Phase IB Archaeological Monitoring – Construction of Combined Sewer In: Water Street Between Old Fulton Street and Adams Street, Old Fulton Street Between Front Street and Furman Street and Washington Street Between York Street and Plymouth Street (aka Downtown Brooklyn Water Main Replacement Project), Brooklyn (Kings County), New York – Project PIN Number: SEK002355

Prepared for:

The City of New York – Department of Design and Construction
Long Island City, Queens, New York

Submitted to:

Tully Construction Company
127-50 Northern Boulevard
Flushing, Queens, New York 11368

Prepared by:

Alyssa Loorya, M.A., R.P.A., Principal Investigator
Christopher Ricciardi, Ph.D., R.P.A. and
Diane George, M.A., R.P.A.
for: Chrysalis Archaeological Consultants, Incorporated

Final Report – November 2012

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MANAGEMENT SUMMARY TABLE

NY SHPO Project Review Number:	N/A – This is not a formally reviewed project Project PIN Number: SEK002355
Involved State/Federal Agencies:	City of New York – Department of Design and Construction New York State – Office of Parks, Recreation and Historic Preservation City of New York – Landmarks Preservation Commission
Phase of Survey:	Phase IB – Archaeological Field Monitoring
Location Information:	Brooklyn, Kings County, New York
Survey Area:	N/A
USGS 7.5 Quad Map:	Brooklyn
Archaeological Survey Overview:	N/A
Results of Archaeological Survey:	Evidence of mid to late nineteenth century landfilling to create dry-land was uncovered. Evidence of mid to late nineteenth century and early twentieth century utilities.
Results of Architectural Survey: Buildings within Project Area: Buildings adjacent to Project Area Previous N/R Buildings: Eligible N/R Buildings	N/A
Report Authors:	Alyssa Loorya, M.A., MPhil., R.P.A. Christopher Ricciardi, Ph.D., R.P.A. Diane George, M.A., R.P.A.
Date:	November 2012

MANAGEMENT SUMMARY (TEXT)

During 2009 and 2010, Chrysalis Archaeological Consultants, Inc., was contracted by Tully Construction Company, on behalf of The City of New York – Department of Design and Construction undertook Phase IB Archaeological Monitoring for a portion of the construction of combined sewer replacement in: Water Street between Old Fulton Street and Adams Street; Old Fulton Street between Front Street and Furman Street; and Washington Street between York Street and Plymouth Street in Brooklyn (Kings County), New York City. These areas were part of the Downtown Brooklyn Water Main Replacement Project – Project PIN Number: SEK002355.

The Area of Potential Effect (APE) along Water Street between Old Fulton Street and Main Street is located in the Down Under the Manhattan Bridge Overpass (DUMBO) Historic section of Brooklyn, New York. Alyssa Loorya, M.A., M.Phil, R.P.A. served as the Principal Investigator. This report was authored by Alyssa Loorya, Christopher Ricciardi and Diane George.

Several trenches of various dimensions were excavated within the streetbed of the APE. Within the various trenches were several active and inactive utilities including electric, gas and telephone lines, water and sewer mains, catch basins and manholes. The stratigraphy of the trenches was fairly congruous with the various utility activities having impacted the natural stratigraphy of the area.

All artifacts recovered were from clearly disturbed contexts consisting of secondary and/or tertiary re-deposition. The recovered materials dated from the nineteenth to the twentieth centuries.

Several disarticulated and/or fragmentary features related to landfilling and previous utilities were uncovered and recorded. All were disturbed and and/or without *in situ* context.

Due to the previous disturbances and the installation of the new water main, no further cultural resource management work is recommended within the first seven feet of the overall project are. All cultural resource remains have been removed and documented from within the project area.

However, if excavation work is to occur below seven feet, then there is a moderate to high potential for the recovery of additional eighteenth and nineteenth century features, artifacts and stratigraphic layers, which may be *in situ*.

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ACKNOWLEDGEMENTS

The authors wish to thank the following for making the project a success.

John Barbaro, Fred Hartman and Greg Paterno from Tully Construction Company and the entire Tully crew.

The City of New York – Department of Design and Construction for their support throughout the project.

Amanda Sutphin from The City of New York – Landmarks Preservation Commission was most helpful in shaping the nature of the project and understanding of the "special" circumstances that arose during the monitoring project.

Douglas Mackey from The New York State Office of Parks, Recreation and Historic Preservation was most helpful and understanding in offering advice and support to allow this project to come to completion

The entire Chrysalis Archaeology staff, which helped shaped this report.

I. INTRODUCTION:

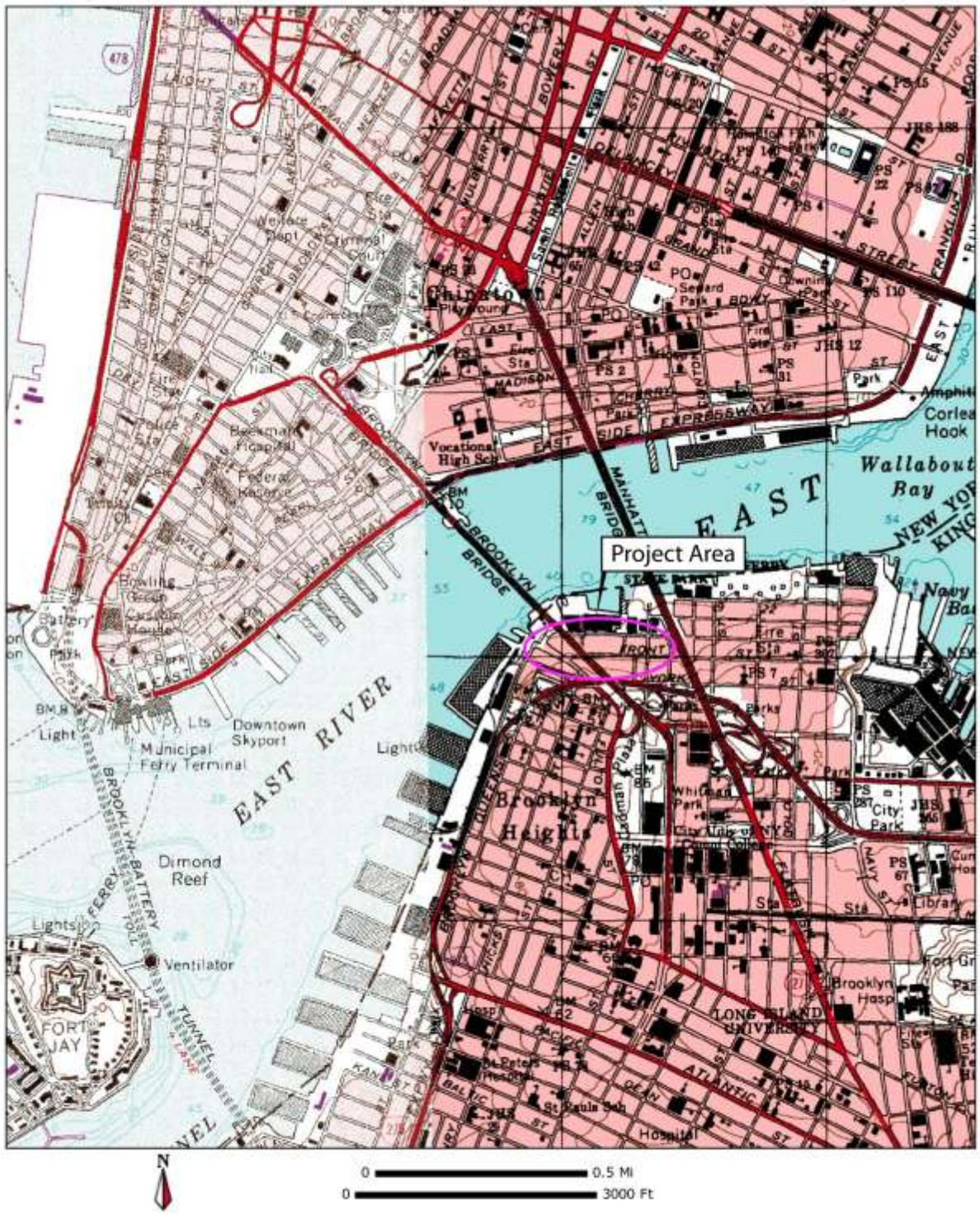
In 2009, Chrysalis Archaeological Consultants, Inc., (Chrysalis) was contracted by Tully Construction (TC) to undertake archaeological monitoring for a portion of the Downtown Brooklyn Water Street Reconstruction Project (DTBWSRP) (Map 01) (Appendix A). The project area is located in what is today commonly referred to as the Down Under the Manhattan Bridge Overpass (DUMBO) neighborhood, Brooklyn (Kings County), New York and is located along the East River between the Brooklyn and Manhattan Bridges, directly across from Lower Manhattan. Historically, this area was known as Fulton Ferry. Alyssa Loorya, M.A., M.Phil, R.P.A. served as the Principal Investigator, Christopher Ricciardi, Ph.D., R.P.A. served as the field director and Diane George, M.A., R.P.A., served as the field archaeologist.

Due to population increases and DUMBO's transition from an industrial to a residential and commercial neighborhood, its infrastructure, some of it more than a century old, was inadequate. The City of New York - Department of Design and Construction (DDC) undertook this project to reconstruct and upgrade the water distribution system, sewers and streets in the area.

The DTBWSRP was unique in that formal Cultural Resource Management (CRM) (Archaeological) compliance was not required by the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO) or the City of New York – Landmarks Preservation Commission (LPC). However, based upon the nature of the project area, its location adjacent to the National Register Fulton Ferry Stores and within the Fulton Ferry Historic District[1], DDC undertook archaeological monitoring of its own accord to ensure that any potential cultural resource issues could be handled efficiently by the on-staff archaeological team. As such, a Phase IA Historical Documentary Research and Archaeological Assessment Report was not undertaken for the specific project area. Chrysalis however did review existing Phase IA Reports from the general vicinity as part of the project. In addition, both the NY SHPO and LPC were consulted throughout the project to be kept apprise of what was occurring on site.

As per the Request for Proposal (RFP), developed by DDC, the Phase IB project consisted of seven primary tasks: 1) develop an Archaeological Monitoring Plan, including defining the Area of Potential Effect (APE) based on previous Phase IA reports from different projects within the vicinity of this proposed project; 2) Develop an Unanticipated Discoveries Plan, including Human Remains Plan, that outlined the steps to followed if significant material or physical remains, beyond what was outlined in the RFP was uncovered; 3) Conduct Archaeological Monitoring of the project area based on the Phase IA documents; 4) Undertake preliminary laboratory analysis of recovered material remains (i.e. washing, cataloging and creation of a database of the remains), if necessary; 5) produce a final report of the results; and 6) If necessary, based on the results of what was uncovered in the field, develop either a Phase II or Phase III Mitigation Plan. If Phase II or III work became necessary, an additional Scope of Work was to be developed and a new contract awarded to complete the necessary actions as that work was beyond the tasks outlined in the current RFP. The seventh task was to provide all necessary services related to the cultural resource process during the overall construction project.

[1] The LPC designation for the Fulton Ferry Historical District occurred on June 28, 1977 and for the DUMBO historical district on December 18, 2007. The area was also added to the National Register of Historic Places on June 28, 1974 (Fulton Ferry) and September 22, 2000 (DUMBO Industrial District).



Map 01: USGS – Downtown Brooklyn Area.

Project Description:

The overall project included the replacement of the existing water mains in the DUMBO area (Image 01 and 02). Trunk lines were installed from the newly installed water mains to existing points of contact supply lines to the various commercial and residential buildings. Several distribution mains were installed, along with several catch basins and the replacement of existing sidewalks, curbs and roadway. Depths of the water mains and installations extended between 8' and 10' feet below surface.

Image 01: View from the southwest corner of Old Fulton and Furman Streets, May 2009.

Image 02: Initial Test Pit work in 2009 – Fulton Ferry Landing area

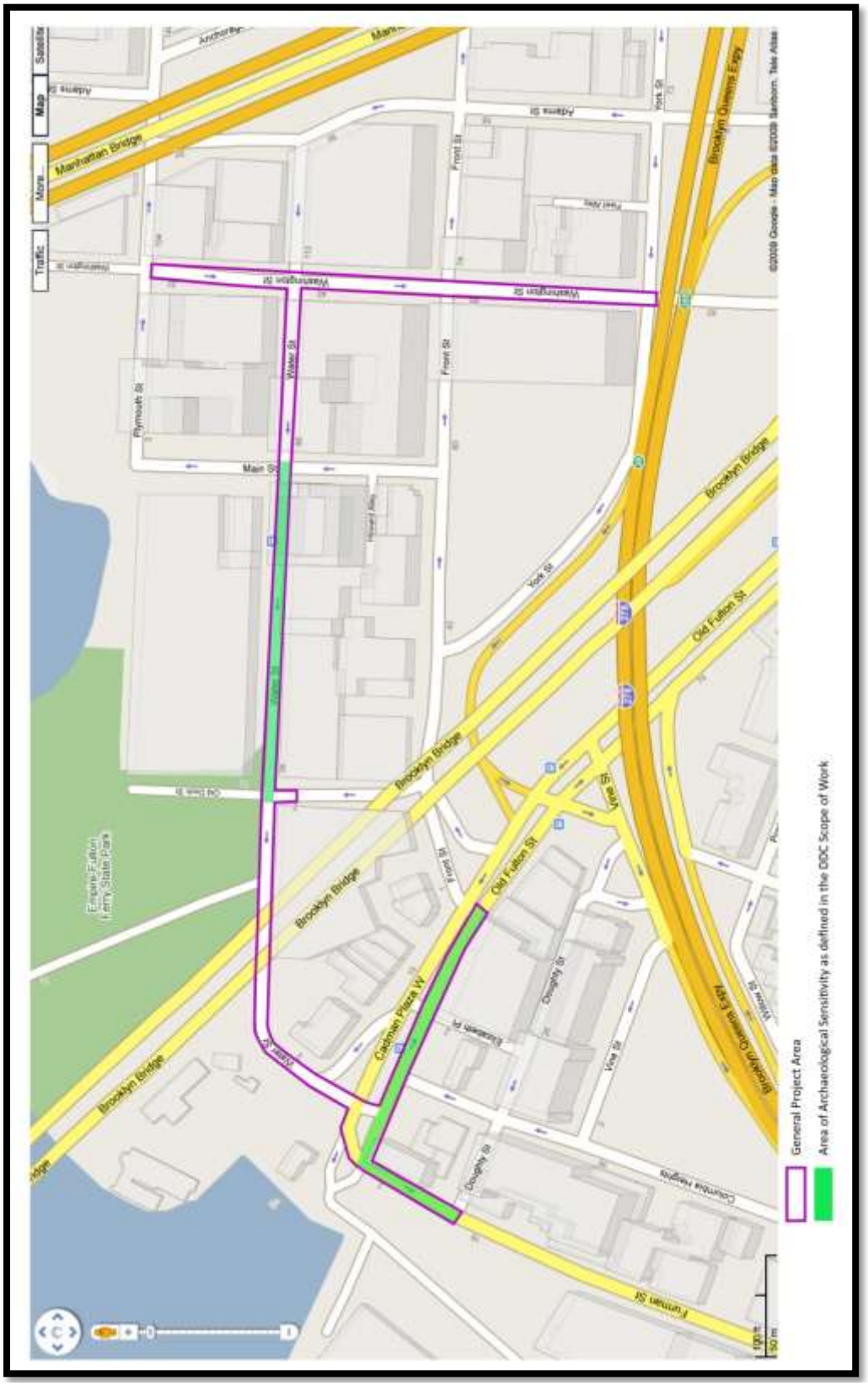
The Areas of Potential Effect (APE), identified within the DDC Request for Proposal, was the street-bed and sidewalks throughout the project area (Map 02). The existing building line was used as the outer boundary of the APE.

More specifically, the archaeological APE for this project as defined by the DDC included:

- Water Street between Old Fulton and Main Street
- Old Fulton Street between Front Street and Furman Street
- Furman Street from Old Fulton Street to Doughty Street

Cultural Resource Regulations:

As previously stated, this project did not fall under review by NY SHPO or the LPC regulatory agencies as neither agency determined that there was a need for archaeological services. However, it was agreed upon that NY SHPO and the LPC would be kept apprised of the various activities that occurred throughout the project and a final report would be provided courtesy copies of the final report.



Map 02: APE as determined by DDC.

II. ENVIRONMENTAL AND PHYSICAL SETTING

Long Island lies within the Hudson Valley region and is part of the New England Upland Physiographic Province (Schuberth 1968:10). The underlying geology consists of "gneiss and mica schist with heavy, intercalated beds of coarse grained, dolomitic marble and thinner layer of serpentine" (Scharf 1886:6-7). During the three known glacial periods, ice was sometimes as thick as 1,000 feet over portions of western Long Island. Advancing and retreating glaciers carved, scraped, and eroded the land surface in the Northeast. With the final retreat during the Post-Pleistocene, glacial debris, a mix of sand, gravel, and clay, formed the many low hills or moraines that constitute the present topography of the New York City area. Along these low hills many rivers, streams, lakes, and ponds were formed. The constant flow of these rivers and streams as well as the corresponding rise in sea level continued to mold the landscape.

The project site falls within the embayed section of the Coastal Plain, which extends along the Atlantic Coast and ranges from 100 to 200 miles wide. The Long Island prong, which includes southwestern Connecticut, Westchester County, and New York City, is a small eastern projection of the New England uplands, characterized by 360 million year old, highly metamorphosed bedrock (Schuberth 1968:11). The Brooklyn ridge generally rises in elevation toward the north, and sinks toward the south (Image 03).

The prevalent gneissoid formation underlying the project site is Hudson River metamorphosed rock. Brooklyn is characterized by a group of gneissoid islands, separated from each other by depressions, which are slightly elevated above tide and filled with drift and alluvium. The area consists of drift with underlying crystalline rocks including stratified gneiss, mica schist, hornblendic gneiss, and hornblende schist with some feldspar and quartz (Gratacap 1909:27).

Historical development has altered many of the natural topographic features that once characterized Brooklyn, including the early historic shoreline (Gratacap 1909:5). During the late pre-contact and early historical periods, portions of the project site were submerged under the East River and the coastline was along present day Water Street (Viele 1865; Lyne 1730; Ratzer 1766/67).

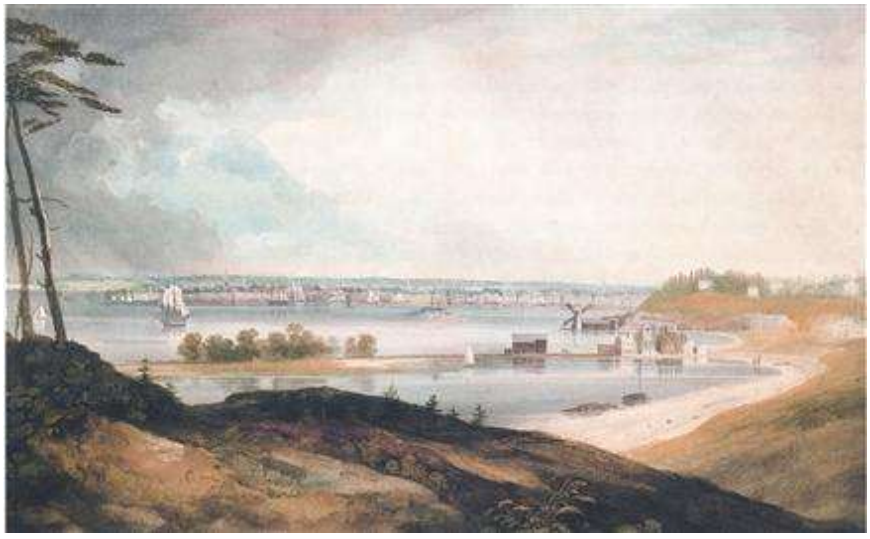


Image 03: Historic drawing of the general Fulton Ferry Landing area, circa 1800

III. BACKGROUND HISTORY:

Since a Phase IA was not required for this specific project area, a traditional "Background History" section is not included in this report. Three previous reports have been completed within the general project area that provide detail of the area's history, maps, developments, etc. However, to place the project in context, a summation is provided. Please refer to Stone 2002, HPI 2005, 2008 and URS 2012 for more complete history of the overall project.

Historically, the entire project area, with the exception of the eastern end of Old Fulton Street, was part of the East River and its tidal marshes until the late half of the eighteenth century, and into the nineteenth century in some areas (Image 04). This area was the location of the main ferry crossing from Manhattan in the seventeenth through nineteenth centuries and was central to the development of City of New York and Brooklyn, as a city in its own right. Passengers, merchandise and goods passed in and out of Brooklyn through the ferry landing in ever-increasing volume, until the opening of the Brooklyn Bridge in 1883. Even after that time, the area housed numerous warehouses and factories, some of whose buildings are still extant today. The area was landfilled, creating the present day landscape beginning in 1824 (Stiles 1884; Stone 2002; HPI 2008; URS 2012).

Image 04: Historic Image of the general Fulton Ferry Terminal area, circa 1900

IV. PREVIOUS CULTURAL RESOURCE REPORTS:

There have been three previous Cultural Resource Management (CRM) (Archaeological) projects adjacent to the general project area.

Stone's Phase IA covered a portion of what is now known as Brooklyn Bridge Park. Her recommendation was that due to extensive development and landfilling in the majority of the area, there was a low potential for the recovery of Native American sites. She also stated that there was a moderate potential for the recovery of industrial sites, but due to disturbances in the area, most archaeological sites were probably compromised. She recommended that monitoring still occur for any excavation work (Stone 2002).

HPI's Phase IA focused on the rezoning of several lots within the area. Their conclusions stated that there was a low potential for the recovery of Native American sites, due to the drastic landscape transformations that have occurred during the historic period. Moderate to high potential for the recovery of both industrial and domestic historic sites was deemed to potentially exist based on the exact location of future excavation work. The reported concluded that mechanical equipment would be necessary to locate any remains (HPI 2005 and 2008:18-21).

URS's Phase I project focused on excavations within Brooklyn Bridget Park. This report included additional historical research and the results of archaeological excavations within Brooklyn Bridge Park. Several significant archaeological building remains were uncovered and documented. Among these was the remnant of a large nineteenth century flourmill. Additionally, the potential for the recovery of additional resources was estimated to be high. It was estimated that the majority of the nineteenth century landscape was remnant within 3' of the surface (Image 05). It was recommended that archaeological work occur in areas that had not been tested (URS 2012).

Image 05: Brooklyn Bridge Park – pathway (courtesy URS)

V. PHASE IB ARCHAEOLOGICAL MONITORING PROTOCOL:

Phase IB Archaeological Monitoring, Unanticipated Discovers and Human Remains Discovery Plans were submitted to the project, NY SHPO and LPC (Appendix B). The plans set forth for Phase IB archaeological monitoring at the site, including research issues to be addressed, proposed fieldwork activities and possible additional mitigation measures that may be undertaken should archaeological resources be encountered during the archaeological investigations, including artifact analysis, laboratory work, written reports, and further documentary research if necessary.

The Phase IB fieldwork is designed to ascertain the presence/absence, type and extent of archaeological resources on a site. Its ultimate goal is to determine whether significant (i.e., National Register eligible) resources that could be adversely affected by project construction are extant within the site APEs.

The proposed work was conducted in accordance with 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 investigation was also conducted pursuant to NY SHPO guidelines for projects (New York Archaeological Council 1994) and the LPC's Guidelines for Archaeology (LPC 2002). The cultural resources specialists who will perform this work satisfy the qualifications specified in 36 CFR 61, Appendix A.

Research Issues:

The APE was determined by DDC, based in part on their review of the previous archaeological reports, to be potentially sensitive for historical archaeological deposits in specific locations. 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, i.e. 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. These deposits frequently provide the best remains recovered on urban sites. Deposits may also be uncovered with the remnants of old foundation walls that lie within areas that street widening or other changes to the street and/or property lines have occurred.

Other resources that may have potentially been recovered in the APE included domestic features (e.g., wells, cisterns, and privies), infrastructure features (e.g., wood water pipes, pumps, street cisterns, and municipal wells), and structural features (e.g., sidewalk vaults and building footprints), historical fill, fill retaining devices, and wharves.

From all indications it was concluded that there was only a minimal potential for pre-contact archaeological resources in the APE, and if pre-contact deposits did exist in discrete locations, they would potentially be found where historical fill may have protected them from later disturbance.

VI. ARCHAEOLOGICAL MONITORING:

Archaeological monitoring throughout the project revealed what can be considered typical nineteenth and early twentieth century fill contexts with associated artifact remains for the New York City area. In general, this included the remains of previously demolished brick and stone building foundations and sidewalk vaults, re-deposited landfilling/retaining devices, utility lines, clean fill, the remains of street car/railroad tracks and general building debris. Artifact recovery was minimal and no primary undisturbed contexts were uncovered. All recovered materials were located in re-deposited fill from secondary or tertiary contexts. No significant, in situ, cultural resource remains and/or stratigraphic levels were uncovered within the APE.

All excavation occurred mechanically, except where utility interference necessitated hand excavation or the excavation area was too small for machine excavation (Image 06).

Image 06: Example of mechanical and hand excavation.

The project area was generally paved with asphalt over Belgian block set in sand above a concrete underlayment (Image 07). The thickness of the pavement, including the underlayment, varied within the project area, ranging between 14" - 24". Overall, the project area had a fairly consistent stratigraphic profile (Table 01). The stratum directly beneath the road bed consisted of a sandy loam fill. This was followed by a medium- rusty-brown sandy loam with gravel and small rock and pebble inclusions extending to an approximate depth of 7' below surface (Image 08 and Schematic 01). On Water Street and Dock Street the soil was contaminated with a dark organic, noxious substance, most likely some type of petroleum or petroleum by-product at 6' –

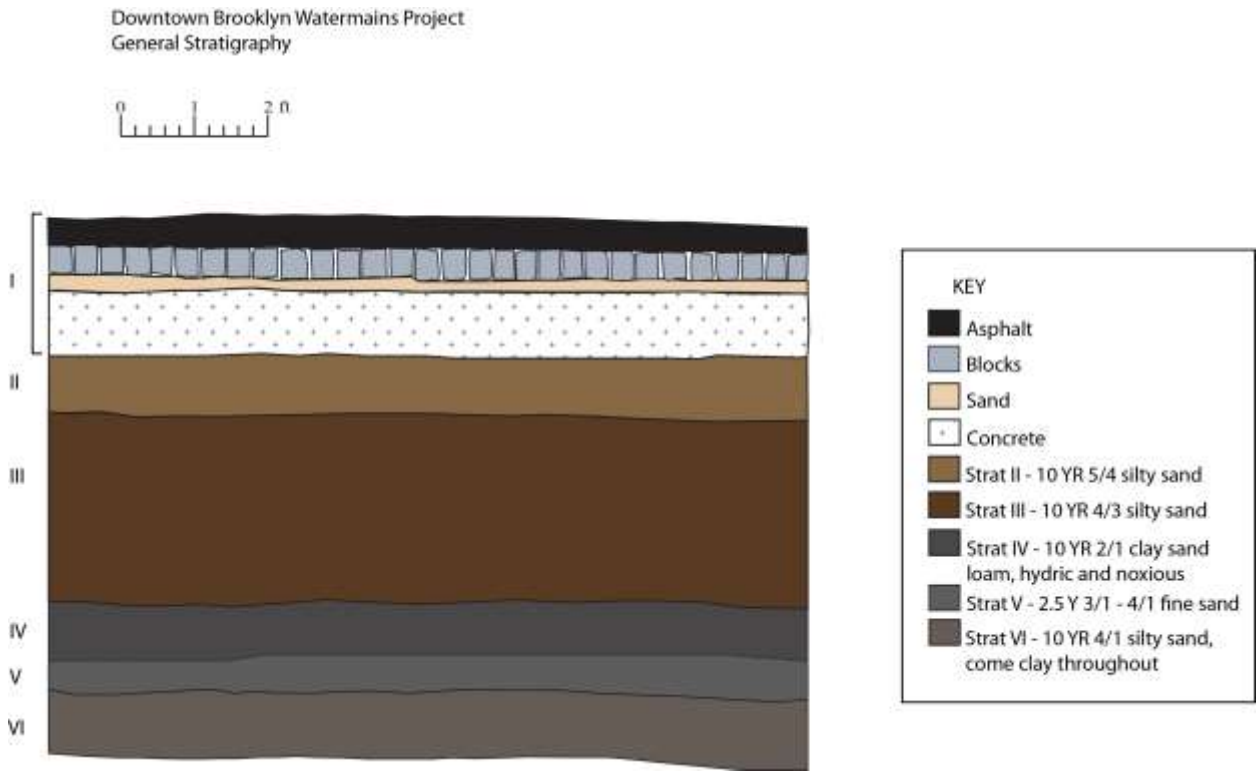
7’ below grade. In other areas at this depth along the east-west portion of Water Street, a stratum of fine black sand was present, averaging approximately one foot thick. At 8’ below surface dark-gray silty sand, with occasional clay inclusions was present throughout the entire project area. This stratum likely represents the original river bed.

Image 07: Typical stratigraphy for the project area.

Strat	Depth	Description
I	0 – 14”/24”	Pavement
II	14”/24” – 3’	Sandy loam fill – 10 YR 5/4
III	3’ – 7’	Medium rusty-brown sandy loam; gravel and small rock/pebble inclusions – 10 YR 4/3
IV	6’ – 7’	Dark, organic, noxious[2] - 10 YR 2/1
V	7’ – 8’	Fine, dark sand fill – 2.5 Y 3/1-4/1
VI	8’ +	Dark gray silty sand; clay pockets, possibly original river bed – 10 YR 4/1

Table 01: General site stratigraphy.

[2] This layer was present on Water and Dock Streets only, unless otherwise noted.



Schematic 01: General site stratigraphic profile

Image 08: Black sand stratum beneath rusty brown sandy loam on Water Street.

Much of the project area had been subject to disturbance from previous utility installations. Utility disturbance was significant above 5' in most areas, except for along Everit and New Dock Streets. Hydrants, manholes, numerous types of duct banks, gas and water mains and, on Old Fulton Street sewer lines with associated concrete housing, had impacted the area. Close to the curb lines late nineteenth or early twentieth century wooden utility conduits were observed intact throughout the project area, at 18" below surface. Some architectural features, such as the remains of previously demolished brick sidewalk vaults and building foundations were preserved beneath the curb lines and sidewalk within 2' of the surface.

