued through a registered funeral director. Per regulations, that permit was modified before the packaged remains were transported from the Bus Depot to a secure temporary location at AKRF's offices in NYC. This permit will be modified once again when a location for longer term storage has been identified for the disinterred remains by the Task Force.

A total of over 450 cubic feet of soil was hand excavated from the trench, and most of the excavated soil was screened through 1/4-inch steel mesh. Soils were generally excavated in 3 foot by 3 foot units in horizontal layers of 2 to 5 inches and each bone or group of closely spaced bones were point provenienced using a local datum. The field team encountered well over 100 individual human bones or bone fragments across the northern two thirds of the trench, an area of approximately 102 square feet. Most of the human remains were photographed in situ, removed from the test trench[1], and temporarily placed in plastic bags within standard archival-quality storage boxes, and stored in a windowless, secure, and temperature-controlled office. Throughout this process, representatives of the Task Force were informed of new discoveries by the EDC both verbally and through e-mails on an almost daily basis.

No evidence of burial shafts or coffin remains was observed although various historic artifacts were recovered that do not appear to be associated with the human remains. As further discussed in

[1] A group of human bones extending into the west wall was left in place. Exposing and removing these bones would have required undercutting the trench wall and risking a wall collapse and damage to the bones. Before backfilling the trench, the area containing additional bones was covered with a blue plastic tarp and a layer of screened soil.

Subsection E of this chapter, the skeletal remains represent a minimum of two individuals based on a preliminary examination by the team forensic anthropologist. The remains were recovered in a low-density horizontal distribution, are generally fragmentary and in poor condition, and are weighted toward long bones. In all cases, the remains were recovered in a disarticulated state within disturbed and redeposited soils.

FILL LAYER SENSITIVE FOR HUMAN REMAINS

All of the human remains were recovered from a single, approximately 1-foot-thick level of redeposited fill. This fill layer, later named Level 9, is distinguishable from the other fill levels encountered in this trench by: 1) its location immediately on top of the buried historic ground surface (Level 10) and 2) its distinctive patchwork mixture of pockets of three different soils (10YR 4/4 dark yellow brown fine silty sand, 10YR 3/3 dark brown sandy silt, and 5Y 5/4 yellow brown to 5Y 4/3 olive fine sand[1]). These pockets are somewhat suggestive of the patterning of a giraffe's skin. When more of this level was exposed in profile in the trench walls, some of the individual pockets appeared to have curved upper surfaces and flat lower surfaces, a shape that could be expected if a bucket were used to dump different soil types onto a level surface, which were then covered with another soil type. However, this patchwork quality was only observed in the central third of the 26-foot-long trench; it was somewhat more uniform and non-distinct to the south and to the north consisted of only two distinct colors: 10YR 6/1, light gray, and 10YR 4/6, brown (see Figure 9 and Photograph 13). These horizontal differences in the coloration of Level 9 were gradual and did not detract from the greater differences between this level and the levels above and below. Level 9 sloped downward to the north and extended from about 3 feet below ground surface to a depth of about 4 feet at the southern end of the trench and from about 4.5 feet to 5.5 feet at the trench's northern end.

Level 9 clearly continues to the west, north, and east beyond the boundaries of Trench 2. Its continuation to the south, into the area mapped as the location of the Harlem African Burial Ground, is ambiguous, as the soils become less distinctive and more mixed with gravel and sand intrusions. The distribution of human skeletal remains within Level 9 was unambiguous: no human remains were recovered from the southern 9 feet of the trench. The concentration of human skeletal remains in the northern 17 feet of the trench appeared to increase to the north and west, with the greatest concentration of remains being recovered from the northwest quadrant of the trench, *though it must be stressed that the sample size is too small for significance testing to rule out the distribution as random*[2].

BURIED NATURAL GROUND SURFACES

Beneath the layer of redeposited fill containing human skeletal remains (Level 9), the field archaeologists discovered a buried intact natural ground surface, a "Buried A" (later named "Upper Buried A" [Level 10] after the discovery of a second Buried A at a lower depth, the "Lower Buried A" [Level 14]). This level is depicted in Photos 12-15 and on Figure 9. Level 10 was encountered at about 4 feet below ground surface towards the middle of the trench and at between 5.5 and 6 feet below ground surface at the trench's north end. The level does not extend to the southern end of the trench, perhaps due to the stripping of the original ground surface at shallower elevations, as observed in Trench 1. The interpretation of this level as a natural ground surface was based on the following

[1] Level 8, which overlies Level 9, consists of a much more chaotic mixture of very similar soil types and colors. These similar soils were present in small patches and mottles, as opposed to the larger pockets in Level 9.

[2] The horizontal distribution of human remains was examined by dividing the area of sensitivity into four quadrants of equal area and comparing the counts by quadrant using a chi-square test. This analysis failed to rule out the null hypothesis.

observations: 1) the soil's coloration, uniformity, and composition; 2) differences between the artifacts found in the layer compared to the fill levels (see discussion later in this chapter); and 3) the presence of archaeological features.

As starkly opposed to the overlying, often chaotic fill levels, Level 10 possessed the characteristics of a naturally formed or deposited stratigraphic layer. Level 10 consisted of a uniform brown sandy silt matrix (10YR 4/2 dark grey brown sandy silt to 10YR 3/4 brown sandy silt). The level sloped smoothly downward to the north, which follows the expected contours of the ground surface at the transition from the eastern edge of the mainland towards the lower lying Harlem River margin (refer to Chapter 3), as opposed to the undulating fill levels. Artifacts recovered from this level are discussed in the following subsections. No human remains or evidence of burials were observed.

During hand troweling of this level, the field archaeologists observed two rectangular-shaped post molds, each with dimensions of approximately 1 by 1.5 inches. They appear to have been formed by an object like a wooden stake. The first was located at north 25 feet 4 inches, east 3 feet 9 inches, at a depth of 5 feet 5 inches below ground surface. The second was located at north 20.5 feet, east 2 feet, at a depth of almost 6 feet below ground surface. Another small dark stain, which was amorphous in shape, contained a metal thimble. In addition to these small post molds, a substantial vertically-oriented wooden post was exposed close to the east wall of the trench. As this substantial wooden post extended over three feet below the surface of the Upper Buried A, it appears to have been originally driven into the Lower Buried A. The natural soils between the two buried As and the Upper Buried A would necessarily have accumulated afterwards.

The post had a vertical length of 4 feet 8 inches and a width of about 8 inches. A broken, one-foot long segment of a similar post observed at a higher elevation may once have been part of the *in situ* post. The post's base was wedge-shaped, presumably to facilitate driving it into the mucky, water-saturated soils adjacent to the Harlem River. The post contains numerous nails in a scattered orientation, possibly indicating reuse or that something had been fastened to the post, such as fencing material. The stub of a branch extended from the upper portion of the post and it was at least partially covered in bark, suggesting that this was a utilitarian post, and not designed for aesthetic or structural purposes. The post extended almost 2 feet below the surface of the Upper Buried A. This portion of the post was much better preserved than the rest of the post, indicating that it had been protected from the erosional effects of exposure to air or alternating moisture levels. The post extended a maximum depth of over 9 feet below the Bus Depot foundation's surface.

Below the Upper Buried A, three lighter levels of apparently riverine silty sands with gravel (water-deposited by river flooding) were encountered (Levels 11, 12, and 13). Below these water-saturated sands, the field archaeologists encountered the second "Buried A" at a depth of between 7 and 8 feet below ground surface during the hand excavation of soils adjacent to the wooden post. This "Lower Buried A" consisted of dark brown mucky, peaty sandy silt (10YR 4/2 dark grey brown to 10YR 3/2 very dark grey brown sandy silt with twigs and peat). Although it cannot be determined with the available information if the Upper Buried A was the ground surface while the Harlem African Burial Ground was active, the Lower Buried A clearly dates back to well before the water lots were filled in. The presence of the wooden post suggests that this surface area was at least periodically exposed to the air (and not submerged). The presence of a brick and a piece of milled timber on top of the buried ground surface indicates historic activity in the vicinity.

This Lower Buried A was also encountered during hand excavation of a 2 foot by 2 foot test pit at the northern end of Trench 2 (Figure 9).

DEEPER TEST PITS

Once the field team completed the hand excavation and screening of the fill layer sensitive for human skeletal remains (Level 9), and the buried ground surfaces had been examined and sampled to ensure that no additional human remains were present, a backhoe was used to excavate two deeper test pits into the floor of Trench 2 to expose the lower lying sediments. The first of these two deeper test pits was excavated at the southern end of Trench 2 and the second was excavated north of the trench's midpoint, in the vicinity of the wooden post. The southern test pit had dimensions of 4 feet from north to south and extended 6 feet from east to west, the entire width of Trench 2. This trench was opened approximately 3 feet below the surface of the depot's foundation and was excavated to a depth of 7 feet 2 inches. Two apparently natural soil layers were encountered in this test pit below the overlying fills: 10YR 5/3 brown fine sandy silt to a depth of 3 feet 8 inches; and 10YR 5/3 brown coarse sand with heavy gravel to a depth of 7 feet 2 inches. No artifacts or features were observed in this test pit. The lower lying coarse sands appeared to be the same deposit as the lower lying coarse sands encountered at the same depth in Trench 1, approximately 15 feet to the south.

The second test pit was excavated in the vicinity of the vertical wooden post. Prior to excavating this pit, the backhoe bucket was strapped to the post and it was pulled from the ground and sampled. This pit had dimensions of about 5 feet from east to west and 3 feet from north to south. It was opened at a depth of 5 feet below ground surface and extended to a depth of 9 feet 4 inches below ground surface. A layer of 10YR 3/2 very dark gray brown mucky clayey silt with organic material was observed from 7 to 7.5 feet below grade. Below this, from 7.5 feet to the bottom of the test pit, the soils consisted of coarse gray sand with heavy gravel. No artifacts were observed in this test pit.

DEPOSITIONAL CONTEXT OF ARTIFACTS IN TRENCH 2

This section examines the distribution of artifacts by the various soil levels from which they were recovered. As shown in **Table 4-4**, an overwhelming majority (84 percent) of the artifacts recovered from Trench 2 originated in soil levels that have been identified as fill deposits. The remaining approximately 16 percent of the artifacts were recovered from the deeply buried natural soils, with less than one percent being located in other or unknown contexts, such as backdirt piles.

Table 4-4
Trench 2 Artifact Count by Deposition

Deposition	Count	Percentage of Trench Total
Fill	631	84
Natural	120	16
Unknown/Other	2	<0.5
Total	**753**	**100**

Table 4-5 provides a further breakdown of the artifact assemblage by individual level. In several cases artifacts were collected in transitional zones or could only be generally ascribed to a context (e.g. "Level 2/3"). As seen in Table 4-5, the largest number of artifacts (representing more than 45 percent of the trench's total) were recovered from the two dark fill levels that were observed within the northern half of the trench (identified as Level 5, Level 6, and Level 5/6, for those artifacts recovered from the interface between the two layers). A small concentration of artifacts (approximately 10 percent) was recovered from a similar but deeper dark fill layer (Level 8) that was only present in the northern 8 feet of the trench directly above the fill level containing human skeletal material (Level 9). The second largest concentration of artifacts (approximately 21 percent of the trench total) was in association with the human remains in Level 9. Similarly, the majority of the artifacts (60 percent) were recovered from contexts that were above the level containing human

skeletal remains, while 21 percent were recovered in the same level as the remains, and 16 percent were from soils situated beneath the level containing human skeletal material.

No artifacts were recovered from Level 4, however, this is partially the result of the collection methods employed for the upper levels of Trench 2, as intensive soil screening was not implemented until after the discovery of human skeletal material in lower levels. Further discussion is provided in Subsection C.

Table 4-5
Trench 2 Artifact Counts and Percentage by Level and Deposition

Level*	Deposition	Count	Percentage	Location Relative to Human Remains
2	Fill	9	1	Above Remains
2/3	Fill	7	1	
5	Fill	225	30	
5/6	Fill	44	6	
5/9	Fill	1	<1	
6	Fill	73	10	
7	Fill	17	2	
7/9	Fill	3	4	
8	Fill	79	10	
Subtotal		**458**	**60**	
9	Fill	157	21	Same Level as Remains
10	Natural	73	10	Below Remains
10/11	Natural	6	<1	
11	Natural	26	<1	
11/12	Natural	4	<1	
12	Natural	7	<1	
13	Natural	3	<1	
14	Natural	1	<1	
Subtotal		**120**	**16**	
N/A	Fill	16	2	Unknown
Unknown	Unknown	3	<1	
Subtotal		**19**	**3**	
Total		**753**	**100**	
Note: *See Table **4-3** for level definitions.				

EXCAVATION OF TRENCH 3

Trench 3 was excavated in the Ingraham Lot (see Figures 2 and 3) and its objective was to determine the presence or absence of historic backyard features such as wells or privies. **Table 4-6** provides a summary of the stratigraphy encountered in this trench. The trench was squeezed in between several underground utility lines and oil/water separation tanks. This area has seen a great deal of disturbance and there were few alternatives for locating the trench in this area.

No artifacts were recovered from Trench 3. Previous disturbance extends to a depth of 3 to 4 feet below ground surface, followed by a natural layer of loose coarse sand with gravel. These sands are similar to those encountered at deeper depths in Trenches 1 and 2. With depth, the sands became finer and damper, although the water table was not reached by a depth of 9.5 feet below ground surface. No archaeological features were observed in Trench 3.

EXCAVATION OF TRENCH 4

Trench 4 was excavated in the sidewalk adjacent to the south face of the Bus Depot, an area that was once the southern corner of the former cemetery (Figures 2 and 3). Due to logistical requirements concerning road closures, the trench was excavated with a smaller machine than the one used for Trenches 1, 2, and 3, and excavated from inside one of the bus entrance bays (see Photograph 4). After removing the concrete paving material and approximately 1.5 feet of sandy fill, excavation encountered a cluster of three east-west oriented PVC pipes a distance of about 4 feet south the outer wall of the depot. Due to the presence of the pipes, part of a soil vapor extraction system, machine excavation of the trench could not proceed beyond 3 feet below ground surface. Excavation proceeded from this point by hand in the form of a shovel test pit with dimensions of approximately 2 feet by 2 feet. The soils encountered in this trench appear to be comprised entirely of sandy fill deposited as part of construction of the bus depot.

The following is a description of the soils encountered in Trench 4 soils:

- 0 to 3 feet – Alternating layers of sand and gravel with some loose bricks.
- 3 to 4 feet 3 inch – 10YR 4/4 dark yellow brown medium coarse sand with some gravel.
- 4 feet 3 inch to 5.6 feet – 10YR 6/3 very loose pale brown medium coarse sand.

A small quantity of modern and historic artifacts was recovered from the trench's sandy fills. No evidence of human remains or burial shafts was observed in this trench. It appears that the area adjacent to the depot has been disturbed during construction of the depot.

Table 4-6
Trench 3 Stratigraphy

Level	Deposition	Thickness	Closing Depth	Soil Description
1	Concrete Slab	1 foot	1 foot	Concrete reinforced with steel rebar
2	Fill	8-12 inch	2 feet	Modern fill; 10YR 3/4 dark yellow brown silty sand and 10YR 5/4 yellow brown compact sandy silt
3	Fill	1 – 1.5 feet	3 – 4 feet	Rocky fill; 10YR 3/4 dark yellow brown heavy gravel with coarse sand; inoperative utility line disturbance
4	Natural	>8 feet	9.5 feet	10YR 3/6 dark yellow brown very coarse sand with gravel; loose and slumping; sand becomes damp and fine with depth

C. RESULTS OF ARTIFACT ANALYSIS

The field team recovered a total of over 1,000 artifacts, animal bone fragments, and samples (soil and wood) during performance of the Phase 1B Survey. Appendix A provides the artifact catalogue for Trenches 1, 3, and 4; Appendix B provides the artifact catalogue for Trench 2; and Appendix C provides the inventory of faunal remains. In addition, well over 100 fragments of human skeletal material were recovered from Trench 2 (see Section E of this chapter, and Appendices D and E).

TRENCH 1 ARTIFACTS

In total, 65 artifacts were recovered from Trench 1, all of which were recovered from the upper 2 feet of the trench, the mixed fills immediately below the concrete floor slab. The artifacts consisted of a mix of 19th and 20th century objects and represented both domestic refuse and architectural debris. The artifacts were for the most part small and fragmentary, suggesting multiple episodes of deposition and redeposition. All but three of the artifacts were recovered during shovel skimming in the western half of the trench.

The few diagnostic objects were observed included two possible fragments of pearlware (dating to between approximately 1775 and 1840), including one chamberpot. However, one of the possible pearlware fragments was very small and its identification as pearlware may be incorrect. Other artifacts recovered from the trench included 20th century bottle glass, architectural materials (including a possible countertop, mortar, slate, ceramic utility pipes, window glass, and floor tiles); small ceramic fragments from vessels made of whiteware, porcelain, and stoneware, all of which have large date ranges; two shell fragments, including a large body whorl from a conch or whelk; and fragments from glass bottles; and a possible dry cell battery core.

TRENCH 2 ARTIFACTS

GENERAL CHARACTERIZATION

In total, 753 artifacts were recovered from Trench 2. As shown in **Table 4-7**, sixteen general artifact types are represented by the Trench 2 artifact assemblage: 14 types are represented in the fill levels and 12 types in the naturally deposited levels. Comparison of the counts and percentages of the most common artifact types reveal significant differences. The first, second, and third most common types in the fill levels were flat glass (41 percent), the majority of which is presumed to be window glass, ceramic dishes and vessels (22 percent), which are closely related types, and metal fasteners (15 percent). The most common two artifact types in the natural levels were ceramic dishes and vessels (36 percent), followed by metal fasteners (31 percent). The remaining 33 percent of the natural level's assemblage was spread relatively evenly across several types.

The chi-square test was used to determine that the differences between the two assemblages are statistically significant and not random. Although the entire assemblage was collected from a single trench, and therefore not representative of the broader area, and the artifact counts are too small to support a detailed analysis of the activities and land use that resulted in their deposition, a few basic observations can be made:

1. At least a portion of the fill was likely redeposited from elsewhere on Block 1803 and is associated with either the various post-cemetery uses of the site or demolition of the same. The preponderance of window glass, fasteners such as nails, bricks, and fragmentary nature of the assemblage may reflect this. The ceramics are more difficult to explain.
2. Prior to mid-19th century landfilling, the Upper Buried A was the exposed ground surface adjacent to the Harlem River. At that time land use in this area consisted exclusively of the Harlem African Burial Ground and farming. River-related activities may have also occurred in the vicinity. The relatively low artifact count and small number of personal items may reflect the absence of residential activity. The large number and percentage of metal fasteners may be a result of the fence depicted in this area on several maps.
3. Very few artifacts were collected from the natural levels below the Upper Buried A, including the Lower Buried A. Although this may primarily reflect the far smaller quantity of these deeper layers that were hand excavated and screened than of the layers above, it may also reflect less historic activity at a time when the ground surface was lower and marshier.

UPPER BURIED A

The vertical distribution of artifacts by type and count between natural and fill levels was analyzed using the chi-square test and a statistically significant distribution was identified. Since the distribution was determined to not be random, the portion of the assemblage recovered from the Upper Buried A (Level 10) was more closely examined.

Table 4-7
Trench 2 Artifact Counts by Type and Deposition

Artifact Type	Artifacts in Fill Levels		Artifacts in Natural Levels		Total	
	Count	Percent	Count	Percent	Count	Percent
Architectural Tile	1	1	0	0	**1**	**<1**
Brick	32	5	7	6	**39**	**5**
Ceramic Dishes	70	11	25	21	**95**	**13**
Ceramic Vessels	68	11	18	15	**86**	**11**
Flat Glass (Possible Window Glass)	259	41	7	6	**266**	**35**
Flower Pot	9	1	7	6	**16**	**2**
Glass (Unknown)	5	1	1	<1	**6**	**<1**
Glass Bottle	29	5	7	6	**36**	**5**
Glass Household Furnishing	3	<1	0	0	**3**	**<1**
Metal Fastener (nail, spike, screw)	92	15	37	31	**129**	**17**
Personal Items: Shoe	1	<1	0	0	**1**	**<1**
Personal Items: Smoking Pipe	20	3	5	4	**25**	**3**
Personal Items: Thimble	0	0	1	<1	**1**	**<1**
Possible Battery	1	<1	0	0	**1**	**<1**
Shell	25	4	4	3	**29**	**4**
Unknown/Other	16	3	1	<1	**17**	**2**
Unknown/Other (unknown depositional context)	n/a				**2**	**<1**
Totals	**631**	**100**	**120**	**100**	**753**	**100**
Notes: Chi square 68.585; 1 degrees of freedom; p-value 0.						

Approximately 10 percent of the artifacts collected in Trench 2 were from the Upper Buried A/Level 10. As seen in **Table 4-8**. Similar to that seen elsewhere in the trench, this ground surface contained mostly ceramic dishes and vessel fragments (combined 45 percent of the artifacts) and metal fasteners (25 percent of the artifacts). A small percentage of bricks and smoking pipes were also recovered, as a smooth metal thimble. Only a single fragment of flat glass was recovered from this level. Similarly, while 25 percent of the artifacts were iron nails, it is not clear if they were architectural debris or if they served some other purpose. For example, the fence post observed within the eastern portion of the trench featured numerous iron nails that had been hammered into it. The nails may therefore have served an alternate landscaping or domestic purpose rather than an architectural purpose. At least two of the nails were bent, suggesting that they had been pulled.

Most of the fasteners recovered from this level were rusted nails, however, one screw, one tack, and one iron spike were also recovered from Trench 2. Brick, glass bottles, and shell each made up 4 to 5 percent of the assemblage, and a number of smoking pipe fragments (including bowl and stem fragments) represented 3 percent of the artifacts recovered from Trench 2. The assemblage therefore appears to include a large quantity of demolition debris in addition to household refuse. Given the small fragment size and the destruction of much of the glaze on the ceramics, it is assumed that the artifacts were potentially deposited and redeposited several times.

A single brick fragment was recovered from the Lower Buried A/Level 14. In addition, a pieced of milled lumber, such as a plank, was observed lying horizontally on the lower, earlier ground surface and it appears that the large wooden post had been driven into this surface.

Table 4-8
Trench 2 Upper Buried A (Level 10) Artifact Counts by Type

Artifact Type	Count	Percentage
Brick	4	5
Flat Glass	1	1
Metal Fastener (nail)	20	25
Ceramic Dishes	20	25
Ceramic Vessels (Other)	16	20
Flower Pot	6	8
Shell	1	1
Glass Bottle	4	5
Glass (Unknown)	1	1
Thimble	1	1
Smoking Pipe	4	5
Unknown	1	1
Totals	**79**	**100**
Notes: Includes artifacts attributed to Level 10/11 (5 nails, and one ceramic vessel fragment).		

IDENTIFICATION OF PRODUCTION DATES AND DISTRIBUTION OF DIAGNOSTIC ARTIFACTS

Given the fragmentary nature of the majority of the artifacts, including ceramic fragments and the extent to which potentially diagnostic nails were encased in rusty concretions, few dates of production could be identified for the majority of the artifacts recovered from Trench 2. For example, some fragments had very small remnants of painted stripes that may suggest that they were from banded annularware vessels—produced between circa 1830 and 1860 (Brown 1982)—however, they were sufficiently fragmented that they cannot be positively identified as such. The ware types of the 197 ceramic fragments (including flower pot fragments) recovered from Trench 2 are summarized in **Table 4-9**, below.

As shown in Table 4-9, those fragments for which production dates could be loosely attributed seem to be consistent with ceramic types produced in the 19th century. The majority (75 percent) were recovered from fill contexts. Of the ceramics recovered from natural contexts, most were redware and whiteware/white earthenware, which have extremely broad production date ranges and therefore cannot be attributed to a particular time period. However, 5 fragments of possible creamware (produced in the late 18th and early 19th centuries) and one fragment of white earthenware with a blue transfer print pattern (produced in the 19th and early 20th centuries) were recovered from natural contexts. These ceramic fragments may indicate that the natural soil deposits dated to the first half of the 19th century. However, ceramics are less useful as proxy evidence for dating archaeological deposits as ceramic vessels typically have very wide production date ranges and because individual vessels may have been used for significantly long periods of time beyond their date of manufacture.

Among the other diagnostic artifacts recovered from Trench 2 were a number of clay pipe fragments (including pipe stems and pipe bowls) that represented approximately 3 percent of the artifacts recovered from the trench. As shown in **Table 4-10**, of the 25 pipe fragments recovered in Trench 2, 4 were bowl fragments. However, these fragments were too small to identify any diagnostic marks or patterns. The remainder of the pipe-related artifacts were pipe stem fragments of various widths and boreholes. Eighty percent of the pipe fragments were recovered from fill deposits.

Table 4-9
Trench 2 Ceramic Ware Types and Counts by Deposition

Ware Type	Approximate Date of Production (where known)	Artifact Count		Total
		From Fill Levels	From Natural Levels	
Banded Annularware/ Possible Banded Annularware	1830-1860	4	0	4
Coarse Red Earthenware	-----	1	0	1
Creamware/Possible Creamware	1762-1820	1	5	6
Ironstone/Possible Ironstone	1840-Present	9	0	9
Pearlware/Possible Pearlware	1775-1840	10	0	10
Porcelain	-----	12	1	13
Possible Yellowware	1827-1940	4	0	4
Redware	-----	16	17	33
Slip-glazed Redware	1670-1850	1	0	1
Stoneware/Possible Stoneware	-----	12	1	13
White Earthenware	-----	19	4	23
White Earthenware with Blue Shell Edge	1815-1900	2	0	2
White Earthenware with Blue or Black Transfer Print	1815-1915	15	1	16
Whiteware	1815-present	41	21	62
Totals		**147**	**50**	**197**

Notes: The identification of ceramic types was limited by the fragmentary nature of the ceramic artifacts recovered from Trench 2. In many cases, much of the glaze was lost and therefore, these ware type identifications may be inaccurate.
Source: Date ranges from Azzizi, et al. 1996 and Brown 1982.

