November 2010

Prepared for:
Forest City Ratner Companies

Phase IB Archaeological Testing, Atlantic Yards Arena and Redevelopment Project, Blocks 1127, Lots 48 and 50

Brooklyn, New York

Prepared by:
URS
Burlington, New Jersey
Phase IB Archaeological Testing, Atlantic Yards Arena and Redevelopment Project, Blocks 1127, Lots 48 and 50

Brooklyn, New York

Prepared for

Forest City Ratner Companies
One MetroTech Center North
Brooklyn, New York 11201

Prepared by

Alyssa Loorya, Principal Investigator

URS Corporation
437 High Street
Burlington, New Jersey 08016

November 2010
This cultural resource report details the findings of a Phase IB archaeological investigation URS Corporation (URS) conducted in Block 1127, Lots 48 and 50, of the Atlantic Yards Arena and Redevelopment Project area. URS performed the investigation on behalf of Forest City Ratner Companies. This work was conducted in accordance with the State Environmental Quality Review (SEQR) guidelines (Part 617); the New York Historic Preservation Act of 1980, Section 14.09; the National Historic Preservation Act of 1966, as amended; and the Advisory Council on Historic Preservation’s “Protection of Historic and Cultural Properties” (36 CFR 800). This investigation was also conducted pursuant to the standards for cultural resource investigations and the curation of archaeological collections in New York State, prepared by the New York Archaeological Council and adopted by the New York State Office of Parks, Recreation, and Historic Preservation (NY SHPO 1994). The study was performed according to the City Environmental Quality Review (CEQR)(Executive Order No. 91 of 1977) and conducted pursuant to New York State guidelines for such projects and the guidelines established by the New York City Landmarks Commission (LPC) for Phase IB archaeological work in New York City, dated April 12, 2002. The scope and purpose of the Phase IB investigation was to determine if historic shaft features—such as wells, cisterns, and possibly privies—associated with mid- to late-nineteenth-century structures were still present within the areas of potential archaeological sensitivity identified during the Phase IA documentary study prepared for the project (Schneiderman 2001).

The Phase IB investigation entailed the excavation of standardized shovel test pits and a series of machine-excavated trenches within Block 1127, Lots 48 and 50. The investigation did not uncover any significant or intact cultural deposits or intact features, and the area exhibited a high degree of disturbance. Due to the unstable nature of the soil, it was not possible to enter the trenches to draw profiles. Since no evidence of either intact deposits or features was encountered, no further work is recommended for this area.
Table of Contents

Abstract ........................................................................................................................................i
List of Figures ........................................................................................................................iii
List of Photographs .................................................................................................................. iii

1 Introduction and Project Description ..................................................................................... 1.1
   Summary of Archaeological Sensitivity .............................................................................. 1.1
   Research Issues .................................................................................................................. 1.5

2 Historical Context ................................................................................................................ 2.1
   Block 1127, Lot 48 ............................................................................................................... 2.1
   Block 1127, Lot 50 ............................................................................................................... 2.3

3 Phase IB Field Investigations ................................................................................................ 3.1
   Methodology ....................................................................................................................... 3.1
   Block 1127, Lot 50 (473 Dean Street): Area A ................................................................. 3.1
   Block 1127, Lot 48 (475 Dean Street): Area B ................................................................. 3.7
   Block 1127, Lot 48 (475 Dean Street): Area C ................................................................. 3.10

4 Summary ................................................................................................................................ 4.1

References ................................................................................................................................. R.1
## List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Location of Atlantic Yards Arena and Redevelopment Project area</td>
<td>1.2</td>
</tr>
<tr>
<td>1.2</td>
<td>Project area map based on 1929 atlas in <em>Stage IA Archaeological Assessment, Atlantic Yards Arena and Redevelopment Project</em>, prepared by Historical Perspectives, Inc</td>
<td>1.3</td>
</tr>
<tr>
<td>2.1</td>
<td>Project map showing Area A, B, and C plan views</td>
<td>2.2</td>
</tr>
<tr>
<td>3.1</td>
<td>Test Areas A and B test pit and test trench locations</td>
<td>3.3</td>
</tr>
<tr>
<td>3.2</td>
<td>Test Area C test trench locations</td>
<td>3.13</td>
</tr>
</tbody>
</table>