Prior to the start of construction a series of thirteen test pits were excavated to locate various utilities in preparation for major subsurface work. The test pits consisted of two pits in the northernmost block of Furman Street; five on the west end of Old Fulton Street, west of Everit Street; six on Water Street; four west of Dock Street and two just west of the intersection of Main Street.

The test pits were manually excavated following mechanical removal of the road surface removal. Most pits were excavated to a depth of 5 - 6' below surface and were of varying dimensions. All exhibited significant subsurface utility disturbance.

Over the course of the project 13 catch basin trenches and 25 service and hydrant trenches were subject to archaeological monitoring. Trenches were located on both sides of Water Street and varied in dimension. Catch basin trenches measured approximately 10' deep and were a minimum of 10' in length and width. With one exception, all the catch basin trenches impacted the existing sidewalks. Service and hydrant trenches varied greatly in shape and dimension. The depth of the trenches also varied but were generally excavated to depths between 4' and 6' below grade. Seven of these trenches were contained partly or wholly in the north sidewalk of Water Street between Dock Street and Main Street (Map 02 and 03).

All of the trenches exhibited modern, disturbed fill beneath the road bed. In most areas, this consisted of a sandy loam, with inclusions of brick and wood fragments in addition to gravel, small rocks and pebbles. In some of the shallow trenches, this matrix was the only stratum. Several areas contained clean sand surrounding utilities. A black sand stratum, at least 1' thick, was present in some of the street trenches between Dock and Main Streets.

The final phase of this project subject to archaeological monitoring was excavation for the 36" trunk water main and 15" sewer line between Furman Street at Doughty Street and Water Street at Main Street.

Surface dimensions of the water main trench varied from 7'-14' wide over the excavation area but remained fairly consistent within each street location. The Furman Street trench was approximately 14' wide, narrowing to between 8' and 10' on the south side of Old Fulton. The trench along the remaining area of Water Street was approximately 12'-15' wide. Final excavation depth reached at least 10' in all locations with the exception of the north/south leg of Water Street (Map 02 and 03).

Throughout the course of the excavation, archaeological monitoring was limited by two factors, the first being areas of contamination. In addition to soil contamination: in some areas the presence of water and the need for sheeting to prevent trench collapse limited access and visibility. Groundwater was present between 5' and 9' throughout the project area. While water was sometimes pumped from the work area, this was not always the case. Also, pumping did not completely remove the water.

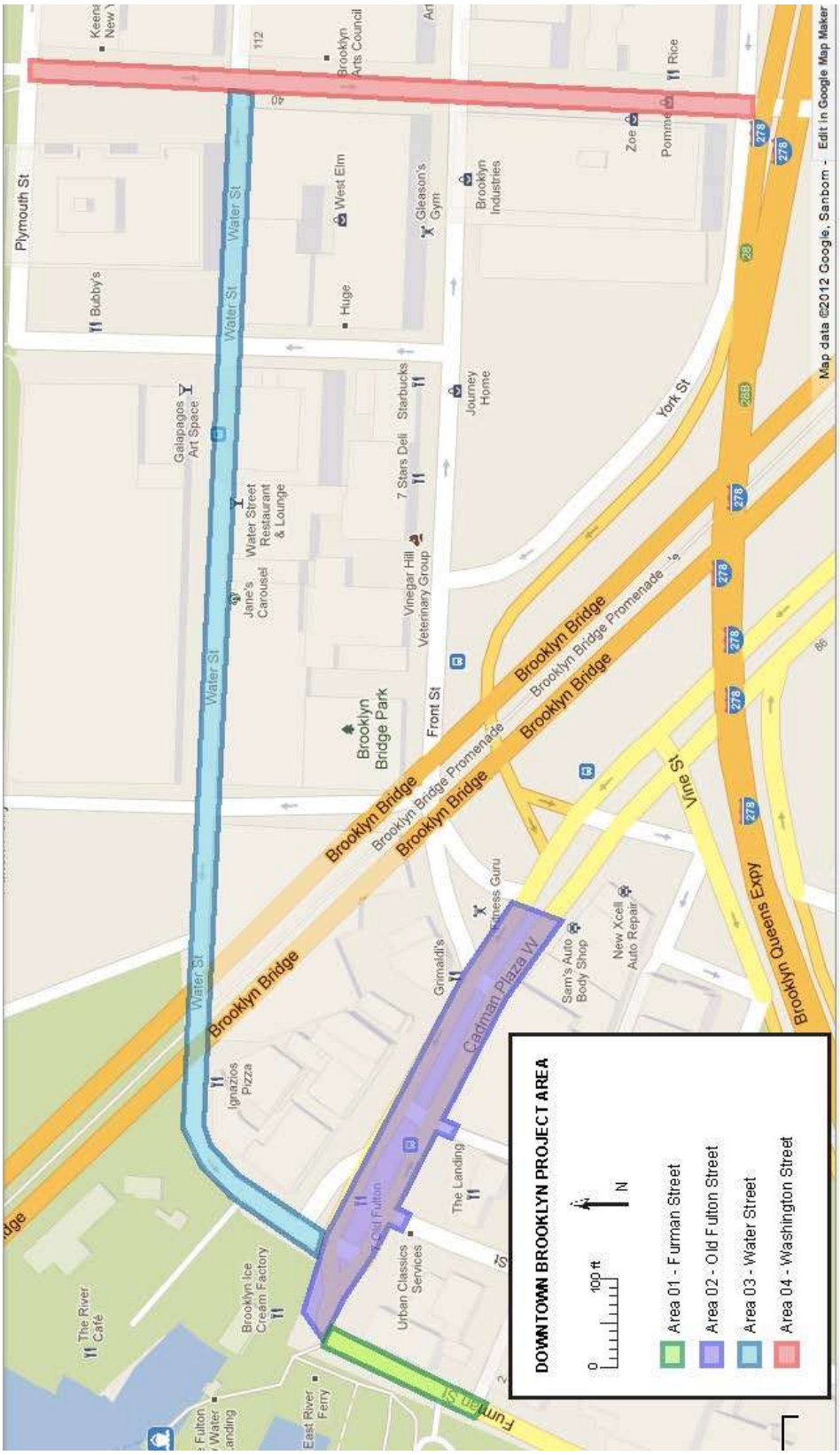
Areas of Excavation

For the purpose of this report, the areas monitored have been grouped according to geographic location and not the construction sequence (Map 02 and 03).

Area 01 - Furman Street – between Doughty Street and Old Fulton Street
Area 02 - Old Fulton Street – between Furman Street and Front Street
Area 03 - Water Street – between Old Fulton Street and Washington Street
Area 04 - Washington Street – between York Street and Plymouth Street

Note Appendix C, D and E contain additional site images, the overall artifact database and artifact images.

Image 09: Due to its location and site conditions there were several government inspectors on site at any given time.



Map 03: Project Site Map – By Reporting Areas

Area 01 - Furman Street – between Doughty Street and Old Fulton Street

Two test pits were excavated on Furman Street before the start of construction. These test pits, #1 and #7[3], were located on opposite ends of Furman Street between Doughty and Old Fulton Streets and exhibited different levels of soil disturbance due to utilities (Map 02, 03 and 04).

Test Pit 1

Located on the east side of Furman Street near Doughty Street, Test Pit 1 measured 6' x 6' and was excavated to an approximate depth of 6' – 7' below surface. Surface layers were typical of the area but absent Belgian block. The subsurface stratum was a medium rusty brown sandy loam fill with gravel and small rock inclusions. Some modern brick and a broken clay utility pipe were also present in the matrix. A six-inch square wooden beam, possibly a streetcar tie, protruded approximately 4' from the east wall, perpendicular to the curb line, into the north side of the trench. Streetcar tracks were visible through the road surface in the vicinity of this test pit. The existing water main was exposed at 5½' below grade. No other utility disturbance was visible. Two creamware sherds and two fragments of blown bottle glass were recovered.

Test Pit 7

Test Pit 7 measured 4' x 6' and was excavated at the southwest corner of the intersection of Furman and Old Fulton Streets. A modern brick and concrete manhole box was present along the northeast wall of the unit surrounded by gravel fill. Beneath the gravel fill soils consisted of a yellowish medium-brown sandy loam with small gravel and rock inclusions extending to 3' below grade. Utility disturbance was extensive, consisting of the manhole, a large concrete-encased duct bank at 2' below grade in the south end of the trench and a 4" PVC pipe extending from the manhole box at 3' below grade. Test Pit 7 was excavated to a final depth of 3¼'. Artifacts in a lower, rusty brown stratum included modern brick, oyster and clam shell, a sherd of mid-nineteenth century transfer ware and unidentifiable iron fragments.

MASS EXCAVATION - FURMAN STREET TRENCHES

A trench on the west side of Furman Street was excavated adjacent to the west curb line beginning at approximately 90' south of the north building line on Old Fulton Street. The trench width measured approximately 14' and excavation extended to a depth of 11'-12' below grade. At the north end of Furman Street where it intersects with Old Fulton Street, the trench turned approximately 60˚ to the east and continued in a general northeasterly direction across Old Fulton Street to the south end of Water Street (Map 02 and 03).

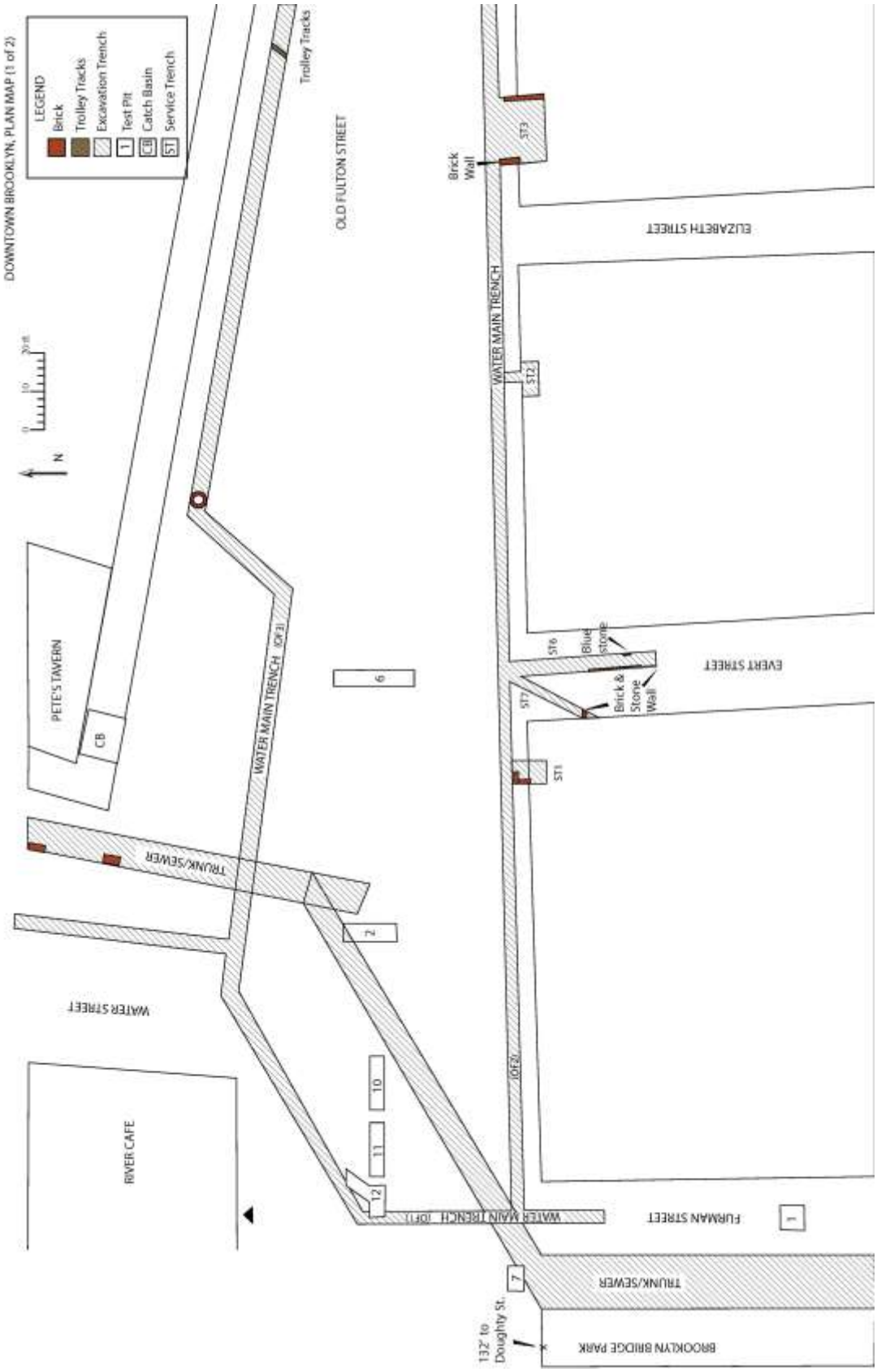
[3] Test pits are numbered according to chronological sequence of excavation and not within the specific geographic location as reported in this report.

Utility disturbance in the south end of the trench was substantial and included a 6" cast iron pipe at 3½' below street grade and a 24" main at 5' below grade. Both ran the length of the trench through its center. Two concrete conduits were exposed along the west trench wall at 3' and 5' below grade. Interference cutting across the trench was present between 2'-5' deep. A late nineteenth to early twentieth century square wooden utility conduit ran north/south along the length of Furman Street at approximately 2'-2½' below surface.

Several logs that may have once been part of a landfill-retaining wall or cribbing were found disarticulated across a 30' – 40' span south of the north building line at Old Fulton Street. The logs were 10" in diameter and averaged approximately 5' in length. The logs were splintered and/or broken. The installation of an existing cast iron water main at approximately 8' below grade clearly disturbed original formation.

A minimal number of artifacts were observed throughout this area. A single small creamware sherd was recovered in the vicinity of the above mentioned logs. Closer to the intersection with Old Fulton Street, a small number of ceramic sherds and some architectural rubble were dispersed throughout the rusty brown sandy loam fill within the first 4' of the trench. Ceramics consisted of five sherds of mid-eighteenth to mid-nineteenth century wares including creamware, salt glazed stoneware and mochaware.

No undisturbed contexts or deposits were exposed throughout Furman Street between Doughty and Old Fulton Streets.



Map 04: Areas 01 and 02 – General Schematic Map

Area 02 - Old Fulton Street – between Furman Street and Front Street (including Everit and Elizabeth Streets)

Of the thirteen test pits excavated prior to the start of construction, five (Test Pits 2, 6, 10, 11 and 12) were located on Old Fulton Street, west of Everit Street (Map 02, 03 and 04).

Test Pit 2

Test Pit 2 measured 14' x 5' and was located near the center of Old Fulton Street at the intersection of Water Street (Image 10). The road surface was typical of the project area and the stratum beneath the road base consisted of rusty medium-brown sandy loam fill with gravel, pebble and small rock inclusions. The top of a concrete sewer casing was exposed at 3½' below surface. The sewer ran east-west and was exposed across the 5' width of the test pit. A 10' length was exposed north to south. The overall depth of the concrete casing was not determined but it extended beyond the final excavation depth of 5½'. A substantial amount of loose, modern brick was found in the area of the casing and it appeared that there had been a brick facing to the concrete. No archaeological resources were uncovered and no intact stratigraphic layers were exposed.

Image 10: Concrete sewer housing in Test Pit 2.

Test Pit 6

This 10’ x 4’ test unit was located in the center of Old Fulton Street, directly north of the intersection of Everit Street, approximately 60’ east of Test Pit 2 (Map 02 and 03). The fill was identical to that exposed in Test Pit 2, no other strata were present. Excavation ceased when the concrete sewer casing was exposed at 3½’ below grade. The utility measured 9’ 3” north to south and slightly more than 4’ east to west, the width of the trench. In the rusty medium-brown matrix above the sewer casing, a large amount of modern brick was observed. This appeared to be from an exterior surface on the sides of the concrete sewer housing. This area was completely impacted by the earlier sewer installation.

Test Pits 10 and 11

These test pits were excavated at the same time and are being discussed together as they were located within a few feet of one another and exhibited similar characteristics. The trenches were situated in the center of Old Fulton Street south of the intersection with Water Street. Test Pit 10 was approximately 30’ west of Test Pit 2 and measured approximately 4’ x 14’. Test Pit 11, 3’ west of Test Pit 10, measured 4’ x 10’. The concrete sewer casing seen in Test Pits 2 and 6 was present in both Test Pits 10 and 11 at a shallower depth, between 2’ - 2½’ below surface. The matrix around the utilities was the same rusty medium-brown sandy loam fill found in Test Pits 2 and 6. Artifacts from Test Pits 10 and 11 included numerous loose bricks with a few oyster and clamshells. A rim sherd from a pearlware chamber pot dating to the late eighteenth to mid-nineteenth century was also noted. These artifacts were all from a disturbed context. No intact strata or deposits were uncovered (Image 11).

Test Pit 12

Test Pit 12 was located on Old Fulton Street immediately west of the Water Street intersection 2’ west of Test Pit 11. This pit consisted of two sections, each measuring approximately 8’ x 4’. One section ran east-west and the second extended northeast from the northeast corner of the original test pit area. Stratigraphy in this pit was consistent with the other test pits in this area. Utility disturbance in the trench was substantial, including a 4’ wide concrete casing, found between 2’-3’ below surface in the western end of the trench and a second concrete utility housing, 18” below grade in the south east corner where the two segments of the test pit met. Artifacts included a few sherds of early to mid-nineteenth century pearlware, brick, wood fragments, oyster and clamshell and an iron spike. A 6” long wooden hook or latch was also noted. As with the other test pits in this area, all materials were from a disturbed context. No intact stratigraphy or deposits were uncovered.

Image 11: Looking west at Test Pit 10 (in foreground) and Test Pit 11.

MASS EXCAVATION

Old Fulton Street South (including a portion of Furman Street)

Work for the water main distribution began on the north side of Furman Street approximately 25' south of the north building line of No. 8 Old Fulton Street and 7' west of the east curb line of Furman Street. The trench (numbered Old Fulton or OF1) measured approximately 3' wide and extended north to approximately 40" north of No. 8 Fulton Street. It was excavated to a depth of 5' below grade. At approximately 9' north, a second trench branched eastward at a 90˚ angle from the first. This latter trench spanned three blocks, from Furman Street to Front Street, measuring approximately 400' in length. Trench OF2 measured an average of 3' in width, but measured to 5' or 6' wide at the Furman Street junction with Everit Street. The overall excavated depth was approximately 5½' - 6' below grade. In addition to the 2 trenched, the

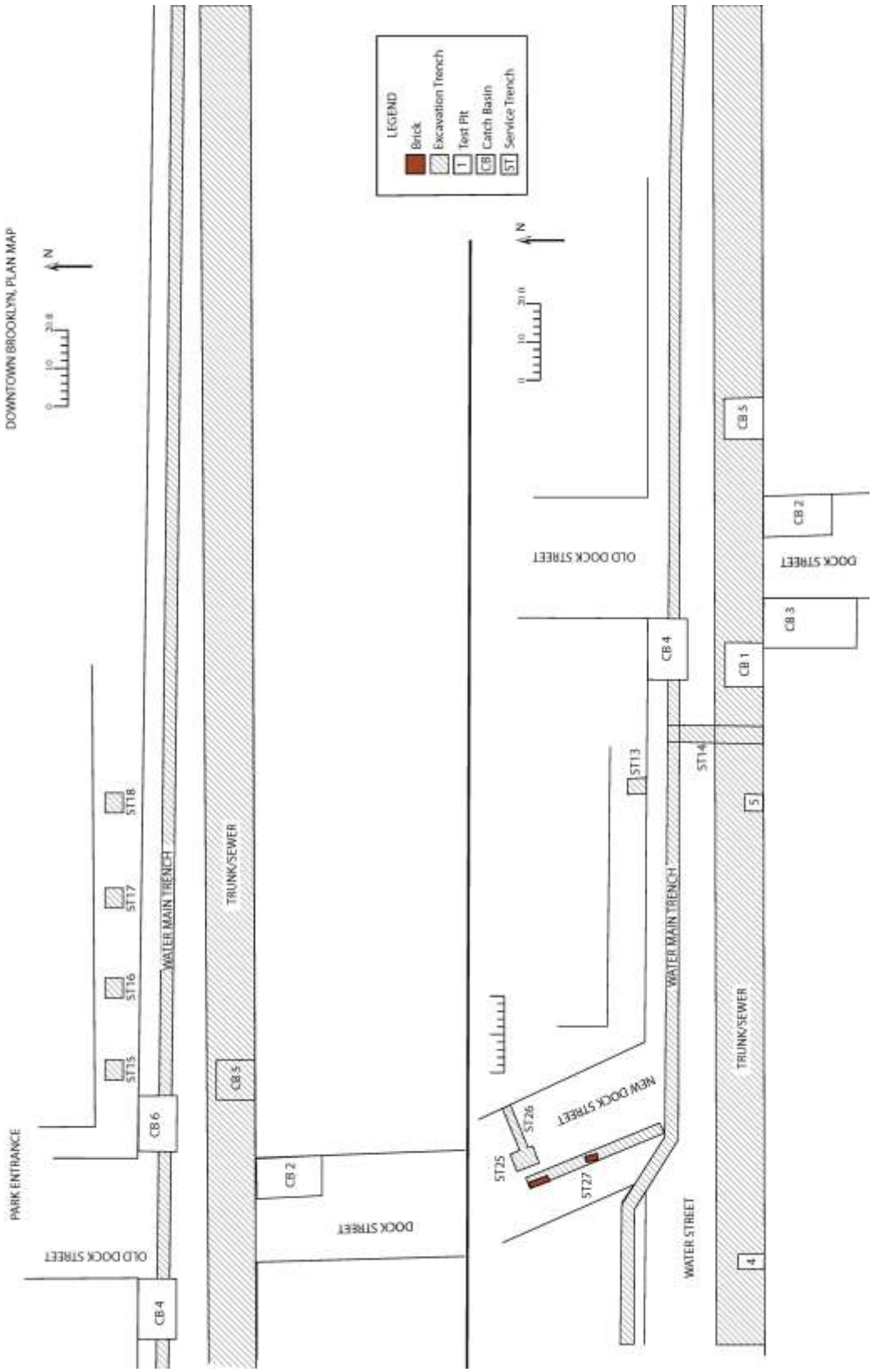
south sidewalk of Old Fulton Street was excavated at five separate locations and two service trenches were excavated on Everit Street (Map 02, 03, 05, 06).[4]

Significant utility disturbance was present along the west end of Old Fulton Street from the west end of the trench at Furman Street to, and within, the Everit Street intersection. Most of the utility impact at the west end of Old Fulton Street occurred between 2'-4' below surface, but an existing main and a few manhole boxes extended below 5' below grade.

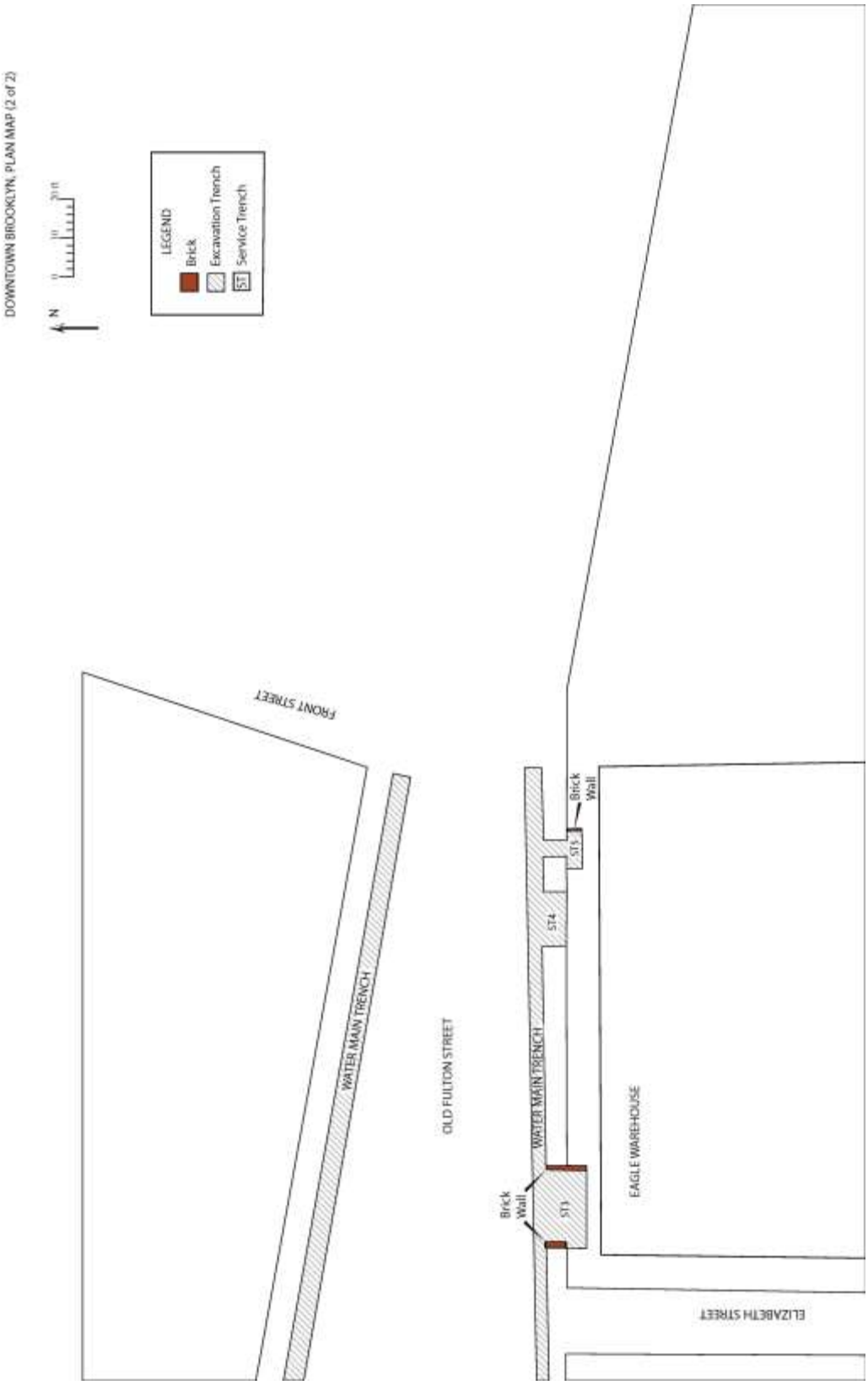
Extant utilities included a number of late nineteenth and early twentieth century lines and one mid nineteenth century main. The latter was a 6" cast iron pipe laid in 1858, according to the contractor's plan drawings. This main was present on Old Fulton Street throughout almost the entire length of the trench at a depth of approximately 3'-4' below surface. The existing water main on Furman Street ran north/south at 5' below street grade and was laid in the 1890s (according to construction plan drawings) (Image 12). Square wooden ducts observed in the test pits and in trenches throughout the project area ran at approximately 3' below street grade north/south on Furman Street and east/west below or slightly north of the south curb line of Old Fulton Street. At Everit Street, another wooden conduit branched off of the conduit running along Old Fulton Street. This connection contained a lead cable (Image 13).

Image 12: Cast iron water main laid in the 1890s being removed from Furman Street.

[4] Findings from Everit Street will be discussed in a separate section below.



Map 05: General Area 2 site map



Map 06: General Area 2 site map

Other early modern utilities observed in this portion of the project area were a salt-glazed ceramic conduit in the south wall of the Old Fulton Street trench west of Everit Street at 3½´ below the street grade; at least two disused brick manholes at the intersection of the Furman Street and Old Fulton Street trenches; and a small brick sewer pipe visible in the north trench wall on Old Fulton Street east of Everit Street.

Image 13: Wood duct on Old Fulton Street by the Eagle Warehouse.

Fewer utilities were present in the area between Everit Street and Elizabeth Street. The nineteenth century cast iron main was the primary utility present, running west to east at approximately 4' below street grade. Only two other ducts were observed in this block, both transecting the trench close to the Elizabeth Street intersection between 2'-2½' below surface. Utility disturbance was greater in the trench section between Elizabeth Street and Front Street. In this section, several pipes and duct banks crossed the trench at a depth of 2'-4'.

The water table on Furman Street and the west end of Old Fulton Street was located at approximately 5' below street grade The prevalent matrix throughout this entire section was a rusty medium-brown sandy loam fill with small to medium rock, pebble and gravel inclusions. Varying colors of clean sand fill were present around utilities.

On Furman Street, at the western end of Old Fulton Street, the soil was lightly included with small pieces of shell, wood and brick. Minimal amounts of ceramic, faunal remains, glass and architectural debris were also recovered throughout this block from disturbed contexts. Three shoe soles, two complete and one with a heel and stitching, as well as some scrap leather was recovered (Image 14). Ceramic sherds dated from the eighteenth throughout the nineteenth century and included a pearlware sherd with an impressed 'A'; American salt-glazed stoneware; slip-decorated redware; and manganese-sponged tin-glazed earthenware. Other artifacts noted were window glass, green liquor bottle glass, and wood and brick fragments. No intact surfaces or deposits were exposed. All contexts were disturbed by earlier utility work.

Image 14: Leather shoe soles.

Some architectural features were noted in this trench including brick walls or vaults belonging to extant structures. These were visible in profile beneath the curb line. The remains of five streetcar ties were exposed, just beneath the road base on Old Fulton Street at approximately 25' east of the intersection with Furman Street (Image 15). Additionally, in the north wall of the trench, at 18" below grade, were the cross sections of five 4" x 6" beams in an east-west oriented line. These were unevenly spaced at 2½'-3' apart but all were the same approximate depth. No corresponding wood feature or components was visible in the south wall of the trench and no rails were present.

Image 15: Street car ties beneath Old Fulton Street.

The existing brick features seen in the trench profile were associated with the mid nineteenth to early twentieth century structures in the area. Four partial brick walls and one partially intact brick sidewalk vault were exposed beneath the south sidewalk of Old Fulton Street. One wall was located just west of Everit Street and the others were between Elizabeth Street and Front Street. The cross-section of a small brick sewer was observed in the north trench wall east of Everit Street.

Three small extension trenches, extending south from the main trench to the sidewalk, were excavated to the east of Elizabeth Street. The single sidewalk trench excavated between Everit Street and Elizabeth Street did not contain any features. Two trenches contained partly intact brick features and the third displayed evidence of a brick and stone feature in the profile. Another trench to the west of Everit Street contained a remnant of a brick wall. Beginning with the westernmost brick feature, these are discussed in more detail below.