Table 4-10
Trench 2 Pipe Stem Counts by Bore Hole Diameter and Deposition

Pipe Fragment Type	Bore Hole Diameter	Date Range*	Count in Fill Levels	Count in Natural Levels	Total
Bowl	n/a	n/a	3	1	**4**
Stem	4/64-inch	1750-1800	4	1	**5**
	5/64-inch	1720-1750	9	2	**11**
	6/64-inch	1680-1720	2	1	**3**
	7/64-inch	1650-1680	1	0	**1**
	Unknown	n/a	1	0	**1**
Totals			**20**	**5**	**25**

Source: ***Deetz (1977)**

Of the 20 pipe stems for which borehole diameters could be determined, more than half featured 5/64-inch boreholes. Bore hole diameters have been determined to have gotten smaller over time due to improvements in the processing of tobacco (Deetz 1977) and three formula dating techniques have been developed by archaeologists studying 17th and 18th century sites using imported English clay tobacco pipe stems (McMillan 2010). Bore holes of 5/64 inch are attributed to pipes manufactured between 1720 and 1750 (Deetz 1977). The four pipestems that were recovered from natural soil deposits all featured boreholes suggesting production dates between the late17th and late-18th centuries. However, little confidence should be placed in bore hole diameters as an absolute dating

technique with assemblages as small as that recovered from the 126th Street Bus Depot and without careful consideration of context.

VERTICAL AND HORIZONTAL DISTRIBUTION OF ARTIFACT TYPES

Two additional analyses were conducted to determine if vertical or horizontal patterning existed in the distribution of artifacts. The first, presented in **Table 4-11**, examined the relationship between the vertical distribution of the artifacts in relationship to the fill level that contained human skeletal material. Once again the chi-square test was used to examine the artifact counts and a statistically significant relationship is present. The fact that the vertical distribution of artifacts and artifact types is not random, should not be interpreted to mean that the artifacts recovered from Level 9 are associated with the skeletal material. The second analysis examined the horizontal distribution of artifacts by deposition type. As indicated in **Table 4-12**, the Trench 2 artifact assemblage was divided into two groups, those recovered from the northern 1/3 of the trench, and those recovered from the southern 2/3. Even though the northern third is smaller than the southern two thirds, over half of all artifacts collected from the fill levels were recovered from this portion of the trench. On the other hand, the horizontal distribution of artifacts recovered from the lower lying natural levels was proportional. This horizontal disparity was found to be significant using the chi-square test and could be partly explained by the greater thickness of the fill deposits to the north. It could also be a result of the material used to fill in the water lots during the 19th century.

Table 4-11
Comparison of Trench 2 Artifact Counts and Percentages by Skeletal Association

Artifact Type	Location Relative to the Human Remains						Totals	
	Level Above		Level Below		Same Level			
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Brick	23	5	7	6	8	5	39	5
Flat glass	243	56	7	6	16	10	266	38
Metal Fastener	47	11	37	32	41	27	125	18
Ceramic Dishes/Vessels	72	16	43	37	61	40	176	25
Shell	18	4	4	3	7	5	29	4
Glass Bottle	12	3	7	6	13	8	32	5
Flowerpot	7	2	7	6	2	1	16	2
Misc. smoking pipe part	15	3	5	4	5	3	25	4
Totals	**437**	**100**	**117**	**100**	**153**	**100**	**707**	**100**

Notes: Only artifacts with known association included. Chi square 181.54; 14 degrees of freedom; p-value 0.

TRENCH 3

No artifacts were observed within or recovered from Trench 3.

Table 4-12
Trench 2 Artifact Counts by Horizontal Location and Deposition

Portion of Trench	Artifacts in Fill Levels		Artifacts in Natural Levels		Total	
	Count	Percent	Count	Percent	Count	Percentage
Northern 1/3 (7 feet)	324	54	28	23	**352**	**49**
Southern 2/3 (16 feet)	275	46	92	77	**367**	**51**
Totals	**599**	**100**	**120**	**100**	**719**	**100**

Notes: Only includes artifacts for which horizontal provenience is known. Chi square 37.845; 1 degree of freedom; p-value 0.

TRENCH 4

Only 12 artifacts were recovered from Trench 4, which was extensively disturbed as a result of the construction of utilities, vaults, and other infrastructure associated with the bus depot. The majority of the collected artifacts were from between 12 and 18 inches below the paved ground surface. These objects included window/flat glass, a rusted nail, and glass bottle fragments. Two additional artifacts were collected from between 48 and 53 inches below the ground surface and included a small fragment of clear flat glass and a small fragment of an ironstone plate with a blue transfer print pattern (dating to between 1840 and the present).

D. RESULTS OF FAUNAL ANALYSIS

The faunal inventory is provided as Appendix C. A total of 179 faunal remains were collected and inventoried during the course of the Phase 1B survey, all of which were recovered from Trench 2.

During backhoe scraping of fill layers in the southern third of Trench 2, several fragments of what was later identified as a large terrestrial mammal cranium (such as a cow) were collected at a depth of about 3 feet 8 inches below ground surface. The bone fragments were encountered directly below a dense, compact layer of heavy gravel. A large intact portion of the top of the animal's cranium was discovered 4 inches deeper, at a depth of 4 feet 2 inches. Both the team forensic anthropologist, Dr. Vincent Stefan, and representatives of the OCME examined the faunal remains and confirmed that they were nonhuman. A total of 119 bone fragments (66.5 percent of the entire faunal assemblage) were associated with this mammal skull. It appears that the skull became fragmented during redeposition, as it would be unlikely that the skull's individual pieces would remain in close proximity to each other if it had been fragmented in its original depositional context, before being redeposited at its location of discovery.

The remaining faunal material was identified, to varying degrees of specificity dependent upon the bone's condition and size, as mammal (65), bird? (3), medium terrestrial mammal (2), possible medium terrestrial mammal (3), possible large terrestrial mammal (3), small terrestrial mammal (7), terrestrial mammal (36), cow (2), horse or cow (1), possible cow (1), animal (1), and unknown (1). A small number of the bones were either blackened or calcined white, a result of burning. Only 2 of the bones exhibited cut marks from butchering.

E. DISCUSSION OF HUMAN SKELETAL MATERIAL

GENERAL CHARACTERIZATION

The Phase 1B Survey resulted in the discovery and recovery of human skeletal material from Trench 2. Skeletal material was not observed in the other three trenches. All of the remains were recovered from a single approximately 1-foot-thick soil level determined to have been redeposited from elsewhere. None of the remains were articulated in their original burial configuration, but were instead apparently randomly distributed throughout the northern 17 feet of the level of redeposited fill. A list of the recovered human skeletal remains is included as Appendix D. Appendix E provides Dr. Vincent Stefan's letter reports describing his observations and interpretations[1]. Due to the highly fragmentary condition and poor preservation of the assemblage, most individual bones were unidentifiable or only identifiable to general skeletal category. It is impossible to provide an exact count and the term "many" is frequently used in the inventory instead of a specific count. However, **Table 4-13** below includes approximate counts of the skeletal remains sorted by skeletal category and provides a general characterization of the assemblage.

Long bones (the bones of the arm and leg, excluding the feet and hands) were the most common skeletal category identified in Trench 2. This is likely due, at least in part, to the comparatively large size of these bones -- a long bone would likely have better preservation than a rib or a finger bone and, when broken during redeposition, would result in a larger number of individual fragments. The next most frequently identified element was skull and teeth, perhaps for similar reasons. The bones of the feet and hands, ribs, and spine are underrepresented, most likely due to their smaller size and greater fragility.

Table 4-13
Trench 2, Approximate Human Remain Counts by Skeletal Category

Skeletal Category	Count*
Appendicular (Ankle/Foot Bone)	3
Appendicular (Hand Bone)	8
Appendicular (Hand or Foot)	1
Appendicular (Long Bone)	62
Appendicular (Pelvis)	1
Appendicular (Shoulder)	1
Axial (1 mostly complete Skull**, 8 Skull fragments, and 6 Teeth)	15
Axial (Spine)	6
Axial (Ribs and possible Ribs)	11
Unidentified	35
Total*	**143**

Notes: *Counts are only approximate as many bones were highly fragmentary.
**Does not include numerous small facial bone fragments.

ANCESTRY/RACE, GENDER, AND MINIMUM NUMBER OF INDIVIDUALS

The objective of the on-site analysis of the skeletal remains was to collect basic metrical information and, where possible, information regarding ancestry/race, gender, age, and the minimum number of individuals represented by the assemblage. However, due to the highly fragmentary condition and

[1] Incorrect provenience information in these letter reports has been corrected in the inventory included as Appendix D.

generally poor preservation of the assemblage, very limited information regarding ancestry/race, gender, and age could be collected. The most informative element was the almost complete human skull. Dr. Stefan interpreted the almost complete human skull as likely to be that of an "adult, female of African ancestry." The following are the specific observations provided by Dr. Stefan in support of his interpretation (from Appendix E):

- Cranium was from an adult individual – "due to the presence of a completely fused basioccipital synchondrosis."
- Cranium appears to be female due to the following features – "sharp superior orbital margins, slightly prominent superior orbital torus and suprameatal crest, moderate mastoid processes, and very slight nuchal crest (Bass, 2005; Buikstra and Ubelaker, 1994)."
- Individual's ancestry/race appears to be 'African', due to the following observed features – "rectangular shaped orbits, dull/guttered nasal sill, alveolar prognathism, hyperbolic dental arcade, bulging palatine suture, stepped mastoid processes, simple cranial sutures and long low cranial shape (Rhine, 1990)."

In addition to these qualitative observations, Dr. Stefan also obtained craniofacial measurements and used the comparative dataset FORDISC 3.1 to generate an independent assessment of the individual's ancestry/race. That analysis resulted in a low probability for a classification of the skull as "African American/Black." It should be noted that the FORDISC 3.1 comparative datasets are based on contemporary populations and may not be appropriate or effective in the analysis of remains from a historic burial. Despite these contradictory results, Dr. Stefan reached the following conclusion, also from Appendix E:

> Due to the differing assessments based on anthroposcopic and metric evaluations, the ancestry of this individual is inconclusive. However, based on the morphological features observed, … the cranium is possibly from an adult, female of African ancestry.

On January 15, 2016, four forensic anthropologists from the OCME, led by Dr. Bradley Adams, conducted an examination of the almost complete human skull and the FORDISC 3.1 datasheets provided by Dr. Stefan. The OCME forensic anthropologists concurred with Dr. Stefan's qualitative assessment in all regards and agreed with Dr. Stefan's interpretation of the FORDISC 3.1 datasheets.

In addition to the skull, gender was identified for several other bones: 3 other bones were identified as having come from a female, 2 from a male, and 1 was identified as "likely male." According to Dr. Stefan, given the size and morphology of the skeletal remains recovered, at least one male and one female are represented. The identification of a minimum of two individuals is further supported by the presence of the almost complete skull and several fragments of a second skull.

Dr. Stefan made a single observation of trauma or disease. A right tibia shaft presented "slight medial bowing" and "regions of sclerotic/woven bone on the medial surface." This observation was interpreted as evidence of reactive bone formed as a result of trauma or disease.

F. ASSESSMENT OF PREVIOUS DISTURBANCE, LANDSCAPE MODIFICATION, AND DISTRIBUTION OF HUMAN SKELETAL MATERIAL

As described in Chapter 3, the landscape of Block 1803 has been modified numerous times between the mid-19th century, when the last burial is expected to have occurred within the Harlem African Burial Ground, and construction of the Bus Depot in the mid-20th century. Numerous episodes of

development and redevelopment have occurred which likely contributed to the disturbance of the cemetery and the redistribution of the disturbed soils containing disarticulated human remains elsewhere on the site. The stratigraphy encountered in the excavation trenches provides direct evidence of ground alteration.

As discussed in the results of fieldwork section, no human skeletal remains were recovered from Trench 1, excavated in the approximate center of the Harlem African Burial Ground, or from the southern half of Trench 2, which was excavated in the northern edge of the cemetery, or in Trench 4, which was excavated at the southern end of the cemetery. In addition, no human skeletal remains were observed in Trench 3, excavated approximately 200 feet west of the western edge of the cemetery. Out of the four test trenches, the only location where human skeletal remains were recovered was the northern half of Trench 2, the portion of the trench located north of the cemetery's northern boundary.

The northeastern edge of the mapped limits of the cemetery is depicted on several historic maps as lower lying marsh adjacent to the Harlem River (Figure 5). It is reasonable to conclude that initial efforts to fill in these lower elevation water lots could have used soils from the cemetery itself. These materials could have been pushed to the north and east as fill material. By 1870 the entire block had been filled in to its current extent.

Additional grading may have occurred in the 1870s through the early 1900s as the Harlem River Park was landscaped and redeveloped. Grading may have occurred to create a level ground surface for park facilities or as part of the construction of recreational facilities. The construction of the movie studio directly on top of a portion of the burial ground would also have resulted in disturbance. Buildings Department Documents suggest that the studio had a basement, which would have resulted in the disturbance of human remains and their possible redistribution elsewhere on the site outside of the movie studio footprint. The demolition of the studio and removal of foundations and any subsurface infrastructure could also have resulted in further disturbance. It therefore appears that the Harlem African Burial Ground was possibly subject to repeated episodes of disturbance for nearly a century before the bus depot was constructed. The construction of the existing facility and particularly the installation of deeper infrastructure (including the basement areas and buried fuel oil tanks, etc.) could have contributed to further disturbance.

Chapter 5: Conclusions and Recommendations

The present Phase 1B Archaeological Survey tested the 126 St Bus Depot site for the presence or absence of archaeological resources from the residential occupation of the western portion of the block during the 19th century and evidence of the circa late-17th through mid-19th Harlem African Burial Ground in the south-central portion of the site (Figure 3). The Phase 1B survey consisted of the excavation of four backhoe trenches (Figure 2): one in the western portion of the site, an area sensitive for historic shaft features; two located entirely within the boundaries of the former Harlem African Burial Ground; and one located partially within the Burial Ground and partially within the boundaries of the water lots north of the cemetery; and analysis of the recovered information.

A. CONCLUSIONS

Fieldwork recovered disarticulated human skeletal remains and confirmed that additional remains are present at the project site. The Task Force and an LPC representative agreed that the discovered remains were in danger of deterioration, that their significance was not contingent upon their preservation in place, and that they should be removed for examination by the team physical anthropologist and temporarily stored at the depot in a secure and temperature-controlled environment. Although the additional remains are likely in fair to poor condition, as were the recovered remains, the inactive Bus Depot and its concrete foundation slab are effectively protecting the site and the remains do not appear to currently be in threat of additional degradation.

The disarticulated human skeletal remains were recovered from a redeposited level of fill in the northern half of one of the backhoe trenches (Trench 2). The location of the finds is immediately to the north of the Harlem African Burial Ground's northern boundary, an area that was formerly part of the Harlem River water lots, which were filled in by the 1850s. The fill layer containing human skeletal remains (Level 9; see Chapter 4 for a description of the encountered stratigraphy) is about 1 foot thick, slopes downward (deeper) to the north, and was encountered at a depth of between 4 and 6 feet below the upper surface of the depot's foundation slab, below several other fill layers. The fill layer containing skeletal remains is distinguishable from the other fill levels encountered in this trench by: 1) its location immediately on top of a buried historic ground surface (Level 10) and 2) its distinctive patchwork mixture of large pockets of different colored soils (ranging from dark brown to olive colored).

Altogether, the field team collected over 100 individual human bones or bone fragments, all generally in fair to poor condition. None of the remains were articulated in their original burial configuration. Long bones (the bones of the arm and leg, excluding the feet and hands) were the most common skeletal category identified in Trench 2. The next most frequently identified elements were skull fragments and teeth. The bones of the feet, hands, ribs, and spine are underrepresented, most likely due to their smaller size and greater fragility.

The most informative element was an almost complete human skull, interpreted by the team forensic anthropologist as likely to be that of an "adult, female of African ancestry." This interpretation is supported by an independent examination conducted by forensic anthropologists from the Office of the Chief Medical Examiner (OCME). Also according to Dr. Stefan, given the size and morphology of the skeletal remains recovered, at least one male and one female are represented by the assemblage.

Additional human remains continue to the west, as additional remains were visible in the western trench wall at the time it was backfilled. Remains are also likely to continue to the north and east. No human remains were recovered from the southern third of the trench and it therefore appears unlikely that additional remains are present to the south (this conclusion is supported by the absence of remains in Trench 1, which was located 10 feet south of Trench 2). The concentration of human skeletal remains in the northern two thirds of the trench appeared to increase to the north and west, with the greatest concentration of remains being recovered from the northwest quadrant of the trench, *though it must be stressed that the sample size is too small for use of chi-square significance testing to rule out the distribution as random*.

No intact burials, burial-related features, or disarticulated human remains were identified in the other two trenches excavated in the former location of the cemetery. No other significant archaeological features were identified in any of the other three test trenches. As there are additional remains present at the site, the 126th Street Bus Depot remains very sensitive for the presence of disarticulated human skeletal remains. Based on the small portion of the depot that has been subjected to archaeological testing, it is impossible to estimate the location and extent of additional remains, though it would be reasonable to assume that the portion of the water lots closest to the former cemetery are most sensitive.

As described in Chapter 3, the landscape of Block 1803 has been modified numerous times between the mid-19th century, when the last burial is expected to have occurred and the construction of the Bus Depot in the mid-20th century. Numerous episodes of development and redevelopment have occurred which likely contributed to the cemetery's disturbance and the redistribution of the disturbed soils containing disarticulated human remains elsewhere on the site. As part of this survey, AKRF conducted supplemental background research, resulting in the collection of additional information regarding alterations to the project site's elevations over time. Through analysis of historic maps and normalization of their topographic information to allow for direct comparison, it appears that the elevation at the intersection of First Avenue and 126th Street (immediately southeast of the project block) has increased from about 3 feet above mean sea level in 1820 to almost 8 feet by ca. 1937 while the elevation at the intersection of Second Avenue and 127th Street (immediately northwest of the project block) decreased from 16.65 feet above mean sea level in 1850 to just over 13 feet in ca. 1937 (refer to Chapter 3 for additional discussion). These changes effectively reduced the west-east slope of the area towards the Harlem River. Early historic maps suggest a bluff adjacent to the marshy area lining the Hudson River, which would have served as the eastern boundary of the cemetery. Removal of this bluff and grading to level the project site during the mid-19th century could have removed the upper several feet of soil from the location of the Harlem African Burial Ground. Use of these soils to fill-in the lower lying areas to the north and east of the cemetery could have resulted in the observed distribution of disarticulated human skeletal remains in disturbed and redeposited fill.

In addition to the human skeletal remains, the field team recovered a total of over 1,000 artifacts, animal bone fragments, and collected several samples (soil, wood, and organic material) during the Phase 1B Survey. The vast majority of these artifacts were recovered from Trench 2. The collected artifacts reflect the range of activities that occurred on the block both prior to mid-19th century landfilling of the water lots and the various post-cemetery uses of the site or demolition of the same.

B. RECOMMENDATIONS

As additional human skeletal remains are clearly present on the site, it is recommended that additional archaeological fieldwork occur prior to development of the Bus Depot site. However, since the additional remains are currently in a stable, protected environment, there is no necessity for additional fieldwork to be completed at any particular time.

The next step in this process should be to determine the horizontal distribution of the human skeletal remains, a Phase 2 Archaeological Evaluation. The Phase 2 Evaluation would be followed by either completion of a data recovery or archaeological monitoring during ground surface disturbing activities. Any future demolition, removal of subsurface infrastructure, or construction would require preparation of an appropriate protocol in coordination with the consulting parties and Task Force.

PHASE 2 ARCHAEOLOGICAL EVALUATION

There appear to be three possible general scenarios for horizontal distribution of skeletal remains: 1) They are limited to the general vicinity of Trench 2; 2) They extend across the area of the filled in water lots; or 3) They extend across a larger portion of Block 1803. A Phase 2 field effort should be designed to determine which of these three scenarios best describes the distribution of remains. It is suggested that the Phase 2 field strategy involve the excavation of a series of small trenches (approximately 4 feet by 8 feet) established on a 20 foot grid, radiating away from Trench 2. Excavation of each trench would involve removing the concrete slab and clearing the upper 2 or 3 feet of fill deposits with a backhoe, monitored by an archaeologist. Deeper excavation would then proceed by hand to determine the presence or absence of the sensitive fill layer containing human remains, although any encountered human remains would be mapped, documented, and left in place. If human remains are identified in an individual trench, excavation will cease and another trench will be established at a distance of approximately 20 feet further from Trench 2. This process would continue until the boundary of the sensitive fill deposit is established to the north, west, and east of Trench 2 within the depot (the present survey established that the remains do not appear to extend to the south of Trench 2). Significant underground infrastructure is present that would constrain this effort.

DATA RECOVERY/ARCHAEOLOGICAL MONITORING

The results of this Phase 2 evaluation would then be used to determine the scale and type of additional archaeological fieldwork necessary prior to development of the portion of the site determined sensitive for human remains. This additional field effort could theoretically take the form of a traditional data recovery in advance of construction and/or through monitoring and collection during the construction phase. All future efforts should be developed in consultation with the Task Force and consulting parties and would require careful planning.

Research questions that can be answered through the further archaeological investigation of the Site are expected to be similar to those postulated during the investigation of the New York African Burial Ground, one of the only sources of archaeological information regarding 17th and 18th century populations of African descent in New York City (LaRoche and Blakey 1997), which included “what are the origins of the populations, what was their physical quality of life, and what can the site reveal about the biological and cultural transition from African to African-American identities?” as well as questions regarding modes of resistance (LaRoche and Blakey 1997: 86). Additional documentary research regarding the history of the burial ground’s usage, the population interred within its boundaries, and the African Diaspora or relations between early Dutch and English settlers and

individuals of African descent (including enslaved Africans) during the burial ground's founding and initial use could supplement this effort.

Given the disturbance of the Harlem African Burial Ground and the fragmentation and fair to poor preservation of the human remains observed thus far, it may be difficult to address these research questions as clearly as the New York African Burial Ground investigation did. The disturbance of the cemetery and the disarticulation and redeposition of remains significantly limit the ability of a future archaeological team to identify burial practices and the extent to which the assemblage can be analyzed. However, new research questions can be established to address the treatment of the burial ground throughout history and the practices that led to its disturbance. Comparison of the Harlem African Burial Ground remains with the New York African Burial Ground population can also provide new insight into how the ways of life of African and African-American populations living in the rural village of Harlem compared with those of similar populations in Urban Lower Manhattan.