## List of Photographs

<table>
<thead>
<tr>
<th>Photograph</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Block 1127, Lot 50 prior to demolition</td>
<td>1.4</td>
</tr>
<tr>
<td>3.1</td>
<td>Block 1127, Lots 48 and 50 post-demolition</td>
<td>3.2</td>
</tr>
<tr>
<td>3.2</td>
<td>Block 1127, Lots 48 and 50 post-demolition and removal of up to 24 inches of rubble fill</td>
<td>3.2</td>
</tr>
<tr>
<td>3.3</td>
<td>Block 1127, Lot 50, STP A3</td>
<td>3.4</td>
</tr>
<tr>
<td>3.4</td>
<td>Block 1127, Lot 50, STP A5</td>
<td>3.6</td>
</tr>
<tr>
<td>3.5</td>
<td>Block 1127, Lots 48 and 50, Test Trench A2</td>
<td>3.8</td>
</tr>
<tr>
<td>3.6</td>
<td>Block 1127, Lot 50, Test Trench A3</td>
<td>3.9</td>
</tr>
<tr>
<td>3.7</td>
<td>Block 1127, Lot 48, concrete foundation wall</td>
<td>3.11</td>
</tr>
<tr>
<td>3.8</td>
<td>Block 1127, Lot 48, Test Trench 5</td>
<td>3.12</td>
</tr>
</tbody>
</table>
I

Introduction and Project Description

In September 2010, URS conducted Phase IB archaeological testing in the Atlantic Yards Redevelopment Area, located in Brooklyn, Kings County, New York (Figure 1.1). The Atlantic Yards project includes plans for an 800,000-square-foot arena (Atlantic Yards Arena) and an urban complex of housing, commercial, and retail space, in addition to approximately eight acres of landscaped public open space. The project area encompasses a small portion of City Block 1128, and all or most of City Blocks 927, 1118, 1119, 1120, 1127, and 1129. The blocks are located between Vanderbilt Avenue, Flatbush Avenue, Dean Street, and Atlantic Avenue. A preliminary evaluation of the project area, which the New York City Landmarks Preservation Commission (LPC) performed, determined that a Phase IA study was required for Block 1118, Lots 6, 21, 22, 23, and 25; Block 1119, Lot 1; and Block 1127, Lots 45, 46, 47, 48, 50, 55, and 56. Historical Perspectives, Inc., conducted a Phase IA archaeological assessment to evaluate the project’s potential effects on archaeological resources within these specified areas (HPI 2001). Based on the research presented in the Phase IA, Phase IB archaeological investigations were proposed for specific areas determined to have a potential for archaeological sensitivity. Those areas were Block 1119, Lot 1, and Block 1127, Lots 48, 50, 55 and 56.

In 2007, URS completed Phase IB testing of Block 1119, Lot 1, and Block 1127, Lots 55 and 56. Since no evidence of either intact deposits or features was encountered, no further work was recommended. Both the New York Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission concurred with this recommendation (LPC). At the time of the 2007 URS Phase IB investigation, no testing was conducted on Block 1127, Lots 48 and 50, due to the presence of standing structures slated for demolition at a later date. This phase of testing, within Block 1127, Lots 48 and 50, completes the required archaeological testing, as outlined in the approved Atlantic Yards Phase IB Archaeological Testing Protocol (URS 2006).

Edward Morin (MS, RPA) served as Project Manager for this project. Alyssa Loorya served as Principal Investigator for Areas 4 and 5. Scott Hood produced the graphics and maps. Paul Elwork edited the report for style and consistency, and also oversaw the production process.

SUMMARY OF ARCHAEOLOGICAL SENSITIVITY

The Phase IA documentary study revealed the potential that historic shaft features, such as wells, cisterns, and privies, associated with mid- to late-nineteenth-century structures may still be present on Block 1127, Lots 48 and 50 (Figure 1.2). In addition, the foundation remains of a structure that dates from the mid-eighteenth to mid-nineteenth century may also be present within Block 1127, Lot 48.

The specific areas of potential historic archaeological sensitivity and the potentially associated resources are:

- Block 1127, Lot 50 (historical Lot 47), located at 473 Dean Street (Photograph 1.1). The first residential dwelling on this lot was built sometime between 1850 and 1869, and James Galvin may have been living here in 1860. The earliest sewer permit found for the lot dates to 1876, but an earlier permit may have been issued for the lot, although none were found. Therefore, it is possible the circa-1860s dwelling built at the south end of the lot fronting Dean Street was constructed before the availability of sewer and water. Since the northern end of the lot was disturbed in the later construction of an additional three-story dwelling, the center of the lot that did not experience any development may be sensitive for potential shaft features, which would postdate 1850 and predate 1874—the period of the Galvin family occupation of the site. These potential shaft features may also bear evidence of the Costello and Gray families, who also lived on the lot in 1870 (Schneiderman 2001).