Approximately 10’ west of the property line on the western side of Everit Street, a trench connection was excavated from the main trench into the southern half of the Old Fulton Street sidewalk. The trench extended approximately 4' from the primary trench to the sidewalk and another 5’ into the sidewalk itself and measured 6' wide. This trench was excavated to a depth of approximately 5½’ blow surface. In the west wall of this trench a brick feature was uncovered at 18” below sidewalk grade (below the curb line and sidewalk). This appeared to be two connecting walls, one aligned east/west and the other north/south. The former, parallel to the curb line, was constructed of bricks aligned east to west and consisted of seven courses. The total width was 3’ (north to south). The latter segment, perpendicular to the curb line, was constructed of bricks aligned north to south. Only a small portion of the exterior of the wall was visible, and no further construction details could be discerned. Both wall segments continued below the trench floor at 5½’ below grade, and were more than 4’ in height. Component bricks were small, measuring 7" x 3" x 2" and contained no visible stamps or markings. The walls were surrounded by clean fill and no artifacts were present.

To the west of Everit Street, visible in the north trench wall, was a rectangular brick feature. The exposed wall measured 8' from the south curb line of Old Fulton Street proceeding north (Image 16). The feature measured 2' wide and was exposed at 2’ below street grade, extending to the trench floor at slightly more than 4’ below surface. It was the working field assumption that this feature was likely part of the manhole for the sewer based on the similarity of materials. However, this was inconclusive as no manhole cover was directly associated with the feature. One sherd of American salt-glazed stoneware with a tan slip interior was recovered from the matrix surrounding the wall face.

Image 16: Brick sewer on Old Fulton Street west of Everit Street.

The only other feature present in the north side of the trench was a small brick sewer located 5' north of the building line on the east side of Everit Street. The top of this sewer was exposed at 3½' below street grade. The brick was partially collapsed so the diameter was indeterminate but was estimated at 2'. Construction of the sewer was double-layered, with the ends of the bricks showing in the cross-section. The sewer had been partially blocked by soil from the exterior matrix, which was an intrusive medium-brown sandy loam. A few inches above and to the east of the sewer was a lens of black and white cement-like material, approximately 1' long and 6" thick. No artifacts were present in association with this feature.

Another trench extension was excavated into the sidewalk between Everit Street and Elizabeth Street, 25' west of the west curb line of Elizabeth Street. The sidewalk portion of the trench measured approximately 5' x 10' and extended 7' below surface, with a 4' x 3' neck portion to connect the sidewalk and primary trenches. No features or artifacts were present but a four-inch square wooden duct containing two cables was exposed running east to west parallel to the curb line at 4' below grade was exposed. Two thin wooden plates covering two east/west iron pipes at 3½' below grade were also observed.

The sidewalk of Old Fulton Street was impacted in 2 locations approximately 10’ east of the building line on the west side of Elizabeth Street. One trench segment measured 10’ north to south—5’ of which was beneath the sidewalk, 20’ east to west and was excavated to a depth of 10’ below surface. The second segment measured 4’ wide and was excavated to approximately 5’ below surface. Remnants of a brick sidewalk vault and two other brick walls were present in the profile (Image 17). A partially intact vault wall was visible in the east profile at 4½’ below sidewalk grade. Precise measurements were not possible due to excavation circumstances. The surface of the wall was covered with whitewash. Abutting the north end of the wall, a second separate wall, approximately 2’ wide, was visible in cross-section.

In the western profile of the trench segment, a substantial amount of disarticulated bluestone was observed at approximately 3’ below sidewalk grade. Another brick wall, running north to south, was present to the north of the bluestone at 6' below sidewalk grade (IMAGE 16). This wall was a minimum of 5’ long. Another fragmentary brick wall, also measuring 2’ wide, was exposed running parallel to the curb line. The matrix surrounding all of these features consisted of disturbed fill, a medium-brown sandy loam and rust colored sand. No artifacts were observed in association with any of the exposed features within this area. (PHOTO/PLAN VIEW/PROFILE)

Image 17: Sidewalk vault in front of the Eagle Warehouse, looking east.

Another trench to impact the sidewalk in this block was located at approximately 80' east of the building line on the east side of Elizabeth Street. This trench segment connected to the primary trench on its northern side to the curb line on its southern side. It measured approximately 6' north to south and 14' east to west. A wooden duct was exposed at 3 ½' below grade. Part of a brick wall and several irregularly-shaped bluestone slabs were visible in the south profile beneath the curb line (Image 18).

Image 18: Brick and bluestone features in front of the Eagle Warehouse, looking west.

The final area of the sidewalk to be impacted was located at 100' east of the eastern side of Elizabeth Street. The trench measured 10' east to west and extended approximately 4' into the sidewalk. A 6' x 4' segment connected the primary trench to the sidewalk.

A brick wall was observed in the east profile of the trench beneath the sidewalk (Image 19). The wall extended to the final excavation depth of 5½' below surface continuing below the trench floor. The wall had a north/south width of 2' and an east/west length of 2½'. Bricks measured 8" x 3½" x 2¼" and had no visible stamps or marks. There were five courses oriented lengthwise east to west so that their ends were visible in the east profile. No structure, intact or otherwise, was visible in the west trench wall, although there was a substantial amount of loose brick. A square wooden duct and a flat 4" wide wood plate over an iron pipe were present in the trench in front of the curb line at 5' and 3½' below grade, respectively. Fill beneath the sidewalk consisted of clean orangish-brown sand. As with the other trenches containing brick features in

this area, the soils were disturbed and the features impacted by earlier utility installations. No associated artifacts were observed.

Image 19: Brick wall on Old Fulton Street west of Front Street, looking east.

Excavation for the trunk sewer/main began at the southwestern corner of Old Fulton Street located in the center of the intersection of Old Fulton Street and Water Street at approximately 30’ south and 40’ east of the northwest corner of this intersection. The trench would proceed along Water Street for several blocks. The width was approximately 5’ and it was excavated to a depth of 10’ below surface. Water was present in the trench at approximately 9’ below grade. Utility disturbance was noted on the northern side of the Old Fulton Street and Water Street intersection from 2’-5’.

The only area of archaeological concern in this phase of the excavation lie in the first portion of the trench on Old Fulton Street. In the south central portion of the intersection with Water Street, two trapezoidal brick and stone features were exposed. The features, believed to be footings, were oriented lengthwise north to south and were partly embedded in the west trench wall (Image 20). Some utility disturbance was present between the two footings from 2½'-4' below grade. Plans in the possession of the contractor showed two "abandoned railway" supports in the same approximate location. The southeast corner of the southernmost footing was located approximately 120' north of the south building line of Old Fulton Street and 112' east of No. 1 Water Street. The top of this feature, at 2½' feet below grade, measured 4' long north to south and extended from the west trench wall 12" at the north end and 16" at the south end. The base of the feature was visible at approximately 6½' below grade, making it 4' total in height. The base was approximately 2' wider than the top but excavation conditions prevented entry into the trench for precise measurements. At the base of the feature was an approximate 4" thick slab of bluestone was exposed. Part of a disused ceramic sewer pipe was uncovered below the base of the brick feature at its center, 8' below grade.

Image 20: Brick footing in sewer trench on Old Fulton Street, looking southwest.

The northern footing was located 17’ north of the first, or approximately 141’ north of the south building line of Old Fulton. Its east face was slightly west of the southern footing. It protruded only a few inches from the west trench wall and was not fully excavated before the trench was sheeted. The dimensions and composition of this footing were similar to the first. No sewer pipe was noted below this feature.

Adjacent to the north footing, several disarticulated logs between 4’-7’ in length and 8”-10” in diameter were removed from the trench at 9’ below grade. Most of the logs had splintered ends, but one had a key-like end (Image 21), with a flat 3” thick piece protruding 1’ from the end of the log. These were disarticulated in the trench but were likely once part of a landfill device utilized in the area. The structure may have been destroyed when the railway footings were installed.

Image 21: Key-like end of log found in trench on Old Fulton Street near brick footings.

Everit Street

Part of the water main distribution trench was excavated along Everit Street located in the approximate center of the street. The trench extended 35’ to the south from the intersection of Everit Street and Old Fulton Street. A dry-laid fieldstone wall was exposed at 15” below street grade approximately 20’ south of the intersection with Old Fulton Street. The upper portion of the unmortared wall collapsed upon initial exposure, revealing a brick structure directly behind the wall, in the west profile of the trench. In the west profile, 14’ east of the west building line, a nineteenth century brick vault and stone wall were observed. In the east wall, 16’ west of the east building line, a horizontal bluestone surface was visible in the profile at approximately 5’ below surface.

The stone wall observed in the west profile consisted of two segments, a dry-laid fieldstone portion and to the south, a rough-cut stone block wall with limestone mortar (Image 22). The total north/south length of the wall measured 12’3”: the fieldstone portion measured 6’ and the cut block portioned measured 6’3”. The latter continued into the unexcavated area of the street to the south so the total length is undetermined. Both portions of the wall protruded between 12”-18” from the plane of the west wall and continued beneath the trench floor at 5½’ below street grade. The total visible height of the wall could not be determined precisely due to collapse but was approximately 4½’ for the fieldstone portion and 3½’ for the cut stone portion. Fieldstones measured between 14”-21” long and between 12”-18” wide. The stone blocks were granite and measured approximately 14” long and 10” wide and deep.

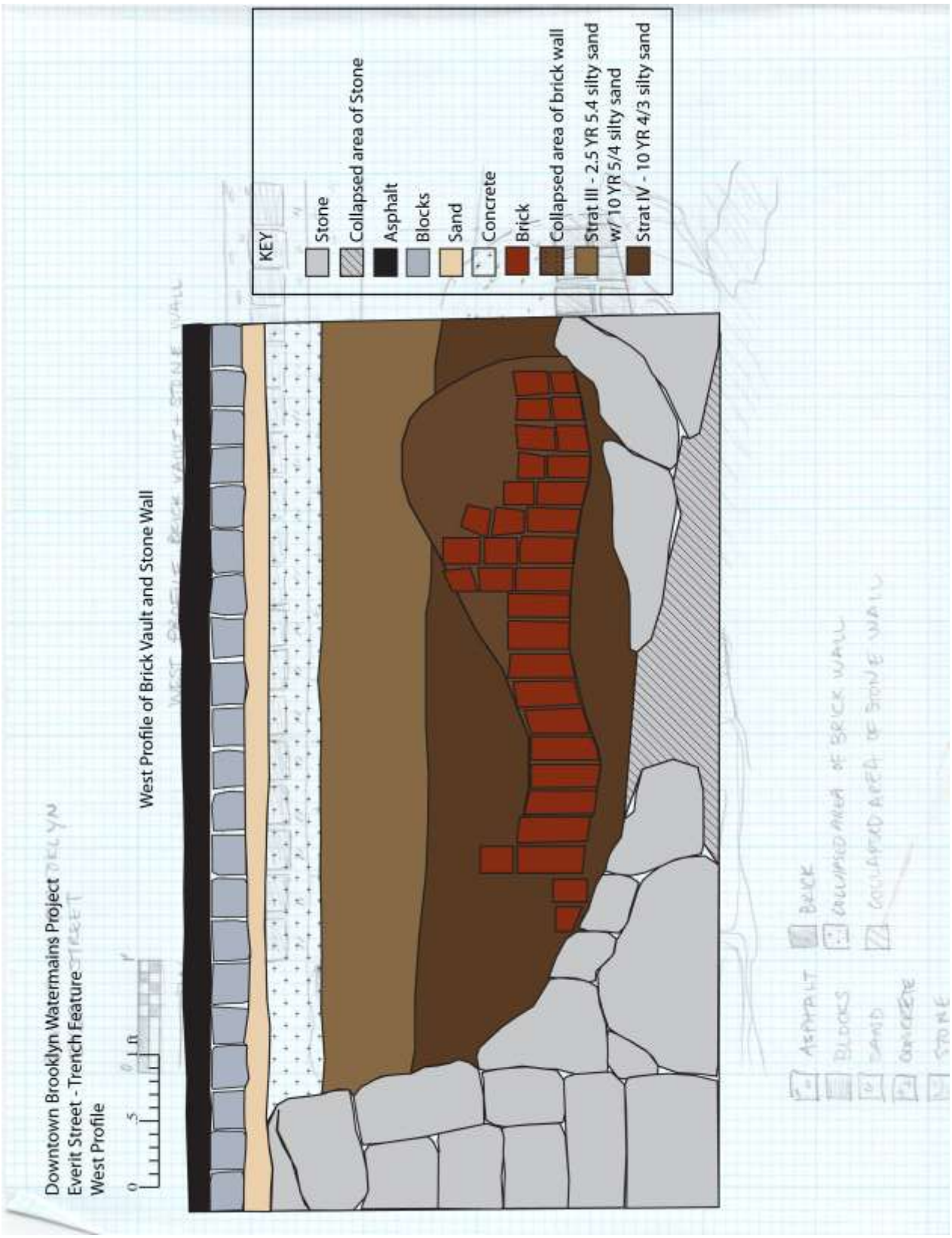
Image 22: Rough-cut, mortared stone wall adjacent to dry fieldstone wall and brick structure.

The brick feature behind the stone wall (discussed above) consisted of a row of at least fourteen vertical bricks in a semi-arched configuration, that appeared to be collapsed, with a length of 4½' (Image 23). At the north end for approximately 2', the ends of a row of at least seven bricks placed horizontally were visible above the first brick row. At the south end were two layers of horizontally-placed bricks, with at least twelve bricks in each row, with the top of these rows two or three inches below the top of the arched row. Measurement of individual bricks was difficult as all were *in situ*, but they were approximately 7" x 3" x 2" (Schematic 02).

Image 23: Brick portion of Everit Street feature with collapsed fieldstone wall, looking west.

The brick and stone feature had been impacted at its northern end by the installation of a brick manhole. It is not known when the manhole was built, but the brick appeared to date to the nineteenth century. No other utilities were present in the area of the feature.

The bluestone noted in the east wall of the trench consisted of a horizontal surface 1"-2" thick running north/south at 5'4" below grade; 2½' of length was exposed (Image 24). The edges of the stone were fragmented and fractured in layers, and it appeared that installation of the water pipe, only a few inches to the east, had destroyed a portion of this feature. A 3"-4" stratum of solidified yellow fill sand overlay the bluestone and several pieces of loose brick were visible in the profile just above the sand. The stratum above the sand and below the road bed was rusty medium-brown sandy clay loam typical of the area.



Schematic 02: Everit Street Brick Feature

Image 24: Bluestone surface visible in east trench wall on Everit Street.

A second trench excavated on Everit Street contained a partial brick wall. The north end of this second trench was located at the approximate center of Everit Street at the intersection with Old Fulton Street, corresponding to the location of the first trench at its north end. The 3' wide trench ran southwest from this point towards the west curb of Everit Street at a point 17' south of the south property line of Old Fulton and 5' west of the previous Everit Street trench. The matrix, a medium-brown sandy loam with rock and pebble inclusions, was consistent with the matrix surrounding the earlier brick and stone feature exposed in the previous trench. Several utility pipes and ducts between 18"-36" below surface disturbed the area.

The brick wall uncovered in this trench ran perpendicular to the west curb of Everit Street at 11' south of the south building line of Old Fulton Street. The top of the wall was 4' below the street surface, but had been impacted during prior utility installation. A single layer of brick lay on its side, approximately 7"-8" wide, crossed the trench. More brick was visible in the east trench wall, where bricks were aligned perpendicular to the previous row and layered three to four deep. There was no observable relationship between this feature and those noted in the previous trench.

Few artifacts were found in either of the two Everit Street trenches. Three ceramic sherds were recovered; two sherds were late eighteenth to early nineteenth century wares: Staffordshire slipware and Chinese import porcelain. A piece of pearlware was found embedded in the sand stratum above the bluestone surface. In the second trench, a modern beer bottle was noted in the top 2' of fill along with three ceramic sherds – Staffordshire slipware, Chinese import porcelain and tin-glazed earthenware.

Old Fulton Street North (between Front and Furman Streets)

Excavation on the north side of Old Fulton Street began just west of Front Street. The east end of the trench eventually extended to the west curb line of Front Street, approximately 300' east of the west building line of No. 2 Water Street. It then turned south and connected with the Furman Street trench previously excavated.

Utility disturbance was substantial in the eastern half of the trench with evidence of a number of episodes of disturbance throughout the twentieth century. Utilities were located between 1'-5' below street grade and included an early twentieth century ceramic conduit with lead telephone cables running east/west in the trench center at 3'-4' below grade. Several small metal pipes transected the trench and several PVC pipes were present. A large plastic duct and an early twentieth century copper service pipe with a hand-driven lead tap, a type that was generally not used after the mid portion of the twentieth century, were also present. A square wood duct, identical to those found on Furman Street and on the south side of Old Fulton Street, was present in the trench located near the west building line of No. 2 Water Street (Image 25).

Image 25: Wood duct on north side of Old Fulton at Water Street, looking north.

Three brick features and a segment of intact streetcar tracks were exposed on this side of Old Fulton Street. The tracks were located at the southwest turn in the trench, just east of Everit Street. The easternmost part of the exposed streetcar ties consisted of a wooden tie and steel rail located at 250´ east and approximately 20' south of the north building line on Old Fulton Street. The rail was 3" below street grade directly under the asphalt and flush with the Belgian block. The wooden tie was located at 1´ below grade. Eleven additional wooden ties and three additional rails were extant between this point extending 60' west and 50' south of the first tie. The tracks curved to the southwest, following the principal course of the street.

Three brick features were documented near the northwest corner of Old Fulton and Water Streets – a sidewalk vault and two partial circular structures that appear to have been utility-related (Image 26). Additionally, an early-modern twentieth century brick catch basin was present in this area.

Image 26: Bottom of circular brick feature in southwest corner of test pit one on Old Fulton Street east of Water Street.

The northeast arc of one of the circular brick features was visible along the west wall of the trench at 15' south of the building line on the north side of Old Fulton Street. It curved to the southeast and eventually headed into the south trench wall 4' east of the west wall. The interior of the structure contained yellowish sand, while the surrounding matrix consisted of rusty medium-brown sandy loam. The component bricks measured 8" x 3½" x 2¼", and some contained a frogged stamp reading "DPBW." This is likely Denny's Point Brick Works, one of the many Hudson River valley brick manufacturers. The height of the feature could not be accurately determined due to excavation circumstances and prior utility disturbance.

The second circular feature was first visible as what appeared to be the cross-section of a brick wall at 18½' south of the building line and 2½' below the street surface (Image 27). After further excavation, it became clear that the structure had a slight curvature, with its convex side toward the southeast. Construction consisted of two or three layers of odd-sized bricks, cut to fit the curvature. The cross section was approximately 10" wide and a minimum of 2½' high. The structure continued below the final excavation depth. The wall may have been an access point for an old water main. A twentieth century cast iron main ran beneath the wall at 5' below grade, although no valve was visible. Tan sand fill was present on the interior/southwest of the wall.

Image 27: Cross-section of second circular brick feature in test pit one, looking south.

The third brick feature in this area was the top of a functioning sidewalk vault (Image 28) on the south side of Pete's Restaurant, located at No. 2 Water Street on the northeast corner of Old Fulton Street and Water Street. The top of the vaulted brick structure was exposed immediately beneath the paving. An old brick catch basin was also noted in the southwest corner of the trench wall east of the brick vault, visible directly beneath the asphalt extending to at least 6' below street grade. An arched metal cap covered a clay sewer pipe approximately 3½' below grade, running south from the catch basin. Bricks were frogged and stamped "Brigham" and measured 8" x 3½" x 2¼'. Located in Ulster, New York, the Brigham Brick Company was part of an

extensive brick making industry that was prominent along the Hudson River Valley from the mid-eighteenth to mid-twentieth centuries. Brigham was founded as the Rosendale and Kingston Cement Company by Henry R. Brigham, who in the late 1880's expanded to include brick making. By 1891, the Brigham Bros. brickworks was established, as evidenced by historic maps from that period. The Brigham Brick Company operated until at least 1957 (http://brickcollecting.com/shultz.htm).

Image 28: Top of sidewalk vault in front of No. 2 Water Street, on the south side of the building.

Finally, a brick utility-related structure was present in the western end of the primary trench north of Furman Street. At approximately 18' south of the property line on the north side of Old Fulton Street and 18" below street grade, the northwest corner of rectangular structure was unearthed. To the southwest was a rectangular, north-south brick utility tunnel, approximately 3' square, with cables running through it. Concrete was present in the west wall of the trench across from the rectangular brick structure. Given the disturbed context and association with other utility-related features, it is likely that the rectangular structure was part of the sewer encasement.

No artifacts or undisturbed contexts were recovered within this area.

AREA 03 – WATER STREET – BETWEEN OLD FULTON STREET AND WASHINGTON STREET

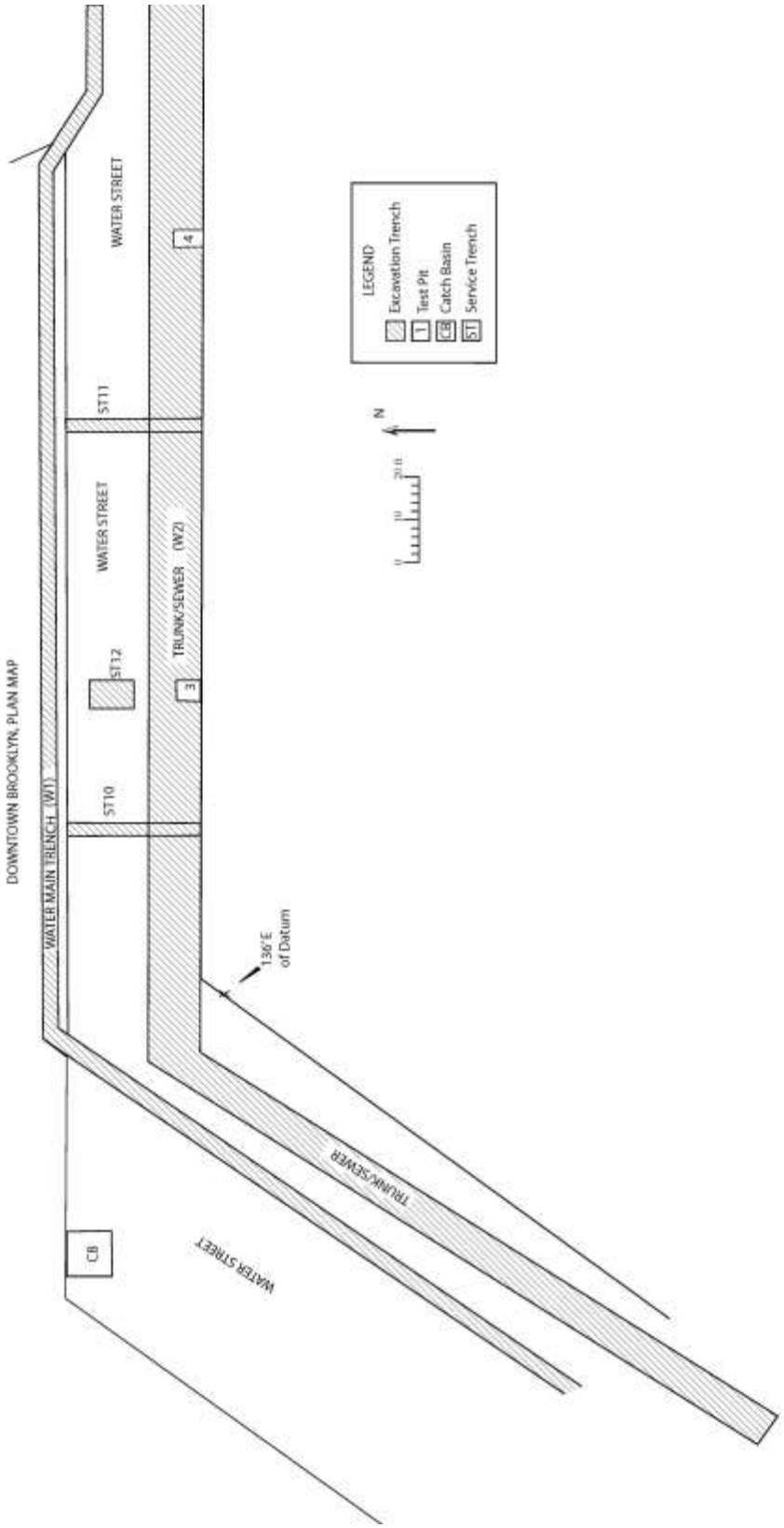
Six pre-construction test pits were excavated on Water Street. These test pits were spread out across the length of Water Street between Old Fulton and Main Streets. Four test pits were located between Old Fulton and Dock Streets and two were located between Dock and Main Streets (Map 02, 03, 07, 08 and 09).

Test Pit 3

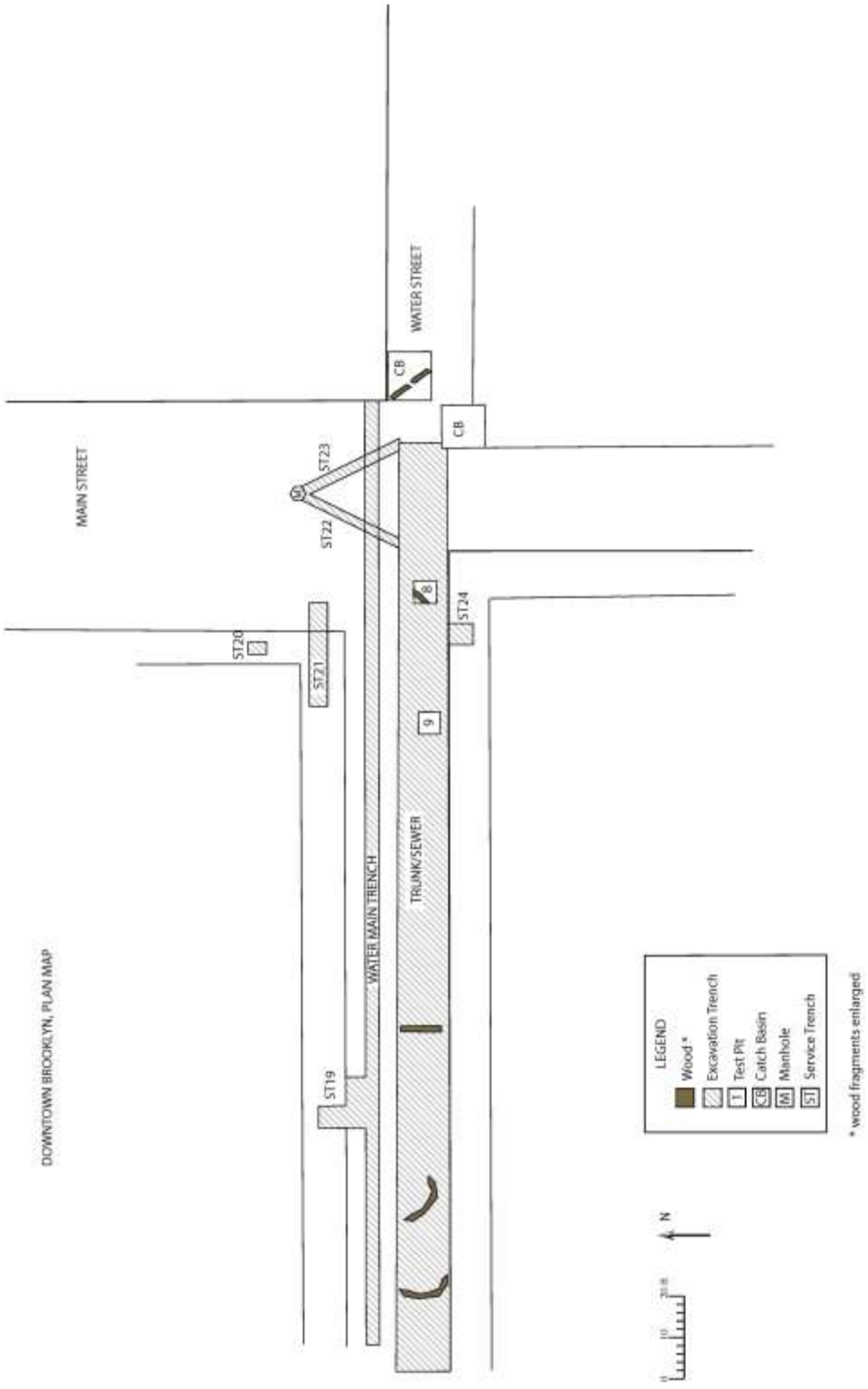
Test Pit 3 was a 5' x 5' unit located on the south side of Water Street, abutting the south curb line, approximately 60' east of the building line of No. 8 Water Street. The northern half of the pit was excavated to 3 ½' below surface and a small 2' x 2' area in the southeast corner was excavated to 6 ½'. Stratigraphy was typical to the area. Utility disturbance was substantial from a depth of 3', where two service pipes ran north/south, to more than 6', where a ceramic utility pipe was visible in the trench floor. Water began pooling in the trench at 5' below grade. No intact deposits, features, or stratigraphy were observed.