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Appendix A: Artifact Catalog for Trenches 1, 3, and 4

Appendix A: Artifact Catalog for Trenches 1, 3, and 4

Trench	Date Excavated	Provenience	Opening Depth	Closing	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
1	8/19/2015	West Half, Shovel Skim	0	14"	Architectural	Household Furnishing	Unknown	fragment	fragment	stone	2		possibly decorative element or countertop
1	8/19/2015	West Half, Shovel Skim	14"	24"	Architectural?	Unknown	Unknown	fragment	unknown	Mortar?	2		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Architectural?	Unknown	Unknown	fragment	unknown	slate	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Architecture	Construction	Building Materials	Floor tile	whole	porcelain with mortar	2		section of mortared floor with two *in situ* tiles
1	8/19/2015	West Half, Shovel Skim	0	14"	Architecture	Construction	Building Materials	Brick?	fragment	Stoneware?	1		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	5		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass and metal	1		glass is reinforced with hexagonal metal mesh; pattern of hexagons embossed on glass surface
1	8/19/2015	West Half, Shovel Skim	14"	24"	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass with paint	1		opaque white paint or frosting on one side

Trench	Date Excavated	Provenience	Opening Depth	Closing	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
1	8/19/2015	West Half, Shovel Skim	14"	24"	Architecture	Construction	Building Materials	Tile?	fragment	coarse earthenware	1		has raised ridges on one side and white glaze on the other
1	8/19/2015	West Half, Shovel Skim	16"	16"	Glass	Bottle?	Bottle?	Flat glass	fragment	brown	1	20th century	Thick and curved with embossed ridges on interior.
1	8/19/2015	Level 1, within sandy brick rubble	6"	6"	Glass	Unknown	Unknown	Flat glass	fragment	milk glass	1		very thick and flat; thin parallel ridges embossed along one side
1	8/19/2015	West Half, Shovel Skim	0	14"	Architecture?	Utility?	Utility?	Ceramic pipe?	Rim? and body fragment	coarse white earthenware and iron	3		stippled dark blue glaze on exterior; molded edges and rim; body fragment has remnant of metal connector; rim fragments mend
1	8/19/2015	West Half, Shovel Skim	0	14"	Ceramic	Dishes	Serving	Plate	rim fragment	ironstone	1	1840-present	
1	8/19/2015	West Half, Shovel Skim	0	14"	Ceramic	Dishes	Unknown	Unknown	body fragment	ironstone	1	1840-present	
1	8/19/2015	West Half, Shovel Skim	0	14"	Ceramic	Dishes	unknown	unknown	body fragment	porcelain	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Ceramic	Dishes	Serving	Cup or bowl?	body fragment	Possible pearlware?	1	1775-1840?	possible bluish tint; may be staining
1	8/19/2015	West Half, Shovel Skim	0	14"	Ceramic	Dishes	Serving	Plate	rim fragment	whiteware	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Ceramic	Dishes	unknown	unknown	body fragment	whiteware	2		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Ceramic	Dishes	Serving	Saucer	base and rim fragment	white earthenware	1		very thick

Trench	Date Excavated	Provenience	Opening Depth	Closing	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
1	8/19/2015	West Half, Shovel Skim	14"	24"	Ceramic	Dishes?	Unknown	Unknown	body fragment	Stoneware?	1		very thick; possibly molded
1	8/19/2015	West Half, Shovel Skim	14"	24"	Ceramic	Dishes?	Unknown	Unknown	body fragment	whiteware	1		
1	8/19/2015	West Half, Shovel Skim	16"	16"	Ceramic	Dishes?	Unknown	Unknown	body fragment	white earthenware	1		Cream-colored and brown glaze on exterior; cream colored glaze on interior
1	8/19/2015	Filled area along north side, north of clean sand			Ceramic	Household Furnishing?	Sanitary?	Bathroom fixture?	rim fragment	porcelain	1		Very thick; molded edge; possible part of a sink or bathroom fixture?
1	8/19/2015	West Half, Shovel Skim	14"	24"	Ceramic	Storage?	Unknown	Ceramic Vessel	body fragment	stoneware	2		mend; thick with light gray or clear glaze and embossed ridges on interior
1	8/19/2015	West Half, Shovel Skim	14"	24"	Ceramic	Utility?	Pipe?	fragment	body fragment	stoneware	1		very thick with light gray or clear glaze
1	8/19/2015	Backdirt from disturbed/excavated area in east half	8"	14"	Ceramic	Waste management?	Chamber pot?	fragment	rim	pearlware	1	1775-1840	very thick; decorative ridges around rim
1	8/19/2015	West Half, Shovel Skim	14"	24"	Faunal	Food-related?	Shell	clam	fragment	shell	1		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Faunal	Food-related?	Shell	Conch or Whelk?	body whorl	shell	1		from large shell
1	8/19/2015	West Half, Shovel Skim	0	14"	Glass	Bottle	Unknown	Glass Bottle	body fragment	brown glass	2		
1	8/19/2015	West Half, Shovel Skim	0	14"	Glass	Bottle	Beverage?	Glass Bottle	body fragment	clear glass	1		Embossed "MI…"; possible milk bottle

Trench	Date Excavated	Provenience	Opening Depth	Closing	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
1	8/19/2015	West Half, Shovel Skim	0	14"	Glass	Bottle	Unknown	Glass Bottle	body and mouth fragment	clear glass	6		very thick; mouth fragment has crown finish
1	8/19/2015	West Half, Shovel Skim	14"	24"	Glass	Bottle	Beverage?	Glass Bottle	mouth and neck fragment	aqua glass	1		very thick with thick ring finish
1	8/19/2015	West Half, Shovel Skim	14"	24"	Glass	Bottle	Unknown	Glass Bottle	body fragment	aqua glass	1		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Glass	Bottle	Unknown	Glass Bottle	base and body fragment	dark brown glass	1		thin
1	8/19/2015	West Half, Shovel Skim	16"	16"	Glass	Bottle	Beverage?	Glass Bottle	base fragment	very dark green glass	1		Small (6cm diameter) circular base; very thick; no pontil or visible mold seams; remnant of "B . 31" embossed on exterior
1	8/19/2015	West Half, Shovel Skim	14"	24"	Glass	Bottle?	Beverage?	Glass Bottle	mouth and body fragment	clear glass	1		Fragments are of varying thickness; two feature embossed ridges/design;
1	8/19/2015	West Half, Shovel Skim	14"	24"	Glass	Bottle?	Beverage?	Glass Bottle	mouth fragment	clear glass	1		Possible applied double ring finish; obscured by coating of what appears to be glue.
1	8/19/2015	West Half, Shovel Skim	14"	24"	Glass	Bottle?	Unknown	Glass Bottle	base and body	dark brown glass	2		Very thick; possible molded ridges.
1	8/19/2015	Level 1, within sandy brick rubble	6"	6"	Glass	Bottle?	Unknown	Glass Bottle	body fragment	clear glass	1		

Trench	Date Excavated	Provenience	Opening Depth	Closing	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
1	8/19/2015	West Half, Shovel Skim	0	14"	Glass	Unknown	Unknown	Unknown	fragment	clear glass with paint	1		Opaque white paint? Mineralization? on one side
1	8/19/2015	West Half, Shovel Skim	0	14"	Glass	Unknown	Unknown	Unknown	fragment	milk glass	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Glass	Unknown	Unknown	Unknown	fragment	milk glass	1		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Other	Power	Battery?	Rod	whole	carbon or graphite	1		
1	8/19/2015	West Half, Shovel Skim	0	14"	Unknown	Unknown	Unknown	fragment	fragment	Leather?	1		
1	8/19/2015	West Half, Shovel Skim	14"	24"	Unknown	Unknown	Unknown	fragment	fragment	enameled metal	1		crushed and rusted bell-shaped metal object; blue enamel on exterior, white enamel on interior
3	No artifacts collected from Trench 3.												
4	9/3/2015	Trench 4	12"	18"	Architecture	Construction	Building Materials	Flat glass	fragment	aqua/light aqua glass	3		
4	9/3/2015	Trench 4	12"	18"	Architecture	Construction	Building Materials	nail	whole	iron	1		bent; encased in rusty concretion
4	9/3/2015	Trench 4	12"	18"	Glass	Bottle	Beverage	Glass Bottle	body fragment	brown glass	1		very thick
4	9/3/2015	Trench 4	12"	18"	Glass	Bottle	unknown	Glass Bottle	body fragment	clear glass	2		
4	9/3/2015	Trench 4	12"	18"	Glass	Bottle	unknown	Glass Bottle	body fragment	light aqua glass	1		
4	9/3/2015	Trench 4	12"	18"	Glass	Unknown	Unknown	Unknown	body	milk glass	2		
4	9/3/2015	Trench 4	48"	53"	Ceramic	Dishes	Serving	Plate?	rim fragment	ironstone	1	1840-present	dark blue transfer print pattern around rim

Trench	Date Excavated	Provenience	Opening Depth	Closing	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
4	9/3/2015	Trench 4	48"	53"	Unknown	Unknown	Unknown	Flat glass	fragment	clear glass	1		Possibly window glass, but appears to have one curved or molded edge; possibly just well-worn?

Notes: See **Figure 2** for trench locations.
Sources: Dates for ceramics from Azzizi, et al. 1996.

Appendix B: Artifact Catalog for Trench 2

Appendix B: Artifact Catalog for Trench 2

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		27	30	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	2		
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		
2		33	37	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	2		
2	Unit 2-2, Level 2	21	24		36	41	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		flat
2	Unit 2-2, Level 3	21	24		40	45	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		
2		30	33	0-3'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	2		
2		28	30	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	2		
2		17	22	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		
2	Upper Buried A	23.5	23.5	0-3'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		
2		22	24	3'-6'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	Flat glass	fragment	aqua glass	1		
2	Unit 2-2, Level 1	21	24		29	36	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	aqua/light aqua glass	33		
2		27	29.67	0-3'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	Flat glass	fragment	aqua/light aqua glass	2		
2	Unit 2-2, cleaning of floor/south wall	21	24				5.90	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	1		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	2		glass is covered with opaque frosting; may be heavily mineralized, both fragments have parallel incised lines/scratches
2		33	36	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	1		flat
2		33	37	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	1		
2	Screened soils near animal bone pocket recovered during trench clean-up						9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	1		
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	clear/aqua glass	55		
2	Dark Fill				6	12	2	Fill	Above	Architecture	Construction	Building Materials	Tile	fragment	coarse earthen ware	1		dark brown mottled paste with dark brown glaze with tan flower/leaf decorative pattern
2		33	37	3'-6'	14	14	7	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	dark aqua glass	1		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	frosted glass	1		has opaque white coating; possibly mineralized
2		34	37	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	frosted glass	1		has opaque white coating; possibly mineralized
2	West side of post	28	29.58	3'-5'3"	14	14	13	Natural	Below	Architecture	Construction	Building Materials	Flat glass	fragment	glass	1		opaque coating on all sides; possible mineralized
2	Unit 2-1, Level 1	26	28	1'-3'	32	37	5	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	2		
2		17	19.5	West Side	32	34	5	Fill	Above	Architecture	Construction	Building Materials	nail	whole	iron	1		encased in thick rusty concretion
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	nail	whole/ fragment	iron	1		encased in thick rusty concretion
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	4		
2		27	30	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in rusty concretion
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	2		encased in rusty concretion; one is bent
2	Unit 2-1, Level 2	26	28	1'-3'	37	39	5	Fill	Above	Architecture	Construction	Building Materials	nail/spike	whole	iron	1		encased in thick concretion; large (9cm)
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	square-cut nail	fragment	iron	2		very small fragments
2	Upper Dark Fill; Removal of "corner angle"	24	24	3'2"-3'10"	14	14	5	Fill	Above	Architecture	Construction	Building Materials	square-cut nail	fragment	iron	1		bent; encased in rusty concretion

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Square-cut Nail	whole/fragment	iron	2		one encased in rusty concretion
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	4		encased in thick concretion
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	nail	whole	iron	5		encased in thick concretion; at least one may be square-cut
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	nail	whole	iron	2		
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	square-cut nail	fragment	iron	1		little rust
2		33	37	0-3'	14	14	7	Fill	Above	Architecture	Construction	Building Materials	nail	whole	iron	1		bent, encased in rusty concretion
2		33	37	3'-6'	14	14	7	Fill	Above	Architecture	Construction	Building Materials	nail	whole	iron	1		bent; encased in very thick rusty concretion
2		33	36	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	4		encased in thick concretion
2		33	37	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	nail	whole	iron	2		encased in rusty concretion
2		34	37	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	nail	fragment	iron	5		one is bent
2		30	33	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	nail/tack	whole	iron	1		2.6cm long, 5mm diameter head
2		33	37	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	square-cut nail	whole	iron	1		encased in rusty concretion
2		30	33	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	square-cut nail	fragments	iron	2		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	West half of trench	24	27	0-3'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in thick concretion
2		20	22	0-3'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in thick concretion
2		30	33	0-3'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole	iron	2		Encased in rusty concretion; one has wood remnants
2	East Half of Bisected Patch of Dark Soil	30.5	31.5		14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole	iron	1		encased in very thick rusty concretion
2		26	28	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in thick concretion
2		28	30	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole	iron	1		at least one is square-cut
2	"Giraffe" soils under dark layer at varying depths	34	37	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	2		encased in rusty concretion
2		34	37	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole/fragment	iron	3		one is bent
2		32	34	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole	iron	1		bent; encased in rusty concretion
2		32	34	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		
2		32	34	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		
2		32	34	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		very thick
2	Light yellowish brown soil beneath dark brown soil	30	32	4'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole	iron	1		encased in thick rusty concretion

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Light yellowish brown soil beneath dark brown soil	30	32	4'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	whole/fragment	iron	5		encased in thick rusty concretion; one appears to be square-cut
2		31	32	3'-4'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in thick concretion
2		33.42	34	0-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	Whole?	iron	1		small; encased in rusty concretion
2		29.83	31.83	3'-4'3"	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	4		encased in thick concretion
2		28	30	3'-5'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail	fragment	iron	2		encased in thick concretion; one has remnants of wood
2		29.83	30.58	5'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	nail/tack	whole	iron	1		some concretion; short shaft (3cm) and wide round head (1cm)
2		20.58	21.83	5'4"	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Nail?	fragment	iron	1		encased in thick concretion
2		29.75	31	0-2'1"	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Nail?	fragment	iron	1		encased in thick concretion
2		30	33	0-3'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	square-cut	whole/fragment	iron	2		rusted; one is bent
2		26	28	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Square-cut Nail	fragment	iron	1		
2		32	34	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	square-cut nail	whole	iron	1		long (9cm); head obscured by rust concretion

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		32	34	0-3.5'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Square-cut Nail	whole/fragment	iron	2		some rust
2		36.58	36.58	4'2"	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Square-cut Nail	fragment	iron	1		encased in thick concretion
2		20.58	21.83	5'4"	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Square-cut Nail?	fragment	iron	1		ends encased in rusty concretion; curved
2		21.5	21.5	7"	14	14	10	Natural	Below	Architecture	Construction	Building Materials	nail	whole	iron	1		bent; encased in rusty concretion
2		24	25	4'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	nail	whole	iron	3		encased in thick concretion
2		24	26	3'-6'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	nail	Whole?	iron	1		encased in thick rusty concretion
2		14	17	3'-6'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in very thick rusty concretion
2		31	37	0-6'	69	72	10	Natural	Below	Architecture	Construction	Building Materials	nail	whole	iron	1		encased in rusty concretion; one may be square cut
2		21	22	5'-6'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	Nail?	fragment	iron	1		encased in thick concretion
2		31	32.33	In east wall	14	14	10	Natural	Below	Architecture	Construction	Building Materials	square-cut	whole	iron	1		some rust; round head (diameter 9.21mm diameter)
2	Upper Buried A	23.5	23.5	0-3'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	Square-cut Nail	whole/fragment	iron	3		encased in thick concretion; two are bent
2	Upper Buried A	31	37	0-6'	70	72	10	Natural	Below	Architecture	Construction	Building Materials	Square-cut Nail	fragment	iron	1		rusty concretion; 6cm long

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Upper Buried A	31	37	0-6'	70	72	10	Natural	Below	Architecture	Construction	Building Materials	Square-cut Nail	fragment	iron	1		little rust; 3.5 cm lower end of nail
2	Upper Buried A	31	37	0-6'	70	72	10	Natural	Below	Architecture	Construction	Building Materials	Square-cut Nail?	fragment	iron	1		rusty concretion; bent
2		28	30	3'-5'	14	14	10.11	Natural	Below	Architecture	Construction	Building Materials	nail	whole/fragment	iron	5		encased in thick concretion; at least two appear to be square-cut
2	Lower Buried A	22	24	3'-6'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	nail	fragment	iron	4		encased in rusty concretion
2		26	28	3'-6'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	Square-cut Nail	fragment	iron	1		bent
2		27	29.67	0-3'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	square-cut nail	whole	iron	1		encased in rusty concretion
2	Around Post	28	30	3'-5'	14	14	11.12	Natural	Below	Architecture	Construction	Building Materials	nail	whole	iron	4		encased in thick rusty concretion
2		27	29.67	0-3'	14	14	12	Natural	Below	Architecture	Construction	Building Materials	nail	fragment	iron	6		
2	West side of post	28	29.58	3'-5'3"	14	14	13	Natural	Below	Architecture	Construction	Building Materials	nail	fragment	iron	1		encased in rusty concretion
2	Floor clean-up east of Unit 2-2 and south of ramp	24	27	3'6'			N/A	Fill	Unknown	Architecture	Construction	Building Materials	nail	fragment	iron	3		one is square-cut; others are encased in rusty concretion
2	Floor clean-up east of Unit 2-2 and south of ramp	24	27	3'6'			N/A	Fill	Unknown	Architecture	Construction	Building Materials	screw	fragment	iron	1		some rust
2	Unit 2-1, Level 1	26	28	1'-3'	32	37	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	3		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	East Half of Trench	18	24	3'-6'	36	36	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2	"Wedge"	19	21	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	15		
2		27	30	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	4		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	8		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	22		
2		33	37	0-3'	14	14	7	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	2		
2		33	37	3'-6'	14	14	7	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	5		
2		33	37	0-3'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2		30	33	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	8		
2		28	30	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2		28	30	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		thick
2		34	37	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	3		
2		32	34	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	3		very small

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Lower Buried A	22	24	3'-6'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2	West side of post	28	29.58	3'-5'3"	14	14	13	Natural	Below	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2	Floor clean-up east of Unit 2-2 and south of ramp	24	27	3'6'			N/A	Fill	Unknown	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua glass	1		
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua/aqua glass	25		
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	Flat glass	fragment	light aqua/aqua glass	45		color varies
2	Shovel skim of darker loam beneath first grayish clay layer				32	32	5	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	2		
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		very small
2		24	27	0-3'	14	14	5	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	7		
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	6		
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		
2		33	37	0-3'	14	14	7	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	3		
2		30	33	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	2		
2		34	37	3'-6'	14	14	8	Fill	Above	Architecture	Construction	Building Materials	brick	fragment	red earthen ware	1		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		28	30	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	2		
2		34	37	3'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	4		
2	Light yellowish brown soil beneath dark brown soil	30	32	4'-6'	14	14	9	Fill	In Association	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	2		
2		17	22	0-3'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		
2	Upper Buried A	23.5	23.5	0-3'	14	14	10	Natural	Below	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		very small fragment
2		31	37	0-6'	69	72	10	Natural	Below	Architecture	Construction	Building Materials	brick	fragment	red earthen ware	2		
2	Lower Buried A	22	24	3'-6'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		
2		27	29.67	0-3'	14	14	11	Natural	Below	Architecture	Construction	Building Materials	brick	fragment	red earthen ware	1		
2	From lower buried A under peat mat	29	29	5'	96	96	14	Natural	Below	Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		Very good context. Associated w/ piece of well-preserved milled timber and peaty mat layer. Original ground surface.
2		30	33	0-3'	14	14	6	Fill	Above	Architecture	Construction	Building Materials	nail	whole	Unident. metal	1		little rust; head and shaft are round

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Level 1, immediately beneath concrete				6	6	2	Fill	Above	Ceramic	Dishes	Serving	fragment	rim fragment	ironstone	1	1840-present	very thick
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Serving	Plate?	rim fragment	ironstone	1	1840-present	molded rim and possible wheat pattern
2	Interface between dark fill and clayey layer				12	19	2.3	Fill	Above	Ceramic	Dishes	Serving	Plate?	base fragment	Ironstone?	1	1840-present?	molded diamond pattern and painted pink and brown flowers; concretion around edges/breaks
2	Cleaning Floor, north of skull	24.17	24.17	18"	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	unknown	rim fragment	Ironstone?	1	1840-present?	Very small, thin and fine with dark blue paint or patter.
2	Interface between dark fill and clayey layer				12	19	2.3	Fill	Above	Ceramic	Dishes	Serving	Bowl?	body fragment	porcelain	1		curved; remnants of painted blue decoration (parallel lines)
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Serving	Plate?	rim fragment	porcelain	1		painted blue pattern across rim
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	Plate?	rim fragment	porcelain	1		hand painted blue lines/hatching along rim

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		28	30	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	Plate?	rim fragment	porcelain	1		remnant of dark blue pattern at edge of rim
2		30	33	0-3'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	unknown	body fragment	porcelain?	1		Blue painted design on exterior; damaged/coasted in melted concretion
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	plate?	body/rim fragment	possible pearlware?	2	1775-1840?	little glaze left; one fragment has partial remnant of blue shell edge
2	Unit 2-2, Level 2	21	24		36	41	9	Fill	In Association	Ceramic	Dishes	Serving	plate?	body fragment	redware	1	1670-1850	yellow slip and brown glaze on one side, unglazed on the other
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	plate?	body fragment	redware	1		dark brown glaze on one side; circular impression
2	Interface between dark fill and clayey layer				12	19	2.3	Fill	Above	Ceramic	Dishes	Serving	Bowl?	base fragment	stoneware	1		light gray glaze on interior and exterior; similar to artifact found in dark fill at 6 inches BGS

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		29.83	31.83	3'-4'3"	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	Bowl?	body fragment	stoneware	4		light gray glaze on interior, brown glaze on exterior; two mending fragments have incised ridges; two pairs of mending fragments
2		27	29.67	0-3'	14	14	11	Natural	Below	Ceramic	Dishes	Serving	Jug?	rim/handle fragment	stoneware	1		brown glaze on interior of rim and exterior of body/handle; gray glaze on interior body; and blue glaze on exterior of rim.
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	bowl?	body fragment	white earthen ware	1		curved; grayish glaze with hand painted brown and orange-brown design on one side
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	plate?	rim fragment	white earthen ware	1		very small; blue painted design around rim

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Floor clean-up east of Unit 2-2 and south of ramp	24	27	3'6'			N/A	Fill	Unknown	Ceramic	Dishes	Serving	unknown	body fragment	white earthen ware	1	1815-1915	little glaze left; partial remnant of blue transfer print design
2		24	27	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Serving	bowl or cup?	rim fragment	whiteware	1	1815-1915	small fragment; black transfer print on exterior
2	Unit 2-1, Level 1	26	28	1'-3'	32	37	5	Fill	Above	Ceramic	Dishes	Serving	plate?	rim fragment	whiteware	1		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Serving	plate?	body fragment	whiteware	1		has ridges; glaze only remaining on one side
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	bowl or cup?	body fragment	whiteware	1	ca. 1830-1860?	little glaze left; brown stripe, possible banded annularware?
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	bowl or cup?	body fragment	whiteware	1		thick and curved
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	bowl or cup?	body fragment	whiteware	1		
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Dishes	Serving	plate?	body fragment	whiteware	1	1815-1900	little glaze left, remnant of green shell edge
2		27	27	4'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	unknown	body fragment	whiteware	1	1815-1915	fragmented; glaze remaining on one side has partial remnants of blue transfer print design

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		22	24	3'-6'	14	14	11	Natural	Below	Ceramic	Dishes	Serving	plate?	rim fragment	whiteware	1	1815-1915	very small and fragmentary; remnant of blue transfer print pattern on one side
2	Backdirt						N/A	Fill	Unknown	Ceramic	Dishes	Serving	Plate?	base fragment	whiteware	1		foot ring/ridges on exterior of base
2	Backdirt						N/A	Fill	Unknown	Ceramic	Dishes	Serving	Plate?	base fragment	whiteware	1		dark gray glaze on interior, light gray glaze on exterior; foot ring
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving	plate?	body fragment	yellowware?	1		little glaze left;
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Serving?	plate?	rim fragment	coarse red earthenware	1		imprinted shell edge with possible remnant of white paint/glaze along imprints and
2		33	37	0-3'	14	14	7	Fill	Above	Ceramic	Dishes	Serving?	plate?	body and rim fragment	pearlware	2	1775-1840	very fragmented; partial remnants of blue shell edge border
2		30	33	0-3'	14	14	6	Fill	Above	Ceramic	Dishes	Serving?	Bowl or cup?	body fragment	porcelain	1		curved, small; undecorated white glaze

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		24	24	4'	60	60	11	Natural	Below	Ceramic	Dishes	Serving?	fragment	base fragment	redware	1		partial remnants of reddish brown glaze on interior; very thick and flat
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	Dishes	Serving?	unknown	body fragment	white earthen ware	1		very small; little glaze left; remnant of blue painted design
2		30	33	0-3'	14	14	6	Fill	Above	Ceramic	Dishes	Serving?	Ceramic Vessel	handle	whiteware	3		all mend; very thick; curved
2		30	33	0-3'	14	14	6	Fill	Above	Ceramic	Dishes	Serving?	Plate?	body fragment	whiteware	1	1815-1915	very little glaze remaining only on one side; remnant of blue transfer print pattern
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	Dishes	unknown	unknown	body fragment	banded annular ware	1		little glaze left; remnants of green, brown, and tan stripes
2	immediately beneath concrete				6	6	2	Fill	Above	Ceramic	Dishes	unknown	unknown	body fragment	ironstone	1	1840-present	curved
2	Unit 2-2, Level 2	21	24		36	41	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	rim fragment	ironstone?	1	1840-present?	undecorated white glaze
2		30	32	4.5'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	base and body fragment	possible pearlware?	2	1775-1840?	small and fragmentary

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Unit 2-2, Level 2	21	24		36	41	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	body fragment	white earthen ware	1		white glaze on one size, partial remnant of brown glaze on the other
2		17	22	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	rim fragment	white earthen ware	1		remnant of painted or transfer printed wavy lines
2		32	34	0-3.5'	14	14	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	rim fragment	white earthen ware	1	1815-1900	very small; partial remnant of blue shell edge
2	immediately beneath concrete				6	6	2	Fill	Above	Ceramic	Dishes	unknown	unknown	body fragment	whiteware	1		
2		24	27	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	2	1815-1915	very small; one has remnant of blue transfer print on one side
2		24	27	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1		very fragmented, little glaze remaining
2		27	30	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1	ca. 1830-1860?	very small fragment; white glaze on one side, white glaze with black/brown stripe on other side. Possible banded annularware?