1. Stage IA Archaeological Assessment, Atlantic Yards Arena and Redevelopment Project, prepared by Historical Perspectives, Inc.
Figure 1.1 Location of Atlantic Yards Arena and Redevelopment Project area.
Figure 1.2  Project area map based on 1929 atlas in Stage IA Archaeological Assessment, Atlantic Yards Arena and Redevelopment Project, prepared by Historical Perspectives, Inc.
Photograph 1.1  Block 1127, Lot 50 prior to demolition.
• Block 1127, Lot 48 (historical Lot 41) at 475 Dean Street, is located near the extreme southwest corner of Block 1127. The northern portion of the lot in the APE hosted a dwelling in 1839 (and possibly as early as 1766/1767). This dwelling was razed and a new structure built on the south end of historical Lot 41 sometime between 1850 and 1855, when the Campbells apparently lived on it. The portion of the lot that falls within the APE may have once hosted privies, cisterns, and/or wells, possibly associated with the Campbell residency circa 1855 to circa 1874 (and two other families in 1860: Keegan and Moran), but it may also bear evidence of the earlier circa-1839 structure—though probably not shaft features, since the footprint of the structure covered the lot (Schneiderman 2001).

• Historical Lot 46, now part of modern Lot 48, is at 475 Dean Street. The first residential construction on the lot dates between 1850 and 1869, and the Clark family may have been living on it as early as 1859/1860. A second dwelling was later built at the extreme northern end of the lot. The dwelling at the south end of the lot fronting Dean Street may have been built before the availability of sewer and water in the early 1860s; the earliest sewer permit found for the lot dates to 1877, but it is possible that one was issued earlier. Therefore, the center of the lot may be sensitive for potential shaft features that would postdate 1850 and predate 1877. Any potential features may be associated with Clark’s residential use of the property, and may also bear evidence of Farrell (circa 1860) and Boyle (circa 1870) family use (Schneiderman 2001).

Research Issues

The Phase IIA study indicated that the five lots within a two-block area of the Atlantic Yards Redevelopment Project potentially contained historic archaeological resources associated with the development of Brooklyn during the mid-nineteenth century. Historical archaeological resources relating to institutions and residences are often preserved in privies, cisterns, or wells, which in the days before the construction of municipal services—namely sewers and a public water supply—were an inevitable part of daily life. When rendered obsolete, these shafts became convenient receptacles for all sorts of trash, providing a valuable time capsule of stratified deposits for the modern archaeologist. They frequently provide the best remains recovered on urban sites. Truncated portions of these deep shaft features are often encountered on lots with historical occupancy because the shafts’ deeper (and therefore earlier) layers remain undisturbed during subsequent construction. Prior studies in the region have demonstrated that deep shafts are generally located within a few feet of the rear lot boundary. As described above, a number of lots within the project area are sensitive for these rear-yard features. If these features have not been impacted during subsequent activities, they have the potential to address research issues regarding the nature of residential occupation and lifeways in this section of the city related to people of Irish descent, and possibly related to African Americans. Shaft contents have generally provided the best archaeological contexts for the understanding of household dietary patterns and various other aspects of household composition, social and economic status, life cycle, etc.

Other commonly occurring, but much more shallowly buried, historical remains include foundations and builder’s trenches, which, if a structure did not contain a basement, would extend only a few feet below the pre-development land surface. Even more fragile backyard remains—such as fence lines, paths, traces of landscaping, and sheet midden (yard deposits) scatter—can provide valuable data to the archaeologist, but are frequently disturbed in urban settings. In general, these types of features are somewhat limited in their ability to provide information on these topics; however, they can provide information regarding the use of yard space.
The Phase IA study shows a thorough job of gathering the deeds, tax assessments, maps, and building department records available for the project area. For this phase of the overall IB study, only two areas were tested—Block 1127, Lots 48 and 50. The following summarizes the information gathered through the Phase IA study.²

**Block 1127, Lot 48**

Block 1127, Lot 48, was historically part of a lot (41) that also included modern-day Lot 43. In 1839, an L-shaped building stood on the northern portion of Lot 41 (Field Map 1839); it was associated with another structure that spanned several historical lots. Both buildings may have been constructed as early as 1766/1767 (Ratzer 1766/1767; Hooker 1827; Martin 1834). The building may have been a house or barn, and was constructed so that it faced the Flatbush Turnpike. No structures are shown on or near the lot in 1845 (USC&GS, 1845).