Test Pit 4

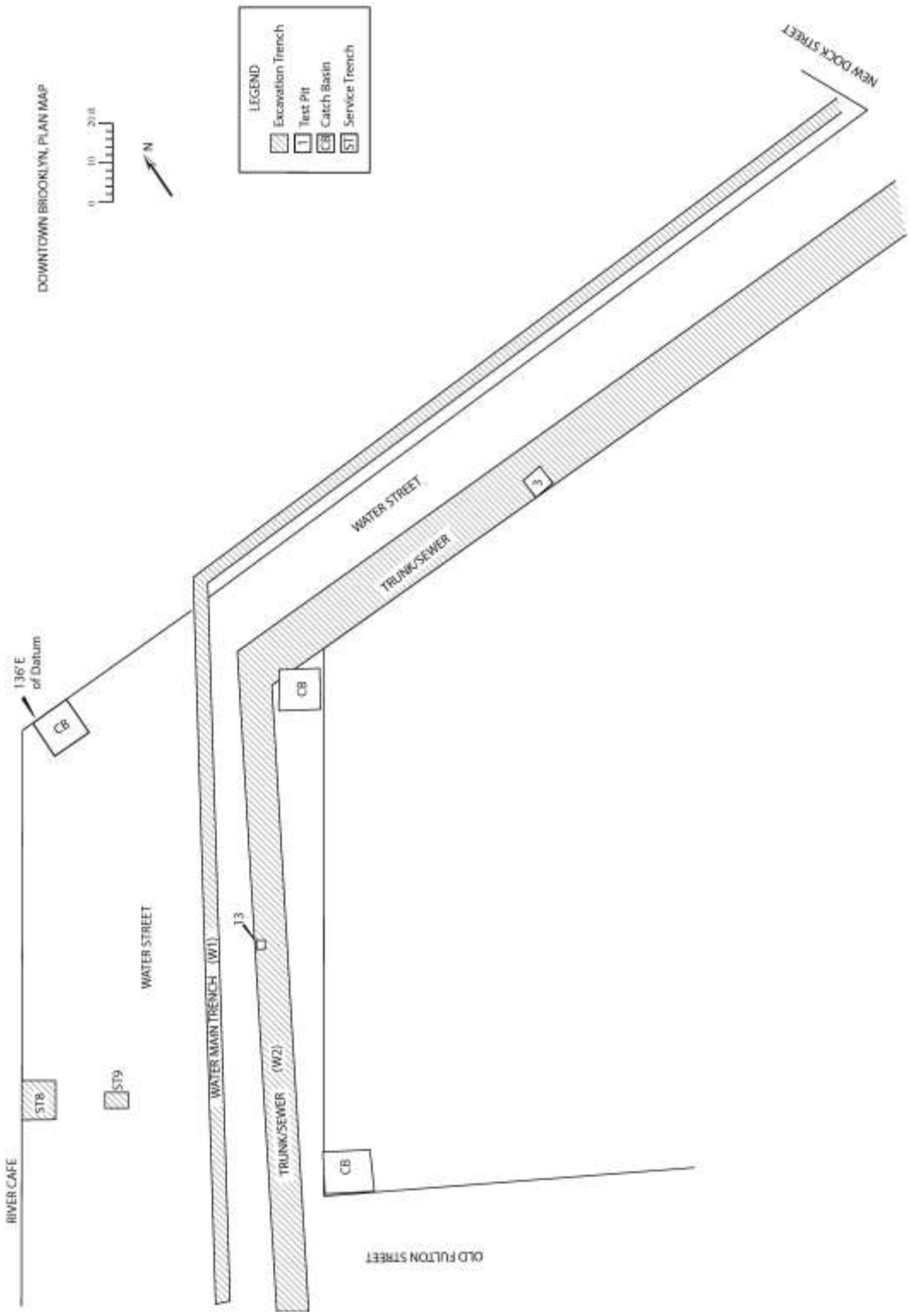
Test Pit 4 was located on the south side of Water Street at a point approximately 100' east of Test Pit 3 and directly south of the west side of New Dock Street. The unit measured 4' x 7' with the south wall abutting the south curb of Water Street. Stratigraphy remained consistent with that of Test Pit 3 with the rusty medium brown sandy loam extending 3 ½' feet below grade, followed by a stratum of dark gray-brown sandy. A small amount of coal, charcoal and brick inclusions were present in this layer, which measured approximately 1' thick. No other artifacts were found in this stratum. Two feet below surface, in the southeast corner of the trench, a one-foot thick concrete slab was exposed (Image 29). This slab ran diagonally from the south to the east trench wall and was not removed. Utility disturbance was minimal in Test Pit 4, but extended to 5½' below surface. No artifacts were found in this test pit. No intact surfaces or deposits were exposed.



Map 07: Area 3 – General View



Map 08: Area 3 – General View



Map 09: Area 3 – General View

Image 29: Looking north into Test Pit 4. The dark stratum is visible in the deepest area of the test pit, and the concrete slab (not fully excavated) is in the lower right corner.

Test Pit 5

Test Pit 5 was located further east on the south side of Water Street between New Dock and Dock Streets. The pit measured approximately 5' x 4' abutting the south curb line of Water Street. Most of the test pit contained the rusty medium-brown sandy loam fill observed elsewhere. Two large pipes, one running parallel to the curb at 3½' below grade and one (an older ceramic pipe) running perpendicular at 4½' below grade, comprised the only utility disturbance. A 6" thick bluestone slab was uncovered at 3' below grade in the southeast corner of the trench, opposite the concrete wall (Image 30). Only a 1½' x 1' segment of the stone was exposed

A concrete wall was exposed within the south profile of the trench extending 2' from the south wall. This wall began at approximately 1½' below grade and continued beyond the final excavation depth of 6' below surface.

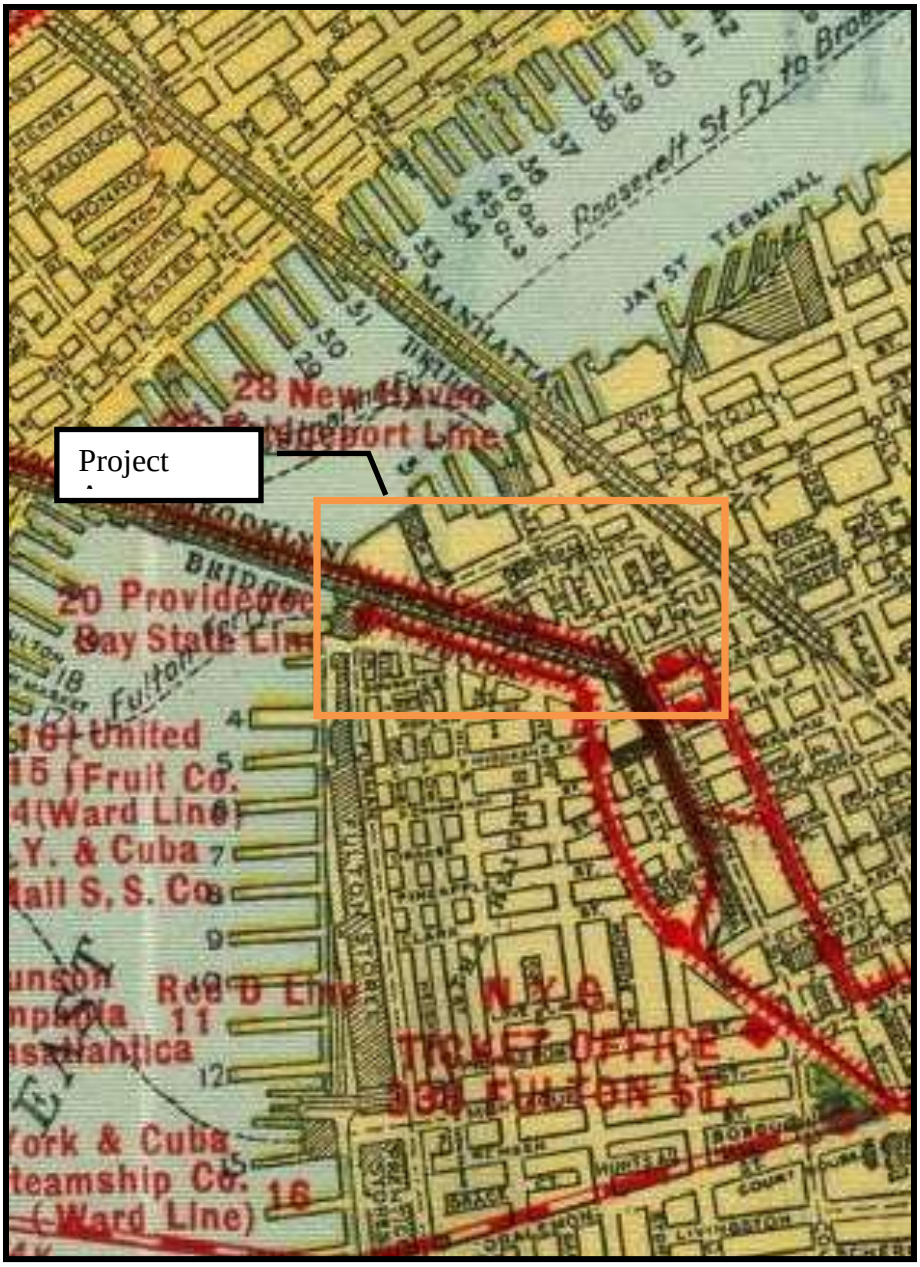
Image 30: Test Pit 5 looking south. The bluestone slab (pedestaled) is in left of trench (east) and the concrete wall is visible in the trench wall on the right (west).

Artifacts found in the sandy loam fill surrounding the wall included pieces of brick, oyster shell, a square nail and five sherds of nineteenth century ceramic. At 5½' below surface, some wood fragments and an unidentifiable iron building component were observed and noted. The function of the wall remains undetermined. No intact artifact deposits or historical layers were uncovered.

Test Pit 8

Test Pit 8 was located on the south side of Water Street near the intersection of Main Street. This unit measured 5’ x 5’ and was excavated to a depth of 4’ below surface. In the western segment of the unit, below the concrete sub-surface, the matrix consisted of medium-brown loamy sand with gravel and pebble inclusions. In the remainder of the trench, fill consisting of the ubiquitous rusty medium-brown loam was exposed directly below the Belgian block followed by a thin stratum of yellow-tan sand. Beneath these fill strata, a utility duct bank covered by a steel plate occupied the eastern two-thirds of the trench.

No artifacts were uncovered but a wooden beam, likely a wooden tie from the streetcar tracks that ran through this area, was exposed in the northwest corner beneath the concrete roadbed (Map 10). The beam, located 18” below street surface, was six inches square and had two knobby metal pieces protruding from its surface (Image 31). The exposed length measured 31”. Directly below the tie was another beam running on a slight northwest to southeast diagonal at 2’ below grade crossing under the tie. This second beam did not have any direct relation to the crosstie. Below this, on an east-west line at 3½’ below surface was a four-inch square wooden utility duct. The water table was slightly higher here than in other areas, and standing water was evident just below the wooden duct at approximately 4’ below surface.



Map 10: The New York Central Railroad map showing various transit lines throughout Brooklyn. Surface lines are indicated by a black dotted line traversing the streets. The dotted line can be seen running along Water Street between the Brooklyn Bridge and Washington Street. (1918 Rand McNally)

Image 31: Test Pit 8, looking north. A street car tie is present in the upper left corner (northwest) and a wooden utility duct is visible running from left to right in the lower center, beneath the white PVC duct.

Test Pit 9

Test Pit 9 was situated approximately 25’ to the west of Test Pit 8 and 2’ north of the south curb-line. It measured 5’ x 5’. Stratigraphy in this test pit was consistent with the general area. The excavation unit contained three square wooden ducts at different depths in the southwestern quadrant of the trench. The first ran parallel to the Water Street curb line (east/west) and was located approximately 2’ from the south trench wall and 2’ below surface. A small hole was punched in the duct, which was found to contain a cable. The second duct located below the first at 3½’ below grade, at the same depth as the duct observed in Test Pit 8, also ran parallel to the curb. This duct could not be opened due to its location below the first. The third wooden duct ran between the first and second ducts at 3’ below grade on an approximate 45˚ angle to the curb. This duct was located adjacent to the first two ducts exposed at 3’ below grade. There was additional, later utility disturbance in the trench at 4’ below surface. No artifacts or intact surfaces were observed (Image 32).

Image 32: Test Pit 9, looking west. Three wooden ducts are visible in the trench.

Test Pit 13

Test Pit 13 was located on the east side of Water Street, approximately 60’ north and 30’ west of the northeast corner of No. 3 Water Street. This was the smallest test pit, measuring approximately 2’ x 2’ and extending to a depth of only 3’ below surface. No artifacts or utilities were observed.

MASS EXCAVATION

Water Street

Excavation of the distribution water main trench along the westernmost section of Water Street ran north along the center of the street perpendicular to and connecting with the Old Fulton Street trench. Excavation continued into the northern sidewalk of Water Street, where it turned east following the direction of the street. From the turn to New Dock Street, the trench was located in the center of the northern sidewalk of Water Street. At New Dock Street, it headed southeast into the street proper where it turned and continued east, a few feet south of the north curb line, to Main Street. Excavation stopped near the northwest corner of Water Street and Main Street (Map 02 and 03).

The width of the trench was approximately 3', although the width expanded to 6' at the eastern turn of Water Street at New Dock Street. The overall excavated depth of the north/south segment was approximately 6' below surface. The segment of the trench located within the sidewalk was located approximately 3½' north of the curb line. The segment east of New Dock Street was approximately 5' south of the northern curb line. Both were excavated to a depth of 4' below surface.

The matrix that was predominant throughout the site – rusty medium-brown sandy loam with gravel, pebble and small rock inclusions – was present in the north/south leg of Water Street and east of New Dock Street. Between the turn in Water Street and New Dock Street, where the trench was located in the sidewalk, the matrix differed. The western end of this trench contained darker brown sandy loam and the eastern portion of the trench segment contained clean orange brown or tan fill sand. Soil was contaminated with a noxious petroleum based substance in this area.

The north/south section of the trench exhibited substantial utility disturbance, the bulk of which was present between 10" and 5½'. A large utility cluster of two duct banks, two mains and at least four other ducts was located at the north end of the street where the trench reached the north sidewalk of Water Street, before it turned east. Utility disturbance was more prominent to the west of and in the New Dock Street intersection. There was minimal disturbance east of New Dock Street, until the last 100' of the trench, close to Main Street. In the final 50' of the trench were approximately one dozen varied utilities, transecting the trench between one and 1'-4' below grade, and in the final 25' of the trench, a concrete conduit and two large duct banks were present.

No *in situ* features were present throughout the Water Street trench and artifact remains were minimal dispersed throughout the fill. These consisted almost exclusively of brick, wood and shell. Small sherds of glass, mostly window or modern bottle glass, and undecorated ceramic were occasionally noted throughout the excavation area. No intact or discrete deposits were uncovered.

Almost three-dozen separate trench extensions were excavated along the length of Water Street perpendicular to the main excavation trenches for the installation of service connections, hydrants and catch basins.

On the west side of Water Street at 26’ north of Old Fulton Street a catch basin trench was excavated, measuring approximately 12’ square and extending 10’ below grade. The upper stratum consisted of sandy loam fill with no notable artifact presence. A light gray-brown silty sand was visible in the bottom of the trench but no clear stratigraphic delineation was present in the trench wall. Several fragmented, disarticulated logs, likely from a landfill-retaining device or wharf, were removed from this stratum (Image 33). At least one foot of water covered the trench floor at this depth despite de-watering, turning the matrix into sludge. All logs were between 6”-8" in diameter, the longest log measured 7'. Oyster and brick were observed throughout the fill. Utility disturbance was confined to the upper 3’ of the trench.

Image 33: Logs removed from the catch basin trench on Water Street north of Old Fulton.

A catch basin trench located at the eastern side of the entrance to the Empire Fulton Ferry State Park on the north side of Water Street exposed a concrete footing at 5’ below grade. This footing measured 4’ thick and 5’ in length, east to west. Subsurface plans dating from 1924 show concrete footings for a proposed elevated subway line along the length of Water Street. It is possible that this was a footing for that line.

Another trench excavated west of the one discussed above measured approximately 11'x15'. Part of an old brick catch basin was present in the north wall of the trench at less than 2' below grade. Bricks from this feature were stamped "P & E". he cross-section showed construction to be three layers of horizontal brick placed end to end. At 8' below grade disarticulated logs and wood planks were exposed in the southern portion of the trench. Some artifacts found in association were window safety glass with embedded diamond-patterned wire (dating from 1892 to the present) (Kryza 2003), slipped-redware, pearlware, and shell.

North/south Section of Water Street

The first two trenches, located in the north/south section of Water Street, contained medium-brown sandy loam fill and were disturbed by utility installation to the maximum excavation depth of approximately 5'. The first trench, approximately 10' square, was located at the entrance to the River Café, on the west side of the street, approximately 20' east of the property line and 240' north of the building line on the south side of Old Fulton Street. The second trench was located slightly east of the first, near the center of Water Street, and measured approximately 6' x 4'. No features or artifact deposits were observed.

Western end of Water Street (to New Dock Street)

Three trenches were excavated in the block between the eastward turn of Water Street and New Dock Street. The north side of the street, particularly within the sidewalk, contained clean, tan or light brown sandy fill to the final excavation depth of 5'. The south side contained the more ubiquitous rusty-brown sandy loam with minimal presence of mid-nineteenth to early-twentieth century artifacts. The first two of the three trenches extended across the width of the street to the south sidewalk. The maximum excavation depth did not exceed 5½'. The northern portion of both trenches contained substantial utility disturbance, including a large concrete utility box located less than one foot beneath the surface in the westernmost trench. No artifacts were observed. The southern segment of the western trench contained the base of a hand blown liquor bottle, a cow long bone and two leather shoe soles, found at approximately 5' below grade.

In the second trench, small pieces of burnt wood were present in the southern half of the unit. Several pieces of modern ceramic tile were found along with a large piece of slip-decorated redware and a metal, filigreed belt buckle (Image 34). No artifact concentrations or deposits were exposed.

Image 34: Metal buckle found in service connection trench at the west end of Water Street.

Water Street between New Dock to Dock Street

Two trenches were located in the block between New Dock Street and Dock Street, one on the north side near the middle of the block and the other on the south side at the east end. The first of these units, measured 4' x 5' and was situated in the north sidewalk. The second ran from the south curb line approximately 25' into the north side of the street, overlapping with the new water main trench. The trench on the south side of the street was relatively shallow; excavated to a depth between 3'-4'. The second trench was excavated to 5'. In the eastern trench, a cow metatarsus and bricks with either "Terry" or "Rose" manufacturer's stamps were found in association with a copper service pipe at the south sidewalk. The Terry Bros. Brick Company, active from 1850 to at least 1946, was part of the extensive brick industry in the Hudson Valley (http://brickcollecting.com/collection2.htm#terry). The Rose Brick Company was established in 1884 by John C. Rose, also in the Hudson River Valley, and became a major supplier of bricks for New York City. Rose bricks were used in various buildings throughout the city including the Empire State Building, the Waldorf Astoria, and the Stock Exchange (http://brickcollecting.com/collection2.htm#rose). The sidewalk trench to the west contained pieces of shell, some butchered bone, the base of a blown green glass liquor bottle and several sherds of late eighteenth to mid nineteenth century ceramic. All artifacts were recovered from the redeposited fill associated w/earlier utility installations.

Water Street between Dock and Main

Seven separate trenches impacted the sidewalk on the north side of Water Street between Dock Street and Main Street. Four of these trenches were located in front of the Empire Warehouses, one in front of No. 85 Water Street and two along the side of the building on the northwest corner of Water and Main, No. 16 Main Street. The four trenches in front of the Empire Warehouse all contained medium brown sandy loam re-deposited soils and were excavated to a depth between 5'- 6' deep. Throughout this block trenches consisted of re-deposited fill; no primary stratigraphic layers were exposed during excavation.

A range of nineteenth to mid-twentieth century artifacts were noted in the re-deposited fill of these trenches. The western trench, approximately 20' east of the entrance to the Empire Fulton Ferry State Park, contained butchered faunal remains, a plastic comb, nineteenth century ceramic sherds, lighting glass and architectural debris (brick, wood, iron). Bits of brick, shell unidentifiable iron and coal were noted in the soil but neither counted nor collected. The remaining three trenches contained similar materials including a twentieth century Greensburg soda bottle.

The fifth sidewalk trench, situated in front of No. 85 Water Street to the east of the Empire Warehouse, displayed greater utility disturbance. Three separate duct banks impacted between 18"-36" below grade. This trench contained few artifacts, consisting of only a few small whiteware sherds and bits of wood and brick.

The final two trenches were located along the side of the corner building at the northwest corner of Water Street and Main Street. The first trench, measuring only 3' x 5', contained numerous artifacts dispersed throughout a medium-dark brown sandy loam fill. In addition to brick, wood, shell and unidentifiable iron mixed in the fill, artifacts consisted of square nails, sherds of late eighteenth to twentieth century wares, clay pipe stems and modern bottle glass. The last trench, which extended approximately 25' east to west, contained brick, wood, shell and iron inclusions along with coal and clinker; a sherd of undecorated porcelain and a green glass marble. Soils consisted of a medium brown sandy loam, re-deposited fill.

A second brick feature was located in a small excavation area in front of No. 85 Water Street in the center/north of the street. A brick sewer manhole located immediately below the modern roadbed with bricks measuring 8" x 3½" x 2¼". No manufacturer's stamps were observed on these bricks.

Water Street South

Trenching along the southern side of Water Street began at the northwest building line of No. 4 Water Street. The trench measured between 12'-15' wide and was excavated to a depth of 12' below surface.

Soil along the entirety of the south side of Water Street exhibited characteristics typical of the area in the upper stratum, rusty medium-brown or medium-brown sandy loam, redeposited soils beneath the road bed extending to approximately 6'-7' below street grade. In the western end, the lower stratum, at approximately 7' below grade to the trench floor, consisted of medium-dark gray-brown waterlogged silty sand/sludge. Further east, towards New Dock Street and Dock Street, in front of No. 24 Water Street, the lower stratum emitted a strong petroleum odor and tested positive for organic contaminants. In some areas east of Dock Street a 12" black stratum was present between the other two layers. This stratum was not consistent, observed in varying locations at 5'-7' below grade.

Utility disturbance above 7' below grade was substantial, with several utilities running parallel to the curb line for most or all of the trench length. Several areas were completely filled with utilities. A square wooden conduit identical to those found in earlier trenches was exposed at approximately 18" below grade within a few feet of the south curb along the length of Water Street. A large cast iron main ran the entire length of the trench at 4'-5' below grade. Two other smaller cast iron pipes were present, at 3' and 5' below grade between the large main and the north trench wall, in the center of the street. Other areas contained additional utility disturbance. At the western end of the trench, seven ducts or duct banks transected the trench at various angles from 2'-6' below grade.

No features were present and there were very few artifacts observed. A late nineteenth century silver-plated soup spoon, labeled "New Salem Silver Plate Plus" and stamped with an "H" in Old English script, some leather shoe scraps and one slipper shoe were recovered (Image 35).

Image 35: Leather artifacts from western end of Water St. sewer and trunk main trench.

In the block between Dock and Main Streets large broken pieces of wood (Image 36) were scattered throughout the excavation area across a 200’ foot long section, at more than 8’ below grade. The wooden pieces consisted mainly of square beams and some wooden square dowels. Several were angled, a number of these angle pieces contained wooden dowels. It is most likely that the majority of these disarticulated wooden pieces were part of old wharves, piers or bulkheads that once stood in this area. These wooden pieces were used as part of the landfilling materials for this area as added bulk before it was landfilled. Most likely they were disturbed when the previous sewer line was installed

Further east, 100’ east of the area discussed above, two square, arced beams with wooden dowels were found between 9’-11’ below grade (Image 37). The first was a 5' long and approximately 1' square curved beam; 1' long round wooden pegs, approximately 1¼" in diameter, were positioned at varying intervals 3" to 5" along the length of the object. The second wooden piece was also 1' square but had a length of 6'. Three dowels were present. These were disarticulated and no other material remains or features were present in this area.

Image 36: Area of trench where first wooden artifacts were found. Tree branches are visible in the center of the photo.

Image 37: Wooden artifacts.

A second area of disarticulated wooden logs was uncovered between 35’ and 60’ to the east, north of the western end of No. 66 Water Street. One piece, measuring 5½” x 5½” x 26”, held an embedded well-preserved square iron spike. Another piece of similar width and depth and 50” long had two well-preserved ¾” square nails, 20” apart. The longest of the five beams measured 9” x 8” x 66”. On one side was an extremely thin, circular disc of wood, 4½” in diameter (Image 38).

Image 38: Wooden artifact with wooden dowels and circular wood disk.

The wooden artifacts were all disarticulated and ultimately spread across an area more than 350' long. Aside from wharfs and/or piers, it is possible that some of these wooden pieces were once part of one or more ships demolished and deposited in the landfill for added bulk when the tidal marsh originally situated in this location was filled in. The scattered nature of these artifacts did not allow for a definitive identification of their original structure(s).

Mixed into the matrix across this area were few artifacts. Those observed included shell, leather scraps and five shoe soles, a sherd of flow blue transfer print pearlware, one piece of green edged ware, a sherd of transfer printed whiteware, an early twentieth century soda bottle and a cow rib bone.

From a point a few feet west of the building line at the northwest corner of No. 30 Main Street, a substantial amount of utility disturbance impacted the trench. Throughout the area multiple utility ducts transected the trench from this point through the intersection. Between the building line, 15' east of that line, three duct banks, two encased in concrete, crossed the trench at 1½' to 3' below grade. Additional concrete housings were present on the east side of the intersection between 2'- 4' below grade as were additional transecting utilities located between 18" - 5' below grade. A square wooden duct was exposed buried more deeply than on the rest of Water Street, at 3´ below grade. Two of the cast iron pipes and the PVCs continued to run parallel with the trench through the intersection as well, disturbing the area to 4' below grade. The old sewer connection passed perpendicularly through the last segment of the trench, just west of the east side of the intersection at 4' deep, with the large cast iron main passing below this to a depth of 6'.

Two sewer connection trenches on Main Street, one on the west side and one on the east side of the street, were excavated on a diagonal orientation with the street, southwest to northeast on the west side and southeast to northwest on the east side. They ran from the main sewer line in the trench described above and met at a sewer manhole in the center of Main Street, 40' east of the building line at the northwest side of the intersection. These trenches measured between 3'-5' wide and were excavated to 6'-7' below grade. Both were approximately 30' long. Stratigraphy

was extremely mixed, with slightly yellowish-gray-brown, rusty brown and medium brown sandy loams with gravel and pebble inclusions, and tan sand fill around some of the utilities.

The western trench contained a few artifacts, including leather scraps and a light-blue New Jersey license plate with the number GOF*98K. The eastern trench did not contain artifacts, but street car tracks were uncovered lying directly beneath the road bed. They ran south on Main Street then curved to the southeast, crossing below the sidewalk at the northeast corner of Water Street at Main Street and proceeding across Main Street just east of the intersection in a direction perpendicular to the curb line. Though work continued east of the water main intersection, no archaeological monitoring was contracted for this area.

An additional service trench on the south side of Water Street, alongside the building on the southwest corner of Water Street and Main Street, revealed the exterior wall of a brick sidewalk vault. The wall was visible in the south profile of this trench, directly under the south curb line. Bricks measured 8" x 3½" x 2¼" and were stamped "Brigham." It is not known whether the vault is still in use. The only artifact found in the trench was a whiteware sherd. A square wooden utility duct ran from east to west at 18" below street grade approximately 3' north of the curb line. Additional utility disturbance was observed in the trench, impacting from 2' – 4' below grade.

Water Street east of Main Street intersection

Two catch basins were excavated on the northeast and southeast corners of Water and Main Streets. Intact streetcar tracks were observed and documented at the northeast corner. Early-modern brick catch basins were also documented in both trenches.

The northeast catch basin excavation measured approximately 9' square, with 4' of the north/south dimension impacting the sidewalk. The road surface and bed was comprised of Belgian block with some asphalt patching over concrete. Belgian block was also present beneath the concrete sidewalk. The first stratum of fill consisted of rusty medium-dark brown loamy sand beneath the sidewalk and west side of the street trench, while the east side beneath the street consisted of orange-tan sand.

Two sets of streetcar tracks were exposed near the street surface. These are the continuation of the tracks observed in the sewer trench on the east side of Main Street, discussed above. A portion of these tracks was visible in the Belgian block street surface prior to excavation. The tracks ran northwest to southeast, branching off from one another to the south. The wooden ties and more of the rails were exposed when the street surface was removed. The tracks continued under the sidewalk in the northwest corner of the trench. The ties were stained a dark color and emitted strong creosote odor. They were present in the western end of the trench throughout its entire length.

At approximately 1’ below grade in the eastern end of the trench, a late nineteenth to early twentieth century brick catch basin was uncovered. The extant portion of the structure was rectangular, measuring approximately 3½’ wide by a minimum of 4’ deep. The bricks measured 8” x 3 ½” x 2 ¼”. Some of the bricks were frogged and stamped “Ross.” The manufacturer may have been “Rose” as this mark was found on a number of bricks throughout the project area. No artifacts were observed in the area.

The catch basin trench on the southeast corner of Water Street at Main Street measured 10’ x 10’, impacting the sidewalk by 3’. Beneath the road bed was a medium-dark brown stratum of sandy loam, approximately 2’ in depth, with fairly dense gravel, rock and pebble inclusions. Below this was approximately 4’ of the same orange-tan sand found in the previous catch basin trench. Dark, gray brown silty sand was present at between 7’ to 8’ below grade. A brick catch basin matching the one found in the trench on the north side of the street was present in the west wall of this trench at approximately 2’ below grade. No artifacts were recovered from this area.

Dock Street

Two catch basin trenches were excavated on the east and west sides of Dock Street. The eastern trench measured 15’ x 10’ and the western trench measured 10’ x 25’. Both contained disarticulated wooden logs and wooden planks, sheeting from earlier construction episodes. The impact from previous utility installations extended to approximately 4’ below street grade. On the east side, a cast iron pipe was located at 7’ below grade. Brick, unidentifiable iron, numerous pieces of clam and oyster and small ceramic sherds were present in both trenches. Some of the items recovered included slip decorated redware, pearlware and hand-painted creamware, a small ungulate rib bone and two large pieces of copper slag.

New Dock Street

Three trenches were excavated at the south end of New Dock Street uncovering brick features and few artifacts. The first trench measured 6’ wide north to south and approximately 5’ long east to west and was located in the center of the street. This trench was excavated to 5'8" below street grade. An 8” cast iron water main ran north to south through the center of the trench at 4 ½’ below grade. No other utility disturbance was visible. A smaller, approximately 1’ x 1 ½’ wide trench was excavated, extending east from the east wall of the rectangular trench towards the field office. This latter section eventually extended 10½’ and was excavated to a depth of approximately 3’.

Stratigraphy below the Belgian block consisted of medium brown sand followed by a stratum of dark gray-brown sandy loam and a lower stratum of dark brown sandy loam with pockets of rusty medium-brown sandy loam. The two upper strata in the second trench were consistent with those in the first. A continuous, single layer of brick was visible in the south wall at 18” below grade. Strata of rusty light brown loamy sand over a stratum of black grit comprised the final two layers in this trench.

At the west end of the narrow trench was a brick column. The feature was located approximately 15’ east of the property line on the west side of New Dock Street and approximately 30’ north of the building line on the north side of Water Street. The column was oriented at a 45˚ angle to the curb lines of New Dock Street. The top was 1’ below grade but appeared to have been disturbed. The remaining structure extended to the floor of the narrow trench and measured 26” square. Bricks measured 8" x 3½" x 2½" and had no apparent markings. More brick was visible in the east wall of the rectangular trench and may have been a continuation of the column or part of a larger wall. The brick appeared to continue below the trench floor at slightly more than 4’ below grade.