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1		very fragmented, little glaze remaining
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1		gray glaze on one side; may be staining
2	Unit 2-2, Level 2	21	24		36	41	9	Fill	In Association	Ceramic	Dishes	unknown	fragment	handle or footring	whiteware	1		
2		26	28	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1	1815-1915	Blue transfer print on one side; very small fragment
2		26	28	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1		very small fragment
2		29.83	31.83	3'-4'3"	14	14	9	Fill	In Association	Ceramic	Dishes	Unknown	Unknown	body fragment	whiteware	1	1815-1915	very fragmentary; remnant of blue transfer print pattern on one side
2	Upper Buried A	23.5	23.5	0-3'	14	14	10	Natural	Below	Ceramic	Dishes	Unknown	Unknown	body and rim fragment	whiteware	14		various sizes; all badly damaged with little white glaze remaining; one fragment has staining
2		24	27	0-3'	14	14	5	Fill	Above	Ceramic	Dishes	Unknown	Unknown	body fragment	yellowware?	1		very fragmented, little glaze remaining

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		28	30	3'-5'	14	14	10	Natural	Below	Ceramic	Dishes?	Serving?	Cup or bowl?	body fragment	white earthen ware	1		curved; little glaze left, partial remnant of polychrome (blue, yellow, greenish-brown) painted floral design
2	Lower Buried A	22	24	3'-6'	14	14	11	Natural	Below	Ceramic	Dishes?	Unknown	Unknown	body fragment	Porcelain?	1		small, stained, curved fragment; incised painted blue lines on exterior
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes?	unknown	unknown	body fragment	possible pearlware?	3	1775-1840?	one fragment has painted horizontal band made up of small vertical blue lines
2	Upper Buried A	31	37	0-6'	70	72	10	Natural	Below	Ceramic	Dishes?	unknown	unknown	body fragment	redware	1		light reddish brown glaze on exterior
2	STP	36	37	2'-3.5'	14	14	10	Natural	Below	Ceramic	Dishes?	unknown	unknown	body fragment	redware	1		light and dark brown glaze on one side
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes?	unknown	unknown	rim fragment	white earthen ware	1		very small; has remnant of brown stripe on interior and exterior of rim

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		28	30	3'-5'	14	14	10	Natural	Below	Ceramic	Dishes?	unknown	unknown	body fragment	white earthen ware	1		partial remnant of blue design
2	West wall, near top						2	Fill	Above	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1		curved
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1	1815-1915	blue painted line on one side, possibly transfer print?
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1	1815-1915	blue painted decoration on one side, possibly transfer print?
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1	ca. 1830-1860?	very small fragment; brown stripe on one side; possibly banded annularware?
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1		very small fragment
2		21	22	5'-6'	14	14	10	Natural	Below	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1		
2	Upper Buried A	31	37	0-6'	70	72	10	Natural	Below	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1		
2		22	24	3'-6'	14	14	11	Natural	Below	Ceramic	Dishes?	unknown	unknown	body fragment	whiteware	1		
2		17	19.5	West Side	32	34	5	Fill	Above	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	3		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	1		
2		30	33	0-3'	14	14	6	Fill	Above	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	1		very small

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	2		
2	Unit 2-2, Level 2	21	24		36	41	9	Fill	In Association	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	1		
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	1		
2		17	17	0	14	14	10	Natural	Below	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	2		very thick
2		31	37	0-6'	69	72	10	Natural	Below	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	4		
2		27	29.67	0-3'	14	14	11	Natural	Below	Ceramic	Household Furnishing	Decorative	flowerpot	body fragment	redware	1		
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	Storage?	unknown	unknown	body fragment	stoneware	1		thick (8mm); slightly curved; dark brown glaze on interior, light brown glaze on exterior
2	Unit 2-2, Level 2	21	24		36	40	9	Fill	In Association	Ceramic	Storage?	Unknown	Ceramic Vessel	body fragment	stoneware	1		Gray-bodied stoneware with dark brown glaze on interior
2		20.58	21.83	5'4"	14	14	9	Fill	In Association	Ceramic	Storage?	Unknown	Ceramic Vessel	base fragment	stoneware	1		Very thick; possible scorch marks?
2		31	37	0-6'	69	72	10	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body and rim fragment	creamware	4		
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	creamware?	1		very small fragment, little glaze left
2		26.66	27.83	4'-5'	14	14	11	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	creamware?	1		Very fragmented; little glaze remaining

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	ironstone	1	1840-present	stained white or cream-colored glaze
2		33.42	34	0-6'	14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	body fragment	ironstone	1	1840-present	stained white glaze
2		29.83	31.83	3'-4'3"	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	ironstone?	1	1840-present?	very small fragment; white glaze on one side; possible grayish/greenish glaze on the other, but this may be staining from a concretion on that side
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	porcelain	3		varying thickness; one fragment has two parallel blue painted lines
2	Dark Fill				6	12	2	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	porcelain?	1		very thick; possible sink/tub/toilet
2	Dark Fill				6	12	2	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	porcelain?	1		Thin with molded edge
2	Backdirt						N/A	Fill	Unknown	Ceramic	Unknown	Unknown	Ceramic Vessel	mouth fragment?	porcelain?	1		small, curved fragment with molded ridges

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		30	33	0-3'	14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	body fragment	possible pearlware?	1	1775-1840?	very small; glaze remains on one side
2		30	33	0-3'	14	14	6	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	possible yellowware	1	1827-1940?	very small fragment; little glaze remaining
2		30	33	3'-6'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	possible yellowware	1	1827-1940?	very small fragment; little glaze remaining
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Unknown	body fragment	redware	1		very small; remnant of brown lead glaze on one side
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	unknown	unknown	unknown	body fragment	redware	1		dark brown lead glaze on interior and exterior
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	unknown	unknown	unknown	body fragment	redware	1		very small, small amount of reddish brown glaze on one side
2		30	33	0-3'	14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	body and rim fragment	redware	2		dark brown lead glaze; thick
2	East Half of Bisected Patch of Dark Soil	30.5	31.5		14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	body fragment	redware	1		dark brown lead glaze on interior and exterior; small/thick fragment
2	Upper Buried A	23.5	23.5	0-3'	14	14	10	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	redware	1		possible very small remnant of brown glaze

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		31	37	0-6'	69	72	10	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	redware	5		light brown glaze on one side; two fragments mend
2		28	30	3'-5'	14	14	10	Natural	Below	Ceramic	unknown	unknown	unknown	body fragment	redware	1		remnants of reddish brown glaze on one side
2		27	30	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Unknown	body fragment	stoneware	1		very thick, small fragment; curved; dark brown glaze on interior, clear glaze on exterior
2		26.5	26.5	11"	14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	rim fragment	stoneware	1		thick with dark gray body and possible remnant of brown slip; decorative rim.
2	Northwest quadrant, found during troweling						N/A	Fill	Unknown	Ceramic	unknown	unknown	unknown	body fragment	stoneware	1		gray-bodied with brown glaze on one side and clear glaze on the other
2		33	37	0-3'	14	14	7	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	stoneware?	1		very small fragment, little glaze left

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		27	30	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Unknown	body and rim fragment	white earthen ware	4	1815-1915	small fragments; little glaze left; two have remnants of blue transfer print pattern
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Unknown	body fragment	white earthen ware	1		little glaze left
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Unknown	body fragment	white earthen ware	1		very small; almost no glaze remaining
2		30	33	0-3'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	white earthen ware	1		grayish glaze; very small fragment
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	white earthen ware	1		burned or encrusted in rusty concretion
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	unknown	unknown	unknown	body fragment	white earthen ware	1		gray glaze or staining
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	unknown	unknown	unknown	body fragment	white earthen ware	3		small fragments of various thickness and shades of white; one has slight bluish tint but is too fragmentary to identify as pearlware

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		32	34	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	white earthen ware	3		very small fragments; little glaze left
2		23.66	24	0-3'	14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	body fragment	white earthen ware	1		very small amount of gray glaze or staining remaining
2	"Giraffe" soils under dark layer at varying depths	34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	unknown	unknown	unknown	body and rim fragment	white earthen ware	2		very small; little glaze left
2		28	30	3'-5'	14	14	10	Natural	Below	Ceramic	unknown	unknown	unknown	body fragment	white earthen ware	2		fragmentary ; little glaze left
2	Unit 2-2, Level 1	21	24		29	36	5	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		very little glaze remaining, may have tan/brown paint
2		24	27	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		very small; etched/painted blue stripe decoration
2		30	33	0-3'	14	14	6	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	6		small fragments, little white glaze remaining
2		33	37	0-3'	14	14	7	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		very small
2		33	36	0-3'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		very small
2		34	37	3'-6'	14	14	8	Fill	Above	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		
2		33	37	0-3'	14	14	8	Fill	Above	Ceramic	unknown	unknown	unknown	body fragment	whiteware	1		very small

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		27	30		14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		very small and fragmented
2		28	30	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		vary small, glaze only remaining on one side
2		28	30	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	2		very small
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	4		very small fragments; little white glaze left
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	2		small fragment
2		34	37	3'-6'	14	14	9	Fill	In Association	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		small fragments with gray glaze (may be staining); one is curved
2		31	37	0-6'	69	72	10	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		
2		31	32.33	In east wall	14	14	10	Natural	Below	Ceramic	Unknown	Unknown	Unknown	body fragment	whiteware	1		little glaze left
2	STP next to wood feature	27	27	3'	14	14	10.11	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		vary small, grayish glaze only remaining on one side
2		27	29.67	0-3'	14	14	11	Natural	Below	Ceramic	Unknown	Unknown	Ceramic Vessel	body fragment	whiteware	1		very small
2	Interface between dark fill and clayey layer				12	19	2.3	Fill	Above	Faunal	food-related?	Shell	Unknown	fragment	shell	1		decomposed
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Faunal	food-related?	Shell	clam	fragment	shell	2		decomposed

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Faunal	food-related?	Shell	clam?	fragment	shell	3		small, decomposed fragments
2	Shovel skim of darker loam beneath first grayish clay layer				32	32	5	Fill	Above	Faunal	food-related?	Shell	oyster	fragment	shell	1		decomposed
2	Unit 2-1, Level 1	26	28	1'-3'	32	37	5	Fill	Above	Faunal	food-related?	Shell	oyster	fragment	shell	1		decomposed
2	Unit 2-2, Level 1	21	24		29	36	5	Fill	Above	Faunal	food-related?	Shell	oyster	fragment	shell	1		decomposed
2		27	30	0-3'	14	14	5	Fill	Above	Faunal	food-related?	Shell	oyster	fragment	shell	1		decomposed
2		30	33	0-3'	14	14	6	Fill	Above	Faunal	food-related?	Shell	oyster	fragment	shell	2		decomposed
2	West wall (12.5 feet north of south wall)	23.5	23.5		44	44	7.9	Fill	In Association	Faunal	food-related?	Shell	unknown	fragment	shell	3		decomposed
2		30	33	3'-6'	14	14	8	Fill	Above	Faunal	food-related?	Shell	clam	fragment	shell	1		decomposed; small fragment
2		34	37	3'-6'	14	14	8	Fill	Above	Faunal	food-related?	Shell	oyster	fragment	shell	1		
2		32	34	3'-6'	14	14	9	Fill	In Association	Faunal	food-related?	Shell	clam	fragment	shell	1		decomposed
2		34	37	3'-6'	14	14	9	Fill	In Association	Faunal	food-related?	Shell	clam?	fragment	shell	1		decomposed; small fragment
2		32	34	3'-6'	14	14	9	Fill	In Association	Faunal	food-related?	Shell	oyster	fragment	shell	2		decomposed
2		17	22	0-3'	14	14	10	Natural	Below	Faunal	food-related?	Shell	oyster	fragment	shell	1		decomposed
2		19.67	19.67	14.5'	14	14	11	Natural	Below	Faunal	food-related?	Shell	oyster	fragment	shell	3		Very decomposed and crumbling; not washed

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Faunal	food-related?	Shell	Shell	fragment	shell	4		very decomposed/degraded; possible oyster shell. One fragment has rocky concretion on one side.
2	Backdirt from west half						N/A	N/A	Unknown	Glass	Bottle	beverage	Glass Bottle	body fragment	aqua glass	1		embossed "CI…"
2	Interface between dark fill and clayey layer				12	19	2.3	Fill	Above	Glass	Bottle	beverage	Glass Bottle	mouth fragment	brown glass	1		Ring finish
2		34	37	3'-6'	14	14	8	Fill	Above	Glass	Bottle	beverage	Glass Bottle	body fragment	clear glass?	1		very thick, has dark brown coating or staining
2	Unit 2-1, Level 1	26	28	1'-3'	32	37	5	Fill	Above	Glass	Bottle	beverage	Glass Bottle	body fragment	olive green glass	1		
2		28	30	3'-6'	14	14	9	Fill	In Association	Glass	Bottle	Beverage	Glass Bottle	body fragment	olive green glass	1		
2		30	33	3'-6'	14	14	8	Fill	Above	Glass	Bottle	Beverage ?	Glass Bottle	body fragment	aqua glass	1		thick
2		17	19	3'-6'	14	14	9	Fill	In Association	Glass	Bottle	Beverage ?	Glass Bottle	body fragment	aqua glass	1		flat, possibly window glass? Slightly green.
2		24	25	4'	14	14	10	Natural	Below	Glass	Bottle	Beverage ?	Glass Bottle	body fragment	dark aqua glass	1		curved

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Unit 2-1, Level 2	26	28	1'-3'	37	39	5	Fill	Above	Glass	Bottle	Beverage ?	Glass Bottle	body fragment	olive green glass	1		thick, oval base with angled hexagonal edges. No visible mold marks, has numbers impressed on base ("1 2 3" in triangular pattern)
2		30	33	0-3'	14	14	6	Fill	Above	Glass	Bottle	Beverage ?	Glass Bottle	body fragment	olive green glass	1		very small fragment, very thick glass
2		32	34	3'-6'	14	14	9	Fill	In Association	Glass	Bottle	beverage ?	Glass Bottle	body fragment	olive green glass	1		
2		20	22	0-3'	14	14	10	Natural	Below	Glass	Bottle	Beverage ?	Glass Bottle?	body fragment	olive green glass	1		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Glass	Bottle	unknown	Glass Bottle	body fragment	aqua glass	1		
2	Backdirt						N/A	Fill	Unknown	Glass	Bottle	Unknown	Glass Bottle	body fragment	aqua glass	1		
2		27	29.67	0-3'	14	14	11	Natural	Below	Glass	Bottle	Unknown	Glass Bottle	body fragment	brown glass	1		
2		27	29.67	0-3'	14	14	11	Natural	Below	Glass	Bottle	Unknown	Glass Bottle	body fragment	clear glass	1		
2		24	27	0-3'	14	14	5	Fill	Above	Glass	Bottle	unknown	Glass Bottle	body fragment	olive green glass	1		
2		20	22	0-3'	14	14	9	Fill	In Association	Glass	Bottle	Unknown	Glass Bottle	body fragment	olive green glass	3		very thick
2		27	29.67	0-3'	14	14	11	Natural	Below	Glass	Bottle	Unknown	Glass Bottle	body fragment	olive green glass	1		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Trench floor; may have fallen in from above	21	24		42	42	N/A	Fill	Unknown	Glass	Bottle?	Beverage ?	Glass Bottle?	body fragment	clear glass	1		very thick and fragmented; slight pinkish hue
2		34	37	3'-6'	14	14	9	Fill	In Association	Glass	Bottle?	Beverage ?	Glass Bottle	body fragment	dark olive green glass	2		one fragment is very small
2	Shovel skim in center of trench				12	12	2	Fill	Above	Glass	Bottle?	Unknown	Glass Bottle	body fragment	brown glass	1		
2	Screened soils near animal bone pocket recovered during trench clean-up						9	Fill	In Association	Glass	Bottle?	Unknown	Glass Bottle	body fragment	clear glass	2		
2		27	30		14	14	9	Fill	In Association	Glass	Bottle?	Unknown	Glass Bottle	body fragment	clear glass	1		Flat; possibly window glass
2		29.75	31	0-2'1"	14	14	9	Fill	In Association	Glass	Bottle?	Unknown	Glass Bottle	neck fragment	clear glass	1		
2	Floor clean-up east of Unit 2-2 and south of ramp	24	27	3'6'			N/A	Fill	Unknown	Glass	Bottle?	Unknown	Glass Bottle	body fragment	clear glass	1		very thick
2		24	27	0-3'	14	14	5	Fill	Above	Glass	Bottle?	Unknown	Glass Bottle	body fragment	frosted glass	1		translucent frosting, thick and flat
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Glass	Bottle?	Unknown	Glass Bottle	body fragment	light aqua glass	1		very small and thin (0.56mm)
2		17	22	3'-6'	14	14	9	Fill	In Association	Glass	Bottle?	Unknown	Glass Bottle	body fragment	light aqua glass	1		Flat; possibly window glass

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Glass	Bottle?	Unknown	Glass Bottle	body fragment	olive green glass	1		
2	Upper Buried A	31	37	0-6'	70	72	10	Natural	Below	Glass	Bottle?	Unknown	Glass Bottle	body fragment	olive green glass	2		thin
2	Backdirt						N/A	Fill	Unknown	Glass	Decorative furnishing	lamp?	lamp?	body fragment	opalescent green glass	2		
2	Interface between dark fill and clayey layer				12	19	2.3	Fill	Above	Glass	Household Furnishing	Unknown	Flat glass	fragment	milk glass	1		very thick and molded; possibly from decorative bottle or vessel
2		28	30	3'-5'	14	14	10	Natural	Below	Glass	unknown	unknown	unknown	body fragment	clear glass	1		very thick; very small fragment
2		24	27	0-3'	14	14	5	Fill	Above	Glass	unknown	unknown	Unknown	fragment	frosted glass	1		thin and flat with opaque frosting
2	Pocket of stained soil	24.25	24.25	3'-6'	40	40	5	Fill	Above	Glass	Unknown	unknown	Unknown	rim fragment	glass	1		Molded rim fragment (possibly including part of a spout?); dark brown, possibly stained?
2	Dark Fill				6	12	2	Fill	Above	Glass	Unknown	Unknown	Flat glass	fragment	milk glass	1		

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Center of trench, interface between dark fill and clay				12	18	2.3	Fill	Above	Glass	Unknown	Unknown	Unknown	body	milk glass	1		very thick and flat; thin parallel ridges embossed along one side; similar fragment recovered in Trench 1
2		33	37	0-3'	14	14	8	Fill	Above	Misc.	Unknown	Unknown	Unknown	Unknown	wood	3		perfectly round, possibly carved? Burned.
2	Unit 2-2, Level 3	21	24		40	45	9	Fill	In Association	Other	Power	Battery?	Rod	fragment	carbon or graphite	1		small, rounded fragment
2	In vicinity of skull	22	23.5	0-3'	14	14	9	Fill	In Association	Personal	Clothing	Shoe	Sole	fragment	leather	1		
2		20.5	20.5	2'	14	14	10	Natural	Below	Personal	Sewing	Thimble	Thimble	whole	metal	1		No visible decoration or adornment
2	Unit 2-2, Level 1	21	24		29	36	5	Fill	Above	Personal	Smoking	Pipe	Pipe bowl	fragment	white ball clay	1		
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Personal	Smoking	Pipe	Pipe bowl	fragment	white ball clay	1		very small
2	Upper Dark Fill; Removal of "corner angle"	24	24	3'2"-3'10"	14	14	5	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1750-1800	small fragment (1cm in length); 4/64" bore
2		27	30	0-3'	14	14	5	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1680-1720	Very thick, oval shape (10.5mm by 8.5mm); 6/64" bore
2		24	27	0-3'	14	14	5	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1750-1800	4/64" bore

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1680-1720	oval shape (9mm by 8.4mm); 6/64" bore
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1750-1800	4/64" bore
2	Disturbed layer below Upper Dark Fill	30	33	0-3'	14	14	5	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1		partial fragment; bore cannot be determined
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	2	1720-1750	5/64" bore
2	Upper Dark Fill	27	30	0-3'	14	14	5.6	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1750-1800	4/64" bore
2		33	37	0-3'	14	14	8	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	7mm diameter; 5/64" bore
2		33	37	0-3'	14	14	8	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	incomplete; 5/64" bore
2		34	37	3'-6'	14	14	8	Fill	Above	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	5/64" bore
2	Unit 2-2, Level 3	21	24		40	45	9	Fill	In Association	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	narrow (4mm diameter) with 5/64" bore
2	East Half of Bisected Patch of Dark Soil	30.5	31.5		14	14	9	Fill	In Association	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	width expands from 7mm to 10mm, representing portion that attached to bowl; 5/64" bore
2		32	34	3'-6'	14	14	9	Fill	In Association	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1650-1680	very thick (9mm diameter); 7/64" bore
2		32	34	3'-6'	14	14	9	Fill	In Association	Personal	Smoking	Pipe	stem	fragment	white ball clay	2	1720-1750	5/64" bore

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		21	22	5'-6'	14	14	10	Natural	Below	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1680-1720	6/64" bore
2		21	22	5'-6'	14	14	10	Natural	Below	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1750-1800	4/64" bore
2	STP	36	37	2'-3.5'	14	14	10	Natural	Below	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	5/64" bore
2		27	29.67	0-3'	14	14	12	Natural	Below	Personal	Smoking	Pipe	stem	fragment	white ball clay	1	1720-1750	5/64" bore
2		33	36	0-3'	14	14	8	Fill	Above	Personal?	Smoking?	Pipe?	Pipe bowl?	fragment?	white ball clay?	1		very small fragment
2		28	30	3'-5'	14	14	10	Natural	Below	Personal?	Smoking?	Pipe?	Pipe bowl?	fragment	white ball clay?	1		very small and hard to identify
2		17	22	3'-6'	14	14	9	Fill	In Association	Unident.	Metal				metal	1		One end curved into a loop; possible pin?
2		24	27	0-3'	14	14	5	Fill	Above	Unident.					glass?	1		mineralized or painted?
2	Floor clean-up east of Unit 2-2 and south of ramp	24	27	3'6'			N/A	Fill	Unknown	Unknown	unknown	unknown	unknown	Unknown	metal	1		rusted metal concretion
2		30	33	3'-6'	14	14	8	Fill	Above	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	10		Possibly decaying leather? Very strong tar-like odor
2		25.5	25.5	5'	14	14	10	Natural	Below	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	1		Possible contamination from archaeological equipment or archaeologists' clothing

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	East of West Wall Distance	Opening Depth BGS	Closing Depth BGS	Level	Deposition	Skeletal Association	Group	Class	Type	Object	Part	Material/ Ware/ Glass Color	Count	Production Date(s)	Comments
2		17	19	3'-6'	14	14	9	Fill	In Association	Unknown	unknown	Unknown	unknown	unknown	wood	1		trapezoidal carved wood fragment with hole bored through center; possible bottle stopper?
2		24	27	0-3'			Unknown	Unknown	Unknown	Unknown					wood	2		One piece is perfectly round; appears burned
2	REMOVED FROM BONE BAG ON 12/10	17	2-		38					Architecture	Construction	Building Materials	Brick	fragment	red earthen ware	1		
2	REMOVED FROM BONE BAG ON 12/10	17	2-		38					Architecture	Construction	Building Materials	Flat glass	fragment	clear glass	1		

Notes:
Sources: **Ceramic production dates from Azzizi, et al. (1996) and Brown (1982); Pipe production dates modeled after the typology presented in Deetz (1977).**

Appendix C: Trench 2 Faunal Remains Catalog

Appendix C: Trench 2 Faunal Remains Catalog

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Animal Type	Bone Type	Fragment Size	Burn/Cut Marks	Count	Comments
Trench 2		16'	16'	2'9"	24"	24"	Medium Terrestrial (Terr.) Mammal	Skull Fragment	1-2cm	None	2	
Trench 2	Buried A	112" North of SE corner	112" North of SE corner	in East Wall	32" BGS	32" BGS	Cow	Proximal half of scapula	>10cm	Sawn at medial half of neck; cut marks present	1	proximal half
Trench 2	Buried A	11'2" north of SE Corner	11'2" north of SE Corner	in East Wall	32" BGS	32" BGS	Cow	Scapula	5-10cm	Saw cut at proximal end	1	only articulate surface present
Trench 2	Bone Pocket (near animal skull)	15'	17'	~30-33''	30”	33”	Mammal	Skull Fragment	<1cm	None	31	
Trench 2	Bone Pocket (near animal skull)	15'	17'	~30-33''	30”	33”	Large Terr. Mammal	Skull Fragment	2-5cm	None	1	
Trench 2	Bone Pocket (near animal skull)	15'	17'	~30-33''	30”	33”	Large Terr. Mammal	Skull Fragment	2-5cm	None	10	
Trench 2	Bone Pocket (near animal skull)	15'	17'	~30-33''	30"	34"	Large Terr. Mammal	Skull/Temporal Bone	5-10cm	None	1	
Trench 2	Shovel skimmed area in vicinity of animal skull	15'	17'	0-3'	32"	37"	Terr. Mammal	Unknown	<1cm	None	7	
Trench 2	Shovel skimmed area in vicinity of animal skull	15'	17'	0-3'	32"	37"	Terr. Mammal	Unknown	1-2cm	None	20	
Trench 2	Shovel skimmed area in vicinity of animal skull	15'	17'	0-3'	32"	37"	Animal	Possible Skull Fragment	1-2cm	Blackened	1	
Trench 2	Shovel skimmed area in vicinity of animal skull	15'	17'	0-3'	32"	37"	Terr. Mammal	Unknown	2-5cm	None	9	
Trench 2		16'	17'		36"	36"	Large Terr. Mammal	Skull Fragment	1-2cm	None	2	
Trench 2		16'	17'		36"	36"	Large Terr. Mammal	Skull Fragment	2-5cm	None	2	
Trench 2		16'	17'		36"	36"	Large Terr. Mammal	Skull Fragment	5-10cm	None	1	