By 1850, the entire lot was vacant (Dripps 1850). In 1869, the portion of Lot 41 within the APE was still vacant, but served as the backyard to a building, which had been constructed at the extreme southeastern corner of Block 1127 (Dripps 1869). The northern end of the lot in the APE was unchanged in 1880, 1886, 1888, 1898, and 1906, and the building at the south end of the lot out of the APE was mapped as a three-story dwelling (Bromley 1880; Robinson 1886; Sanborn 1888; Hyde 1898; Sanborn 1906). In both 1926 and 1929, the portion of the lot within the APE was covered by a one-story addition utilized as an employee’s room for the A. G. Spalding Brothers Sporting Goods factory, which stood to the north (Sanborn 1926, 1929).

In 1863, sewer assessments were made for Dean Street from Flatbush Avenue to Pearsall Street (now Sixth Avenue; Brooklyn Daily Eagle Jan 13, 1863; Sewer Assessments Part of District No. 11 and No 22) (Figure 2.1). In 1869/1870, Thomas Campbell was paying taxes on the lot (Brooklyn Annual Records of Assessed Valuation of Real Estate, Roll 17, 9th Ward 1869–1873:9); in April 1874, D. Campbell received a permit to connect a structure on this lot to the municipal sewer system (Borough Office of the Sewer Department).

Dennis Campbell began purchasing lots on Block 1127 as early as 1847, and continued purchasing additional lots through 1850 (Liber 161:528, 161:530, and 231:13). Dennis Campbell is listed as living with his wife and two children at Flatbush Road in an 1850 directory (Hearne’s 1850/1851). Five years later, an 1855/1856 directory lists Dennis Campbell, a milkman, on Dean Street at its corner with Pearsall (Smith 1855/1856), and in 1860/1861, he is listed at the same location, but working as a grocer (Hearne’s 1860/1861). In the 1873/1874 directory, he is listed as a grocer living at 485 Dean Street (Boyd 1873).

By 1877, Catherine Minjo was assessed for taxes on the lot that contained a three-story, 25×36-foot building (Brooklyn Annual Records of Assessed Valuation of Real Estate, Roll 17, 9th Ward 1877–1881:9–10). However, it appears that members of the Campbell family lived on historical Lot 41 from circa 1855 through at least 1874, when a sewer was connected to the dwelling on this lot, and possibly through 1880.

In summary, the northern portion of historical Lot 41 in the APE hosted a dwelling in 1839—and possibly as early as 1766/1767—for which no records could be found. By 1850, the building had been razed, and Block 1127 was subsequently lotted. A new structure was built on the south end of historical Lot 41 sometime between 1850 and 1855, when the Campbells apparently lived on it. The portion of the lot that falls within the APE may have once hosted privies, cisterns, and or wells, possibly associated with the Campbell residency circa 1855 to circa 1874, but it may also bear evidence of the earlier circa-1839 structure—though probably not shaft features, since the footprint of the structure covered the lot.

---

2. This section is excerpted, with editing, from *Stage IA Archaeological Assessment, Atlantic Yards Arena and Redevelopment Project*, prepared by Historical Perspectives, Inc. (2001).
Figure 2.1: Project map showing Area A, B, and C plan views.
The portion of historical Lot 41 located in the APE was later covered by a one-story building that has stood since sometime between 1906 and 1926. There is no documentary evidence that the structure possessed a basement (Sanborn 1906, 1926, and 1951; Hyde 1929). No Building Department records were found for this lot, which would provide more data regarding foundation depths. As a result, historical Lot 41 was cited as potentially sensitive for remnants of a circa-1839 structure of unknown use and occupancy, in addition to (possibly truncated) shaft features. These shaft features may be associated with the Campbell’s residency on the lot from circa 1855 to circa 1874, and two other families (Moran and Keegan) in 1860, and may exist beneath the foundation of the extant one-story addition.

**Block 1127, Lot 50**

Block 1127, Lot 50, was vacant until a building was constructed sometime between 1850 and 1869 at the south end of the lot fronting Dean Street (Dripps 1850, 1869). The building was still present in 1880, but by 1886 the structure had been razed and a two-story dwelling had been built at the northern end of the lot (Robinson 1886; Sanborn 1888). By 1906, a four-story dwelling had been built across the southern half of the lot, and a three-story dwelling stood at the northern end of the lot (Sanborn 1906). A vacant yard remained between the two structures. The lot appeared unchanged throughout the remainder of the twentieth century (Sanborn 1929, 1950, 1979, and 2002).