Artifacts were dispersed throughout the two trenches, representing re-deposited soils rather than discrete deposits. A substantial amount of loose brick was present along with oyster and clam shells, window glass, square nails and unidentifiable iron pieces, and a small amount of green liquor bottle glass. Some butchered bone and bone fragments were also present. A range of ceramic sherds dating mainly from mid-eighteenth to the twentieth century was also recovered. The ceramic included a salt-glazed stoneware jug or jar sherd, pearlware (hand-painted and edged ware), creamware and Chinese import porcelain.

The third trench on New Dock Street was oriented north to south between a point in the intersection of Water Street and New Dock Street approximately 15’ south of the building line on the north side of Water Street to approximately 20’ north of that line. This trench was approximately 3’ wide and 5’ - 5½’ deep. Two brick walls were exposed in the profile.

The southernmost wall was located approximately 5’ north of the building line and was oriented on a slight southeast to northwest angle. The northern wall was located approximately 12’ north of the first wall and was oriented on a more pronounced angle from southwest to northeast. It appeared that this latter wall was partly destroyed by the installation of a utility manhole. A portion of the southern wall had been destroyed by the 8” cast iron water main running north/south at 4’ below grade, but the wall was intact to the east and west of the main from approximately 1’ below grade (Image 39). The western portion of the wall extended 5’ below grade. In the eastern side of the trench, the wall continued below the trench floor at 5½’. The wall was constructed of five layers of bricks laid side by side. The soil matrix was rusty-brown sandy loam with some darker mottling.

Image 39: Looking north in the New Dock Street trench at the remains of a brick wall, visible to each side and below right of the water main.

Trench stratigraphy directly below the asphalt and Belgian block road surface displayed a very clear differentiation in the southernmost portion of the trench, where the features were located. The stratum below the roadbed consisted of yellow-tan sand along the first 10' of the trench, and medium-dark brown sandy loam in the rest of the trench. Presumably this was the result of utility-related disturbance in the southern end of the trench as indicated by the presence of five modern ducts or duct-banks between 1’ and 3’ below grade in this area. Brick remnants in the trench walls indicate that there were likely additional features at this location that were destroyed by utility installation.

AREA 04 - WASHINGTON STREET (BETWEEN WATER STREET AND FRONT STREET)

In the course of excavation on Washington Street between Water Street and Front Street, two brick walls and a brick surface were uncovered. The contractor halted work and called the archaeologist as per the Unanticipated Discoveries Plan, as this area was not originally included in the DDC APE and therefore not subjected, initially, to archaeological monitoring. The features were located in a 3' wide trench running 12' east to west between two larger trenches not discussed here. The south wall of this trench was approximately 15' south of the building line at the south side of Water Street. There was substantial utility disturbance in the trench, which had clearly impacted the walls (Map 02 and 03).

The road surface was Belgian block, which was placed over a concrete roadbed. Beneath this was medium-dark brown sandy loam, slightly rusty, with gravel, pebble and small rock inclusions of average density for this area. Clean tan sand fill surrounded various utilities.

The first brick wall was located approximately 3' east of the west curb line of Washington Street. The wall was 1' wide and projected into the trench from the north wall approximately 8" (Image 40). The second wall was 4' to the east of the first wall. This latter feature was also 1' wide and extended approximately 1' into the trench. At the base of the easternmost wall, 4½' below grade, was a brick surface, measuring approximately 2' x 2'. No loose bricks were available for examination, but the surface of the bricks measured 8" x 3½" (Image 41).

The function of these walls is undetermined. No artifacts were found in association.

Image 40: Circular brick feature in catch basin trench on the north side of Water Street at Dock Street, looking north.

Image 41: East corner of brick column beneath New Dock Street.

VII. CONCLUSIONS AND RECOMMENDATIONS:

The project area lies within a section of Brooklyn that is of tremendous historical importance. Designated as an historic district both federally and locally, the APE was the main point of transaction with Manhattan and was key to Brooklyn's economic development. As the location of the primary East River crossing from the seventeenth to the late nineteenth century, industry and commerce was channeled through the area, contributing to the growth of Brooklyn as an important village and, later, its own city. The connection to Manhattan's seaport also linked Fulton Ferry to the larger economic development of New York as a whole. Numerous warehouses and factories operated along Furman Street and Water Street in the nineteenth century. While no documentary study was required for this project, previous studies have recognized the historical significance of the area and within the area, the Empire Warehouses and earlier industrial buildings along Water Street and the factories and warehouses on Furman.

Given the area's historical importance, DDC determined that archaeological monitoring should occur on site – even though it was not required by NY SHPO or LPC. While all of the streets within the project area had previously been heavily impacted by utility work, many of the utilities were old; dating as far back as the mid-nineteenth century. This fact, combined with the significant impact depths (8' – 11') of portions of the project, suggested a potential for the recovery of historic remains. The presence of prehistoric remains was highly unlikely given their ephemeral nature and the significant disturbance caused by nineteenth century landfilling. In addition, previous archaeological investigations in the area supported this conclusion.

The stratigraphic record was similar throughout the project area. Most of the monitored area was historically part of the East River and its tidal marshes, and was landfilled by the early part of the nineteenth century. Later subsurface work disturbed the original landfill at shallower depths. This was reflected in the stratigraphy, which generally consisted of 6' to 7' of medium-brown, often rust colored sandy loam with various episodes of further utility disturbance marked by clean sand fill of varying colors. The stratum below approximately 7' was gray brown, often waterlogged silty sand, likely comprised in part of soil from the East River bed. On the eastern portion of Water Street, fine black sand of indeterminate nature was present between the two strata. The water table was found as high as 5' in some areas, and in all landfilled areas, by 8' below street grade.

Throughout the area fragmented remains of existing sidewalk vaults to the extant nineteenth century buildings were exposed. Though some remnant architectural features were uncovered, none were in situ or intact. Artifacts identified throughout the project were minimal, ranging from the late eighteenth to early twentieth centuries, and no intact artifact deposits were identified. The lack of in situ artifact remains and/or concentrations lends support to the notion of the area being highly disturbed.

Six areas with historical remains were identified: Water Street between Dock and Main (wooden landfilling-related remains), Everit Street (brick and stone structures), New Dock Street (warehouse basement remains), the sidewalk in front of the Eagle Warehouse (sidewalk vaults), the intersection of Old Fulton and Water Streets (brick footings) and east of Main Street on Water (wooden structure). A number of old, fragmentary/disarticulated brick and cast iron utilities dating as far back as 1858 were extant in the project area, and wooden ducts, which went out of use by the end of the nineteenth century, were still present on all three of the main project streets. The precise style of duct found in the project area was in common usage in 1902 (Electrical World and Engineer 1902). Wood and iron were, however, the "prevailing" materials for electrical conduits as early as 1889 in Brooklyn (Chenoweth 1889). The ducts were later determined to hold cables for fire alarm boxes.

National Register Eligibility

In general, archaeological monitoring falls under the guidelines of Section 106 of the National Historic Preservation Act of 1966, as amended and outlined in the National Park Service's, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. One of the main purposes of this Phase IB is to determine whether potentially significant buried cultural resource remains were present within the project area, and, if so, to provide recommendations as to how best to survey and/or mitigate for those resources.

National Register Criteria for Evaluation breaks down evaluation into four categories:

Criteria for Evaluation:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

a. That are associated with events that have made a significant contribution to the broad patterns of our history; or

b. That are associated with the lives of significant persons in or past; or

c. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. That have yielded or may be likely to yield, information important in history or prehistory.

Although adjacent to an existing National Register and New York City Landmarked area, upon examination no portion of this specific excavation area meets the criteria National Register of Historic Places eligibility:

Criteria A – There is no archaeological evidence of historically significant events having transpired at this site;

Criteria B - No historically famous person(s) resided at, or are associated with, the site;

Criteria C - No distinctive building characteristics exists; no building features were uncovered;

Criteria D – No primary in situ, stratified, deposits and/or features were present on site.

Recommendations

Based on the findings from the archaeological monitoring of this project, it is recommended that no further monitoring be required for work impacting 7' or less below grade for any area of Furman Street north of Doughty Street, for Old Fulton Street between Furman Street and Front Street or for Water Street between Old Fulton Street and twenty feet (20') east of Main Street.

In addition, no monitoring is necessary in the following areas below seven feet (7'), as they were impacted by this project:

1. The west side of Furman Street between Doughty Street and Old Fulton Street;
2. The western end of Old Fulton Street in the Furman Street corridor to twenty feet north of the building line on the south side of Old Fulton Street;
3. The eastern side of the north/south leg of Water Street extending to Old Fulton Street, forty feet south of the north building line of Old Fulton Street;
4. The southern side of Water Street through twenty feet east of Main Street

Monitoring is recommended for any excavation impacting more than 7' below street grade in areas not already impacted by this project. Monitoring is also recommended for subsurface work at any depth within 3' of the curb line and beneath the sidewalks on Old Fulton Street where not already impacted, for the sidewalk on the east side of Furman Street, which was not impacted by this project, for Everit Street, for (the former) New Dock Street and for the Water Street sidewalks between Dock Street and Main. Although the majority of evidence may be secondary in nature, it is possible that primary deposits relating to the transformation from waterway to landscapes, to industrial parks to residential areas exists and should be tested for.

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Append A:

Scope of Work

Construction of Combined Sewer in Water Street, etc.
Contract No.: SEK002355

Scope of Work

Water Street between Old Fulton Street and Adams Street:

- Installation of combined sewer. (depth +/- 8')
- Installation of steel trunk water main. (depth +/- 11')
- Installation of ductile iron distribution mains. (depth +/- 5')
- Installation of catch basins & chute connections. (catch basin depth +/- 10'; chute depth +/- 5')
- Reconstruction of curbs, sidewalks & roadway.

Old Fulton Street between Front Street and Furman Street

- Installation of combined sewer. (depth +/- 9')
- Installation of steel trunk water main. (depth +/- 9')
- Installation of ductile iron distribution mains. (depth +/- 5')
- Installation of catch basins & chute connections. (catch basin depth +/- 10'; chute depth +/- 5')
- Reconstruction of curbs, sidewalks & roadway.

Washington Street between York Street and Plymouth Street

- Installation of combined sewer. (depth +/- 12')
- Installation of ductile iron distribution mains. (depth +/- 5')
- Installation of catch basins & chute connections. (catch basin depth +/- 10'; chute depth +/- 5')
- Reconstruction of curbs, sidewalks & roadway.

Furman Streey from Old Fulton to 200' south

- Installation of steel trunk water main. (depth +/- 8')

Appendix B:

Archaeological Monitoring Plan and the Unanticipated Discoveries and Human Remains Plans

Chrysalis Archaeological Consultants
Cultural Resource Specialists

To:

City of New York - Landmarks Preservation Commission (LPC)
City of New York – Department of Design and Construction (DDC)
Tully Construction Inc.
New York State Office of Parks, Recreation and Historic Preservation (NY SHPO)

Re: Phase IB Archaeological Monitoring Plan and Unanticipated Discoveries Plan for Capital Project SEK-002355: Construction of Combined Sewer In: Water Street Between Old Fulton Street and Adams Street Old Fulton Street Between Front Street and Furman Street Washington Street Between York Street And Plymouth Street

Date: June 8, 2009

This plan describes the tasks to be performed as part of the Phase IB Archaeological Monitoring Project for the Construction of Combined Sewer In: Water Street Between Old Fulton Street and Adams Street Old Fulton Street Between Front Street and Furman Street Washington Street Between York Street And Plymouth Street – Borough of Brooklyn (Kings County), New York, Contract Number: SEK-002355.

The purpose of the overall cultural resource project is to: 1) monitor construction activities to determine whether the project area contains significant prehistoric and/or historic resources, 2) document and/or recover potentially significant buried cultural resources; 3) develop a historical and archaeological context(s) for the interpretation and evaluation of any potential archaeological resources that are or may be present within the Area of Potential Effect (APE); 4) outline the lines of communication that will be employed throughout the process; 5) detail what archaeological steps will be taken in the event of significant unanticipated archaeological remains, including, but not limited to human remains, are uncovered; 6) outline the laboratory process to be followed; and 7) provide all necessary services related to the cultural resource process during the overall construction project along the Fulton Street corridor.

As per the Request for Proposal (RFP) developed by the City of New York – Department of Design and Construction (DDC) and provided to Chrysalis Archaeological Consultants, Inc., (CAC) through Tully Construction (TC), this Phase IB investigation will consist of six primary tasks: 1) develop an Archaeological Monitoring Plan based on previous Phase IA reports from different projects within the vicinity of this proposed project; 2) Develop an Unanticipated Discoveries Plan that will outline what steps will be followed if significant material or physical remains, beyond what is outlined in the Request for Proposal is uncovered; 3) Conduct Archaeological Monitoring of the project area based on the Phase IA documents; 4) Undertake preliminary laboratory analysis of recovered material remains (i.e. washing, cataloging and creation of a database of the remains), if necessary; 5) produce a draft and final report of the results; and 6) If necessary, based on the results of what is uncovered in the field, develop either a Phase II or Phase III Mitigation Plan. If Phase II or III work becomes necessary, an additional Scope of Work will be developed and a new contract awarded to complete the necessary actions as this work is beyond the tasks outlined in the current RFP.

PROJECT DESCRIPTION:

The overall project includes the replacement of the existing water mains in the DUMBO area of Brooklyn (see Map 01). Trunk lines will be run from the newly installed water mains to existing points of contact supply lines. Several distribution mains will be installed, along with several catch basins and the replacement of the existing sidewalks, curbs and roadway. Depths of the water mains and proposed installations extend between eight (8) feet and ten (10) feet below surface.

SUMMARY OF ARCHAEOLOGICAL SENSITIVITY

The Areas of Potential Effect (APE) as identified within the DDC Scope of Work is the street-bed along Water Street. The existing building line was used as the outer boundary of the APE along each of the above streets

More specifically, the archaeological APE for this project as defined by the DDC includes:

- Water Street between Old Fulton and Main Street
- Old Fulton Street between Front Street and Furman Street
- Furman Street from Old Fulton Street to Doughty Street

PREVIOUS ARCHAEOLOGICAL PROJECTS WITHIN THE AREA

Although a Phase IA Cultural Resource Survey was not required for this project, DDC required Phase IB Archaeological Field Monitoring for the project as the general Project Area contains many historic features and is adjacent to the National Register Empire Stores. A survey of Phase I and Phase II reports from sites within and adjacent to the APE was undertaken to determine the potential significance for the current project.

In 2001, Stone conducted a survey of a portion of what would become Brooklyn Bridge Park. Her research determined that there is little potential for the recovery of Native American sites as this waterfront area did not exists as dry land prior to the 1830s. The shoreline was jagged and comprised of marshy land surfaces and creeks that extended into the City of Brooklyn and the East River. However, once landfilled, the area became part of the various Ferry Terminals and industrial parks that stored wood and coal. These types of activities lasted into the twentieth century and the chance of uncovering remains from this period is moderate to high (Stone 2001).

Historical Perspectives, Inc. (HPI), conducted two Phase IA studies in the general project area, the proposed Brooklyn Bridge Park and the DUMBO Rezoning (areas surrounding the Brooklyn and Manhattan Bridges) in 2005. Their study covered portions of Bridge Street, Jay Street, Front Street and Water Street. As with the previous report by Stone, HPI determined that there is little probability to uncover Native American resources due to the nature of the shoreline during the pre-Contact periods and the industrial enterprises that were erected beginning in the mid-nineteenth century. The report concludes that there is a moderate probability for the uncovering of eighteenth century material and a high probability that nineteenth to twentieth century historic

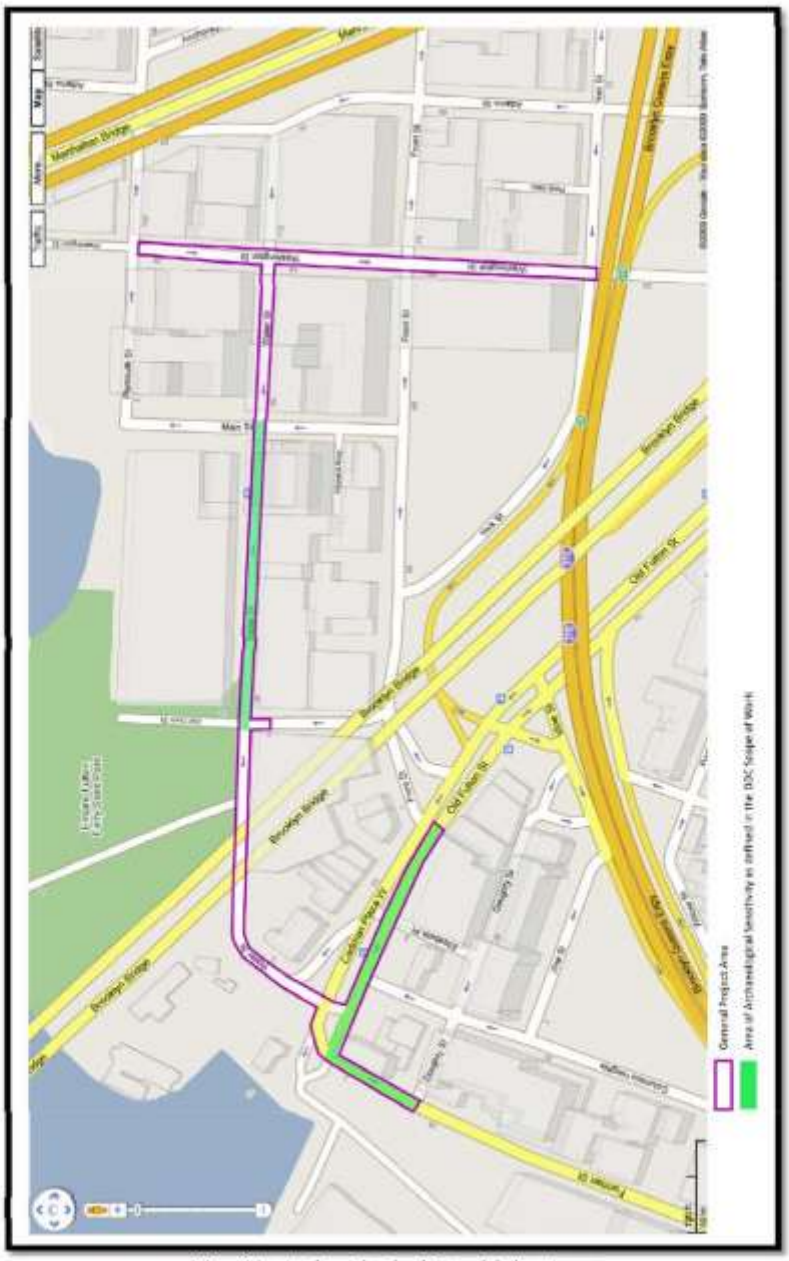
remains including industrial contexts and landfilling devices exists within the DUMBO area (HPI 2005, 2008).

URS Corporation undertook Phase IB and Phase II Monitoring and Excavations within the area of Brooklyn Bridge Park. They uncovered nineteenth and twentieth century landscapes and industrial building foundations, including the remains of the South Ferry Terminal and the Brooklyn City Flour Mills. The flour mill site is immediately adjacent to a portion of the current project along Furman Street between Old Fulton and Doughty Streets. The URS investigation determined that a portion of the mill building may still lie beneath the present day sidewalk (URS 2008, 2009). Development of Brooklyn Bridge Park is ongoing and will include additional cultural resource work.

Based upon the findings of Phase IA reports for projects within the vicinity of this proposed project, the potential exists to impact nineteenth to early twentieth historic archaeological resources within the project area. Potential types of resources may include, but are not limited to, industrial structures, early infrastructure and landfilling devices.

CULTURAL RESOURCE REGULATIONS

Funding for the project has been provided through the City of New York. Therefore, the New York City Environmental Quality Review Act (CEQRA) requires that agencies must consider the effects of their actions on any properties listed on, or determined eligible for listing on the City Register for Historic Places. This project is subject to CEQRA and will be conducted in accordance with the City Of New York Landmarks Preservation Commission's (LPC) guidelines regarding archaeological resources. Due to the proximity of the project area to a New York State Park, Empire Fulton-Ferry State Park, and at the written request of the DDC, the New York State Office of Parks, Recreation and Historic Preservation (NY SHPO) will be provided copies of all cultural resource reports related to the project.



Map 01: Archaeological Sensitivity Areas

PHASE IB ARCHAEOLOGICAL MONITORING PROTOCOL:

The following testing protocol describes the tasks to be performed within the APE. The proposed work will be conducted in accordance with 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 investigation will also be conducted pursuant to SHPO guidelines for such projects (New York Archaeological Council [NYAC 1994]). The cultural resources specialists who will perform this work will satisfy the qualifications specified in 36 CFR 61, Appendix A. The Principal Investigator for the Phase IB investigations will be certified by the Register of Professional Archaeologists (RPA).

Phase IB fieldwork is designed to ascertain the presence/absence, type and extent of archaeological resources on a site. Its ultimate goal is to determine whether significant (i.e., National Register eligible) resources that could be adversely affected by project construction are extant within the site APEs.

The following sets forth the plan for Phase IB archaeological monitoring for this site, including research issues to be addressed and proposed fieldwork activities and describes additional mitigation measures that would be undertaken should archaeological resources be encountered during the archaeological investigations, including artifact analysis such as laboratory work, written reports, and further documentary research if necessary.

RESEARCH ISSUES

The APE was found to be potentially sensitive for historical archaeological deposits in specific locations. 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, i.e. 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. These deposits frequently provide the best remains recovered on urban sites. Deposits may also be uncovered with the remnants of old foundation walls that lie within areas that street widening or other changes to the street and/or property lines have occurred.

Other resources potentially in the APE include domestic features (e.g., wells, cisterns, and privies), infrastructure features (e.g., wood water pipes, pumps, street cisterns, and municipal wells), and structural features (e.g., sidewalk vaults and building footprints), historical fill, fill retaining devices, and wharves.

An ongoing project adjacent to the APE is that of Brooklyn Bridge Park. This work uncovered intact nineteenth century landscape surfaces just below the existing surface. This waterfront area may be able to shed light on the industrial waterfront of Brooklyn during this period (URS 2009). There is a good probability that these waterfront surfaces extend into this area as well.

Research concluded that there is only the minimal potential for pre-contact archaeological resources in the APE, and if pre-contact deposits do exist in discrete locations, they would potentially be found where historical fill may have protected them from later disturbance.

ARCHAEOLOGICAL MONITORING

Archaeological monitoring is defined as "the observation of construction excavation activities by an archaeologist in order to identify, recover, protect and/or document archaeological information or materials" (NYAC 2001:2).

Archaeological monitoring will be provided during ground-disturbing construction activities in areas that may contain archaeological resources in order to ensure that archaeological resources are not overlooked and that all cultural resources encountered during construction are adequately protected from unnecessary impacts. Monitoring will be conducted so that the impacted resources are adequately recorded prior to construction. All monitoring activities will be in compliance with NYAC's Guidelines for the Use of Archaeological Monitoring as an Alternative to Other Field Techniques and the LPC's Guidelines for Archaeological Work in New York City (2002).

Depending on the size and number of construction activities, one or two archaeologists will be present to monitor all excavation activities located in archaeologically sensitive areas and archaeologically sensitive depths. The archaeologist will observe construction localities and will record all archeological resources, or suspected resources, uncovered during construction activities. Recordation will include vertical and horizontal location of all resources encountered. The archaeologists will also maintain drawings, photographs, and descriptions of all encountered resources. The monitor will maintain an up-to-date log of all monitoring activities, including the date, time and duration of all monitoring episodes, accompanied with a description of the activity being monitored.

In the event that archaeological deposits are encountered, the archaeologist will be permitted to halt excavations to examine the soil or potential resource in the trench more closely. The archaeologist will be permitted to halt excavation for a period of up to 24 hours to allow time for photography, drawing of profiles, screening of removed soil for artifacts, removal of soil samples, hand excavation, and any other actions deemed necessary to determine the nature, extent, and potential significance of the discovery. If additional time is required to document the find(s), the archaeologist will consult with the on-site resident engineer and Tully to coordinate activities.

If work stoppages occur, the construction contractor may relocate to another area where archaeological monitoring is not required, in order to allow the monitor to record the resources. If the resources encountered do not appear significant the on-site professional archaeologist will notify the appropriate construction personnel, and construction may resume. If construction must occur in an area that may be potentially sensitive, additional staff will monitor these area(s), as outlined in the Contract between CAC and TC. While this monitoring continues, other archaeologists will be evaluating the previously exposed area.

IF INTACT ARCHAEOLOGICAL DEPOSITS ARE FOUND

If resources are encountered that are determined by the on-site archaeologist to be potentially significant, e.g. appearing to meet eligibility criteria for listing on the National Register of Historic Places (NR-eligible), the archaeologist will notify all agreed upon relevant parties, including, but not limited to, TC, DDC, LPC and NY SHPO.

LPC and NY SHPO will be consulted to determine if further field testing and/or mitigation is necessary. If no additional testing is required, the archaeologist will notify the construction contractor/manager that work may resume once documentation of the resources has been completed. The construction contractor should plan, schedule, and execute their work in a manner such that work stoppages will not result in a total shutdown of any construction work.

DETERMINATION OF POETENTIAL NATIONAL REGISTER ELIGIBLITY

If this phase identifies significant historic resources that will be impacted by the project, the Scope of Work from DDC allows for the continuation of the cultural resource process through an additional contract for Phase II, or III mitigation. If required, and depending on the type and extent of resources encountered, a scope of work for appropriate mitigation measures would be created in consultation with the LPC and NY SHPO.

METHODOLOGY

During all excavations, assistance will be provided to the archaeological team by the construction personnel, if needed. This may include, but would not be limited to, pumping water from excavation areas, shoring trenches, meeting all OSHA regulations, and machine excavating non-sensitive levels to further reveal the resource(s).

Professional standards for excavation, screening, recording of features and stratigraphy, labeling, mapping, photographing, and cataloging will be applied. All soils from the test units will be screened through ¼-inch-mesh hardware cloth and excavated by natural strata. Soils from both the trenches and units will be described using the Munsell color system and standard texture classifications. All artifacts recovered during screening will be retained, with the exception of bulk materials such as concrete rubble, brick, large metal objects, ash coal, cinders, and slag. In the case of such materials, a sample will be described from each provenience and the remainder will be quantified and discarded in the field. Recovered artifacts will be bagged according to their unique provenience and transported to the laboratory for processing, conservation, and analysis. An artifact catalog, recording the depth and location of each recovered artifact, will be created. Soil profiles, cultural features, etc. will be described, photographed in digital format and illustrated by measured drawings in metric scale in plan and vertical perspective, as appropriate.

HUMAN REMAINS

In the event that human remains are encountered during construction, the archaeologist will halt all construction activities in the area surrounding the find and instruct the Resident Engineer/Environmental Coordinator to contact the DDC and inform them of the find. DDC will immediately notify the New York Police Department and the Medical Examiner's office of the find. The archaeologist will notify LPC and NY SHPO. The DDC will notify other parties as directed by the LPC or as indicated by city/state law.

Once the law enforcement agencies have determined that they have no concerns regarding the remains, the DDC and/or Resident Engineer/Environmental Coordinator will direct the archaeologist to begin a more detailed archaeological assessment of the find's significance and the potential effect of construction.

If the find is determined to be an isolated, disarticulated, or displaced human bone(s) not part of a deliberate or isolated burial, such as is occasionally found in areas created by landfilling or in deposits of fill, or is completely disturbed by previous construction activities, LPC and NY SHPO will be consulted to allow construction to resume, subject to any further mitigation that may be required by city, state, and/or federal law.

If it is determined that intact interments are present CAC's on-call Forensic Anthropologist will be consulted regarding the excavation and documentation of the interments. In consultation with LPC and NY SHPO a plan for the documentation of the remains will be developed. If the interment(s) will be disturbed by continuing construction, the archaeologist will consult with the LPC, NY SHPO, DDC, the next of kin (if known), and other parties regarding additional measures to avoid or mitigate further damage. These measures may include: additional archaeological evaluation of the site; visits to the site by LPC, NY SHPO and other parties; preparation and implementation of a mitigation plan.

ARTIFACT ANALYSIS AND CURATION

All artifacts will be cleaned and catalogued. Historical artifacts will be analyzed in terms of material type, form, function, and temporal attributes (e.g., Noël Hume 1969, South 1977, Miller 1991). Detailed analysis will include the identification of the Terminus Post Quem (TPQ) of artifacts for each context and generation of mean beginning and end dates for assemblages. This information will be used to establish context and to determine whether which assemblages represent primary or secondary deposits.

The long-term curation of any artifact collection recovered from the project site will be the responsibility of the project site owner, in this instance, the DDC. Following laboratory analysis the professional archaeologist will properly prepare the collection for curation and return it to the DDC for long-term curation.

REPORT RESULTS

A report documenting the results of the monitoring and any other background and/or documentary search, field effort, and artifact analyses will be prepared according to the New York Archaeological Council (NYAC) standards (1994). In addition, the report will include determinations regarding the potential National Register eligibility of any artifact deposits and/or features and recommendations for additional investigations, if needed. Draft reports will be submitted to TC, DDC, and LPC for comments and review. Upon the approval of LPC, digital and printed copies of the report will be provided to all parties, including the NY SHPO.

UNANTICIPATED DISCOVERIES PLAN:

The Unanticipated Discoveries Plan is to be used as a guide for the construction company during portions of the project that are not required to be monitored by the archaeologist(s). Unanticipated Discoveries resources are defined as any cultural resources found during construction in any portion of the project site not monitored by the archaeologist. Cultural resource discoveries that require immediate reporting and notification to TC and the construction coordinator include, but are not limited to, human remains and recognizable, potentially significant concentrations of artifacts, features, or other evidence of human occupation.

TC will appoint a Resident Engineer/Environmental Coordinator who is a member of the Supervisory team to coordinate with the professional archaeologist for implementation of the Unanticipated Discovery Plan. The Resident Engineer/Environmental Coordinator will obtain, review, and file on site this Unanticipated Discoveries Plan. The Resident Engineer/Environmental Coordinator will initiate implementation of the Unanticipated Discoveries Plan by sponsoring an awareness session with the on-site construction management personnel, equipment operators and laborers.