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Animal Type	Bone Type	Fragment Size	Burn/Cut Marks	Count	Comments
Trench 2		16'	17'		36"	36"	Large Terr. Mammal (possibly cow)	Skull with partial occipital and articulate surface	>10cm	None	1	
Trench 2		17'	22'	3'-6'	38"	43"	Small terr. Mammal	long bone fragment	1-2cm	Calcined/white	1	Bag 2/2
Trench 2		19'2"	19'2"	6'	45.5"	45.5"	Mammal	Unknown	<1cm	None	3	
Trench 2		19'2"	19'2"	6'	45.5"	45.5"	Mammal	Unknown	1-2cm	None	2	
Trench 2	Shovel skimmed area in area of wedge	19'	21'		18"	25"	Large Terr. Mammal	Skull Fragment	2-5cm	None	1	
Trench 2	Rocky soil beneath the wedge southeast of the remains	20.5'	20.5'	38"	36.5"	36.5"	Mammal	Unknown	1-2cm	None	1	
Trench 2	In vicinity of skull	22'	23.5'	0-3'	44"	44"	Horse or Cow	Tooth	2-5cm	None	1	decaying/fragile
Trench 2		23.5'	24'		39"	42"	Poss. Medium Terr. Mammal	Long Tab	1-2cm	Blackened	1	
Trench 2		24'	27'		37"	37"	Bird?	Unknown	2-5cm	Blackened	3	very fragile
Trench 2		27'	30'	0-3'	17"	24"	Large Terr. Mammal	pelvis fragments	2-5cm	None	3	
Trench 2	Buried A	27'	30'		17" BGS	24" BGS	Large Terr. Mammal	Unknown	2-5cm	None	1	1 rock deleted
Trench 2		27'	30'		24"	29"	Mammal	Unknown	1-2cm	None	1	
Trench 2		29'10"	30'7"	5'-6'	46"	46"	Small terr. Mammal	Possible Skull Fragment	2-5cm	None	1	Bag 2/2
Trench 2		30'	33'	0-3'	19"	26"	Small terr. Mammal	long bone fragment	1-2cm	None	1	Bag 2/2
Trench 2		32'	34'	0-3.5'	47"	47"	Possible cow	Molar fragment	2-5cm	None	1	extreme wear; one root present
Trench 2		32'	34'	3'-6'	44"	44"	Small terr. Mammal	long bone fragment	2-5cm	Calcined/white	1	Bag 2/2
Trench 2		33'	37'	3'-6'	32"	38"	Poss. Small terr. Mammal	unknown	1-2cm	Calcined/white	1	Bag 2/2
Trench 2		33'	37'	3'-6'	42"	42"	Poss. Large Terr. Mammal	Long Bone	2-5cm	None	1	Bag 2/2
Trench 2		33'	37'	3'-6'	42"	42"	Poss. Large Terr. Mammal		5-10cm	None	1	Bag 2/2
Trench 2	"giraffe" soils under dark layer	34'	37'	3'-6'	44"	53"	Small terr. Mammal	Long Bone; medial half	2-5cm	None	1	very fragile
Trench 2		36'	36'	52"	42"	42"	Mammal	long bone fragment	<1cm	None	1	

Trench	Provenience	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Animal Type	Bone Type	Fragment Size	Burn/Cut Marks	Count	Comments
Trench 2	Buried A			in East Wall			Mammal	Skull Fragment	2-5cm	None	1	
Trench 2					36"	36"	Large Terr. Mammal	Right cheek bone	5-10cm	None	1	
Trench 2					36"	36"	Large Terr. Mammal	Left orbit	>10cm	None	1	
Trench 2	Screened soils from floor clean-up				42" BGS	42" BGS	Large Terr. Mammal	Possible Skull Fragment	1-2cm	None	6	
Trench 2	Unit 2-2, Level 3				40" BGS	45" BGS	Small terr. Mammal	long bone fragment	1-2cm	Calcined/white	1	
Trench 2	Bone Pocket (near animal skull)						Mammal	Skull Fragment	<1cm	None	13	
Trench 2	In situ bone deposit						Unknown	Skull Fragment	1-2cm	None	1	
Trench 2	Detached from animal skull during hand cleaning						Large Terr. Mammal	Skull Fragment	1-2cm	None	10	
Trench 2	Bone Pocket (near animal skull)						Mammal	Skull Fragment	1-2cm	None	12	
Trench 2	In situ bone deposit						Poss. Medium Terr. Mammal	Skull Fragment	2-5cm	None	1	
Trench 2	Floor cleaning						Poss. Large Terr. Mammal	Possible Skull Fragment	2-5cm	None	1	
Trench 2	Animal bone deposit, recovered during floor cleaning						Small terr. Mammal	Possible Skull Fragment	2-5cm	None	1	
Trench 2	Detached from animal skull during hand cleaning						Large Terr. Mammal	Skull Fragment	2-5cm	None	4	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Skull Fragment	2-5cm	None	1	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Skull Fragment	2-5cm	None	3	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Nasal fragment	2-5cm	None	1	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Possible Long Bone	2-5cm	None	1	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Skull Fragment	5-10cm	None	1	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Nasal fragment	5-10cm	None	1	
Trench 2	Bone Pocket (near animal skull)						Large Terr. Mammal	Partial left orbital	5-10cm	None	1	
Notes:												
Sources:												

Appendix D: Trench 2 Human Remains Catalog

Appendix D: Trench 2 Human Remains Catalog

Trench	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Skeletal Category	Bone Type	Part	Side	Ancestry	Gender	Confirmed to be Human	Size	Count*	Comments
2	21'3"	21'3"	2.5"	32"	32"	Axial (Skull)	Cranium	Nearly complete; includes teeth 2, 3, 11, 12, and 15.	n/a	African	Female	Yes		1	Very fragile; nearly complete *in situ*, however, the facial bones were severely crushed and became disarticulated after removal/examination
2	30'9"	30'9"	1'8"	44.5"	44.5"	Axial (Torso)	Rib	Proximal end	Left			Yes		1	
2	32	32	3'7"	51"	51"	Appendicular (Long Bone)	Unidentified						3.7cm length	1	
2	35'6"	35'6"	4'6"-4'11"	51"	51"	Appendicular (Long Bone)	Radius	mid-shaft				Yes	10.1cm length	1	
2	33'3"	33'8"	0-2"	47"	47"	Appendicular (Long Bone)	Femur	Head/epiphysis			Male	Yes	49mm diameter	1	Fragments of associated femur may extend into west wall of Trench 2
2	31'3"	32	0-1'	46"	57"	Appendicular (Long Bone)	Fibula	head				Yes		1	"Cluster of Bone #3.1"
2	27	30		39"	43.5"	Appendicular (Ankle/Foot Bone)	Talus (ankle bone)	body and capitulum	right			Yes		1	
2	27	30		39"	43.5"	Axial (Skull)	Mandibular Molar					Yes		1	
2	27	30		39"	43.5"	Axial (Skull)	Maxillary Molar					Yes		1	
2	27	30		39"	43.5"	Unidentified	Unidentified							2	
2	29'10"	31'10"	3'-4'3"	44"	51"	Axial (Skull)	Possible Human Tooth	Root and partial enamel						4	
2	27	27	4'2"	44"	44"	Appendicular (Long Bone)	Possible leg bone							~7	Very fragmented
2	29.5'	29.5'	14"	41"	41"	Axial (Torso)	Rib					Possibly		1	Broken fragment
2	31'3"	32	0-1'	46"	51"	Unidentified	Unidentified							1	"Cluster of Bone #3.2"
2	31'6"	31'11"	2'9"-2'11"	51.5"	51.5"	Axial (Torso)	Third Rib		Left			Yes		1	

Trench	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Skeletal Category	Bone Type	Part	Side	Ancestry	Gender	Confirmed to be Human	Size	Count*	Comments
2	30'4"	30'4"	5'	47"	47"	Unidentified	Unidentified							Many	
2	33'3"	33'8"	6"-8"	47"	47"	Appendicular (Hand or Foot)	Phalange							1	
2	30'6"	30'9"	10"-15"	44.5"	44.5"	Appendicular (Long Bone)	Possible Fibula					Yes	6.1cm length	1	
2	30'6"	30'9"	10"-15"	44.5"	44.5"	Appendicular (Long Bone)	Possible Fibula					Yes	7.3cm length	1	
2	31'3"	32	0-1'	46"	51"	Appendicular (Long Bone)	Unidentified ulna/radius or fibula	mid-shaft				Yes	12.3cm length	2	"Cluster of Bone #1"
2	31'3"	32	0-1'	46"	51"	Axial (Spine)	Upper Lumbar Vertebra (possibly L1)					Yes		1	"Cluster of Bone #8"
2	27.5	27.5	4'9"-6'	47"	47"	Appendicular (Long Bone)	Probable Ulna	mid-shaft				Yes	11.9cm	3	
2	27	30		45"	45"	Axial (Skull)	Cranium					Possibly	Largest is 42.2x31.2mm length	4	Mend, but very fragile
2	21	21	3.5'	42"	42"	Unidentified	Unidentified							Fragments	
2	31'3"	32	0-1'	46"	51"	Axial (Torso)	Possible Rib					Yes		1	"Cluster of Bone #7"
2	31'3"	32	0-1'	46"	51"	Appendicular (Long Bone)	Tibia	Shaft	Right			Yes		1	"Cluster of Bone #3"; Has evidence of trauma or disease (slight medial bowing with regions of sclerotic/woven bone on the medial surface)
2	31'3"	32	0-1'	46"	51"	Appendicular (Long Bone)	Humerus	Distal 2/3	right			Yes	23.8cm length	1	"Cluster of Bone #2"
2	31'3"	32	0-1'	46"	51"	Appendicular (Long Bone)	Tibia	shaft	Left			Yes	33cm length	1	"Cluster of Bone #5"
2	33'3"	33'8"	0-2"	47"	47"	Appendicular (Long Bone)	Femur	Shaft	Left		Male	Yes	21.1cm length	1	
2	20'7"	21'10"	5'4"	41.5"	41.5"	Appendicular (Long Bone)	Possible Humerus							1	
2	36'7"	36'7"	4'2"	41"	41"									1	Soil sample/Bone dust
2	24'3"	25	2'7"-3'11"	42"	55"	Appendicular (Long Bone)	Femur	Distal shaft with partial condyles	right			Yes	15.3cm length	3	"Group of Fragments #1"
2	24'3"	25	2'7"-3'11"	42"	55"	Appendicular (Long Bone)	Femur	mid-shaft					18cm length	5	"Group of Fragments #2"

Trench	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Skeletal Category	Bone Type	Part	Side	Ancestry	Gender	Confirmed to be Human	Size	Count*	Comments
2	34'6"	34'6"	2'7"-3'4"	53"	53"	Appendicular (Long Bone)	Tibia	Shaft	Left			Yes	25.6cm length	1	
2	34'6"	34'6"	2'7"-3'4"	53"	53"	Unidentified	Unidentified							Many	
2	24'6"	24'6"	6'	53"	53"	Appendicular (Long Bone)	Tibia	mid-shaft					17cm length	1	
2	27'8"	27'8"	6"	47"	47"	Appendicular (Pelvis)	Ilium	includes acetabulum and adjacent ala	Left			Yes	17cm length	1	small; features several breaks along the edge
2	30'6"	30'6"	Against Wall	42.5"	42.5"	Appendicular (Long Bone)	Unidentified							1	
2	24'3"	25	2'7"-3'11"	42"	55"	Appendicular (Long Bone)	Femur	Proximal third to half, including femoral head	right		Female	Yes	28cm length; Head diameter: 39mm	2	"Group of Fragments #3"
2	24'3"	25	2'7"-3'11"	42"	55"	Appendicular (Long Bone)	Femur	Proximal quarter with femoral head and lesser trochanter (greater trochanter is missing)	left		Female	Yes	11.8cm length; Head diameter: 40mm	1	"Group of Fragments #4"
2	22'8"	22'8"	1'10"	38"	38"	Unidentified	Tibia	Proximal half	Unknown			Yes		1	Beneath north end of possible tibial plateau
2	24'3"	25'	2'7"-3'11"	42"	55"	Appendicular (Long Bone)	Tibia	mid-shaft					18.8cm length	1	"Group of Fragments #5"
2	22'2"	22'8"	13"-21"	36.5"	36.5"	Appendicular (Long Bone)	Humerus	shaft with fragmentary ends (head and distal articulation missing)	Right			Yes	27.4cm length	2	
2	22'	22'11"	1'11"	35"	37.5"	Appendicular (Long Bone)	Tibia	Shaft and plateau	Right			Yes	30.7cm length	1	
2	26'8"	27'10"	4'-5'	46"	52"	Appendicular (Foot Bone)	Possible foot						4cm length	1	
2	22'3"	22'3"	2'2"	40"	40"	Axial (Torso)	Possible Rib							1	
2	31	31	40"	35"	35"	Appendicular (Foot Bone)	Possible Carpal or Head of scapula?							1	
2	29'7"	29'7"	22"	41"	41"	Unidentified	Unidentified							1	Fragments/bone dust collected during removal of larger bones

Trench	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Skeletal Category	Bone Type	Part	Side	Ancestry	Gender	Confirmed to be Human	Size	Count*	Comments
2	28'8"	28'8"	19"	37"	37"	Unidentified	Unidentified					No		1	Dust and small fragment From near the tibial plateau/intact cranium
2	22	22	19"	35.5"	35.5"	Appendicular (Long Bone)	Tibia	Distal				Possibly	55mm length	1	Very Fragile; recovered within the "group of fragments"
2	22	22	19"	35.5"	35.5"	Unidentified	Unidentified							5	"recovered within the "group of fragments"
2	21'3"	21'3"	2.5"	32"	32"	Axial (Torso)	Rib					Possibly	43mm length	1	
2	30	32	4'-6'	46"	53"	Appendicular (Long Bone)	Fibula	Mid-shaft and shaft				Yes	Longest fragment is 14.2cm length	4	
2	17	20		38"	38"	Unidentified	Unidentified						26.6x17.2mm length 27.1x21.5mm 30x21mm	3	
2	27.5	27.5	4'5"-6'	49"	49"	Axial (Skull)	Cranium					Yes	15 by 24mm length	1	
2	27.5	27.5	4'5"-6'	49"	49"	Axial (Skull)	Cranium					Yes	19 by 30mm length	1	
2	31'3"	32	0-1'	46"	51"	Appendicular (Long Bone)	Long Bone (Ulna/radius or fibula)	shaft					4.8cm length	1	"Cluster of Bone #1.5"
2	28'8"	28'8"	21"	42"	42"	Axial (Skull)	Cranium					Possibly	54x41mm length	1	
2	34'	34'8"	0-6.5"	50"	54"	Axial (Spine)	Vertebra with Possible Phalanges							Many	In poor condition
2	31'3"	32	0-1'	46"	51"	Appendicular (Shoulder)	Scapula	Glenoid fossa; coracoid process; base of acromion process, and portion of axial/lateral border	Left			Yes		1	"Cluster of Bone #4"
2	30'5"	30'5"	5'5"	43.5"	43.5"	Appendicular (Hand Bone)	Hamate (hand bone)		Left			Yes		1	
2	22'	22'	20-22"	37"	37"	Appendicular (Long Bone)	Humerus	Shaft				Probably	59.4mm length	1	
2	20'2"	20'2"	2.5""	32"	32"	Appendicular (Long Bone)	Long Bone					Possibly	57.5mm length	1	very fragile

Trench	North Coordinate (South)	North Coordinate (North)	Distance East of West Wall	Opening Depth (Below Datum)	Closing Depth (Below Datum)	Skeletal Category	Bone Type	Part	Side	Ancestry	Gender	Confirmed to be Human	Size	Count*	Comments
2	24'3"	25	2'7"-3'11"	42"	55"	Appendicular (Long Bone)	Long Bone							5	Very fragmented/fragile; recovered during cleaning
2	24	27	0-3'	35"	35"	Appendicular (Long Bone)	Possible Long Bone					Possibly		7	
2	22'8"	23	20"	38"	38"	Unidentified	Unidentified							2	extremely small bone fragments; found near tibia
2	29	29	14"	44"	44"	Axial (Skull)	Cranium	Temporal (petrous portion and external auditory meatus)				Yes		1	
2	29	29	14"	44"	44"	Unidentified	Unidentified							4	
2	24	27	4'-5'	42"	48"	Axial (Torso) and Unidentified	Possible Rib and Unidentified							5	Small fragments
2	33'10"	33'10"	0-7"	49"	49"	Appendicular (Hand Bone)	Proximal Thumb Phalange					Yes		1	
2	33'10"	33'10"	0-7"	49"	49"	Appendicular (Hand Bone)	Proximal Third Finger Phalange					Yes		1	
2	33'10"	33'10"	0-7"	49"	49"	Appendicular (Hand Bone)	Possible Hand Phalange							Many	
2	31'3"	32	0-1'	46"	51"	Appendicular (Long Bone)	Humerus	head and shaft, broken at distal end	Left		Likely Male	Yes	34cm length	1	"Cluster of Bone #6"
2	Soil Sample/Bone dust collected during clearing of human remains													1	

Notes: *The counts for each bone fragment are considered to be approximate. Due to the poor preservation of the human remains recovered from Trench 2, while some bones were in one piece in *situ*, upon their removal, they were fragmented.

Sources: See **Appendix E** for the forensic anthropology letter reports prepared by Dr. Vincent H. Stefan.

Appendix E Consulting Forensic Anthropologist Letter Reports

LEHMAN COLLEGE

DEPARTMENT OF ANTHROPOLOGY

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Bronx, NY 10468

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August 23, 2015

Michael Pappalardo
AKRF
Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

Re: 126th Street Bus Depot Block 1803, Lot 1, East Harlem, New York, NY

Dear Mr. Pappalardo:

On August 20, 2015, I was notified that fragmentary skeletal remains had been uncovered at the 126th Street Bus Depot site, and it was requested I come to the site to confirm the assessment of the remains as being human. The remains were excavated from the central area of Trench 2, at a depth of approximately 4 feet. On August 21, 2015, I conducted an examination of the items recovered and confirmed that they were skeletal in nature. The remains were very fragmentary in nature and very fragile. The surfaces of the bones were brown in coloration due to soil staining, and it was evident the bones had been damaged/fractured prior to recovery due the soil stained fracture margins of the fragments. The fragments ranged in size, with five fragments being moderately sized (largest - ~66mm x 55mm; smallest - ~41mm x 19mm) and nine being relatively small (34mm x 17mm – 14mm x 19mm). The remaining fragments were all very small in size.

Careful examination of the fragments revealed no features or morphology consistent with the skeletal remains being human. Based on the morphology of these fragments, it was concluded that there was a very high probability that the skeletal remains recovered from Trench 2 are **'not human'** and are likely from some other mammalian source.

Please contact me at if you have any questions regarding this report.

Sincerely,

Vincent H. Stefan, Ph.D., DABFA
Forensic Anthropologist/Investigator

Phone: (718) 960-7728 (office)
(914) 396-6966 (cell)

CUNY

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August 25, 2015

Michael Pappalardo
AKRF
Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

Re: 126th Street Bus Depot Block 1803, Lot 1, East Harlem, New York, NY

Dear Mr. Pappalardo:

On August 25, 2015, I was monitoring excavation at the 126th Street Bus Depot site, when skeletal remains were uncovered in Trench 2 that appeared to be cranial. Upon exposure, I conducted additional removal of dirt and exposed sufficient morphology of the cranium to determine that the cranium is **'human'**. The cranium is sitting upright, though slightly leaning to the right, exposing the left parietal, left temporal, portions of the left zygomatic arch and orbit. The cranium is facing in a northerly direction. On the left parietal there appears to be evidence of some type of blunt force trauma due to the presence of a defect, though it cannot be determined at this time whether the trauma was perimortem or postmortem. Further excavation uncovered what appears to be a long bone, and if human is likely a humerus.

At this time there has been insufficient exposure to determine if this is a complete skeleton or just partial human remains. Additionally, it cannot be determined at this time if the burial is a primary, secondary or natural burial. No specifics of age, sex, ancestry, or trauma can be determined until such time as the cranium is removed from its in situ position.

Please contact me at if you have any questions regarding this report.

Sincerely,

Vincent H. Stefan, Ph.D., DABFA
Forensic Anthropologist/Investigator

Phone: (718) 960-7728 (office)
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September 7, 2015

Michael Pappalardo
AKRF
Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

Re: 126th Street Bus Depot Block 1803, Lot 1, East Harlem, New York, NY

Dear Mr. Pappalardo:

On September 3, 2015, I was monitoring excavation at the 126th Street Bus Depot site, as well as examining skeletal remains that had been excavated from Trench #2. Below is a description of the various items that were recovered during the period of September 1st – 3rd.

N 21'3" E 2.5", 32" Below Datum (BD)
A nearly complete human cranium, with the following teeth: tooth #2, 3, 11, 12 and possibly 15. A root of a premolar/molar was also recovered from the dirt inside the cranium. The cranium was from an adult individual due to the presence of a completely fused basioccipital sychondrosis. The individual appears to be 'female', due to following features: sharp superior orbital margins, slightly prominent superior orbital torus and suprameatal crest, moderate mastoid processes, and very slight nuchal crest (Bass, 2005; Buikstra and Ubelaker, 1994). The individual's ancestry/race appears to be 'African', due to the following observed features: rectangular shaped orbits, dull/guttered nasal sill, alveolar prognathism, hyperbolic dental arcade, bulging palatine suture, stepped mastoid processes, simple cranial sutures and long low cranial shape (Rhine, 1990).

Craniofacial measurements were obtained (Enclosure 1) and FORDISC 3.1 analysis of these data resulted in a 91.1% posterior probability classification of Native American (53.3% typicality probability), a 2.5% posterior probability classification of Hispanic (10.1% typicality probability), and a 1.9% posterior probability classification of African American/Black (4.2% typicality probability) when the discriminant function was run with Caucasian, African American/Black, Hispanic and American Indian female samples (Enclosure 2) (Jantz and Ousley, 2005).

Due to the differing assessments based on anthroposcopic and metric evaluations, the ancestry of this individual is inconclusive. However, based on the morphological features observed, I believe the cranium is possibly from an adult, female of African ancestry.

N 17'-20', 38" BD
Three unidentifiable bone fragments (25.6 x 17.2mm, 27.1 x 21.5mm, 30.0 x 21.0mm).

N 20'2" E 2.5", 32" BD
One unidentifiable bone fragment, 57.5mm.

N 21’3” E 2.5”, 32” BD
Possible human rib fragment, 43mm.

N 22’ – 22’11” E 1’ 11’, 35-37.5” BD
Human right tibia shaft and plateau, 30.7cm.

N 22’ E 1’7”, 35.5” BD
Possible human distal tibia fragment, 55mm.

N 22’ E 20-22”, 37” BD
Probable human humeral shaft fragment, 59.4mm.

N 22’2” – 21’18” E 13-21”
Human right humerus (2 shaft fragments), 27.4cm. Missing head and distal articulation.

N 24-27’ West edge of trench
Seven (7) miscellaneous, unidentifiable bone fragments.

N 27-30’, 39-43.4” BD
Capitulum and body of human right talus.
One human mandibular and maxillary molar.
Two miscellaneous, unidentifiable bone fragments.

N 27’8” D 6”, 47” BD
Partial human, left ilium (portion of acetabulum and adjacent ala).

N 27-30’, 45” BD
Four (4), possibly human cranial fragments. (Largest: 42.2 x 31.2mm)

N 28’8” E 21”, 42” BD
Possible human cranial fragment, 54 x 41mm.

N 29’ E 14”, 44” BD
Portion of human right temporal (petrous portion, external auditory meatus)

N 29’6” E 14”, 4” BD
Possible human rib fragment.

The fragmentary nature of most of these remains prevented any detailed analysis. Please contact me at if you have any questions regarding this report.

Sincerely,

Vincent H. Stefan, Ph.D., DABFA
Forensic Anthropologist/Investigator

Phone: (718) 960-7728 (office)
(914) 396-6966 (cell)

References:

Bass WM. 2005. Human Osteology: A Laboratory and Field Manual of the Human Skeleton, 5th ed. Columbia, MO: Missouri Archaeology Society.

Buikstra JE, Ubelaker DH, editors. 1994. Standards For Data Collection From Human Skeletal Remains: Proceedings of a Seminar at The Field Museum of Natural History Organized by Jonathan Haas. Arkansas Archeological Survey Research Series. Fayetteville: Arkansas Archeological Survey.

Jantz RL, Ousley SD. 2005. *FORDISC 3: Computerized Forensic Discriminant Functions*. Knoxville: The University of Tennessee.

Rhine JS. 1990. Non-metric Skull Racing. In: Gill GW, Rhine JS, editors. Skeletal Attribution of Race: Methods for Forensic Anthropology. Maxwell Museum of Anthropology Anthropological Papers No. 4. Albuquerque: NM: Maxwell Museum of Anthropology. p 9-20.