Sewers were installed on Dean Street in the early 1860s, and cartographic sources indicate the lot was initially developed between 1850 and 1869 (Dripps 1850, 1869). From 1869 through 1881, James Galvin was assessed for taxes on this lot (Brooklyn Annual Records of Assessed Valuation of Real Estate, Roll 18, 9th Ward 1869–1873:6, 1873–1874:9–10, 1877–1881:9–10). On May 8, 1876, Sowven (sic—perhaps an extremely poor transcription of Galvin) received a permit to connect a building on this lot to the public sewer line (Borough Office of the Sewer Department).

In 1850, James Galvin, mason, is listed as living on Navy Street (Heare’s 1850), but by 1859/1860, he is listed as a bricklayer living on Dean Street near Flatbush Avenue (Heare’s 1859/1860). While there is no James Galvin (or Calvin) recorded in the 1860 census records for Ward 9 of Brooklyn, by 1870 he is recorded in this neighborhood living with his wife, two daughters, and a son (U.S. Federal Census 1860, 1870). At that time, two additional families were also living on the same lot (U.S. Federal Census 1860, 1870).

The first residential dwelling on this lot was built sometime between 1850 and 1869. The earliest sewer permit found for the lot dates to 1876, despite the fact that sewer lines were in the adjacent street beds by the early 1860s. An earlier sewer permit may have been issued for the lot, but no evidence of one was found in the Borough Office of the Sewer Department records. Therefore, it is possible the circa-1860s dwelling built at the south end of the lot fronting Dean Street was constructed before the availability of sewer and water. The northern end of the lot was disturbed during the later construction of an additional three-story dwelling. However, the center of the lot that did not experience any development could be sensitive for potential shaft features that would postdate 1850 and predate 1874, the period of time when the Galvin family occupied the site. These potential shaft features could also bear evidence of the other families who lived on the lot in 1870.
Phase IB Field Investigations

A previously approved testing protocol outlined the tasks to be performed for the archaeologically sensitive areas identified in the Phase IA study (URS 2006). All work was conducted in accordance with the State Environmental Quality Review (SEQR) guidelines (Part 617) and the New York Historic Preservation Act of 1980, Section 14.09; the National Historic Preservation Act of 1966, as amended; and the Advisory Council on Historic Preservation’s “Protection of Historic and Cultural Properties” (36 CFR 800). The study was conducted pursuant to the Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State, prepared by the New York Archaeological Council and adopted by the New York State Office of Parks, Recreation, and Historic Preservation (NY SHPO 1994). In addition, it was performed according to the City Environmental Quality Review (CEQR)(Executive Order No. 91 of 1977) and conducted pursuant to New York State guidelines for such projects and pursuant to the guidelines established by the New York City Landmarks Commission (LPC) for Phase IB archaeological work in New York City.

**Methodology**

The goal of Phase IB archaeological testing was to determine whether potential significant (i.e., National Register-eligible) archaeological resources remained intact within Lots 48 and 50 of Block 1127 that were identified as part of the Phase IA report. The study concluded that these areas could be undisturbed and potentially contain archaeological resources associated with the development of Brooklyn during the mid-nineteenth century (Historical Perspectives 2006). Archaeological testing occurred after demolition of the extant structures (Photograph 3.1) and included a combination of backhoe trenching and shovel test pits (STPs) measuring approximately 1 foot in diameter. The backhoe was initially utilized to remove the modern demolition rubble. Due to site conditions and the amount of fill observed on site, the construction contractor was asked to remove 18 to 24 inches of fill from the surface prior to archaeological testing (Photograph 3.2). The continued presence of rubble and fill in the test areas limited the number of STPs and was supplemented with backhoe trenching.

**Block 1127, Lot 50 (473 Dean Street): Area A**

The area recommended for testing within Lot 50 measured 25 x 25 feet, designated as Area A. It was located between the former three-story dwelling at the front of the lot and a two-story building that stood at the rear of the lot. The area had been used as a garden/yard area that consisted of stone slab sidewalks and concrete bordered and raised flowerbeds. Subsurface investigations consisted of five STPs and three machine-excavated trenches (Figure 3.1).