Cultural resource discoveries, that require reporting and notification to the Resident Engineer/Environmental Coordinator include:

1. Any human remains or faunal material. Faunal material is defined as significant (i.e. sizable) deposits of mammals and/or other non-human remains

2. Any recognizable, potentially significant concentrations of artifacts, features, or other evidence of human occupation. Examples include: Piers, Wharves and Landfill Retaining Structures: In the City of New York, these structure types typically consist of walls made of logs stacked atop each other and notched at the corners in a manner similar to a log house. They might also consist of vertical timber piles and planks or stone retaining walls. Landfill retaining structures were generally filled with either large cobblestones or loose soils, sometimes containing trash such as clay pipes, bottles, leather scraps or pottery.

3. Infrastructure and Street Features: Utilities installed below the ground in streets and sidewalks pre-dating the twentieth century may be important. An example of an early utility that might be encountered is wood water pipes, which are typically round logs with hollowed-out cores. These are often found at relatively shallow depths in Lower Manhattan;

4. Shaft Features: Shaft features (including wells, privies, and cisterns) are typically round, square, or rectangular pits that are made of brick or stone. They are often filled with trash deposits from households or stores and could include broken dishes, food remains, coffee beans, drinking glasses, and other objects such as nails or buttons. Trash deposits from homes and businesses may also be encountered in sheets or pockets below ground surface.

5. Precontact Period Archaeological Resources: Native American resources that have been encountered in sites within the City of New York include, but are not limited to, shell heaps, pottery, stone tools (arrowheads, spear points) and stone flakes that are byproducts of tool-making.

In the event that previously unanticipated archaeological resources are found during construction in any portion of the project site, the following procedures will followed:

1. If the unanticipated discovery of artifacts or historic property remains, as defined above, occurs during construction, all work will immediately stop in the area of the find to protect the integrity of the find. Work may not resume in the area of the find until the archaeologist, TC and the Resident Engineer/Environmental Coordinator has granted clearance.

2. The construction contractor/ Resident Engineer/Environmental Coordinator will immediately notify the designated on-site Resident Engineer of the find.

3. The Resident Engineer/Environmental Coordinator will immediately notify TC, DDC and the archaeologist of the find. The notification will include the specific location of the discovery within the disturbed area of the project site and the nature of the discovery. The Resident Engineer/Environmental Coordinator will identify the location and date of the discovery on the project plans and have the location of the find flagged/fenced to insure safety and avoidance of impacts.

4. The archaeologist will coordinate an on-site archaeological consultation to evaluate the find.

5. The archaeologist will conduct an on-site assessment of the find. If necessary, the archaeologist will coordinate with the Resident Engineer/Environmental Coordinator to direct the contractor to flag or fence off the archaeological discovery location and direct the contractor to continue work in another portion of the area. The contractor will not restart work in the area of the indentified archaeological resource until the Resident Engineer/Environmental Coordinator has granted clearance, after receiving word from

the archaeologist that the archaeological resource has been fully examined.

6. The archaeologist will then promptly notify TC and DDC of the preliminary significance, if at all, of the find.

If the discovery is determined to lack significance by the archaeologist then TC and/or the Resident Engineer/Environmental Coordinator will grant clearance to the contractor to resume work.

If the unanticipated find is determined to be significant, the following procedures would be followed:

1. The archaeologist will promptly notify LPC and NY SHPO of the find. This notification will explain why the archaeologist believes the resource to be significant and define a scope of work for further evaluating the significance of the resource and evaluating project effects on it. All work to evaluate significance will be confined to the area of potential effect.

2. The archaeologist will conduct a more detailed assessment of the material remains significance and the potential effect of construction.

3. The archaeologist will document the find in accordance with the guidelines presented in the Archaeological Monitoring Protocol.

4. TC/DDC will notify other parties, as directed by LPC, or as indicated by City/State law.

5. If the find is determined to be significant, and continuing construction may damage more of the site, then the archaeologist, TC and DDC will consult with the LPC and other parties, including the NY SHPO, regarding further mitigation and appropriate measures for recovery and/or appropriate measures for site treatment. These measures may include, but are not limited to:

- Formal archaeological evaluation of the site;
- Visits to the site by the LPC and other parties, including NY SHPO;
- Preparation of a mitigation plan for approval by the LPC;
- Implementation of the mitigation plan;
- Approval to resume construction following completion of the fieldwork component of the mitigation plan.

6. If the find is determined to be isolated or completely disturbed by previous construction activities, the archaeologist will consult with the Resident Engineer/Environmental Coordinator, TC, DEC and LPC and will request approval to resume construction, subject to any further mitigation that may be required by LPC.

7. The Resident Engineer/Environmental Coordinator will notify the Construction Contractor of clearance to resume work.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS PROTOCOL:

According to NYAC policy, the discovery of human remains and items of cultural patrimony as defined by Section 3001 of the Native American Graves Protection and Repatriation Act (NAGPRA) requires special consideration and care. The Resident Engineer/Environmental Coordinator will promptly flag or fence off the site and protect the site from damage and disturbance. At all times human remains must be treated with the utmost dignity and respect. The following procedures will be followed:

1. The Resident Engineer/Environmental Coordinator will notify the archaeologist, TC and DDC as well as the New York City Police Department and the Medical Examiner's office of the find.

2. The archaeologist will immediately notify LPC and NY SHPO.

3. Once the Law Enforcement agencies have determined that they have no concerns regarding the remains, the Resident Engineer/Environmental Coordinator will direct the archaeologist to begin a more detailed archaeological assessment of the remains significance and the potential effect of construction. The Resident Engineer/Environmental Coordinator will notify other parties, including next of kin, if known, as directed by the LPC or NY SHPO, or as indicated by City/State law.

4. If it is determined that intact interments are present and may be disturbed by continuing construction, then the archaeologist will consult with the LPC, NY SHPO and other parties regarding additional measures to avoid or mitigate further damage. These measures may include:

- Formal archaeological evaluation of the site;
- Visits to the site by LPC and/or NY SHPO and other parties;
- Preparation of a mitigation plan including procedures for disinterment, under the director of a Physical Anthropologist and re-interment, for approval by LPC and/or NY SHPO;
- Implementation of the mitigation plan; and
- Approval to resume construction following completion of the fieldwork component of the mitigation plan.

5. If the find is determined to be an isolated disarticulated, displaced human bone(s), such as is occasionally found in areas created by landfilling or in deposits of fill, or completely disturbed by previous construction activities, then the archaeologist will consult with the Resident Engineer/Environmental Coordinator, LPC and/or NY SHPO and other parties, and will request approval to resume construction, subject to any further mitigation that may be required by city, state and/or federal law.

6. The Resident Engineer/Environmental Coordinator will notify the Construction Contractor of clearance for the Contractor to restart work.

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Appendix C:

Field Monitoring Images

Image 1. Old Fulton (OF)/Furman St, street level view showing location relative to intersection

Image 2. Furman St, south segment

Image 3. Furman St, beginning N segment

Image 4. Furman St, S end of Furman trench

Image 5. Furman St, looking N from S end Furman trench

Image 6. Furman St, N end of Furman trench showing both wood pieces

Image 7. Furman St, trench looking S after removal of old main

Image 8. Furman St, junction of Furman and OF trenches looking W from OF; part of 1890s water main system, brick supports underneath

Image 9. Furman St, looking N along trench, new main visible in S end

Image 10. Furman St, extending trench N

Image 11. Furman St, profile of N end (extension), E wall

Image 12. OF trench looking NE from just S of Furman trench junction

Image 13. SS Fulton, looking E from W end of OF trench


Image 14. SS Fulton, profile N wall of OF trench at point where 2 utilities enter/exit wall

Image 15. SS Fulton, wide angle plan view

Image 16. SS Fulton, stratigraphy of S wall at E side of corner building Furman/OF

Image 17. SS Fulton, just W of intersection with Everit

Image 18. SS Fulton, example of disturbed stratigraphy, N wall at intersection

Image 19. SS Fulton, stratigraphy of S wall W of Everit

Image 20. SS Fulton, beginning of Everit trench

Image 21. SS Fulton, excavating Everit trench in area where wall was found

Image 22. SS Fulton, stone wall before collapse

Image 23. SS Fulton, stone wall in fully extended trench (looking NW)– increased uniformity of stone is visible in this photo\

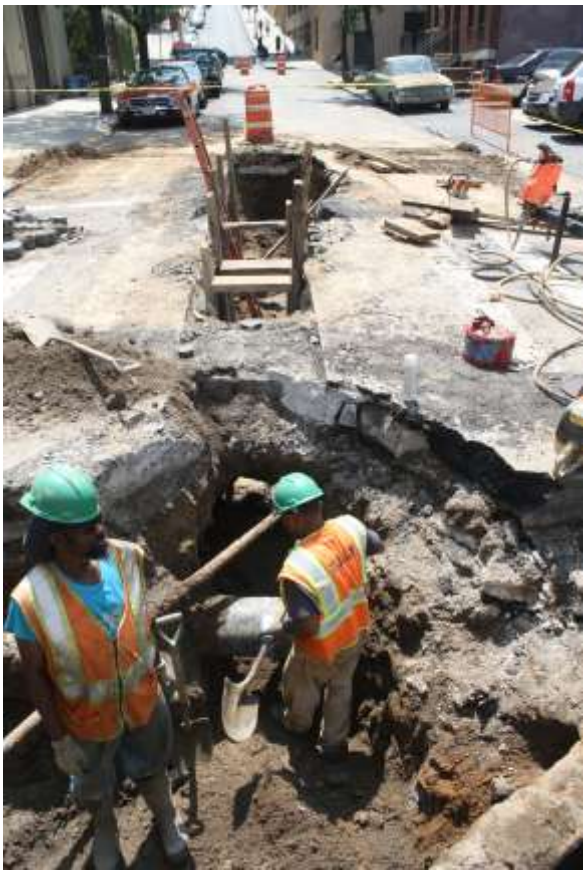


Image 24. SS Fulton, looking S into Everit trench from N wall OF trench

Image 25. SS Fulton, excavation at beginning of Friday moving E of Everit

Image 26. SS Fulton, wide angle view of hydrant trench

Image 27. SS Fulton, looking E, view of utilities including first concrete casing

Image 28. SS Fulton, brick under concrete in S wall suggesting sewer extended in this direction

Image 29. SS Fulton, S wall of trench, Everit to Elizabeth segment beginning about 40' E of E corner Everit

Image 30. SS Fulton, N wall of trench near intersection Elizabeth showing widened trench with no CS

Image 31. SS Fulton, side trench on S side OF trench (25' from W corner Elizabeth)


Image 32. SS Fulton, looking W along OF trench at end of excavation for the day

Image 33. SS Fulton, brick in N wall OF trench 40' E of Elizabeth

Image 34. SS Fulton, stratigraphy of walls at this point (S wall)

Image 35. SS Fulton, looking W, showing location of side trench relative to Elizabeth St.

Image 36. SS Fulton, brick wall in side trench

Image 37. SS Fulton, looking E showing location of side trench #2

Image 38. SS Fulton, widened segment of trench with newly installed connection valve & S wall stratigraphy

Image 39. SS Fulton, E end of trench (metal utility pipes in S wall visible)

Image 40. SS Fulton, W wall of sidewalk trench, brick visible at curb

Image 41. SS Fulton, looking at S wall of sidewalk trench from N side OF trench, PVC pipe and wood visible

Image 42. NS Old Fulton, wide angle shot of location of trench, looking E

Image 43. NS Old Fulton, N wall of trench showing first piece of perpendicular wood

Image 44. NS Old Fulton, extending the E end of the trench


Image 45. NS Old Fulton, location of ecavation pit, looking NE

Image 46. NS Old Fulton, E wall of side trench showing sand fill around large utility pipe

Image 47. NS Old Fulton, hand driven tap


Image 48. NS Old Fulton, wide angle shot of S wall where trolley tracks first become visible


Image 49. NS Old Fulton, close-up of trolley rail (easternmost)

Image 50. NS Old Fulton, wide angle showing first turn in trench

Image 51. NS Old Fulton, looking N, three rails and ties visible in W wall

Image 52. NS Old Fulton, looking N, entire section of trench


Image 53. Water Street, stratigraphy of New Dock St. side trench

Image 54. Stratigraphy of S wall near intersection OF and Water

Image 55. Test pit at OF and Water

Image 56. Old Fulton, Overall plan view showing two locations of excavation

Image 57. Old Fulton, excavation pit with extensions

Image 58. Old Fulton, N/S segment of trench at foot of Old Fulton

Image 59. OF trench, N side at turn to head E, 73', showing concrete conduits curving out of wall

Image 60. Old Fulton, western OF trench meeting previously excavated OF trench


Image 61. Water St, cobblestone surface after asphalt removed

Image 62. Water St trench branching off of OF trench

Image 63. Water Street trench plan view

Image 64. Old Fulton, stratigraphy under traffic island

Image 65. Water St, plan view looking E

Image 66. Water St, looking N in this trench, wood visible in lower left corner

Image 67. Water St, brick in W profile

Image 68. Water St., utilities in N end of trench

Image 69. Water St., location of sidewalk trench

Image 70. Water St., sidewalk trench connecting to street trench

Image 71. Water St., sidewalk trench looking W

Image 72. Water and New Dock, old brick manhole

Image 73. OF/Water, wood in E wall of test pit

Image 74. OF/Water, wood exposed in E wall of TP after TP extended N

Image 75. Water/OF, test pit looking E

Image 76. Water St., stratigraphy of S wall of sidewalk trench

Image 77. Water St, stratigraphy of branch trench on New Dock St. (S wall)

Image 78. OF/Water St, looking E, sidewalk segment visible in foreground

Image 79. River Café trench looking under W wall

Image 80. Water St, where trench begins heading E at New Dock St.

Image 81. Water St, foundation wall in New Dock St. trench

Image 82. Water St., trench looking E

Image 83. Water St, New Dock St. trench, plan view

Image 84. Water St., 300' E, opening plan view of sidewalk trench

Image 85. Old Fulton St. trench, excavation completed

Image 86. Water St., 70' N of OF, 7' W of curb

Image 87. Water St., various objects in S wall Water St. trench near Main St

Image 88. Water St., E end Water St. trench at Main St. looking N

Image 89. Water St. 465' E looking N

Image 90. Water St., hand digging extension of Water St. 175' E

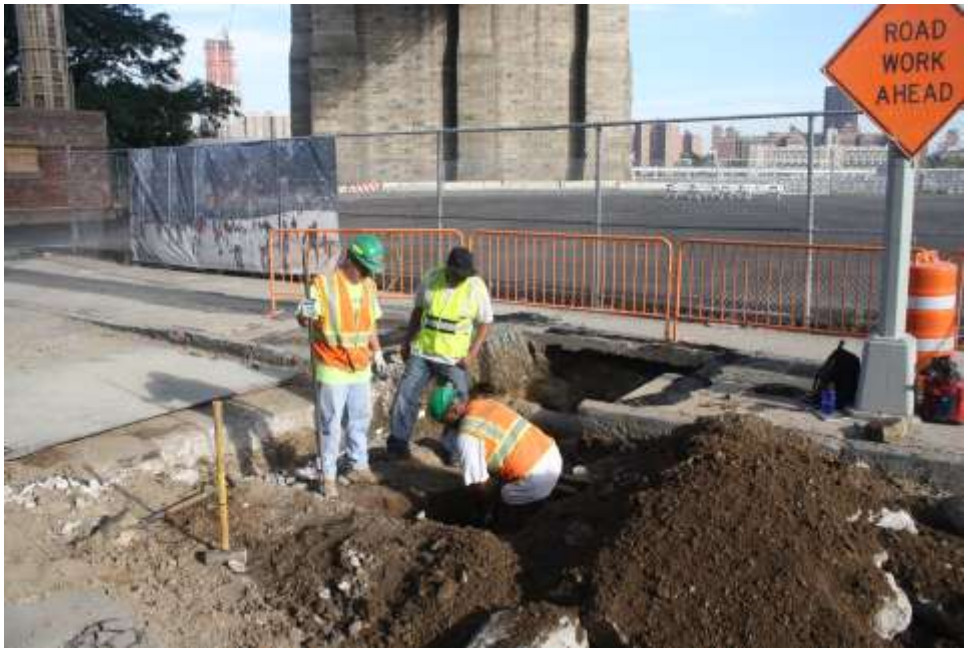


Image 91. Water St., wider view 175' E, looking NW

Image 92. NS Old Fulton, beginning catch basin trench, 310' E. Looking NW

Image 93. Water St., 790' E, wide angle for location

Image 94. Top of Pete’s sidewalk vault (Old Fulton, N side, 160' E)

Image 95. Water St, bricks in E wall of Water St. 26' E OF

Image 96. Water St, looking E showing 175' E and 245'E trenches

Image 97. Water St/Purchase Bldg lot trench for catch basin – looking NW, showing location

Image 98. Water St. 915' E, looking E, showing location


Image 99. Water St./Ignazio's trench showing trench location and concrete plating over electrical (looking S)

Image 100. Water St. 175' E, looking S, showing areas of excavation below existing utilities

Image 101. Water St. 350' E stratigraphy and floor at 10' below grade

Image 102. Water St. 475' E, stratigraphy of S wall

Image 103. Dock St. 10' S catch basin trench looking N

Image 104. Dock St. CB trench showing stratigraphy in W wall

Image 105. Dock St, logs and water at bottom of E side trench

Image 106. Dock St. W side, N end of W wall showing stratigraphy

Image 107. Water St. 475' E beginning excavation (looking W)

Image 108. Dock St., looking N at CB trench, W side of street

Image 109. Water St. Empire Fulton Ferry Park entrance catch basin trench, looking W

Image 110. Water St. brick and burnt area in Empire Fulton Ferry trench

Image 111. Water St., 790' E, overall plan view

Image 112. Water St., brick, wood, and concrete in Water St. CB trench (looking NE)

Image 113. Water St., wood in bottom of CB trench (E of park entrance)

Image 114. Water St., N wall of trench after brick removed

Image 115. Water St., 975' E, catch basin trench after completion

Image 116. Water St., old shovel from found in 803' E

Image 117. Water St., sidewalk trench in Water 745' E

Image 118. Water St. 803' E, plan view

Image 119. Old Fulton, 148' E, looking SW, showing location of 2 smaller trenches

Image 120. Water St., 20' E, near Main St, trolley tracks under sidewalk

Image 121. Water St., E of Main St. catch basin looking N after tracks partially removed. Note creosote-soaked wood ties and concrete base under rails.

Image 122. Water St., E of Main St., brick trench in E wall of CB trench

Image 123. Old Fulton and Elizabeth St, location of chute connection trench, looking W

Image 124. Water Street, E wall profile of New Dock St. trench

Image 125. Water Street, brick structure in W wall of New Dock St. trench

Image 126. Water St., Empire Fulton Ferry State Park driveway trench

Image 127. Water St., brick fragment with “NG” stamp

Image 128. Water St., S side, 675' E, excavating sidewalk

Image 129. Water St., S wall of 675' E sidewalk trench

Image 130. Water St., N wall profile of EFFP trench

Image 131. Water St. series of street car ties in trench, W of Main St intersection

Image 132. Water St., rail tie with metal plate in trench

Image 133. Water St., looking S to Dock St. from Empire Fulton Ferry trench

Image 134. Water St., fire cable trench on Main St (sidewalk), looking N from Water


Image 135. Water St., Main St. sidewalk plan view, fire cable trench looking N

Appendix D:

Artifact Database

Downtown Brooklyn Water Main Replacement, Brooklyn, New York
Phase IB Cultural Resource Management - Archaeological Monitoring Project

Unit	Quantity	Category	Class	Object	Material/Ware	Form	Date Range	Notes
Dock Street - West Side - Catch Basin	1	Faunal	Bone	Bone	Bone	Bone		
Dock Street - West Side - Catch Basin	1	Food	Consumption/Serving	Flatware	Redware	Body		
Dock Street - West Side - Catch Basin	1	Food	Consumption/Serving	Holloware	Whiteware	Rim	post 1850	
Dock Street - West Side - Catch Basin	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840	Blue Transferprint
Dock Street - West Side - Catch Basin	2	Food	Consumption/Serving	Holloware	Pearlware	Base		Painted Polychrome - mends together
Empire Fulton Ferry State Park Driveway - 485' E N/S Water Street	1	Food	Consumption/Serving	Flatware	Redware	Rim		Glazed
Empire Fulton Ferry State Park Driveway - 485' E N/S Water Street	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840	Blue - Transferprint
Empire Fulton Ferry State Park Driveway - 485' E N/S Water Street	1	Personal	Clothing	Belt	Leather			
Event Street	1	Food	Consumption/Serving	Holloware	Delft	Body	17th century	
Event Street	1	Food	Consumption/Serving	Flatware	Redware	Body		Slipware
Furman Street Trench	1	Food		Shell	Oyster			
Furman Street Trench	1	Food	Consumption/Serving	Flatware	Whiteware	Base	post 1850	
Furman Street Trench	1	Food	Consumption/Serving	Flatware	Yellowware	Body		Slipware
Furman Street Trench	1	Food	Consumption/Serving	Holloware	Pearlware	Rim	1800-1840	Blue - Transferprint
Main Street - NW Water Street - Fire Cable Trench at Sidewalk	1	Faunal	Bone	Bone	Bone	Bone		
Main Street - NW Water Street - Fire Cable Trench at Sidewalk	1	Food	Consumption/Serving	Holloware	Pearlware	Body		Mocha - Cable Pattern
New Dock Street	1	Food	Storage/Preparation	Holloware	Stoneware	Base		Salt-Glazed
New Dock Street	2	Food	Storage/Preparation	Holloware	Stoneware	Body		Salt-Glazed
New Dock Street Trench - Branch	11	Faunal	Bone	Bone	Bone	Bone		
New Dock Street Trench - Branch	1	Architectural	Building	Window Pane	Glass			Clear
New Dock Street Trench - Branch	1	Food	Storage	Bottle	Glass	Body		Blue
New Dock Street Trench - Branch	1	Food	Storage	Bottle	Glass	Body		Green
New Dock Street Trench - Branch	2	Personal	Smoking	Pipe Stem	Clay	Stem		4/64
New Dock Street Trench - Branch	2	Food	Decorative	Handle	Porcelain	Handle	19th century	
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Flatware	Porcelain	Rim	1750-1800	Canton
New Dock Street Trench - Branch	1	Food	Storage	Holloware	Redware	Rim		
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Flatware	Redware	Rim		Slipware
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Flatware	Redware	Body		Glazed
New Dock Street Trench - Branch	1	Food	Storage	Holloware	Stoneware	Body		Salt-glazed
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Holloware	Yellowware	Body	1820-1840	Mocha - Tree Pattern
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Holloware	Pearlware	Rim	1800-1840	Polychromie - Flower
New Dock Street Trench - Branch	2	Food	Consumption/Serving	Flatware	Pearlware	Body	1800-1840	Blue Transferprint
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1825-1840	Mocha - Stipple

New Dock Street Trench - Branch	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1775-1840		
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Holloware	Pearlware	Rim	1800-1840		Blue Transferprint
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Flatware	Pearlware	Rim			Blue Edge
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Flatware	Pearlware	Rim			Green Edge
New Dock Street Trench - Branch	1	Food	Consumption/Serving	Flatware	Pearlware	Body	1800-1840		Blue Transferprint
New Dock Street Trench - Branch	2	Food	Consumption/Serving	Holloware	Pearlware	Body	1800-1840		Blue Glazed
New Dock Street Trench - Branch	2	Food	Consumption/Serving	Holloware	Whiteware	Body	post 1830		
OF Trench - Southeast of Evert Street	1	Food	Storage/Preparation	Holloware	Stoneware	Body			Salt-Glazed
OF Trench - Southeast of Evert Street	1	Food	Consumption/Serving	Holloware	Pearlware	Body			Painted Polychrome (flowers)
OF Trench - Southeast of Evert Street	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1775-1840		
OF Trench - Southeast of Evert Street	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840		Blue Transferprint
OF Trench - Southeast of Evert Street	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1775-1840		Green Edgeware
Old Fulton - North Side - 185' E	3	Food	Consumption/Serving	Flatware	Pearlware	Base	1800-1840		Blue - Transferprint
Old Fulton - North Side - 185' E	1	Food	Consumption/Serving	Holloware	Pearlware	Rim	1800-1840		Blue - Transferprint
Old Fulton - North Side - 185' E	1	Food	Consumption/Serving	Flatware	Pearlware	Body	1800-1840		Blue - Transferprint
Old Fulton Street - North Side 350' E	1	Food	Consumption/Serving	Holloware	Porcelain	Body	19th century		Painted Polychrome
Old Fulton Street - North Side 350' E	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1800-1840		Blue Transferprint
Old Fulton Street - North Side 350' E	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1800-1840		Blue Transferprint
Old Fulton Street - North Side 350' E	1	Food	Consumption/Serving	Flatware	Redware	Body			Glazed
Old Fulton Street - North Side 350' E	1	Food	Consumption/Serving	Decorative	Pearlware	Body	1775-1840		Blue Glazed
Old Fulton Street - North Side 350' E	4	Personal	Smoking	Pipe Stem	Clay	Stem	post 1750		4/64
Old Fulton Street - North Side 350' E	2	Food	Storage	Bottle	Glass	Rim			Green Blob-Top
Old Fulton Street - North Side 350' E	5	Food	Storage	Bottle	Glass	Body			Green
Old Fulton Street - North Side Test Pit	2	Faunal	Bone	Bone	Bone				
Old Fulton Street - North Side Test Pit	1	Food	Storage/Preparation	Bottle	Glass	Body			Green
Old Fulton Street - North Side Test Pit	1	Personal	Smoking	Pipe Stem	Clay	Stem			5/64
Old Fulton Street - North Side Test Pit	1	Food	Consumption/Serving	Flatware	Redware	Rim			Glazed
Old Fulton Street - North Side Test Pit	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840		Blue - Transferprint
Old Fulton Street - North Side Test Pit	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1775-1840		Green Edgeware
Old Fulton Street - North Side Test Pit	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1775-1840		Green Edgeware
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Faunal	Horn	Bull Horn	Bone	Horn			
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	2	Faunal	Bone	Bone	Bone	Bone			

Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Storage	Bottle	Glass	Body			Green
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	2	Personal	Smoking	Pipe Stem	Clay	Stem			4/64
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1775-1840		Magarwse Molded Th Glazed "Fish Pattern" - Chocolate Dish Bowl
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Flatware	Redware	Rim			Slipware
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Flatware	Redware	Body			Slipware
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Holloware	Whiteware	Base	post 1850		
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Holloware	Whiteware	Body	post 1850		
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Flatware	Porcelain	Base	19th century		Painted Polychrome
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Architectural	Building	Tile	Delft	Tile			Blue Painted
Old Fulton Street - South Side (Between Event Street and Elizabeth Street	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1800-1840		Blue Painted
Old Fulton Street North Side 310' E	1	Personal	Smoking	Pipe Stem	Clay	Stem	post 1750		4/64
Old Fulton Trench	6	Personal	Clothing	Shoe	Leather	Sole			
Old Fulton/ SS at Evert Street	1	Personal	Smoking	Smoking Pipe	Clay	Stem	post 1750		4/64
Old Fulton/ SS at Evert Street	1	Food	Consumption/Serving	Flatware	Redware	Body			Glazed
Old Fulton/ SS at Evert Street	1	Food	Consumption/Serving	Holloware	Delft	Body			pitcher
Old Fulton/ SS at Evert Street	1	Food	Consumption/Serving	Flatware	Delft	Base			
Sewer Trench - Between Dock Street and Main Street - Unit 2 535' E and B+ BG	1	Food	Storage/Preparation	Bottle	Glass	Neck and Rim			Green - molded
Sewer Trench - Between Dock Street and Main Street - Unit 2 535' E and B+ BG	1	Food	Consumption/Serving	Flatware	Whiteware	Rim	post 1850		
Test Pit 1 - 158'	3	Faunal	Bone	Bone	Bone	Bone			
Test Pit 1 - 158'	1	Personal	Clothing	Belt	Leather				
Test Pit 1 - 158'	1	Personal	Smoking	Pipe Stem	Clay	Stem	post 1750		4/64

Test Pit 1 - 158'	1	Food	Consumption/Serving	Holloware	Porcelain	Rim	19th century	
Test Pit 1 - 158'	1	Architectural	Building	Tile	Whiteware	Tile	post 1850	Painted Tile
Test Pit 1 - 158'	1	Food	Consumption/Serving	Holloware	Whiteware	Body	post 1850	
Test Pit 1 - 158'	1	Food	Consumption/Serving	Flatware	Porcelain	Rim	19th century	
Test Pit 1 - 158'	1	Architectural	Building	Tile	Yellowware	Tile		
Test Pit 1 - 158'	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1800-1840	Blue Transferprint
Test Pit 1 - 158'	1	Food	Consumption/Serving	Flatware	Whiteware	Rim	post 1850	Red Transferprint
Test Pit 1 - 158'	1	Food	Storage	Holloware	Stoneware	Body		Salt Glazed
Test Pit 1 - 158'	1	Food	Consumption/Serving	Holloware	Pearlware	Base	1800-1840	Painted Polychrome
Test Pit 1 - 158'	2	Food	Consumption/Serving	Flatware	Pearlware	Base	1775-1840	
Test Pit 1	1	Faunal	Bone	Bone	Bone	Bone		
Test Pit 1	1	Personal	Smoking	Pipe Stem	Clay	Stem		5/64
Test Pit 1	3	Architectural	Building	Tile	Ceramic			Purple Transferprint
Test Pit 1	1	Food	Consumption/Serving	Holloware	Porcelain	Body	19th century	
Test Pit 1	1	Food	Consumption/Serving	Flatware	Yellowware	Body	19th century	Slipware
Test Pit 1	1	Food	Consumption/Serving	Holloware	Whiteware	Rim	post 1850	
Test Pit 1	1	Food	Consumption/Serving	Holloware	Pearlware	Body		Painted Polychrome (flowers)
Test Pit 1	1	Food	Consumption/Serving	Holloware	Porcelain	Rim	19th century	Painted Polychrome (flowers)
Test Pit 1	1	Architectural	Building	Tile	Ceramic	Body	18th century	
Test Pit 5	2	Food	Storage/Preparation	Holloware	Stoneware	Body		Salt Glazed
Test Pit 5	4	Food	Storage/Preparation	Holloware	Yellowware	Rim	19th century	
Test Pit 5	1	Food	Health	Chamber Pot	Pearlware	Rim	1775-1840	
Test Pit 5	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1775-1840	Blue - Transferprint
Test Pit 6	1	Food	Storage/Preparation	Holloware	Stoneware	Rim		Cobolt Blue - Salt Glazed
Test Pit 6	1	Food	Consumption/Serving	Holloware	Pearlware	Rim	1800-1840	Brown - Transferprint
Test Pit 6	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1775-1840	Green Edgeware
Test Pit 9	1	Food	Consumption/Serving	Flatware	Redware	Body		Brown - Slipware
Water Street - 175' E	1	Food	Consumption/Serving	Holloware	Whiteware	Body	post 1850	
Water Street - 175' E	1	Food	Storage/Preparation	Liquor Bottle	Glass	Base		Green
Water Street - 175' E	2	Personal	Clothing	Shoe	Leather	Sole		
Water Street - 175' E	1	Faunal	Bone	Bone	Bone	Bone		
Water Street - 246' E	1	Personal	Clothing	Buckle	Metal	Buckle		
Water Street - 246' E	1	Food	Consumption/Serving	Flatware	Redware	Base		Slipware
Water Street - 246' E	3	Architectural	Building	Tile	Ceramic			Glazed

Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1775-1840	
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Porcelain	Base	19th century	
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Porcelain	Body	19th century	
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Hollowware	Porcelain	Rim	19th century	Gold Gilded
Water Street - 625' E - Sidewalk Trench	1	Architectural	Building	Tile	Ceramic	Body		Green Glazed
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Porcelain	Base	19th century	Gilded
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Whiteware	Base	post 1850	Painted Polychrome
Water Street - 625' E - Sidewalk Trench	2	Food	Consumption/Serving	Flatware	Whiteware	Body	post 1850	Painted Polychrome
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Whiteware	Base	post 1850	
Water Street - 625' E - Sidewalk Trench	8	Food	Consumption/Serving	Flatware	Whiteware	Body	post 1850	
Water Street - 628'E Connection Trench	1	Food	Consumption/Serving	Hollowware	Redware	Body		Glazed
Water Street - 628'E Connection Trench	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1800-1840	Blue Transferprint
Water Street - 628'E Connection Trench	1	Food	Consumption/Serving	Flatware	Whiteware	Rim	post 1850	
Water Street - 675' E - South Sidewalk - Ash Layer	1	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Flatware	Redware	Rim		Brown Glazed
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Flatware	Redware	Body		Brown Glazed
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Storage	Hollowware	Stoneware	Body		Salt-Glazed
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Flatware	Whiteware	Body	post 1850	
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Hollowware	Pearlware	Rim	1775-1840	
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Handle	Pearlware	Handle	1800-1840	Blue Transferprint
Water Street - 675' E - South Sidewalk - Ash Layer	5	Food	Consumption/Serving	Flatware	Pearlware	Base	1800-1840	Blue Transferprint (Including 2 Willow)
Water Street - 675' E - South Sidewalk - Ash Layer	2	Food	Consumption/Serving	Flatware	Pearlware	Body	1800-1840	Blue Transferprint
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840	Flow Blue
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Hollowware	Pearlware	Base	1800-1840	Brown Transferprint
Water Street - 675' E - South Sidewalk - Ash Layer	1	Food	Consumption/Serving	Hollowware	Pearlware	Base	1800-1840	Green Painted
Water Street - 745' E - Under Pipe - 30" BG	1	Food	Consumption/Serving	Flatware	Redware	Rim		
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Bone	Bone	Bone	Bone		
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840	Blue - Transferprint
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Hollowware	Pearlware	Body	1800-1840	Blue - Transferprint
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Hollowware	Pearlware	Body	1775-1840	

Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1775-1840	
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1775-1840	Green Edgeware
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Holloware	Yelloware	Body	19th century	
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1775-1840	
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Holloware	Whiteware	Rim	post 1850	
Water Street - 915' E - Connection Trench Under Sidewalk	1	Food	Consumption/Serving	Holloware	Pearlware	Body		Blue - Painted
Water Street - 915' E - Connection Trench Under Sidewalk	6	Personal	Smoking	Pipe Stem	Clay	Stem	post 1750	4/64
Water Street - 915' E - Connection Trench Under Sidewalk	1	Personal	Smoking	Pipe Bowl	Clay	Bowl	post 1750	4/64
Water Street - Between Fgnazio's and The River Café - Hydrant Trench	1	Food	Consumption/Serving	Holloware	Redware	Base		Glazed
Water Street - Between Fgnazio's and The River Café - Hydrant Trench	1	Faunal	Bone	Bone	Bone	Jaw		
Water Street - Between Fgnazio's and The River Café - Hydrant Trench	3	Faunal	Bone	Bone	Bone	Bone		
Water Street - Dock Street to Main Street - South Side - 810' E at #66 Water Street	1	Architectural	Building	Nail	Iron			Round
Water Street - Dock Street to Main Street - South Side - 810' E at #66 Water Street	1	Architectural	Building	Wood				
Water Street - Dock Street to Main Street - South Side Sewer Line - 810' E B+ BG	1	Food	Consumption/Serving	Flatware	Redware	Body		Glazed
Water Street - Dock Street to Main Street - South Side Sewer Line - 810' E B+ BG	1	Food	Consumption/Serving	Flatware	Pearlware	Rim		Flow Blue Transferprint
Water Street - North Side - 535' E	1	Faunal	Bone	Bone	Bone	Bone		
Water Street - North Side - 535' E	1	Food	Consumption/Serving	Holloware	Pearlware	Body		Painted Polychrome
Water Street - Sewer and Main Trunk Trench - at #4 Water Street - 8' BG	1	Food	Consumption/Serving	Flatware	Pearlware	Base		Painted Blue
Water Street - Sewer and Main Trunk Trench - at #4 Water Street - 8' BG	1	Food	Storage/Preparation	Liquor Bottle	Glass	Complete		Brown Bottle
Water Street - Sewer and Main Trunk Trench - South Side 230' E	1	Food	Consumption/Serving	Spoon	Metal	Table Spoon		
Water Street - South Side - 875' E	1	Personal	Decorative	Top	Redware	Top		
Water Street - South Side - 875' E	1	Food	Consumption/Serving	Flatware	Pearlware	Base		

Water Street - 475' E - South Side Under Value	1	Faunal	Bone	Bone	Bone	Bone			
Water Street - 480' E - Catch Basin - Park Entrance	2	Faunal	Bone	Bone	Bone	Bone			
Water Street - 480' E - Catch Basin - Park Entrance	2	Food	Consumption/Serving	Flatware	Redware	Rim			Slipware
Water Street - 480' E - Catch Basin - Park Entrance	1	Food	Consumption/Serving	Flatware	Redware	Body			Slipware
Water Street - 480' E - Catch Basin - Park Entrance	1	Architectural	Building	Window	Glass	Plate			
Water Street - 480' E - Catch Basin - Park Entrance	1	Food	Consumption/Serving	Holloware	Pearlware	Base	1800-1840		Blue Transferprint
Water Street - 480' E - Catch Basin - Park Entrance	2	Food	Consumption/Serving	Flatware	Whiteware	Base	post 1850		
Water Street - 480' E - Catch Basin - Park Entrance	1	Food	Consumption/Serving	Flatware	Whiteware	Body	post 1850		
Water Street - 540' E - Sidewalk Trench	1	Faunal	Bone	Bone	Bone	Bone			
Water Street - 540' E - Sidewalk Trench	1	Personal	Bone	Bone	Bone	Comb			
Water Street - 540' E - Sidewalk Trench	2	Architectural	Building	Lamp Glass	Glass	White			
Water Street - 540' E - Sidewalk Trench	1	Food	Consumption/Serving	Holloware	Redware	Body			Glazed
Water Street - 540' E - Sidewalk Trench	2	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840		Blue Transferprint
Water Street - 540' E - Sidewalk Trench	1	F	Consumption/Serving	Holloware	Pearlware	Base	1800-1840		Blue Transferprint
Water Street - 625' E - Sidewalk Trench	3	Faunal	Bone	Bone	Bone	Bone			
Water Street - 625' E - Sidewalk Trench	1	Food	Storage/Preparation	Bottle	Glass	Body			Brown
Water Street - 625' E - Sidewalk Trench	1	Food	Storage/Preparation	Bottle	Glass	Body			Green
Water Street - 625' E - Sidewalk Trench	1	Food	Storage/Preparation	Bottle	Glass	Base			Green
Water Street - 625' E - Sidewalk Trench	1	Food	Storage/Preparation	Bottle	Glass	Base			Clear
Water Street - 625' E - Sidewalk Trench	1	Decorative		Bottle	Glass				Green
Water Street - 625' E - Sidewalk Trench	8	Food	Storage/Preparation	Bottle	Glass	Body			Clear
Water Street - 625' E - Sidewalk Trench	1	Architectural	Building		Wood				
Water Street - 625' E - Sidewalk Trench	1	Architectural	Building	Stone	Granite				
Water Street - 625' E - Sidewalk Trench	1	Architectural	Building	Tile	Ceramic	Body			Glazed
Water Street - 625' E - Sidewalk Trench	1	Food	Storage/Preparation	Jug	Stoneware	Body			Salt-Glazed
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1800-1840		Black Transferprint
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Holloware	Whiteware	Rim	post 1850		Blue Glazed
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Holloware	Yellowware	Body	19th century		
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Holloware	Pearlware	Body	1800-1840		Blue Transferprint
Water Street - 625' E - Sidewalk Trench	1	Food	Consumption/Serving	Handle	Porcelain	Handle	19th century		
Water Street - 625' E - Sidewalk Trench	2	Food	Consumption/Serving	Handle	Pearlware	Handle	1800-1840		Blue Transferprint
Water Street - 625' E - Sidewalk Trench	3	Architectural	Building	Tile	Ceramic	Body			Green Glazed

Water Street - South Side - 875' E	1	Food	Consumption/Serving	Handle	Pearlware	Handle	1800-1840		Blue - Transferprint
Water Street - South Side - 875' E	1	Food	Consumption/Serving	Flatware	Pearlware	body			
Water Street - South Side - 875' E	2	Food	Consumption/Serving	Holloware	Pearlware	Rim	1800-1840		Blue - Transferprint
Water Street 790' E South Side	1	Faunal	Bone	Bone	Bone	Bone			
Water Street 803' E	1	Architectural	Building	Tile	Ceramic	Tile			White
Water Street 803' E	1	Architectural	Building	Tile	Ceramic	Tile			Blue
Water Street 803' E	1	Architectural	Building	Tile	Ceramic	Tile			Yellow
Water Street 947' E	1	Food	Consumption/Serving	Flatware	Porcelain	Rim	19th century		
Water Strete - 467 E - Hydrant Trench - 4; BG	1	Food	Consumption/Serving	Flatware	Pearlware	Rim	1800-1840		Blue - Transferprint (Willow)
Water Strete - 467 E - Hydrant Trench - 4; BG	1	Food	Consumption/Serving	Flatware	Pearlware	Base	1775-1840		
Water Strete - 467 E - Hydrant Trench - 4; BG	1	Food	Consumption/Serving	Holloware	Pearlware	Rim			Blue Painted
Water Strete - 467 E - Hydrant Trench - 4; BG	1	Food	Consumption/Serving	Holloware	Pearlware	Rim			Mocha
Water Strete - 467 E - Hydrant Trench - 4; BG	1	Food	Consumption/Serving	Holloware	Pearlware	Body			Mocha
Water Strete - 467 E - Hydrant Trench - 4; BG	1	Food	Consumption/Serving	Holloware	Whiteware	Rim	post 1850		Brown - Transferprint

Appendix E:

Artifact Images

Ceramic found on New Dock Street.

Transfer printed wares from the east/west section of Water Street.

Redware found on the Water Street.

Ceramic from eastern Old Fulton Street (east of Water).

Ceramic from eastern Old Fulton Street (east of Water).

Various ceramic wares recovered from the eastern end of Water Street.

Liquor bottle glass from Dock Street and Old Fulton Street.

Twentieth century glass found in sidewalk trench at the Empire Warehouses.

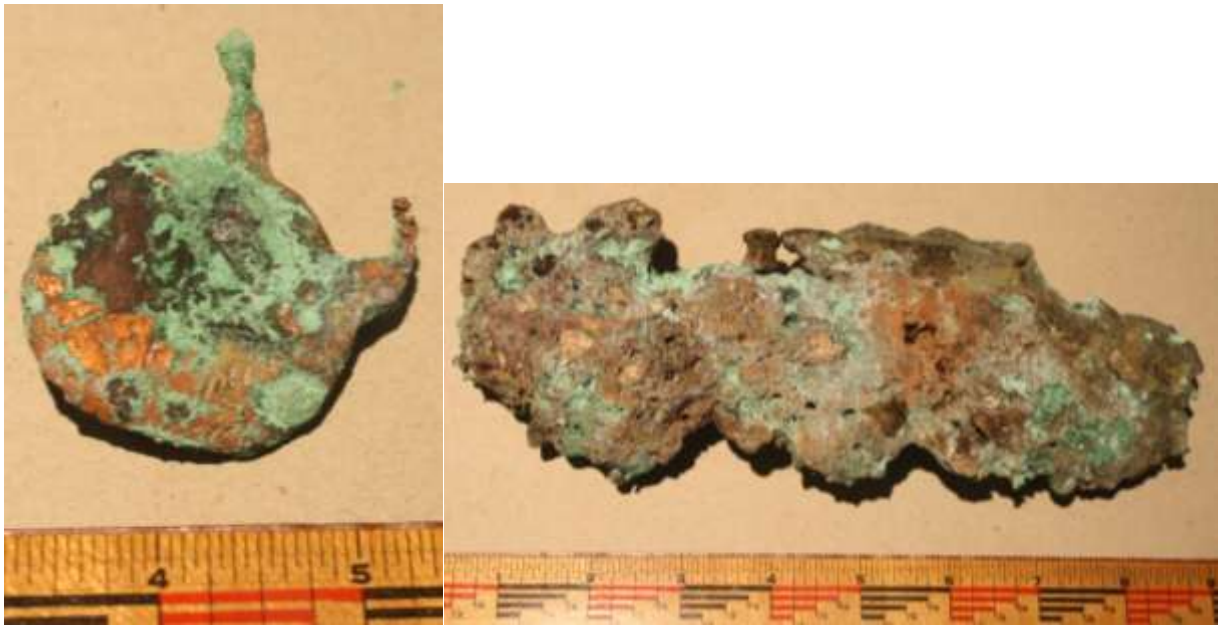
Clay tobacco pipes, silver plated soup spoon, metal buckle and glass marble found during project.

Artifacts found near wooden structure on eastern Water Street.

Some of the faunal remains found during the project.

Wood hook or latch found in sidewalk trench in front of the Empire Warehouses on Water Street between Dock and Main.

Leather belt found in service connection trench on the north side of Water Street at Dock.



Copper slag from catch basin trench on the west side of Dock Street.

Appendix F:

Resumes

Alyssa Loorya, M.A., M.Phil., R.P.A.
4110 Quentin Road
Brooklyn, New York 11234-4322
Phone/Fax: (718) 645-3962 or Cell: (347) 922-5581
E-mail: aloorya@chrysalisarchaeology.com

EDUCATION:

CITY UNIVERSITY OF NEW YORK GRADUATE SCHOOL AND UNIVERSITY CENTER;
New York, New York.
Ph.D. Candidate in Anthropology/Historical Archaeology,
expected graduation: Fall 2012.

HUNTER COLLEGE; New York, New York.
M.A. in Anthropology, June 1998.

BROOKLYN COLLEGE; Brooklyn, New York.
B.A. in Anthropology, History and Education, Magne Cum Laude and Departmental Honors, January 1995.

PROFESSIONAL LICENSES:

Register of Professional Archaeologists

New York City Department of Education, Per Diem Substitute Teaching Certificate Number: 775621

Fully Insured, Incorporated as Chrysalis Archaeological Consultants, Incorporated, June 2005.

State of New York (52621), New York City (51831-72009) and State of New Jersey (50697-15) – Small, Woman-Owned Business

EMPLOYMENT - ARCHAEOLOGY:

CHRYSALIS ARCHAEOLOGICAL CONSULTANTS, INC.
President, Principal Investigator, 2002 to present

SCHAVONIE CONSTRUCTION, CORPORATION
Highbridge Park, New York, New York – Phase IB, June 2012 to present

FORT INDEPENDENCE PARK NEIGHBORHOOD ASSOCIATION.
Fort Independence Survey, February 2012 to present

GREENVEST, LLC.
Spotswood-Englishtown Road; Township of Monroe, Middlesex County, NJ – Phase I, January 2012 to present
Georgia Road, Freehold Township, Monmouth County, NJ – Phase I, January 2012 to present
Pleasant Grove, Jackson Township, Ocean County, NJ - Phase I, January 2012 to present
Southard Avenue, Howell Township, Monmouth County, NJ - Phase I, January 2012 to present
Oradell Rservior Site, Bergen County, NJ - Phase I, January 2012 to present

246 FRONT STREET, LLC.
246 Front Street, New York, New York – Phase I Project, November 2011 to January 2012 and July 2012 to present

ABC NO RIO
156 Rivington Street, New York, New York – Phase IA Study, October 2011 to January 2012

FRIENDS AND RESIDENTS OF THE GOWANUS CANAL
Gowanus Canal, Brooklyn, New York Phase IA Study, October 2011 to present

TECTONIC ENGINEERING
Peck Slip, New York, New York, July 2011 to present

WOODARD AND CURRAN
Memorial Field, Mt. Vernon, New York – Phase IB, September 2010 to December 2010

JUYI, INC.
St. George's Church Project, Flushing, Queens, NY, February 2010 to June 2010

EASTON ARCHITECTS, LLP
Memorial Field, Mt. Vernon, NY, February 2010 to August 2010

BEYER BLINDER BELLE – ARCHITECTS AND PLANNERS
City Hall Reconstruction Project, New York, New York, November 2009 to present

TROCOM CONSTRUCTION
John Street, New York, New York, October 2009 to June 2011

ASSOCIATED ENVIRONMENTAL SERVICES, LTD.
U.S. Merchant Marine Academy; Kings Point, New York, May 2009 to October 2010

TULLY CONSTRUCTION COMPANY
Downtown Brooklyn-Water Street Reconstruction; Brooklyn, NY, May 2009 to May 2011

HAKS ENGINEERING
Fulton Street Phase II Reconstruction Project, New York, NY, March 2009 to present

PRINCETON HYDRO, LLC.
Trestle Bridge Replacement; Gloucester County, NJ, February 2009 to April 2009
Overpeck Creek; Depot Park, Englewood, NJ, March 2009 to May 2009

MATRIX NEW WORLD ENGINEERING, INC. & GREENVEST
Cranbury Wetland Mitigation Site, Middlesex County, NJ, October 2008 to January 2010

MKW AND ASSOCIATES, LLC
Ocean Breeze Park, Staten Island, New York, August 2008 to October 2008

HAFFEY ARCHITECTS AND ENGINEERS
79 Christopher Street Burial Vault Project; New York, New York, June 2008 to July 2008

BFC PARTNERS
Principal Investigator, 210 Board Street, Staten Island, New York, September 2007 to November 2007 and March 2009 to October 2009

WEST VILLAGE HOUSING DEVELOPMENT FUND CORPORATION
Principal Investigator, West Village Housing Project, Manhattan, New York, September 2007 to December 2007

FORTUNE SOCIETY/JONATHAN ROSE COMPANIES
Principal Investigator, Fortune Society Project, Manhattan, New York, September 2007 to December 2007

M C R RESTORATION
Principal Investigator, South Jamaica Urban Renewal Project – Phase I, Queens, New York, March 2007 to November 2007

JOBE DEVELOPMENT CORPORATION
Principal Investigator, South Jamaica Urban Renewal Project – Phase II, Queens, New York, March 2008 to October 2008

ATLAS CONCRETE
Principal Investigator, Rufus King Park Project, Queens, New York, March 2007 to December 2007

MANUEL ELKEN CORPORATION, INC./NYC DEPT. OF DESIGN AND CONSTRUCTION
Principal Investigator, Wall Street Water Main Project, New York, New York, August 2006 to July 2007

A. A. H. CONSTRUCTION CORPORATION
Principal Investigator, Columbus Park Restoration, September 2005 to February 2007

QUIGG DEVELOPMENT CORPORATION
Principal Investigator, Wayanda Park Project, August 2003
Principal Investigator, Dyckman Farmhouse Project, August 2007 to December 2007

RADIN CONSULTANTING, INCORPORTATED
Principal Investigator, Hunterdon, New Jersey Project, June 2006

CHAYA STERN
Principal Investigator, 102 Franklin Avenue Project, May 2006

MATHEWS/NIELSEN LANDSCAPE
Principal Investigator, Rufus King Park Project, April 2006

WILLIAM A. GROSS CONSTRUCTION
Principal Investigator, Martin's Field Phase II Project, September 2005 to August 2006

PHILIP HABIB AND ASSOCIATES
Principal Investigator, 311 Broadway Project, February 2005 to June 2005

UA CONSTRUCTION CORPORATION
Principal Investigator, Martin's Field Phase I Project, September 2004 to 2006
Principal Investigator, Bartow-Pell Mansion Site, October 2008

BAY PROPERTIES, INCORPORATED
Principal Investigator, Block 7792 Staten Island Project, December 2004 to October 2005

DELL-TECH ENTERPRISES
Principal Investigator, Pieter Claesen Wyckoff House Project, May 2004 to December 2004
Principal Investigator, Roger Morris Park Project, January 2005 to March 2005

GAMLA ENTERPRISES, N.A. INCORPORATED
Principal Investigator, 63/65 Columbia Street Project, October 2004 to February 2005

TRC ENVIRONMENTAL CORPORATION
Archaeologist, Greenpoint Project, Brooklyn, NY October 2004
Archaeologist, Consolidated Edison Project, NY May 2006

MONDOL CONSTRUCTION CORPORATION
Principal Investigator, Queens County Farm Museum Project, July 2004 to December 2004

A.J. CONTRACTING INCORPORATED
Principal Investigator, Gravesend Cemetery Project, January-March 2002

URS CORPORATION
Site Supervisor, Dey Street, New York, New York Project, August 2006 to December 2007
Site Supervisor, Atlantic Yards, Brooklyn, New York, February 2007 to present
Site Supervisor, Floyd Bennett Field, Brooklyn, New York, March 2007 to May 2007
Principal Investigator, Brooklyn Bridge Park Project, Brooklyn, New York, February 2008 to present
Principal Investigator, Fulton Street Transit Hub Reconstruction Project; New York, NY, November 2009 to August 2010

GRAY & PAPE
Senior Principal Investigator, Millennium Project, New York, October 2007 to October 2010

BROOKLYN COLLEGE, CITY UNIVERSITY OF NEW YORK RESEARCH FOUNDATION
Laboratory Director, September 2001 to December 2008
City Hall Park Project
Project Director and Graphic Artist, January 2004 to 2008
Revolutionary War Heritage Tourism Trail project.

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Teacher Assistant, June 2001 to 2007
Hendrick I. Lott House, Brooklyn, NY, New Utrecht Church, Brooklyn, NY, Van Cortlandt Park, Bronx, NY, Marine Park, Brooklyn, NY, Erasmus High School, Brooklyn, NY, Fort Greene Park, Brooklyn, NY.

AUDUBON SOCIETY OF CONNECTICUT
Project Archaeologist and Educational Consultant, May 2001 – May 2002

SAYVILLE HISTORICAL SOCIETY
Co-Director, Edwards Homestead Archaeological Project October 2000, May 2001

CITY UNIVERSITY OF NEW YORK GRADUATE SCHOOL AND UNIVERSITY CENTER
Teacher Assistant, September 1998 to December 2001
John Bowne House, Queens, NY and Hendrick I. Lott House, Brooklyn, NY

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Assistant Site Supervisor, October 1998 to December 1998
Chambers Street Project; New York, NY

EMPLOYMENT – ARCHAEOLOGY-EDUCATION:

CITY UNIVERSITY OF NEW YORK'S – RESEARCH FOUNDATION/GOTHAM CENTER
Educational Consultant - Archaeology and Historic Preservation - City Hall Academy September 2003 – June 2004 and November 2004 to present

BROOKLYN COLLEGE AND DEPARTMENT OF EDUCATION, STAR HIGH SCHOOL
Archaeological-Education Consultant, July 2004 to present
Teaching special content classes and grant writing.

PIETER CLAESEN WYCKOFF HOUSE MUSEUM
Archaeological-Educator – Curriculum Development Consultant, 2003 to present
Responsibilities include the creation and implementation of Teacher Workshops throughout the school year.

DIG MAGAZINE
Archaeological-Education Consultant and Contributor, 2000 to present

SOUTH STREET SEAPORT MUSEUM
Archaeological Educator, September 1999 to June 2001

INSTITUTE FOR ARCHAEOLOGICAL EDUCATION AT MANHATTANVILLE COLLEGE
Curriculum Developer and Archaeological Educator, September 1997 to December 1998
PS 134, New York, NY, Scarsdale Elementary School, Scarsdale, NY, Congregation Emmanuel of Harrison, NY, Temple Israel of New Rochelle, NY

EMPLOYMENT – EDUCATION-PRESERVATION-CONSULTATION:

NEW JERSEY INSTITUE OF TECHNOLOGY
Educational Consultant, March 2001 to December 2004, February 2007 and May 2008 to present
Developing special content curriculum for NYC Department of Education to meet national and state standards using primary resource historic preservation material. Teacher development and classroom teaching.

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION, INC.
Program Development, January 2005 to present
Developed the Interpretive-Educational-Curriculum Plan for the Hendrick I. Lott House.

VOLUNTEER EXPERIENCE:

NEW YORK CITY DEPARTMENT OF EDUCATION, BRONX EXPEDITIONARY HIGH SCHOOL
Educational and Curriculum Consultant, August 2004 to December 2004

NEW YORK CITY BOARD OF EDUCATION, DISTRICT 22
Grant writer and consultant, May 2002 to September 2002

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Laboratory Assistant, October 1997 to December 1997
Stone Street Historical District Project

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER - FIELD SCHOOL
Co-Director, August 1999
147 Hicks Street Cistern Excavation Project

Site Supervisor, August 1997, June 1995 and June 1996, May 1996 and October 1997
Marine Park, Brooklyn, NY; Pieter Claesen Wyckoff House, Brooklyn, NY; Timothy Knapp House, Rye, NY

Excavator, May 1995 and June 1994
Pieter Claesen Wyckoff House, Brooklyn, NY; Timothy Knapp House, Rye, NY

BROOKLYN COLLEGE – DEPARTMENT OF ANTHROPOLOGY AND ARCHAEOLOGY
Teacher Assistant, September 1996 to June 1998
Introduction to Archaeological Laboratory Methods

WEB & MEDIA DESIGN:

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Created press and field school promotional material and packets.
Developed and maintains web site for the Department's archaeology program.
http://depthome.brooklyn.cuny.edu/anthro/dept
HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION
Created press and promotional material and packets. Newsletter designer and editor.
Developed and maintains web site for the organization. http://www.lotthouse.org

PIETER CLAESEN WYCKOFF HOUSE MUSEUM AND ASSOCAITION
Created 350th Anniversary Flyer and Conference Information.

AWARDS:

Brooklyn Borough President's Historians Award (through the Brooklyn College Archaeological Research Center) - 1998
CUNY-PSE Grant (through the Brooklyn College Archaeological Research Center) - 1998, 1999, 2000
Conference Travel Grant – CUNY Graduate Center, New York, New York 2001

PROFESSIONAL SERVICES:

1999 to 2006 Board of Trustees – The Hendrick I. Lott House Preservation Association
2003 to 2007 Member – Historic House Trust Educators Alliance
2002 2007 Advisory Board – Pieter Claesen Wyckoff House Museum
2002 to 2007 Advisory Board - Brooklyn Heritage Inc.
2005 to 2007 Board of Trustees - Salt Marsh Alliance
2012 to present Vice President – Professional Archaeologists of New York City

PUBLICATION(S):

Loorya, Alyssa.

2002 The Gravesend Cemetery Project. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

1998 *Stewardship in Practice: Integrating Archaeology Into The Grade School Curriculum*. Masters Thesis on file with the Department of Anthropology; Hunter College, New York, New York.

Loorya, Alyssa and Christopher Ricciardi.

2012a Phase IA Historical Documentary Report and Archaeological Assessment of 156 Rivington Street (Block 349, Lot 33), Manhattan (New York County), New York Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2012b Phase IA Historical Documentary Report and Archaeological Assessment of 246 Front Street (aka 267 ½ Water Street) (Block 107, Lot 34), Manhattan (New York County), New York. New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2012c Phase IB Archaeological Assessment of 246 Front Street (aka 267 ½ Water Street) (Block 107, Lot 34), Manhattan (New York County), New York. New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2012d Phase IA Historical and Archaeological Assessment of the Proposed Gowanus Canal Historic District Extension Area. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2012e Phase IA Historical Documentary Report and Archaeological Assessment of the Pleasant Grove, Jackson Township, Ocean County, New Jersey Mitigation Site. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2012f Phase IB Archaeological Field Survey of the Pleasant Grove, Jackson Township, Ocean County, New Jersey Mitigation Site. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2012g Phase IA Historical Documentary Report and Archaeological Assessment of the Spotswood Englishtown Road, Monroe Township, New Jersey Mitigation Site. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2012h Phase IA Historical Documentary Report and Archaeological Assessment of the Southard Avenue, Howell Township, Monmouth County, New Jersey Mitigation Site. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2011 Phase IB Archaeological Monitoring – Sewer Replacement along John Street/Burling Slip, New York, New York - Project Number: MG41100-107MA - (NY SHPO: 07PR3695) Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2010a Phase IB Cultural Resource Field Survey of the Cranbury Wetlands Mitigation Bank Site Block 13 (Lots 15, 16, 17 and 20) - Cranbury Township, Middlesex County, New Jersey. Report on file with the New Jersey State Historic Preservation Office, Trenton, NJ.

2010b Phase 1B Cultural Resource Field Monitoring of the St. George's Church Fence Replacement Project, Flushing, Queens, Queens County, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2010c Phase IA Cultural Resource Documentary and Archaeological Assessment of Memorial Field, Mount Vernon, Westchester County, New York - NY SHPO #: 09PR05470. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2010d Phase IB Cultural Resource Monitoring of the excavation in front of Murphy Hall; United States Merchant Marine Academy, Kings Point, Nassau County, New York (N62472-08-C-2103). Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York

2009a Phase IA Cultural Resource Documentary Study of the Cranbury Wetlands Mitigation Bank Site Block 13 (Lots 13, 15, 16, 17 and 20) Cranbury Township, Middlesex County, New Jersey. Report on file with the New Jersey State Historic Preservation Office, Trenton, NJ.