Forensic Measurements

COLLECTION ID/CASE #: 126th St. Bus Depot **RECORDER:** Vincent H. Stefan **DATE:** 9/3/2015

----------CRANIAL MEASUREMENTS (Pages 52-60)----------

		Left	Right
1. MAXIMUM LENGTH (g-op):	181		
2. MAXIMUM BREADTH (eu-eu):	143		
3. BIZYGOMATIC BREADTH (zy-zy):	130		
4. BASION-BREGMA (ba-b):	122		
5. CRANIAL BASE LENGTH (ba-n):	89		
6. BASION-PROSTHION L. (ba-pr):	–		
7. MAX.-ALVEOLAR BR. (ecm-ecm):	–		
8. MAX.-ALVEOLAR L. (pr-alv):	56		
9. BIAURICULAR BREADTH (AUB):	125		
10. UPPER FACIAL HGT. (n-pr):	–		
11. MIN. FRONTAL BR. (ft-ft):	96		
12. UPPER FACIAL BR. (fmt-fmt):	106		
13. NASAL HEIGHT (n-ns):	–		
14. NASAL BREADTH (al-al):	26		
15. ORBITAL BREADTH (d-ec):	42		
16. ORBITAL HEIGHT (OBH):	35		
17. BIORBITAL BR. (ec-ec):	100		
18. INTERORBITAL BR. (d-d):	27		
19. FRONTAL CHORD (n-b):	108		
20. PARIETAL CHORD (b-1):	109		
21. OCCIPITAL CHORD (l-o):	94		
22. FORAMEN MAGNUM L. (ba-o):	–		
23. FORAMEN MAGNUM BR (FOB):	30		
24. MASTOID LENGTH (MDH):	-		
*25. BIASTERION BREADTH (ASB):	108		
*26. ZYGOMAXILLARY BREADTH (ZMB):	-		
*27. MID-ORBITAL WIDTH (MOW):	-		

*** New additions**

----------MANDIBULAR MEASUREMENTS (Pages 61-63)----------

	Left	Right
28. CHIN HEIGHT (gn-id):		
29. BODY HEIGHT at MENTAL FOR:		
30. BODY THICKNESS at M. FOR:		
31. BIGONIAL DIAMETER (go-go):		
32. BICONDYLAR BR. (cdl-cdl):		
33. MIN. RAMUS BREADTH:		
34. MAX. RAMUS HEIGHT: *		
35. MAND. LENGTH: *		
36. MAND. ANGLE: *		

***Record only if mandibulometer is used.**

----------POSTCRANIAL MEASUREMENTS (Pages 64-76)----------

CLAVICLE: Epiph. P/A:	Left	Right
37. MAXIMUM LENGTH:		
38. SAGITTAL DIAM. at MIDSH:		
39. VERTICAL DIAM. at MIDSH:		

SCAPULA: Epiph. P/A:	Left	Right
40. HEIGHT:		
41. BREADTH:		

HUMERUS: Epiph. P/A:	Left	Right
42. MAXIMUM LENGTH:		
43. EPICONDYLAR BREADTH:		
44. MAX. VERT. DIAM. of HEAD:		
45. MAX. DIAM. at MIDSHAFT:		
46. MIN. DIAM. at MIDSHAFT:		

RADIUS: Epiph. P/A:	Left	Right
47. MAXIMUM LENGTH:		
48. SAGITTAL DIAM. at MIDSH:		
49. TRANSV. DIAM. at MIDSH:		

ULNA: Epiph. P/A:	Left	Right
50. MAXIMUM LENGTH:		
51. DORSO-VOLAR DIAMETER:		
52. TRANSVERSE DIAMETER:		
53. PHYSIOLOGICAL LENGTH:		
54. MIN. CIRCUMFERENCE:		

SACRUM: No. Segments:	
55. ANTERIOR HEIGHT:	
56. ANTERIOR SURFACE BREADTH:	
57. MAX. BREADTH (S-1)	

INNOMINATE: Epiph. P/A:	Left	Right
58. HEIGHT:		
59. ILIAC BREADTH:		
60. PUBIS LENGTH:		
61. ISCHIUM LENGTH:		

FEMUR: Epiph. P/A:	Left	Right
62. MAXIMUM LENGTH:		
63. BICONDYLAR LENGTH:		
64. EPICONDYLAR BREADTH:		
65. MAX. DIAM. of HEAD:		
66. A-P SUBTROCH. DIAMETER:		
67. TRANSV. SUBTROCH. DIAM:		
68. A-P DIAM. MIDSH:		
69. TRANVS. DIAM. MIDSH:		
70. CIRCUMFERENCE MIDSH:		

TIBIA: Epiph. P/A:	Left	Right
71. CONDYLO-MALLEOLAR LEN:		
72. MAX. PROX. EPIPH. BR:		
73. MAX. DIST. EPIPH. BR:		
74. MAX. DIAM. NUTRIENT FOR:		
75. TRANSV. DIAM. NUTR. FOR:		
76. CIRCUM. AT NUTR. FOR:		

FIBULA: Epiph. P/A:	Left	Right
77. MAXIMUM LENGTH:		
78. MAX. DIAM. at MIDSHAFT:		

CALCANEUS: Epiph. P/A:	Left	Right
79. MAXIMUM LENGTH:		
80. MIDDLE BREADTH:		

FORDISC 3.1 Analysis of 126th St. Bus Depot

Using cranial data file version 1.20
DF results using 14 measurements:
AUB BBH BNL FRC GOL MAB NLB OBB OBH OCC
PAC WFB XCB ZYB
measurements removed: UFBR EKB DKB FOL MDH

From Group	Total Number	Into Group AF	BF	HF	JF	WF	Percent Correct
AF	29	23	1	4	0	1	79.3 %
BF	73	2	47	13	3	8	64.4 %
HF	49	3	6	32	1	7	65.3 %
JF	61	1	2	0	57	1	93.4 %
WF	190	4	16	13	0	157	82.6 %

Total Correct: 316 out of 402 (78.6 %) *** CROSSVALIDATED ***

Multigroup Classification of 126th St. Bus Depot

Group	Classified into	Distance from	Probabilities Posterior	Typ F	Typ Chi	Typ R
AF	**AF**	24.2	0.911	0.533	**0.043**	0.100 (28/30)
WF		30.2	0.046	**0.018**	0.007	**0.026 (187/191)**
HF		31.4	0.025	0.101	**0.005**	0.060 (48/50)
BF		32.0	0.019	**0.042**	**0.004**	**0.014 (74/74)**
JF		44.5	0.000	**0.007**	**0.000**	**0.016 (62/62)**

126th St. Bus Depot is closest to AFs

126th St. Bus Depot	Chk		Group Means AF 29	BF 73	HF 49	JF 61	WF 190
AUB	125		126.0	115.5	119.1	112.0	116.8
BBH	122	--	129.8	131.3	131.8	132.4	134.3
BNL	89	--	100.0	98.4	95.7	95.3	99.2
FRC	108		107.9	107.9	106.7	107.0	109.5
GOL	181	+	177.4	178.1	170.9	171.7	177.7
MAB	56	-	62.8	62.5	62.6	61.6	57.9
NLB	26	+	25.3	25.0	23.9	24.8	22.4
OBB	42	+	40.8	38.5	38.8	38.1	39.3
OBH	35		35.0	34.5	35.6	33.8	33.2
OCC	94	-	94.1	97.1	95.7	96.7	97.9
PAC	109		107.6	112.8	108.3	108.7	112.8
WFB	96	+	91.8	93.1	92.4	90.2	93.8
XCB	143	+	137.4	132.6	135.4	136.3	135.6
ZYB	130		131.9	121.8	123.7	125.5	120.6

+/- measurement deviates higher/lower than all group means; ++/-- deviates one to two STDEVs
+++/--- deviates two to three STDEVs; ++++/---- deviates at least three STDEVs

Natural Log of VCVM Determinant = 33.2741

LEHMAN COLLEGE

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September 8, 2015

Michael Pappalardo
AKRF
Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

Re: 126th Street Bus Depot Block 1803, Lot 1, East Harlem, New York, NY

Dear Mr. Pappalardo:

On September 8, 2015, I was monitoring excavation at the 126th Street Bus Depot site, as well as examining skeletal remains that had been excavated from Trench #2. Below is a description of the various items that were recovered during the period of September 4th.

N 21'3" E 2.5", 32" Below Datum (BD)
Bag #1: Distal right femur shaft, with partial condyles. Approximately 15.3cm in length.

Bag #2: Femur mid-shaft fragment, approximately 18cm in length.

Bag #3: Proximal ⅓ – ½, right femur, with head, comprised of two fragments. Approximately 28cm in length. Maximum femoral head diameter: 39mm. The maximum femoral head diameter is consistent with the femur coming from a female individual (Bass, 2005; Buikstra and Ubelaker, 1994).

Bag #4: Proximal ¼, left femur, with head and lesser trochanter, missing greater trochanter. Approximately 11.8cm. Maximum femoral head diameter: 40mm. The maximum femoral head diameter is consistent with the femur coming from a female individual (Bass, 2005; Buikstra and Ubelaker, 1994).

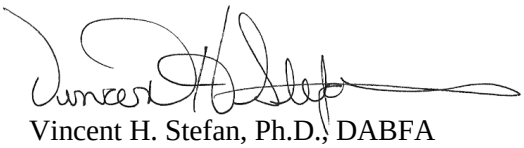
Bag #5: Tibia mid-shaft fragment, unable to determine side. Approximately 18.8cm in length.

N 24-27" E 0-6', 3.5-4' BD
Miscellaneous, unidentifiable bone fragments.

The fragmentary nature of most of these remains prevented any further detailed analysis. Please contact me at if you have any questions regarding this report.

CUNY

Sincerely,



Vincent H. Stefan, Ph.D., DABFA
Forensic Anthropologist/Investigator

Phone: (718) 960-7728 (office)
(914) 396-6966 (cell)

References:

Bass WM. 2005. Human Osteology: A Laboratory and Field Manual of the Human Skeleton, 5th ed. Columbia, MO: Missouri Archaeology Society.

Buikstra JE, Ubelaker DH, editors. 1994. Standards For Data Collection From Human Skeletal Remains: Proceedings of a Seminar at The Field Museum of Natural History Organized by Jonathan Haas. Arkansas Archeological Survey Research Series. Fayetteville: Arkansas Archeological Survey.

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September 11, 2015

Michael Pappalardo
AKRF
Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

Re: 126th Street Bus Depot Block 1803, Lot 1, East Harlem, New York, NY

Dear Mr. Pappalardo:

On September 11, 2015, I was monitoring excavation at the 126th Street Bus Depot site, as well as examining skeletal remains that were still in situ from Trench #2. Below is a description of the various items that were exposed during the period of September 9th – 10th.

N 27' 8" E 4'11" – Cranial fragments
E 5'7" – Human radius shaft fragment.

N 30'6" E 1' – Human ulna/radius shaft fragment.
E 1'8" – Human rib fragment.
E 3'3" – Possible human glenoid fossa for a scapula.

N 33'10" E 6" – Two human, proximal hand phalanges: thumb and third finger. Fragments of a possible hand phalange was also present.

N 34' E 0" – Human femoral head epiphysis. Fragments of the associated femur may be present extending into wall of trench.

The fragmentary nature of most of these remains prevented any further detailed analysis, as well as the requirement to leave the remains in situ until and exhumation permit was obtained. Please contact me at if you have any questions regarding this report.

Sincerely,

Vincent H. Stefan, Ph.D., DABFA
Forensic Anthropologist/Investigator

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September 21, 2015

Michael Pappalardo
AKRF
Environmental and Planning Consultants
440 Park Avenue South
7th Floor
New York, NY 10016

Re: 126th Street Bus Depot Block 1803, Lot 1, East Harlem, New York, NY

Dear Mr. Pappalardo:

On September 17, 2015, I was monitoring excavation at the 126th Street Bus Depot site, as well as examining skeletal remains that had been excavated from Trench #2. Below is a description of the various items that were recovered during the period of September 9th – 17th.

N 21'4" E 3'6", 42" Below Datum (BD)
Miscellaneous bone fragments.

N 27.5' E4'5-6", 49" BD
Two cranial fragments: 19 x 30mm & 15 x 24mm.

N 27.5' E 4'9", 47" BD
11.9cm segment of probable ulna mid-shaft, in three pieces. (Human)

N 30'4" E 5', 47" BD
Unknown bone fragments.

N 30'5" E 5'5", 43.5" BD
Left hamate. (Human)

N 30'6-9" E 10-15", 44.5" BD
Possible fibula shaft fragments: 6.1cm & 7.3cm. (Human)

N 30'9" E 1'8", 44.5" BD
Left proximal rib fragment. (Human)

N 30-32' E 1-6", 46-53" BD
Fibula shaft fragment: 14.2cm. (Human)

CUNY

N 31’6-11” E 2’9-11”, 51.5” BD
Left 3rd rib. (Human)

N 31’3” – 32’ E 0-1’, 44” BD – Bone Cluster
Bag #1 – Mid-shaft of ulna/radius or fibula: 12.3cm. (Human)
Bag #1.5 – 4.8cm shaft fragment.

Bag #2 – Distal ⅔ of a right humerus: 23.8cm. (Human)

Bag #3 – Right tibia shaft: ~28.2cm. (Human) The shaft has slight medial bowing, with a regions of sclerotic/woven bone on the medial surface. This appears to be reactive bone as a result of trauma or disease.
Bag #3.1 – fragment of fibula head. (Human)
Bag #3.2 – Miscellaneous fragment.

Bag #4 – Left scapula (glenoid fossa, coracoid process, base of acromian process and portion of axial/lateral border). (Human).

Bag #5 – Left tibia shaft: ~33cm. (Human)

Bag #6 – Left humerus shaft: ~34cm. (Human, likely male)

Bag #7 – Possible rib fragment. (Human)

Bag #8 – Upper lumbar vertebra: possible L1. (Human)

N 32’ E 3’9”, 51” BD
Long bone fragment (3.7cm); possible glenoid fossa of scapula.

N 33’3-8” E 0-2”, 47” BD
Partial femoral head (49mm in diameter) and proximal femur shaft: 20.1cm. (Human, likely male) (Bass, 2005; Buikstra and Ubelaker, 1994)

N 33’3-8” E 1’8”, 44.5” BD
Two proximal had phalanges (thumb & index); fragments of a possible hand phalange.

N 34’6” E2’7” – 3’4”, 53” BD
Left tibia shaft: 25.6cm. (Human)

N 34’6” E 6’, 53” BD
Tibia mid-shaft fragment: 17.cm; possible radius head. (Human)

N 35’6” E 4’6-11”, 51” BD
Radius mid-shaft fragment: 10.1cm. (Human)

The fragmentary nature of most of these remains prevented any further detailed analysis. After a review of the skeletal material examined thus far, I estimate the minimum number of individuals (MNI) recovered from Trench 2 to be at least two (2), possibly more. Given the size and morphology of the skeletal remains recovered, at least one male and one female are represented. Please contact me at if you have any questions regarding this report.

Sincerely,

Vincent H. Stefan, Ph.D., DABFA
Forensic Anthropologist/Investigator

Phone: (718) 960-7728 (office)
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References:

Bass WM. 2005. Human Osteology: A Laboratory and Field Manual of the Human Skeleton, 5th ed. Columbia, MO: Missouri Archaeology Society.

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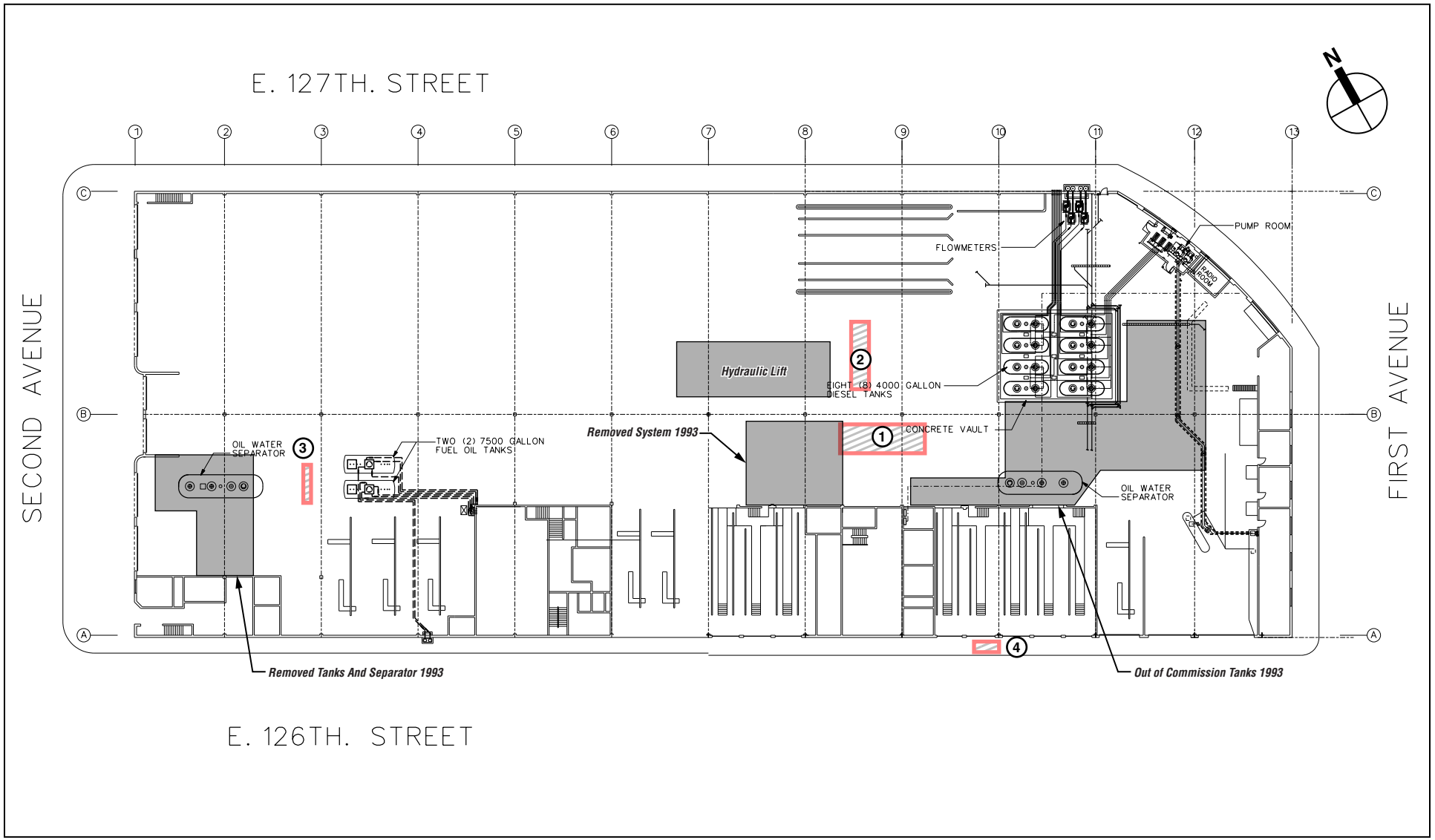
Figures

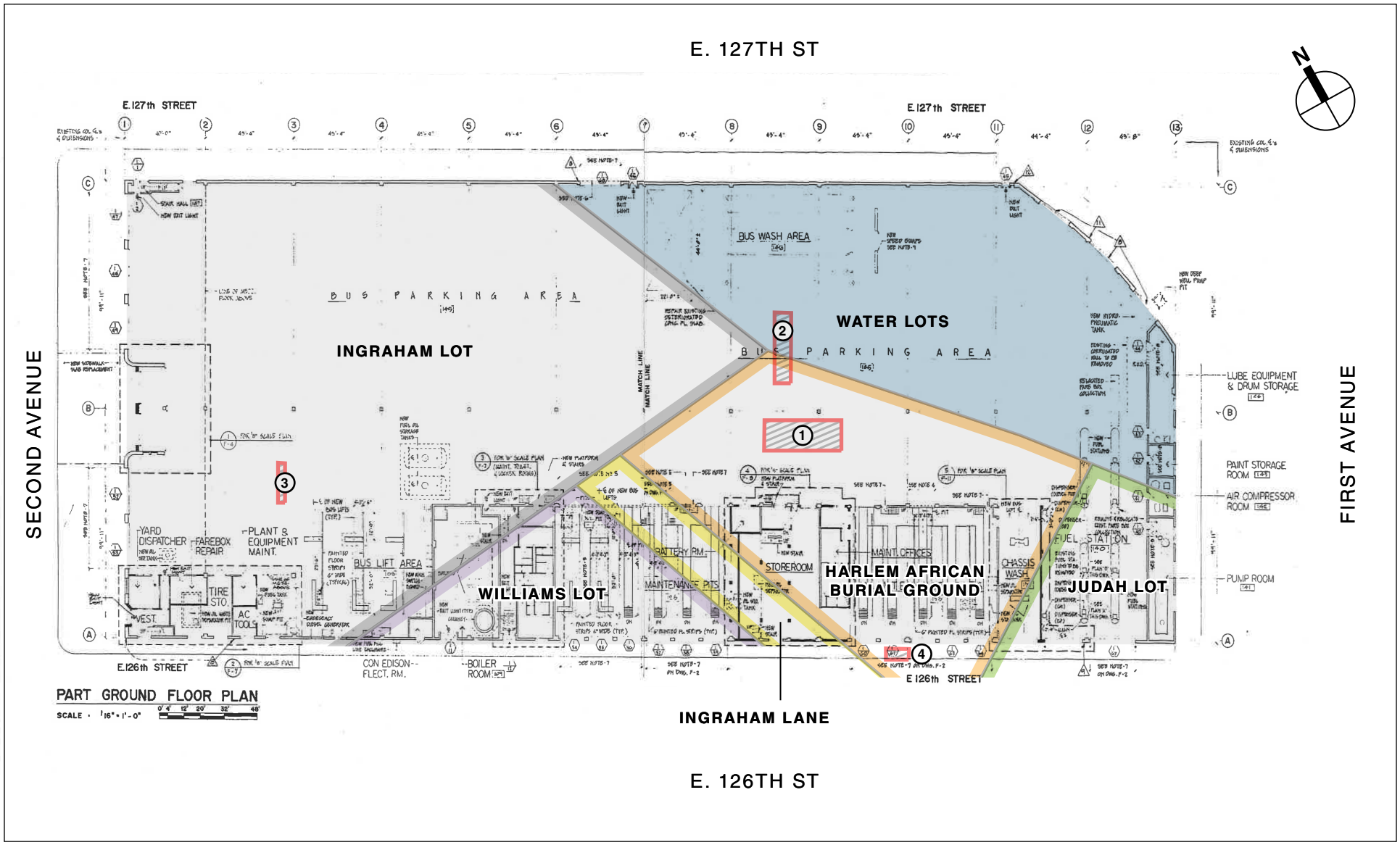
126TH STREET BUS DEPOT PHASE IB ARCHAEOLOGY