The scope of work called for two parallel transects, 10 feet apart, to be tested at 5-foot intervals. Based on site conditions, which included a range of demolition debris and the potential to locate an underground storage tank (the location and depth of which was unknown), a checkerboard pattern of STPs was laid out, along with three trench locations.

All the STPs were excavated to approximately 3 feet below starting grade and showed evidence of disturbance. Soils within the STPs ranged from rubble fill to silty sandy clay at approximately 3 feet below grade (Photograph 3.3).

**STP A1**

STP A1 contained redeposited soils and exposed utility lines at 1.5 feet, halting excavation. Two strata were observed. Within Stratum II, 12 artifacts were recovered, including a modern tile, iron nails, and three sherds of whiteware, dating 1815 to present.

- **Stratum I (0–0.7')**  
  rubble fill (10YR 5/2)
- **Stratum II (0.7–1.5')**  
  sand and clay (10YR 5/4), utility trench redeposition
Photograph 3.1  Block 1127, Lots 48 and 50 post-demolition.

Photograph 3.2  Block 1127, Lots 48 and 50 post-demolition and removal of up to 24 inches of rubble fill.
Figure 3.1 Test Areas A and B test pit and test trench locations.
Photograph 3.3  Block 1127, Lot 50, STP A3.
STP A2

STP A2 also contained redeposited rubble fill. Excavated to a final depth of 2.4 feet, the STP revealed three strata. Eight artifacts were recovered from Stratum I including a post-1878 porcelain electrical insulator. Stratum II contained 17 artifacts, consisting of glass and iron nails and dating from the later nineteenth century through the twentieth century. Stratum III consisted of brick rubble; no other cultural materials were present.

<table>
<thead>
<tr>
<th>Stratum I (0–1&quot;)</th>
<th>sandy clay redeposited soil (10YR 5/4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratum II (1–1.9&quot;)</td>
<td>sandy silty fill (10YR 4/3)</td>
</tr>
<tr>
<td>Stratum III (1.9–2.4&quot;)</td>
<td>silty sandy fill (10YR 5/3), brick rubble</td>
</tr>
</tbody>
</table>

STP A3

STP A3 was unique, in that it contained the least amount of rubble and native soils were exposed in Stratum IV. Cultural materials were recovered from Strata I and II and include glass, pottery, and iron nails. Two shards of container glass date from 1864–2010, and a sherd of white granite pottery dates from 1842–1930. Also among the artifacts is a fragment of a porcelain toilet that likely dates to the twentieth century. Stratum IV was silty, sandy clay with rounded cobbles, characteristic of the native soils in the area. Excavation extended to 3 feet below surface.

<table>
<thead>
<tr>
<th>Stratum I (0–0.8&quot;)</th>
<th>sandy clay (10YR 5/4), rubble, redeposited soils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratum II (0.8–1.7&quot;)</td>
<td>sandy silty redeposited soil with mortar and concrete</td>
</tr>
<tr>
<td>Stratum III (1.7–2.4&quot;)</td>
<td>silty sandy clay (10YR 5/3 with 10YR 4/3), no cultural materials</td>
</tr>
<tr>
<td>Stratum IV (2.4–2.9&quot;)</td>
<td>silty sandy clay (10YR 4/2 with 10YR 5/3), rounded cobbles and remnant parent material</td>
</tr>
</tbody>
</table>

STP A4

STP A4 was adjacent to the remains of a raised concrete flowerbed and excavated to 2.8 feet below surface. Screening recovered brick fragments, nails, glass, and dipt whiteware (1815–2010). Two strata were observed and classified as redeposited soils. Rubble encountered at 2.8 feet below surface prohibited further shovel testing.

<table>
<thead>
<tr>
<th>Stratum I (0–0.6&quot;)</th>
<th>sandy silty redeposited soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratum II (0.6–2.8&quot;)</td>
<td>medium fine sand (10YR 5/4), cobbles and brick fragments</td>
</tr>
</tbody>
</table>

STP A5

STP A5 contained the remnant of a narrow brick wall (Photograph 3.4) that extended past 2 feet. It was decided to trench along the wall to determine its integrity and full depth.

| Stratum I (0–0.2") | sandy silty redeposited soil |

Three backhoe test trenches were positioned to expose the length and depth of the brick wall uncovered in STP A5, and to traverse the area both east to west and north to south to ascertain a broader stratigraphic profile. The trenches were excavated approximately 4.5–5 feet below surface.