Project Location
Figure 1



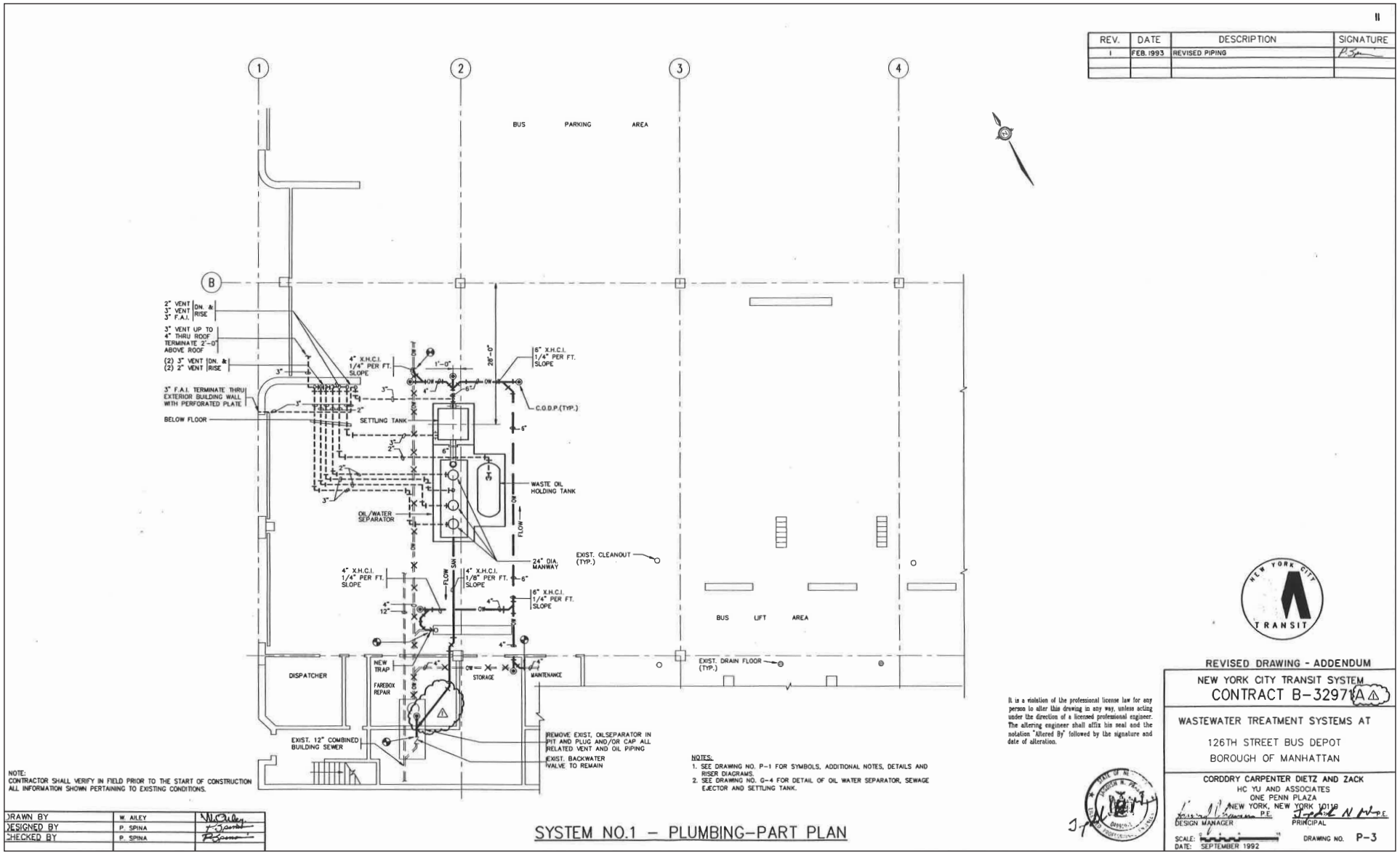
1 *Approximate Test Trench Location*

Current Oil/Water Separator System and Test Trench Locations



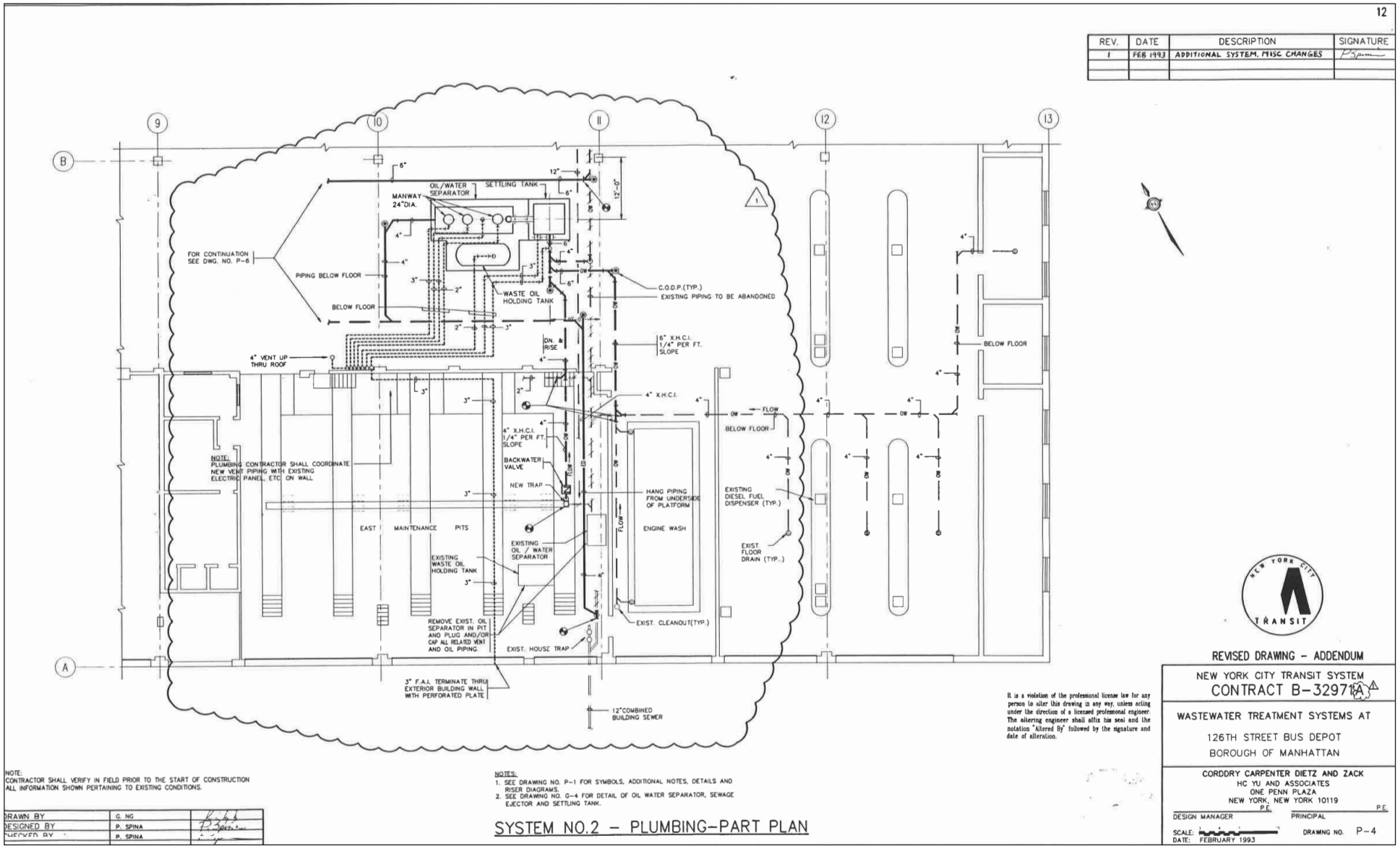
1 *Approximate Test Trench Location*

Areas of Archaeological Sensitivity
Figure 3



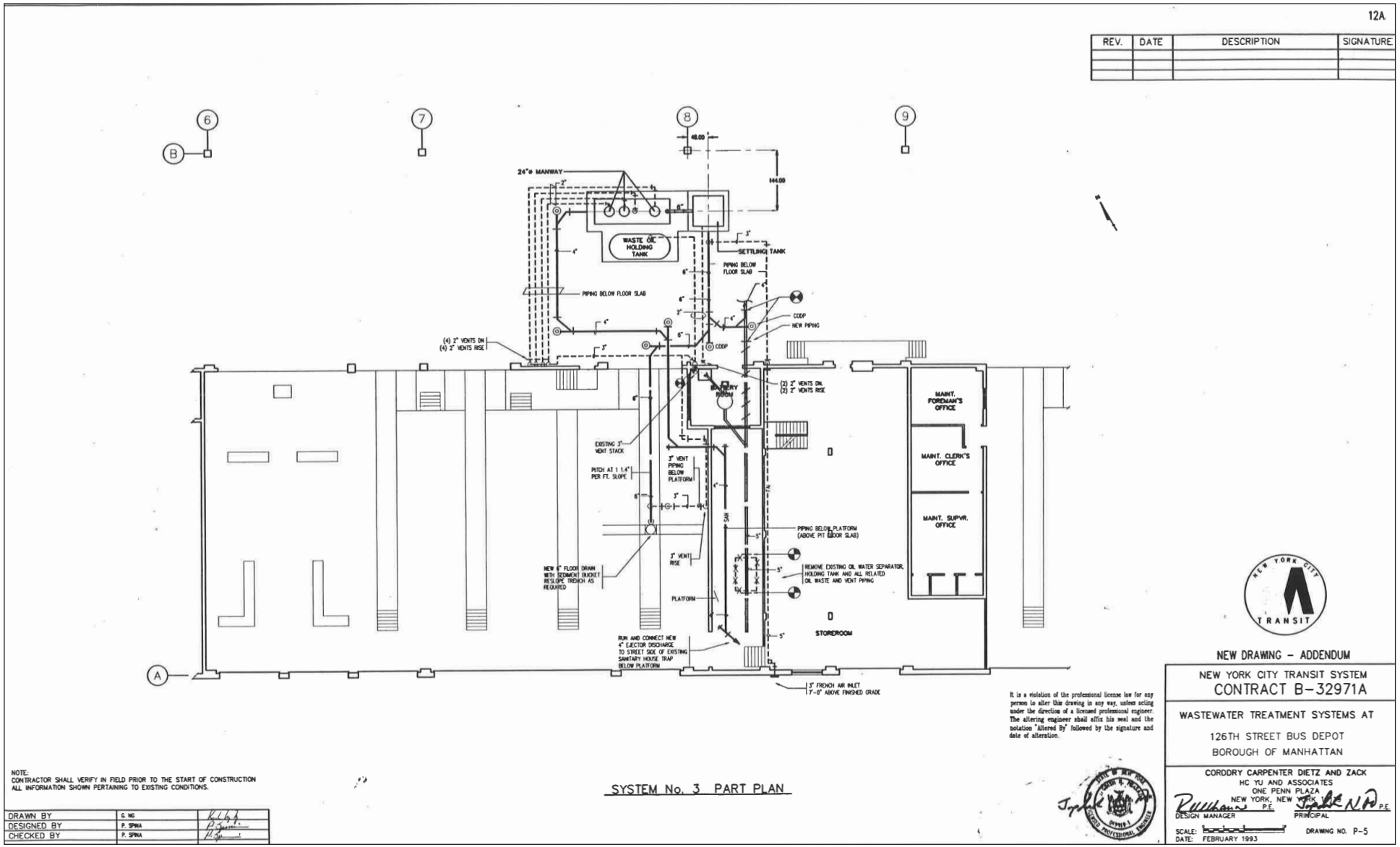
Previous Oil/Water Separator System

Figure 4a



Previous Oil/Water Separator System

Figure 4b

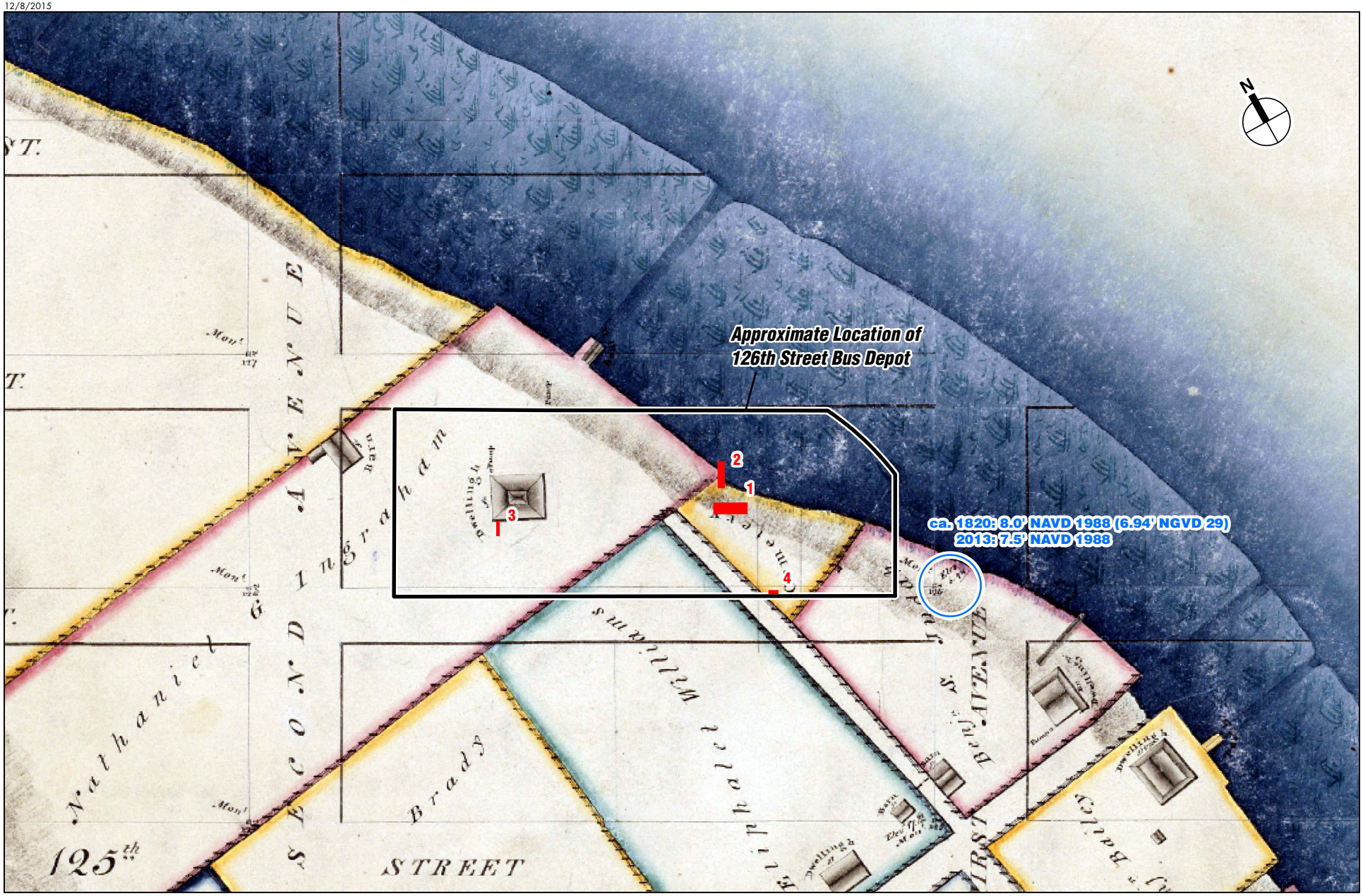


SYSTEM No. 3 PART PLAN

Previous Oil/Water Separator System

Figure 4c

12/8/2015



Elevations taken from Randel's Farm Map have no explicit datum reference other than the average between high and low tide water, Therefore it is assumed that this is approximately equivalent to mean sea level at Sandy Hook, NJ, or National Geodetic Vertical Datum of 1929 (NGVD 29). 2013 elevations were captured with LIDAR remote sensing technology and reference the standard North American Vertical Datum of 1988 (NAVD 88). To convert an elevation from NGVD 29 to NAVD 88, add 1.1'

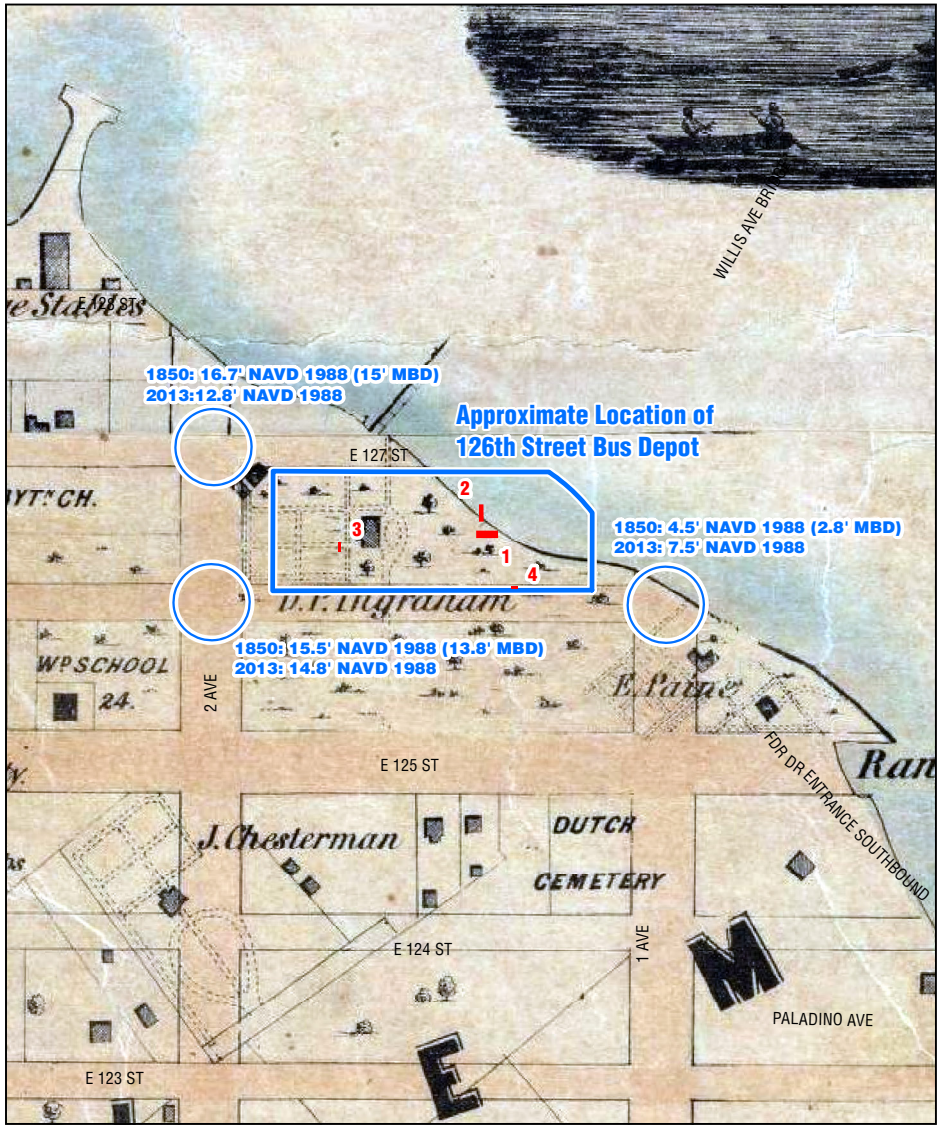
0 400 FEET

ca. 1820 Randel's Farm Map

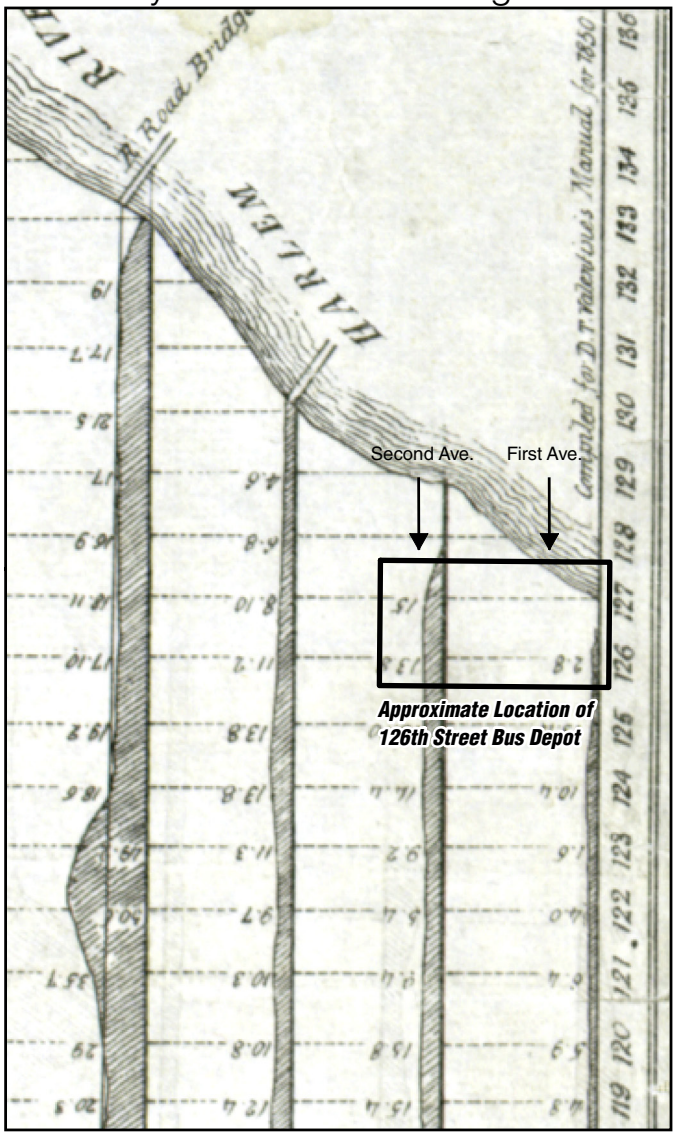
126TH STREET BUS DEPOT ARCHAEOLOGY

Figure 5

1851 Dripps Map



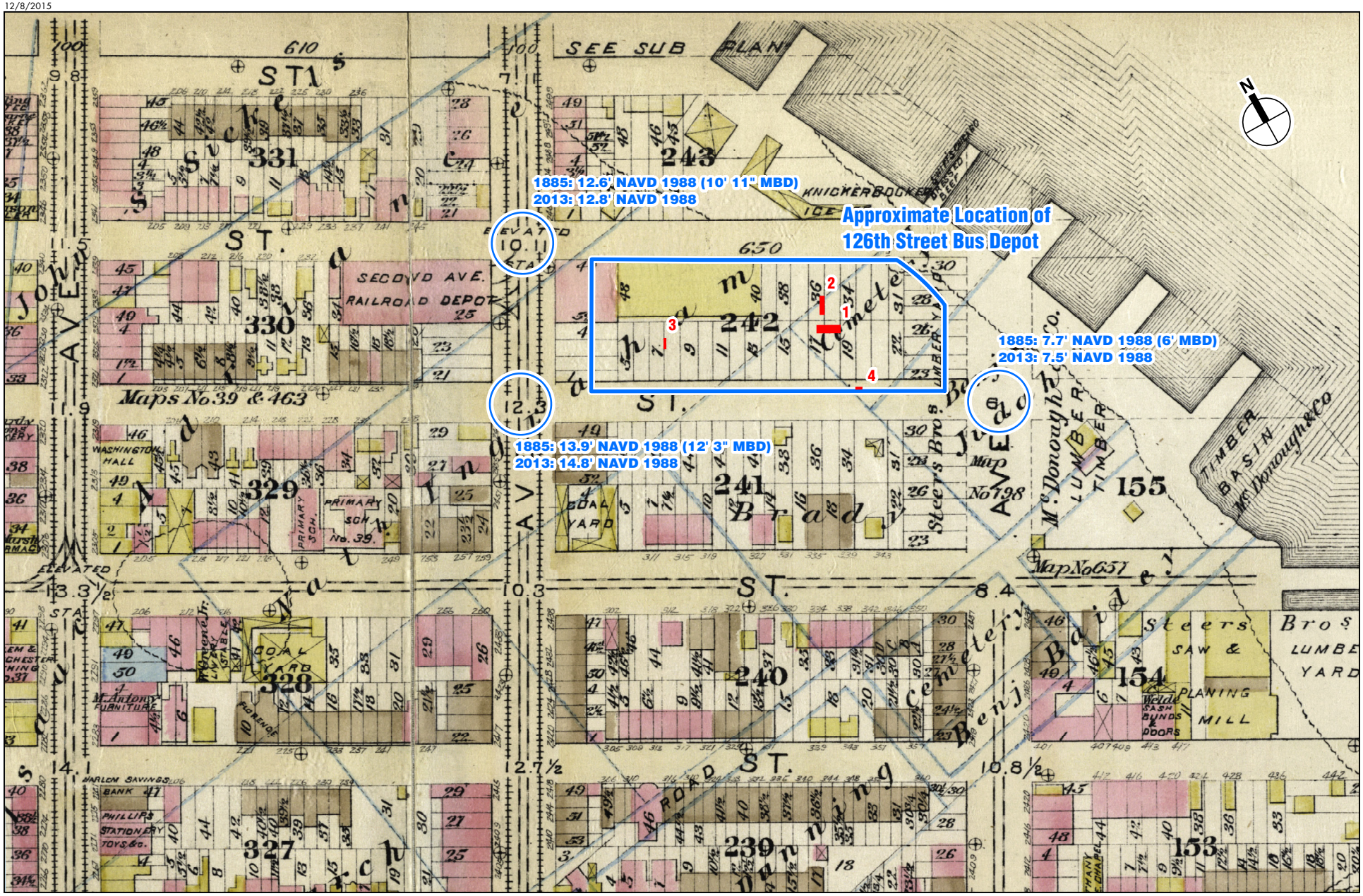
1850 Hayward Profile Drawing



Elevations taken from 1850 Hayward Profile Drawing have no explicit datum reference. Therefore it is assumed they reference "above high tide", or Manhattan Borough Datum (MBD). 2013 elevations were captured with LIDAR remote sensing technology and reference the standard North American Vertical Datum of 1988 (NAVD 88). To convert an elevation from MBD to NAVD 88, add 1.652'

Trench locations

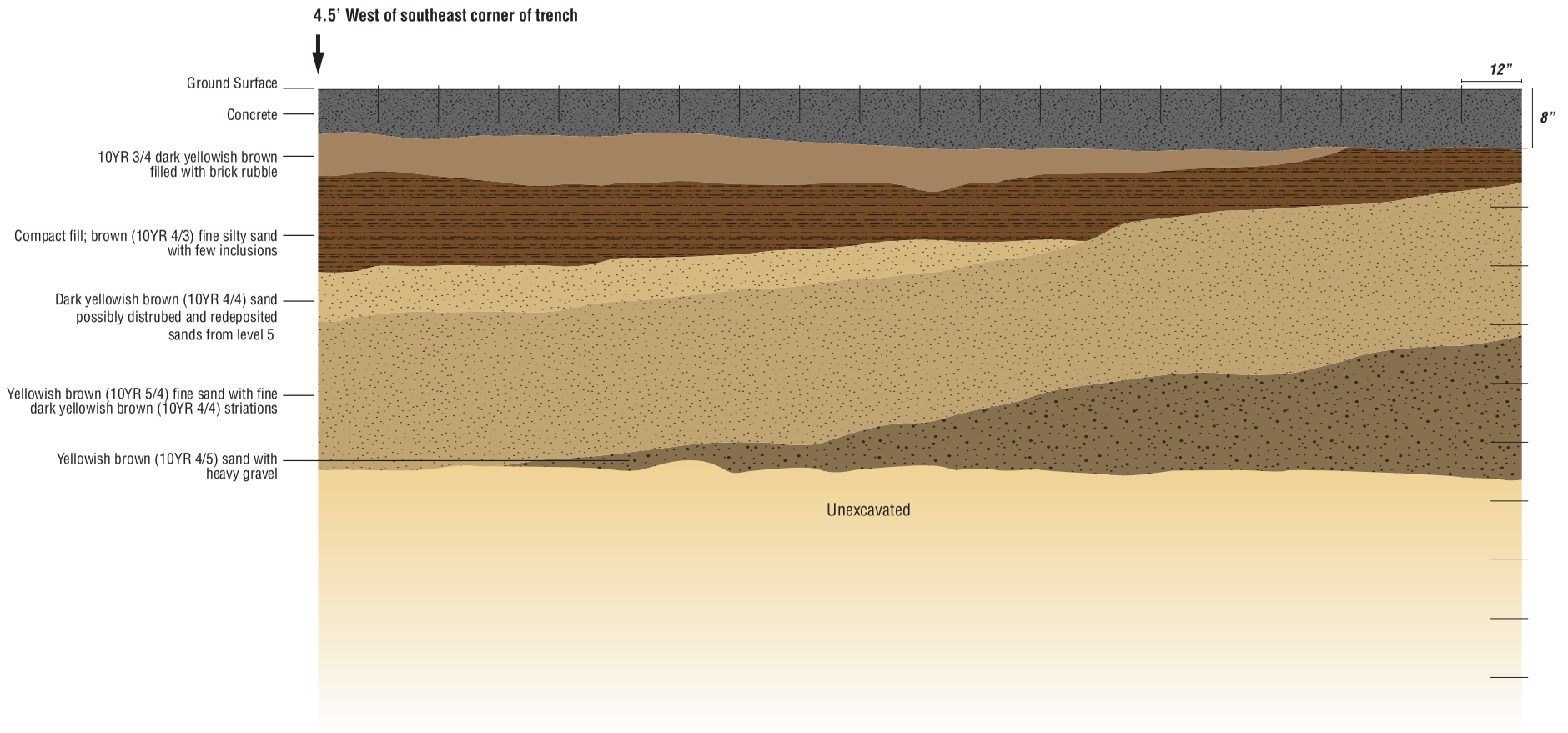
12/8/2015



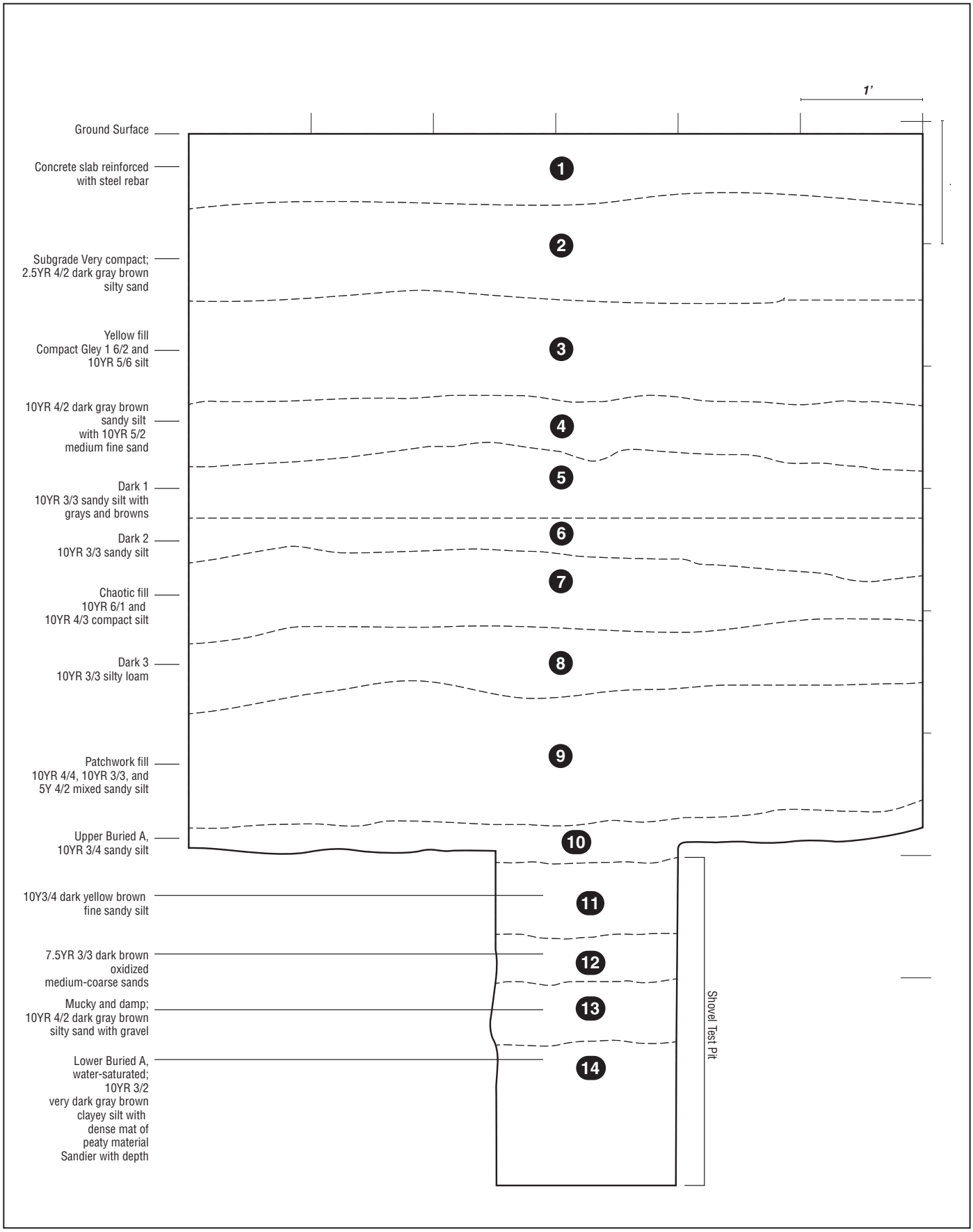
1885 Robinson elevations reference "above high tide", interpreted as approximately Manhattan Borough Datum (MBD). 2013 elevations were captured with LIDAR remote sensing technology and reference the standard North American Vertical Datum of 1988 (NAVD 88). To convert an elevation from MBD to NAVD 88, add 1.652'

Trench locations

1885 Robinson Map
Figure 7



Representative South Wall Profile, Trench 1

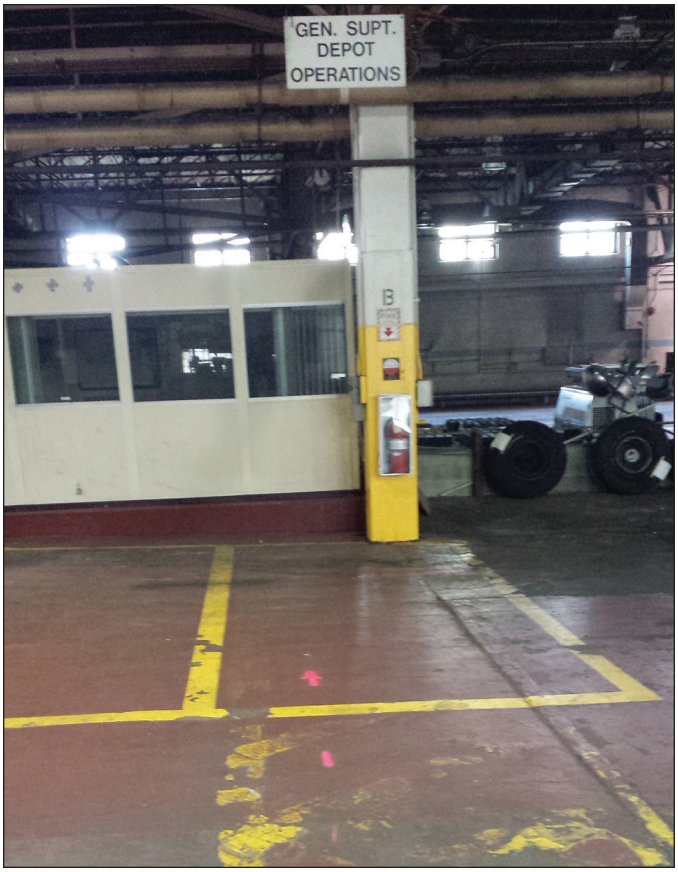


North Wall Profile Drawing, Trench 2

Photographs

Looking north at Trench 1 after concrete removal and before excavation **1**

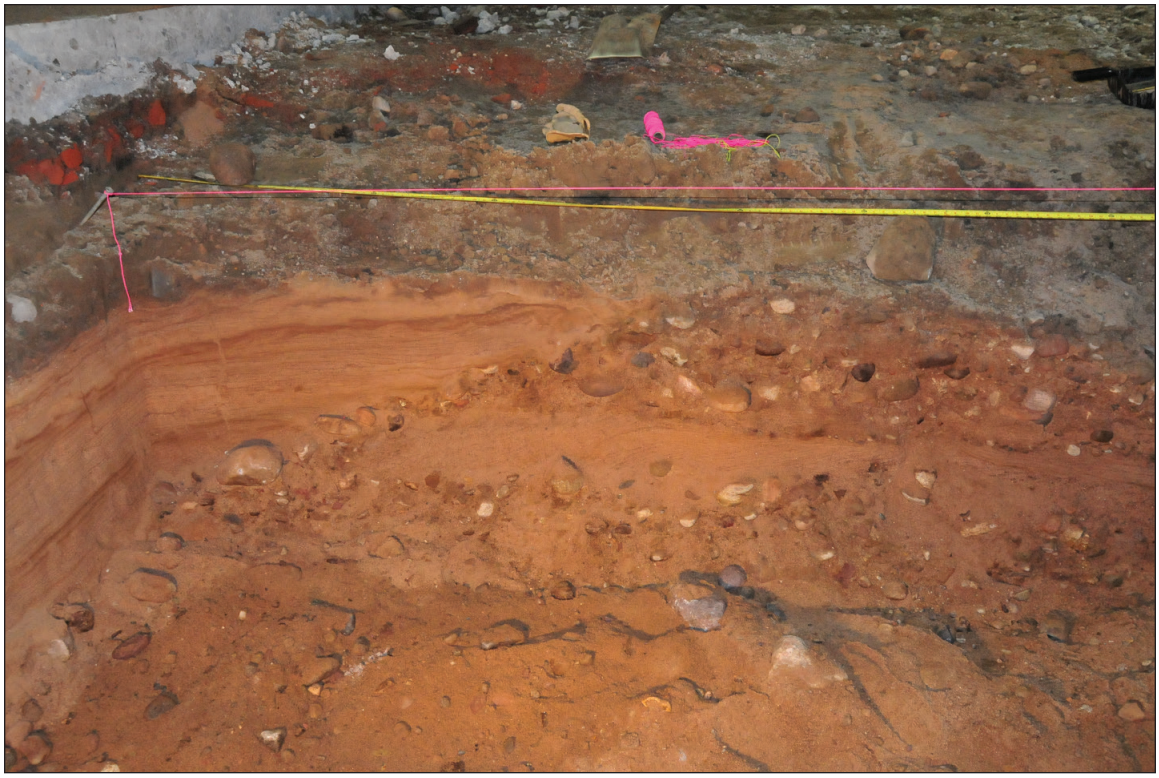
Facing south from bus wash area towards Trench 2 after concrete removal and before excavation **2**



Facing north towards conference room in western portion of depot. Trench 3 was excavated in the foreground **3**

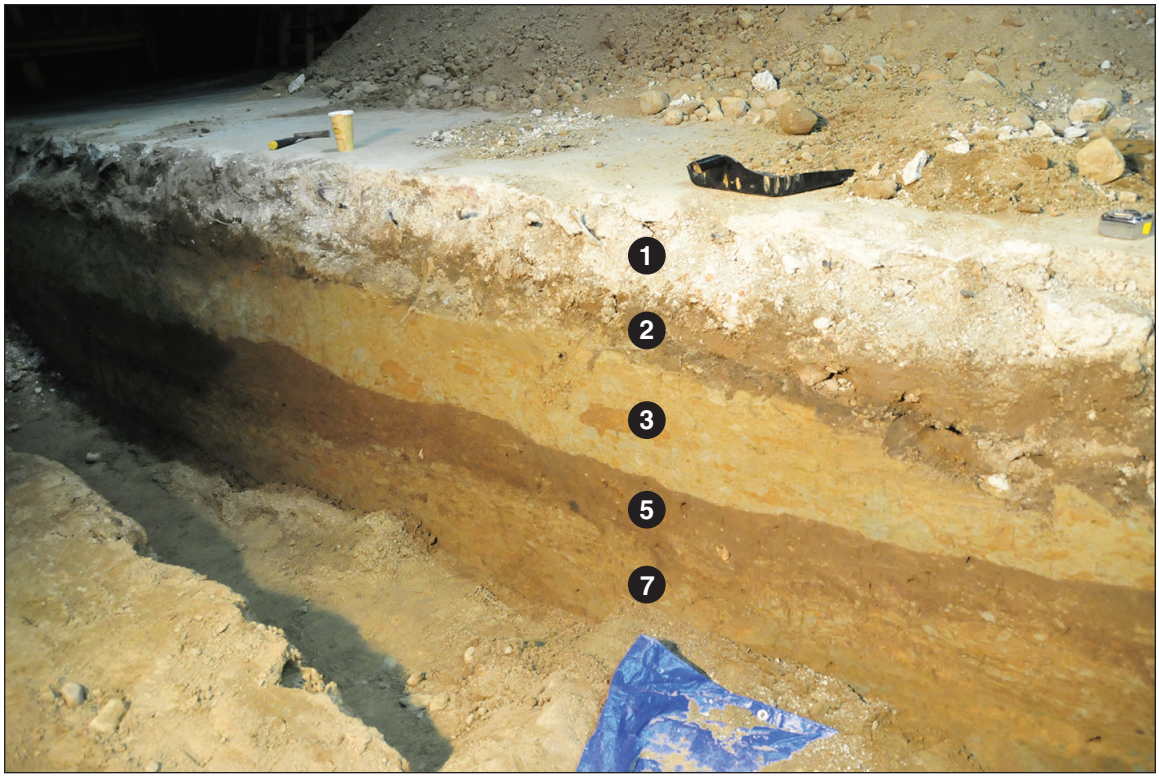
Facing west along southern face of bus depot. Trench 4 was excavated along sidewalk in the leftmost bay **4**

Facing northwest towards Trench 1 during excavation of west half; showing clean sands and gravel in the east half (at right) **5**

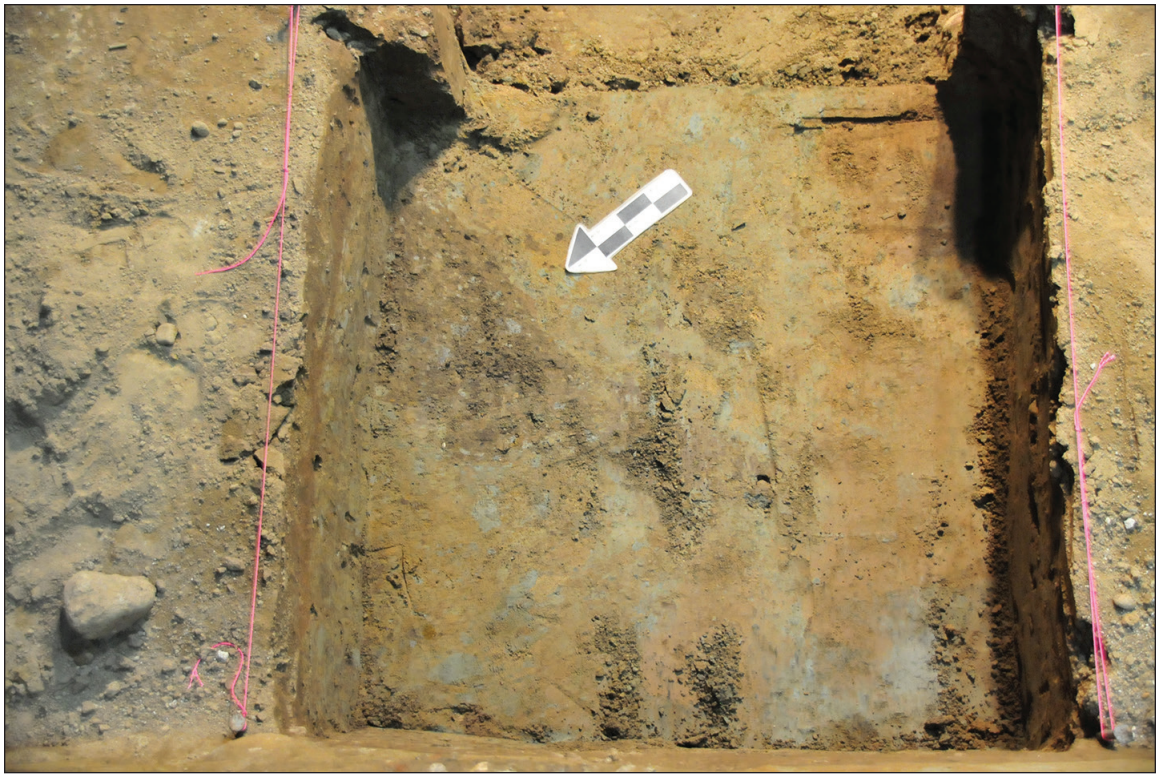


Glacial sands and disturbed gravel area in the southeast corner of Trench 1 **6**

Saw-cut concrete foundation and clean, finely stratified glacial sands in the southern wall of Trench 1 **7**

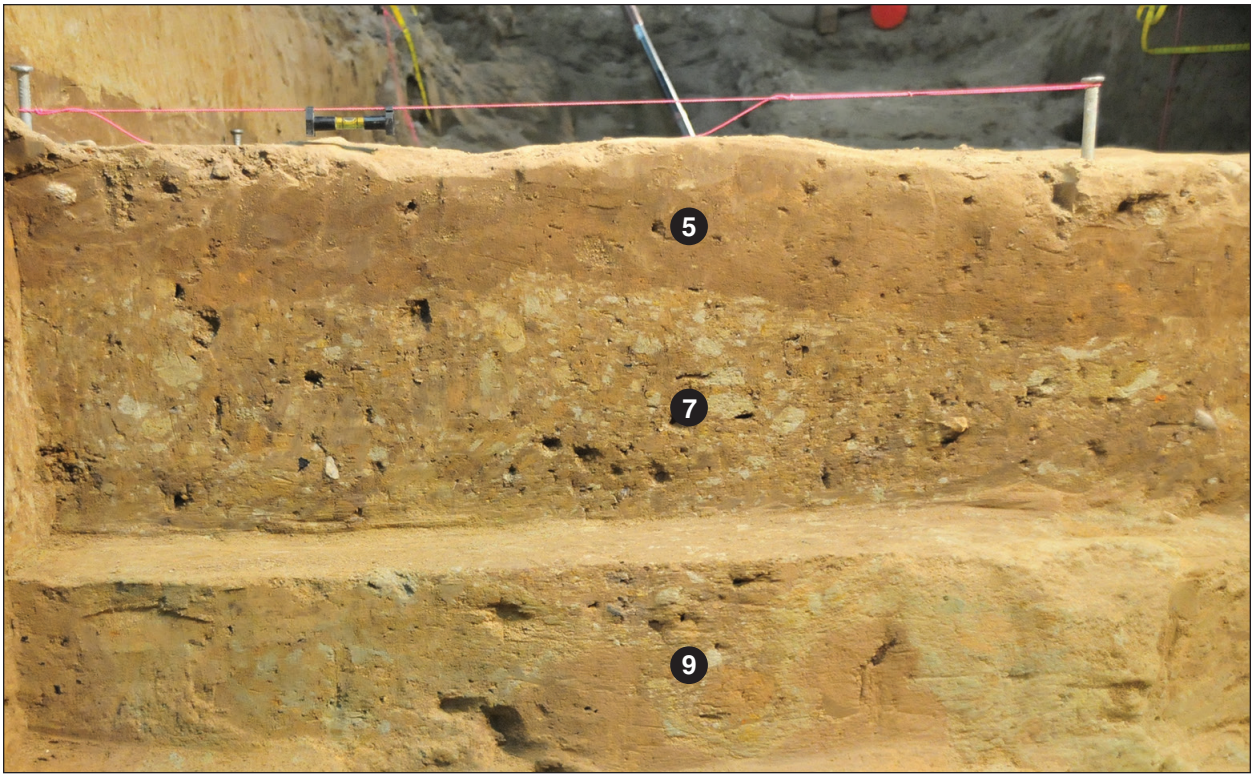


Layers of disturbed and redeposited soils visible along east wall of Trench 2 at a depth of approximately 3.5 feet **8**



Plan view of 3 foot by 3 foot unit excavated in Trench 2 in which a human skull was discovered. Soil discoloration is remnant of undulating dark fill layer lying above the deeper lighter fill layer containing the skull **9**

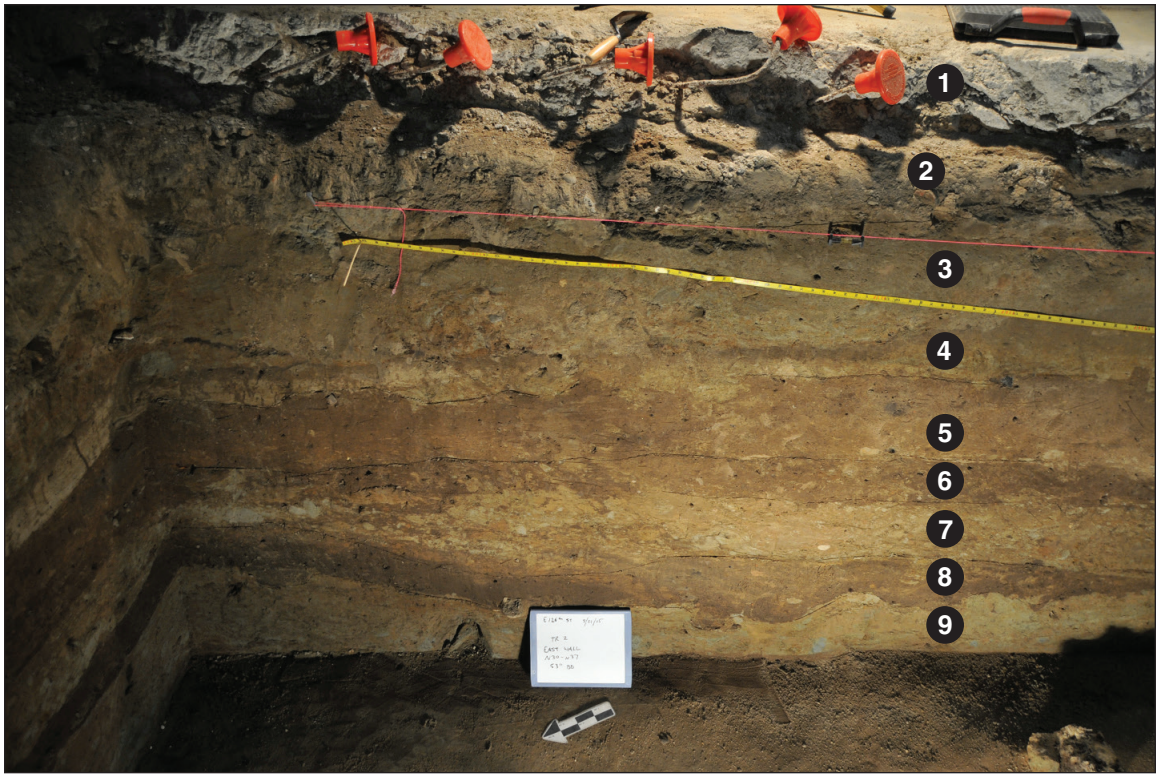
South wall profile of 3 foot by 3 foot excavation unit in Trench 2 in which a human skull was discovered. Note undulating layers of redeposited soils with large rocks **10**



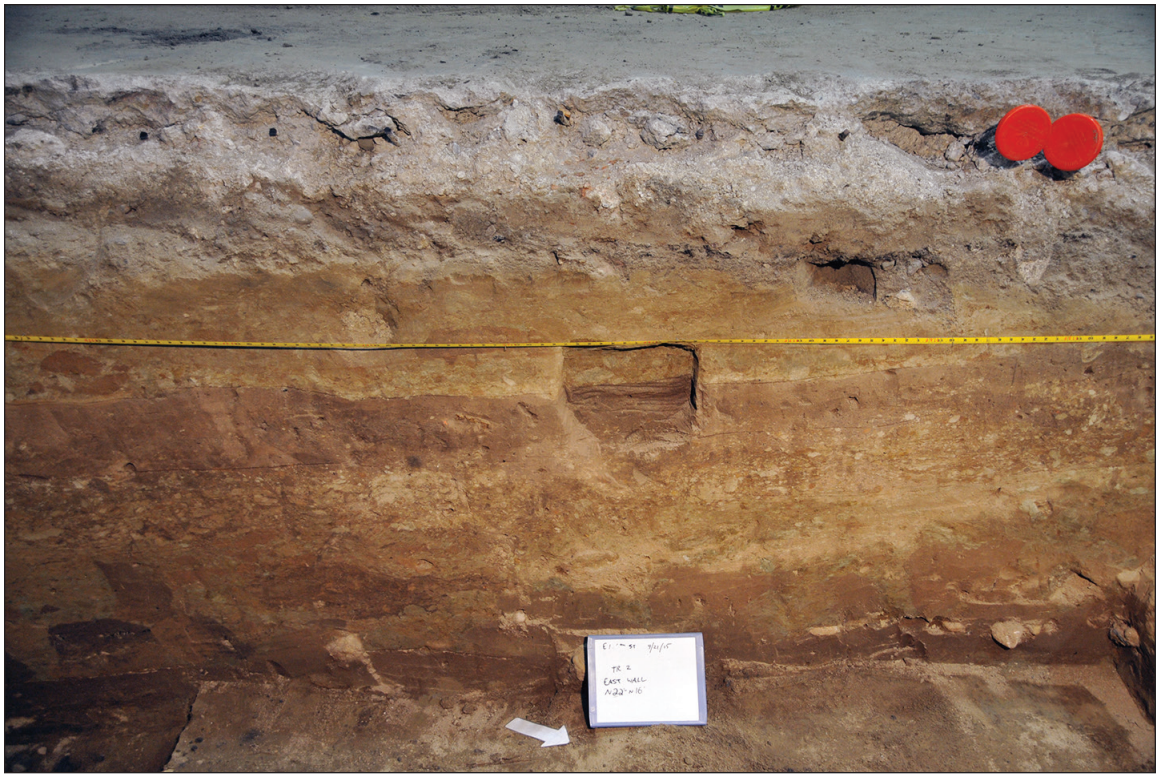
North wall profile of 3 foot by 3 foot excavation unit in Trench 2 in which a human skull was discovered. Lower portion of wall is a 6-inch wide baulk. Note undulating layers of redeposited soils **11**

In situ wooden post with wedge-shaped base (not visible) located in the eastern side of Trench 2. The post was driven into the now buried original ground surface, the peaty soil layer under the north arrow which is approximately 7.5 feet below the surface of the concrete slab. Ground water has accumulated in the test pit excavated at the base of the post. The horizontal surface at the top of the photo was a later ground surface. It is approximately 5 feet deep **12**

North wall profile of Trench 2. Note the multiple undulating layers of fill. The north arrow is lying on the upper buried ground surface depicted in Photo 12. All human skeletal remains were recovered from the yellowish mixed fill layer at the bottom of this profile **13**



East wall profile of the northern third of Trench 2. Note the multiple undulating layers of fill. The north arrow is lying on the upper buried ground surface depicted in Photo 12. All human skeletal remains were recovered from the yellowish mixed fill layer at the bottom of this profile **14**



East wall profile of the central third of Trench 2. Note the multiple undulating layers of fill. The north arrow is not positioned correctly and is lying on the upper buried ground surface depicted in Photo 12. All human skeletal remains were recovered from the mixed fill layer at the bottom of this profile lying on top of the upper buried ground surface **15**

West wall profile of the southern third of Trench 2. Note the multiple undulating layers of fill and gravel **16**

Gravel and sand lining the eastern wall of Trench 3 **17**

Facing west showing disturbed soils and existing infrastructure within Trench 4 **18**