Trench A1

Trench A1 was oriented north-south and excavated to 5 feet below surface. The trench, measuring 10 x 2 feet, exposed a 4-foot-long brick wall segment, previously located in STP A5. The wall is modern construction and two courses wide by 13 courses deep, or 0.6 feet wide by 3 feet deep. The surrounding soils consisted of clean sand.
Photograph 3.4  Block 1127, Lot 50, STP A5.
Trench A2

Trench A2, measuring 2 x 12 feet, was oriented east-west at the northern end of the test area. Excavated to 5 feet below surface, the trench consisted of modern rubble and debris. The loose soils collapsed easily beyond 4 feet and further excavation in this area was not possible (Photograph 3.5).

Trench A3

Trench A3 was located in the area of a raised concrete flowerbed and associated 2-x-2-foot stone slabs, which had been removed. These were remnants of the modern garden/courtyard area. The trench measured 2 x 17 feet and was on a north-south orientation. Excavated to 4.5 feet below surface, the only materials observed were brick fragments, rubble, and metal pipes (Photograph 3.6).

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (0–0.4')</td>
<td>sand (2.5Y 4/3) and rubble</td>
</tr>
<tr>
<td>II (0.4–1')</td>
<td>silty sand (10YR 3/3) mottled with sandy loam (10YR 3/2)</td>
</tr>
<tr>
<td>III (1–3')</td>
<td>sand (10YR 4/3)</td>
</tr>
</tbody>
</table>

Within Area A, a significant amount of disturbance was observed throughout the area. Along the east side of the test area, there were significant amounts of debris and rubble laden fill. Along the westernmost end of the test area, natural strata were uncovered within 3 feet of the starting grade. These silty sandy strata, observed in STPs A2 and A3, began at 1.9 feet below surface and contained water-worn rounded cobbles. There was no evidence of the possible circa-1850–1876 shaft features suggested in the Phase 1A study. All STPs and trenches showed evidence of rubble fill deposits. No intact surfaces, features, or artifact deposits were uncovered.

BLOCK 1127, LOT 48 (475 DEAN STREET): AREA B

Two areas were recommended for testing in Lot 48. The first was a 25-x-15-foot area, designated Area B, and located adjacent to the area to be tested in Lot 50 and an area along 6th Avenue, designated as Area C.

Area B was covered in concrete and an enclosed fire escape was attached to the recently demolished brick building. Originally, eight STPs had been laid out, but the impassable nature of the soils in the northern half of the test area required shifting the testing methodology to backhoe trenching. Testing consisted of a series of five STPs and machine excavation (see Figure 3.1).

STP B1

STP B1 contained two strata, a degree of fill that made excavation difficult beyond 2.4 feet. The soils of Stratum I were redeposited materials containing coal ash. Eight artifacts were recovered during screening: a whiteware sherd, a piece of window glass, a shard of post-1865 container glass, a post-1885 iron nail, and three butchered faunal fragments.

The second stratum was void of cultural materials and the silty sand was not native to the area, but redeposited soil from a construction episode. Excavation was halted, as debris and rubble at 2.4 feet made further excavation impossible.

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (0–1.6')</td>
<td>silty sandy fill with coal ash (10YR 5/4)</td>
</tr>
<tr>
<td>II (1.6–2.4')</td>
<td>silty sand (10YR 4/4), no cultural materials</td>
</tr>
</tbody>
</table>

STP B2

STP B2 contained two strata, excavated to a depth of 2.1 feet. All soils encountered were redeposited layers. Stratum I was characterized by silty sand that contained coal ash and few cultural materials, including a fragment of a red clay pipe bowl (1780–1920) and a sherd of pearlware (1800–1940). The second stratum was identical to that of STP B1. Rubble at 2.1 feet below surface prohibited further shovel testing.
Photograph 3.5  Block 1127, Lots 48 and 50, Test Trench A2.
PHASE IB ARCHAEOLOGICAL INVESTIGATION FOR THE ATLANTIC YARDS ARENA
AND REDEVELOPMENT PROJECT: BLOCK 1127, LOTS 48 AND 50

Photograph 3.6  Block 1127, Lot 50, Test Trench A3.

3.9
Stratum I (0–1.5') silty sandy redeposited soil with coal ash (10YR 5/4)
Stratum II (1.5–2.1') silty sand (10YR 4/4), no cultural materials

**STP B3**

STP B3 was similar to STPs B1 and B2. The upper stratum contained redeposited silty sand that contained mixed context cultural materials. Six artifacts were recovered during screening, including pottery and window glass. None of the artifacts were dateable. Shovel testing continued to 2.7 feet, when rubble impeded further excavation.

Stratum I (0–2.2') silty sand (10YR 5/4) redeposited soil
Stratum II (2.2–2.7') silty sand (10YR 5/4) redeposited soil

**STP B4**

STP B4 was excavated to 0.8 feet, when dense rubble was encountered, preventing further shovel testing. Eleven artifacts, all post-1864, were recovered, including container glass, safety glass, and iron nails.

Stratum I (0–0.8') silty sand (10YR 5/4)

**STP B5**

STP B5 was excavated to a depth of 2 feet, when modern rubble and debris impeded further excavation. No cultural materials were recovered.

Stratum I (0–2') silty sand (10YR 5/4) redeposited soil

The five STPs excavated in the northern half of the test area were fairly consistent with 1.5 feet of redeposited soil and materials that included late-nineteenth- to early-twentieth-century artifacts, followed by a silty sand stratum (Stratum II) devoid of any cultural materials. Stratum II was a clean fill material associated with an earlier construction episode. Also somewhat consistent was the presence of dense rubble and debris at approximately 2.5 feet, which prevented further shovel testing. As a result, a shift in methodology was considered warranted, and backhoe trenching was employed to further test the area.

**Trench B1**

A 9-x-26-foot backhoe test trench was positioned in the northern half of the test area in the vicinity of the former stair. This trench was excavated to a depth of 5 feet. Excavation exposed a 2-foot-thick concrete foundation that extended beyond the 5-foot excavation depth (Photograph 3.7). The area north of the foundation wall was filled with brick and concrete building rubble and metal pipes. The area south of the foundation wall also contained a significant degree of rubble, as well as some disassociated large cobbles.

Stratum I (0–4.5') Rubble fill containing brick, concrete, and metal

**Block 1127, Lot 48 (475 Dean Street): Area C**

The second area recommended for testing within Lot 48 was a 30-x-15-foot area, designated Area C, located along 6th Avenue and referred to as the 6th Avenue Out Parcel. Formerly, a one-story stuccoed brick structure stood on this parcel.

Subsurface investigations consisted of two machine-excavated trenches—measuring 2 x 16 feet, oriented north-south, and 3 x 10 feet, oriented east-west. Both trenches consisted of redeposited fill materials composed of rubble and recycled concrete aggregate (RCA) (Photograph 3.8). The brick within the rubble dated post-1875. At 4 feet, modern plastic caution tape was exposed. The trenches were excavated to 5 feet when the walls began to collapse. Safety concerns prohibited further excavation (Figure 3.2).
Photograph 3.7  Block 1127, Lot 48, concrete foundation wall.
Photograph 3.8  Block 1127, Lot 48, Test Trench 5.
Figure 3.2  Test Area C test trench locations.
Trench C1

Stratum I (0–3.5')  Rubble fill, RCA

Trench C2

Stratum I (0–4')  RCA and brick rubble
Stratum II (4–5')  Brick rubble

Both Areas B and C showed evidence of modern disturbance in the form of brick and concrete building debris, RCA, and the recent demolition. There was no evidence of the possible circa-1850–1876 shaft features suggested in the Phase IA study. No documentary evidence could be found on the existence of a basement within the modern structure. However, the substantial building foundation exposed would have allowed for a basement or crawlspace. The underground storage tank was not located. No intact surfaces, features, or artifact deposits were uncovered.
The Phase IB archaeological testing of Block 1127, Lots 48 and 50, revealed significant and widespread disturbance of this area. Prior to archaeological testing, the contractor was asked to scrape and remove 18 to 24 inches of rubble from the site. Despite this effort, many of the STPs could not be fully excavated due to impassable rubble, leading to a shift in the testing strategy. Test trenches were excavated, on average, an additional 5 feet, for a total excavation depth averaging 7 feet.

The machine-excavated test trenches revealed significant disturbance and a high volume of building debris and rubble. There was no evidence of the possible circa-1850–1876 shaft features in any of the test areas suggested in the Phase IA study. Modern construction disturbances extended beyond 7 feet and are likely to have obliterated any historic surfaces or features.

No intact surfaces, features, or artifact deposits were uncovered. In consideration of this and the extensive disturbances evidenced during archaeological testing, no further archaeological testing is recommended for these areas.
References

AKRF, Inc.

Schneiderman, Faline