2009b Phase IA Cultural Resource Documentary Study of the Replacement of the trestle at U.G. Bridge (12.22), Block 400, Lot 7 (Deptford Township) and Block 278, Lot 1 (Mantua Township) - Vineland Section branch of Conrail - Town of Mantua, Gloucester County, New Jersey. Report on file with Princeton Hydro, LLC.

2009c Phase IA Cultural Resource Survey and Documentary Report for the Depot Park Daylighting of Overpeck Creek; Depot Park, Englewood, Bergen County, New Jersey Project. Report on file with Princeton Hydro, LLC.

2009d Phase IA Cultural Resource Documentary Report of the Fulton Street Reconstruction - Project Extension - Fulton Street between Water Street and South Street, New York (New York County), New York (NY SHPO # 07PR06477). Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2009e Phase 1B Cultural Resource Monitoring of the Stapleton Senior Housing Construction Project; Staten Island, Richmond County, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008a Phase IA Documentary Report – West Village Housing/Whitehall Storage Project – Greenwich Village, New York (New York County), New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008b Phase 1B Cultural Resource Field Testing of Phase II – South Jamaica Urban Renewal Project 107-49 157th Street (Block 10125, Lot 116) and 153-20 and 22 South Road (Block 10121, Lots 70 and 71) – Jamaica, Queens (Queens County), New York: Project Number: 96-HPD-014Q. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008c Phase IA Cultural Resource Documentary Study of Ocean Breeze Park, Staten Island (Richmond County), New York (Block 3355). Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008d Phase 1B Cultural Resource Monitoring of the Path Project – Bartow-Pell Mansion, Bronx (Bronx County), New York, Contract Number: X039-108M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008e Technical Brief Memo for the Removal of burials at 79 Christopher Street, New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007a Wall Street Water Mains Project - New York, New York - Monitoring and Limited Phase IA Documentary Report - Project Number: MED-583A. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007b Columbus Park; New York, (New York County) New York –Monitoring Report for Phase II Construction Project Number: M015-203MA NYSOPRHP Project Number: 02PR03416. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007c Phase IA Cultural Resource Documentary Study of the Fortune Academy Residence Addition Project – 625 West 140th Street - New York (New York County), New York 10176 (Block 2088, Lot 16) - NY SHPO #: 07PR02606. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2007d Phase 1B Cultural Resource Monitoring of the Infrastructural Improvements at the Dyckman Farmhouse Property – New York (New York County), New York, Contract Number: MG6-07M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007e Rufus King Park Reconstruction Project- Phase IB Field Archaeological Monitoring Project, Jamaica, Queens (Queens County), New York – Project Number: 023-205M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007f Phase 1B Cultural Resource Field Testing of Phase I – South Jamaica Urban Renewal Project (104-65 East 165th Street – Block 10163, Lot 63) – Jamaica, Queens (Queens County), New York: Project Number: 96-HPD-014Q. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007g Phase IA Cultural Resource Documentary Study of the 210 Broad Street (Stapleton Housing) Project – Staten Island (Richmond County), New York (Block 545, Lot 100 (portion only)). Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006a Martin's Field - Phase II Project; Queens, New York – Phase 1B Cultural Resource Monitoring Report Project Number: Q017-105M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006b Rufus King Manor, Rufus King Park - Tree Placement Monitoring Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006c Phase IA Archaeological Documentary Study for the proposed development of 102 Franklin Avenue, (Block 1898, Lots 45 and 46), Brooklyn (Kings County), New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006d Phase 1A Archaeological Documentary Study for the proposed development of the

Hunterdon, New Jersey Bridge Project. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2005a Phase IA Archaeological Documentary Study for the proposed development of 63-65, Columbia Street, (Block 299, Lots 7 and 8), Brooklyn (Kings County), New York – BSA 04BSA005K. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005b Phase 1 Archaeological Report for Block 7792 – Staten Island (Richmond County), New York. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2005c Phase 1B Archaeological Monitoring of the Reconstruction of the Retaining Wall for Morris-Jurmel Mansion-Robert Morris Park, New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005d Phase 1A Documentary Study for the 311 West Broadway Project, Block 228, Lot 12 – New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005e Phase IB Archaeological Monitoring of the Reconstruction of Martin's Field (Phase I) Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005f Phase 1A Documentary Study and Partial Field Monitoring of Columbus Park, New York (New York County), New York (NYSOPRHP #: 02PR03416 and NYC Parks #: M015-203MA. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2004a Queens County Farm Museum – Phase 1B Monitoring Project; Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2004b Pieter Claesen Wyckoff House – Phase 1B Monitoring Project; Brooklyn, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2003 Wayanda Park Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

1998a The PS 134 Archaeological-Education Program October 1997 through January 1998, New York, New York. Report on file with the Institute for Archaeological Education at Manhattanville College; Purchase, New York.

1998b Unearthing Van Cortlandt Park: The History and Material Culture of the Van Cortlandt Family; Bronx, New York. Report on file with the Brooklyn College Archaeological Research Center; Brooklyn College, Brooklyn, New York.

Loorya, Alyssa, Christopher Ricciardi and Diane George.

2011 Phase IB Archaeological Monitoring – Sewer Replacement - John Street/Burling Slip, New York, New York - Project Number: MG41100-107MA - (NY SHPO: 07PR3695) Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

Loorya, Alyssa, Christopher Ricciardi, Edward Morin and Daniel Eichinger.

2010a "City Hall Park Update", *SHA Newsletter*, 43(4):26, Winter 2010.

2010b "City Hall Park Update", *CNEHA Newsletter*, 77:4-5, October.

2010c "City Hall Park Update", NYAC *Newsletter*, Fall:16.

Bankoff, H. Arthur and Alyssa Loorya.

2007a City Hall Park Project – Archaeology Magazine Online
http://www.archaeology.org/online/features/cityhallpark/

Bankoff, H. Arthur, Christopher Ricciardi and Alyssa Loorya.

2004a "The Secret Room". *Seaport,* 39(1) Winter-Spring: 32-35.

2004b "Field Work at the Lott House" *Seaport,* 39(1) Winter-Spring:40.

2001 "Remember African Under The Eaves: A forgotten room in a Brooklyn farmhouse yields evidence of religious ritual among slaves." *Archaeology Magazine*, 54(3):36-40, May-June.

1998a Gerritsen's Creek: 1997 Archaeological Field Excavations Report on file with the Brooklyn College Archaeological Research Center, Brooklyn, New York.

1998b Under the Floor: Excavating the front Parlor of the Timothy Knapp House. Report on file with the Rye New York Historical Society; Rye, New York.

1998c "Excavating Brooklyn's Historic Past: The Archaeology of the Hendrick I. Lott Homestead" *Historic House Trust Newsletter*, 9(4):Fall.

1998d "Excavating Historic Brooklyn". *De Boerenwoning*, 1(1):3-6.

1997 The History and Archaeology of the Wyckoff Homestead. Report on file with the New York City Department of Parks and Recreation's Historic House Trust Division, New York, New York.

Ricciardi, Christopher and Alyssa Loorya.

2001 Report of the Public Archaeological Dig Program at The Edwards Homestead, Sayville, New York. Report on file with the Sayville Historical Society, Sayville, New York.

1999 "127 Hicks Street Cistern Report". Report on file with the Brooklyn College Archaeological Research Center; Brooklyn, New York.

Ricciardi, Christopher, Alyssa Loorya and Dr. H. Arthur Bankoff.

2002 "A forgotten story comes to light", *Footsteps Magazine*, May-June:41-45.

2000 "Not Your Typical New Yorkers: Uncovering Brooklyn's Historic Past at the Hendrick I. Lott House." This Side Up Magazine, 12(Winter):15-16.

Membership In Professional Organizations:

The Council for Northeast Historical Archaeology (CNEHA)
New York Archaeological Council (NYAC)
The Professional Archaeologists of New York City (PANYC)
The Register of Professional Archaeologists (ROPA)
The Society for Historical Archaeology (SHA)

Computer skills:

Windows 95/98/ME/XP
MS Office, Publisher and FrontPage
Adobe Acrobat, Illustrator, Page Maker and Photoshop
Macromedia Dreamweaver and Fireworks
Quark XExpress

Conference Papers/Lectures/Teacher Workshops:

01-09-97	Society for Historical Archaeology Conference; Corpus Christi, Texas "Archaeology and Education: An Example from Rye, New York"
03-09-97	Middle Atlantic Archaeological Conference; Ocean City, Maryland "Archaeology and Education: An Example from Rye, New York"
01-08-97	Society for Historical Archaeology Conference; Atlanta, Georgia "Education and Archaeology: Getting Grade Schools Involved"
01-27-98	The Science Activity Exchange - Dig Into Archaeology; Greenwich, Connecticut "Integrating Archaeology Into The Grade School"
06-12-98	I.S. 211; Brooklyn, New York: "Archaeology at the Lott House"
04-10-99	Middle Atlantic Archaeological Conference; Harrisburg, Pennsylvania "Excavating Brooklyn Farmsteads: Urban Archaeology Meets Rural Sites"
07 & 08-99	South Street Seaport - Dig Camp at the Hendrick I. Lott
07-19-99	92nd Street YM-YWHA Dig Day at the Hendrick I. Lott
07-21-99	Brooklyn Center for the Urban Environment; Brooklyn, NY: "Excavating The Lott House"
10-16-99	New York State Archives, New York, New York "Teaching Into the Millennium: Integrating Archaeology into the Curriculum"
11-16-99	Marine Park Civic Association; Brooklyn, New York: "Excavating the Lott House"
01-08-00	Society for Historical Archaeology Conference; Quebec City, Canada "Excavating Brooklyn, NY's Rural Past: The Hendrick I. Lott Farmstead Project"
05-23-00	I.S. 68; Brooklyn, New York: "Digging at the Lott House"
05-28-00	92nd Street YM-YWHA Dig Day at the Hendrick I. Lott House in Brooklyn, NY
06-01-00	Millennial Stews: Food and Food Systems in the Global City, Brooklyn, NY
06-12-00	Dyker Heights Middle School: Dig Camp at the Lott House
06-13-00	I.S. 68: Dig Camp at the Lott House
07 & 08-00	South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, NY
07-10-00	Salt Marsh Environmental Center; Brooklyn, NY: "Discover Brooklyn's Cultural Landscape Through Archaeology at the Lott House and Marine Park"
08-02-00	Brooklyn Historical Society: Dig Camp at the Lott House
08-00	South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, NY
04-19-01	Society for American Archaeology Conference, New Orleans, Louisiana "Beyond Community Involvement: The Hendrick I. Lott House Archaeological Project and its Impact in the Surrounding Community"
10-19-01	Council for Northeast Historical Archaeology Conference, Niagara, Canada "Unearthing 19th Century Farm Life in New York: The Lott House Project"
01-17-03	Society for Historical Archaeology Conference, Providence, Rhode Island. "The City Hall Park Project Poster Session"
04-19-03	Professional Archaeologists of New York City Conference, New York, NY **"**Archaeology and Historic Preservation as Educational Learning Tools"
10-00-03	Hendrick I. Lott House; Brooklyn, New York: "Teacher Workshop-Archaeology"

01-22-04 Bartow-Pell Society: Bronx, NY: “Archaeology and Education”
09-21-04 Pieter Claesen Wyckoff House, Brooklyn, NY. “Archaeology, Historic Preservation and Education: Bringing the Past to the Present”
11-13-04 Hendrick I. Lott House; Brooklyn, New York: “Teacher Workshop - Archaeology”
11-20-04 Pieter Claesen Wyckoff House; Brooklyn, New York: “Teacher Workshop – Archaeology”
12-02-04 City Hall Academy; New York, NY: “On Being An Archaeologist”
01-12-05 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
01-13-05 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
02-20-05 Salt Marsh Nature Center; Brooklyn, NY: “Archaeology In Your Backyard”
02-28-05 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
03-03-05 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
05-23-05 Brooklyn College; Brooklyn, New York: “Archaeology and the Parks Department”
02-01-06 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
02-27-06 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
03-06-06 Salt Marsh Nature Center; Brooklyn, NY: “Dutch Brooklyn: Where Is Everyone?”
10-19-06 Landmarks Preservation Commission; New York, NY: “City Hall Academy Education”
02-07-07 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
12-03-07 Salt Marsh Nature Center; Brooklyn, NY: “Historic Houses in NYC Parks”
03-04-11 Staten Island Mason’s; Staten Island, NY: “The Archaeology of New York City”
03-08-11 NYSAA-Met-Chapter; New York, New York: “The Archaeology of Lower Manhattan”
05-01-11 PANYC Annual Conference; New York, NY: “The Archaeology of City Hall Park”
03-27-12 American Association of University Woman; Staten Island, NY: “The Archaeology of New York City”

References:

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Educational:

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EDUCATION:

SYRACUSE UNIVERSITY; Syracuse, New York.
Ph.D in Anthropology/Historical Archaeology, June 2004

M.A. in Anthropology/Historical Archaeology, May 1997

BROOKLYN COLLEGE; Brooklyn, New York.
B.A. in History and Archaeology, minor Secondary Education, Cum Laude, June 1992.

EMPLOYMENT:

UNITED STATES ARMY CORPS OF ENGINEERS
North Atlantic Division, February 2009 to present
District Support Team Manager
Serves as a Subject Matter Expert (SME) on civil works project issues as a member of the District Support Team (DST) within the Civil Integration (CID) Division. Supports the CID Chief, DST Team Leader and CID Regional Managers with assigned missions. As an MSC Project and DST Manager, serves as a proactive action officer for assigned Districts, providing guidance and support. Assists DST Team Leader and CID Regional Managers in the development, defense and execution of the civil works program. Required to employ initiative and judgment based on experience to accomplish specific goals. Provides integration across the region and across all business lines. Assesses changes in policy and provides technical interpretation to districts. Interfaces with Headquarters and others to properly identify and facilitate resolution of project issues. Working through Regional Appropriations Managers, DST Leader, and coordinating with other Division offices, maintains integration with the RIT regarding authorizations, appropriations, and other program/project issues. Using extensive technical environmental knowledge provides recommendations to the DST Team Leader and Regional Managers as to the rationale for and proper utilization of funds within the CW program based on project assessments. Monitors milestones, tracks progress and works in a team framework.

UNITED STATES ARMY CORPS OF ENGINEERS
Project Archaeologist, September 2001 to 2009
Cultural Resource Specialist, NHPA, NEPA, EA, EIS and Environmental Coordinator,
Project Manager – Mattituck Inlet Study
Project area includes: Long Island and the Hudson Valley.
Projects include Storm Damage Reduction, Ecosystem Restoration, Navigation Control, NY-NJ Harbor Deepening Legal Team, Independent Technical Review Lead - Louisiana Coastal Protection and Restoration Project and Alabama Storm Damage and Restoration Project, Environmental Coordinator on the Dredge Material Management Project for New York Harbor and Long Island Sound
ACOE – Level I Project Management Certified

CHRYSALIS ARCHAEOLOGICAL CONSULTANTS, INCORPORATED

Field/Lab Director and Researcher, January 2002 to present

Highbridge Park, New York, NY, Phase IB, June 2012 to present
Fort Independence Park Neighborhood Association, February 2012 to present
Spotswood-Englishtown Road; Township of Monroe, NJ, Phase I – January 2012 to
Georgia Road, Freehold Township, NJ Phase I –January 2012 to present
Pleasant Grove, Jackson Township, NJ Phase I - January 2012 to present
Southard Avenue, Howell Township, NJ Phase I - January 2012 to present
Oradell Rservior Site, Bergen County, NJ Phase I - January 2012 to present
246 Front Street, New York, NY Project, November 2011 to January 2012
156 Rivington Street, New York, NY Project, October 2011 to January 2012
Gowanus Canal Study; Brooklyn, NY, October 2011 to present
Peck Slip, New York, NY, July 2011 to present
St. George's Church; Queens, NY, February 2010 to July 2010
Memorial Field; Mount Vernon, NY, February 2010 to December 2010
City Hall Park Project, New York, NY, November 2009 to present
Merchant Marine Academy; Kings Point, NY, June 2009 to October 2010
210 Broad Street – Phase II, Staten Island, NY, March 2009 to October 2009
John Street Reconstruction Project, New York, NY, October 2009 to June 2011
Downtown Brooklyn, Brooklyn, New York, May 2009 to May 2011
Fulton Street Phase II Reconstruction, New York, NY, April 2009 to present
Overpeck Creek; Depot Park, Englewood, NJ, March 2009 to May 2009
Trestle Replacement Project; Gloucester County, NJ, February 2009 to April 2009
Cranbury Wetland Mitigation Site; Cranbury, New Jersey, October 2008 to April 2009
Bartow-Pell Mansion Site; Bronx, New York, October 2008
Ocean Breeze Park; Staten Island, New York, August 2008 to October 2008
79 Christopher Street Burial Vault Project; New York, NY, June 2008 to July 2008
South Jamaica Urban Renewal Project II; Queens, NY, March 2008 to October 2008
West Village Apt. Project; New York, New York, September 2007 to December 2007
210 Broad Street Project; Staten Island, New York, September 2007 to November 2007
Fortune Society Project; New York, New York, September 2007 to December 2007
Dyckman Farmhouse Project; New York, New York, August 2007 to December 2007
South Jamaica Urban Renewal Project I; Queens, NY, July 2007 to November 2007
Rufus King Park Restoration Project, Queens, New York, March 2007 to December 2007
Wall Street Water Main Project, New York, New York, August 2006 to July 2007
Hunterdon, New Jersey Project, June 2006
102 Franklin Avenue, Brooklyn, New York May 2006
Rufus King Park, Queens, New York, April 2006
Columbus Park, New York, New York, September 2005 to February 2007
Martin's Field Phase II Project, Queens, New York, September 2005 to August 2006
311 Broadway, New York, New York, February 2005 to June 2005
Roger Morris Park, New York, New York, January 2005 to March 2005
Page Ave - Block 7792, Staten Island, New York, December 2004 to August 2005
Martin's Field Phase I Project, Queens, New York, September 2004 to April 2006
63-65 Columbia Street, Brooklyn, New York, October to December 2004
Queens County Farm Museum; Queens, New York, July 2004 to December 2004
Pieter Claesen Wyckoff House; Brooklyn, New York, May 2004 to December 2004
Wayanda Park, Queens, New York, August 2003
Gravesend Cemetery; Brooklyn, New York, January 2002 to February 2002

CITY UNIVERSITY OF NEW YORK - RESEARCH FOUNDATION/GOTHAM CENTER

Archaeologist, October 2004

Lecturer at the City Hall Academy on archaeology

AUDUBON SOCIETY OF CONNECTICUT
Archaeologist, May 2001

URS-GREINER WOODWARD-CLYDE
Principal Investigator, January to February 2000, February to May 2001
Stone Street, New York, NY, Bronx River Parkway Extension, New York, NY, Westchester Creek Storage Tank Project, Bronx, NY.

ELLIS ISLAND FOUNDATION
Archaeologist, November – December 2000
Ellis Island Project, New York, NY

SAYVILLE HISTORICAL SOCIETY
Co-Director, Edwards Homestead Archaeological Project October 2000, April-May 2001

NATIONAL PARKS SERVICE
Archaeological Technician, April 2000
Liberty Island Project, New York, NY

NEW YORK COUNCIL FOR THE HUMANITIES
Lecturer - Speakers in the Humanities Program, January 2000 to December 2002, January 2006 to present

NATIONAL ENDOWNMENT FOR THE HUMANITIES
Archaeological Educator, November 1999

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATION, INC.
Project Director, September 1999 to September 2001

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Co-Director, May 1998 to August 2001
Hendrick I. Lott House Archaeology Project; Brooklyn, NY
BROOKLYN NEW SCHOOL, BROOKLYN, NEW YORK
Archaeology Educator, December 1998

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Site Supervisor, October 1998 to December 1998
Chambers Street Project; New York, NY
DEPARTMENT OF SOCIOLOGY AND ANTRHOPOLOGY; FORDHAM UNIVERSITY
Adjunct Instructor (Anthropology), January 1998 to May 1998
Introduction to Archaeology

INSTITUTE FOR ARCHAEOLOGICAL EDUCATION AT MANHATTANVILLE COLLEGE
Curriculum Developer and Archaeological Educator, September 1997 to December 1998
PS 134; New York, NY, Parkway School; Greenwich, CT, Congregation Emmanuel of Harrison, NY; Temple Israel of New Rochelle, NY

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Intern – Archaeologist, September 1997 to December 1997
Stone Street Project; New York, NY

SYRACUSE UNIVERSITY - DEPARTMENT OF ANTHROPOLOGY
Graduate Assistant, September 1995 to December 1995 and September 1996 to May 1997

WILLIAM AND MARY COLLEGE
Teacher Assistant, August to May 1993-1994
Introduction to Cultural Anthropology

YE (NEW YORK) HISTORICAL SOCIETY
Co-Director, May 1993, 1994, 1995, 1996, 1997, June and October 1997
Timothy Knapp House; Rye, NY

ARCOPLEX/KEY PERSPECTIVES, ARCHAEOLOGICAL GROUP
Excavator, July 1990, July, August 1991
Sign Road; Staten Island, NY, Bartow-Pell Mansion; Bronx, NY, Elmhurst Park; Queens, NY

VOLUNTEER EXPERIENCE:

CITY UNIVERSITY OF NEW YORK'S RESEARCH FOUNDATION
Archaeologist, November 2004 to present
City Hall Academy Educational Project

HUBBARD HOUSE HISTORY PROGRAM
Archaeological Director, May to June 1998
Elias Hubbard House; Brooklyn, NY

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Co-Director, August 1999
147 Hicks Street Cistern Excavation Project; Brooklyn, NY

Laboratory Assistant – Volunteer Instructor, June 1994 to July 1995; June 1997 to July 2001
Introduction to Archaeological Laboratory Methods

Assistant to the Director - Teacher Assistant, June 1993, 1994, 1995, 1996; August 1997;
Marine Park; Brooklyn, NY, Pieter Claesen Wyckoff House; Brooklyn, NY, Bartow-Pell Mansion; Bronx, NY

Trench Supervisor, July-August 1994
Kamenska Chuka; Blagoevgrad, Bulgaria

SYRACUSE UNIVERSITY FALL FIELD EXCAVATION
Excavator, September-October 1995
The Erie House; Port Byron, NY

WILLIAM AND MARY FIELD SCHOOL
Surveyor, May 1994
St. Martin; Netherlands Antilles

RESEARCH EXPERIENCE:

NEW YORK CITY LANDMARKS PRESERVATION COMMISSION
Intern – Archaeologist, September 1997

NEW YORK CITY DEPARTMENT OF PARKS: HISTORIC HOUSE TRUST DIVISION
Research Assistant, January 1995 to July 1996

AWARDS/GRANTS:

Brooklyn Borough President's Historians Award (through the Brooklyn College Archaeological Research Center) - 1998
CUNY-PSE Grant (through the Brooklyn College Archaeological Research Center) - 1998, 1999, 2000
Dissertation Grant - The Holland Society, New York, New York - 1998
Conference Travel Grant - Syracuse University, Syracuse, New York – 1997 through 2001
Honorarium - Glenville School, Glenville, Connecticut - May 1997; Norwalk Connecticut Community College - October 1999; Archaeological Society of Staten Island, Staten Island, New York – 2003, 2004; Bartow-Pell Society, Bronx, New York – January 2004, Woodlawn Historic Society, Queens, New York – March 2004
Performance Awards, U.S. Army Corps of Engineers – New York District 2002, 2003, 2004
USACOE District Commander's Award for Scholarly Research 2005
USACOE Team of the Year Award - Jamaica Bay Marsh Island Restoration Project, 2006

PROFESSIONAL ORGANIZATIONS:

The Council for Northeast Historical Archaeology (CNEHA)
The Friends of New Netherland Society (FNN)
The New York State Archaeological Association (NYSAA)
The New York Archaeological Council (NYAC)
The Professional Archaeologists of New York City (PANYC)
The Register of Professional Archaeologists (ROPA)
The Society for Historical Archaeology (SHA)

REPORTS AND PUBLICATIONS:

Ricciardi, Christopher.

2009 Phase I Cultural Resource Report for the County Road 48 (Hashamomuck Cove), Town of Southold, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2008 Section 111 – Mattituck Inlet Feasibility Report. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2007b Phase 1A Documentary Study for the Huntington Harbor Project, Town of Huntington Nassau County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2005a Phase 1A Documentary Study for the Mattituck Inlet Study, Village of Mattituck, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2005b Phase 1A Documentary Study for the Lake Montauk Harbor Navigation Project, Lake Montauk, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2004a *Changing Through The Century: Life on the Lott Family Farm, Town of Flatlands, Kings County (Brooklyn), New York in the Nineteenth Century*. Doctoral Dissertation, Department of Anthropology, Syracuse University, Syracuse, New York.

2004b Phase 1A Documentary Study for the Village of Northport, Suffolk County, New York. Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2003 Phase 1A Documentary Study for Spring Creek, Kings/Queens County, New York Report on file with the U.S. Army Corps of Engineers, New York District, New York, New York.

2001a Phase 1A Archaeological Survey and Documentary Research Study - East River CSO Facility Planning Project – P.I.N. X027.05 P.C.N. Bronx River Greenway Adjacent To I-895 Bronx, New York. Report on file with U.R.S. Corporation, Florence, New Jersey.

2001b Phase 1A Archaeological Survey and Documentary Research Study – Westchester Creek CSO Storage Tank Project, Bronx Psychiatric Center Campus, Bronx, New York. Report on file with U.R.S. Corporation, Florence, New Jersey

2001c Report of the Archaeological Monitoring of the Installation of the Electrical Trench Excavation at The Edwards Homestead in Sayville, New York. Report on file with The Sayville Historical Society, Sayville, New York.

1998a "Current Research: Brooklyn, New York – Hendrick I. Lott House Project" *Society for Historical Archaeology Newsletter*, 31(4):13-14, Winter.

1998b "Current Research: Brooklyn, New York – Hendrick I. Lott House Project" *Council for Northeast Historical Archaeology Newsletter*, 41:4-5, October.

1997a *From Private to Public: The Changing Landscape of Van Cortlandt Park; Bronx, New York in the Nineteenth Century*. Masters Thesis, Department of Anthropology, Syracuse University, Syracuse, New York.

1997b Archaeology and Education – A Report of the 1997 Field Excavation. Report on file with the Rye New York Historical Society; Rye, New York.

Ricciardi, Christopher and Alyssa Loorya.

2001 Report of the Public Archaeological Dig Program at The Edwards Homestead, Sayville, New York. Report on file with the Sayville Historical Society, Sayville, New York.

1999 "127 Hicks Street Cistern Report". Report on file with the Brooklyn College Archaeological Research Center; Brooklyn, NY.

Ricciardi, Christopher, Alyssa Loorya and Dr. H. Arthur Bankoff.

2002 "A forgotten story comes to light", *Footsteps Magazine*, May-June:41-45.

2000 "Not Your Typical New Yorkers: Uncovering Brooklyn's Historic Past at the Hendrick I. Lott House." This Side Up Magazine, 12(Winter):15-16.

Bankoff, H. Arthur and Christopher Ricciardi.

1996 Excavations At The Timothy Knapp House; Rye, New York. Report on file with the Rye New York Historical Society; Rye, New York.

Bankoff, H. Arthur, Christopher Ricciardi and Alyssa Loorya.

2004a "The Secret Room". *Seaport,* 39(1)Winter-Spring: 32-35.

2004b "Field Work at the Lott House" *Seaport,* 39(1)Winter-Spring:40.

2001 "Remember African Under The Eaves: A forgotten room in a Brooklyn farmhouse yields evidence of religious ritual among slaves." *Archaeology Magazine*, 54(3):36-40, May-June.

1998a Gerritsen's Creek: 1997 Archaeological Field Excavations
Report on file with the Brooklyn College Archaeological Research Center, Brooklyn, New York.

1998b Under the Floor: Excavating the front Parlor of the Timothy Knapp House; Rye, New York.
Report on file with the Rye New York Historical Society; Rye, New York.

1998c "Excavating Brooklyn's Historic Past: The Archaeology of the Hendrick I. Lott Homestead" *Historic House Trust Newsletter*, 9(4):Fall.

1988d "Excavating Historic Brooklyn". *De Boerenwoning*, 1(1):3-6.

1997 The History and Archaeology of the Wyckoff Homestead.
Report on file with the New York City Department of Parks And Recreation's Historic House Trust Division, New York, New York.

Bankoff, H. Arthur, Frederick A. Winter and Christopher Ricciardi.

in press "The History and Archaeology of Van Cortlandt Park". in Gilbert (ed.), *The Archaeology of The Bronx,* Bronx Historical Society, Bronx, NY.

1998 "Digging Up Old Brooklyn". *Archaeology Magazine,* 51(5):19, September/October.

Loorya, Alyssa and Christopher Ricciardi.

2012a Phase IA Historical Documentary Report and Archaeological Assessment of 156 Rivington Street (Block 349, Lot 33), Manhattan (New York County), New York
Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2012b Phase IA Historical Documentary Report and Archaeological Assessment of 246 Front Street (aka 267 ½ Water Street) (Block 107, Lot 34), Manhattan (New York County), New York. New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2012c Phase IB Archaeological Assessment of 246 Front Street (aka 267 ½ Water Street) (Block 107, Lot 34), Manhattan (New York County), New York. New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2012d Phase IA Historical and Archaeological Assessment of the Proposed Gowanus Canal Historic District Extension Area. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2012e Phase IA Historical Documentary Report and Archaeological Assessment of the Pleasant Grove, Jackson Township, Ocean County, New Jersey Mitigation Site.
Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2012f Phase IB Archaeological Field Survey of the Pleasant Grove, Jackson Township, Ocean County, New Jersey Mitigation Site. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2012g Phase IA Historical Documentary Report and Archaeological Assessment of the Spotswood Englishtown Road, Monroe Township, New Jersey Mitigation Site.
Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2012h Phase IA Historical Documentary Report and Archaeological Assessment of the Southard Avenue, Howell Township, Monmouth County, New Jersey Mitigation Site. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2011 Phase IB Archaeological Monitoring – Sewer Replacement along John Street/Burling Slip, New York, New York - Project Number: MG41100-107MA - (NY SHPO: 07PR3695) Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2010a Phase IB Cultural Resource Field Survey of the Cranbury Wetlands Mitigation Bank Site Block 13 (Lots 15, 16, 17 and 20) - Cranbury Township, Middlesex County, New Jersey. Report on file with the New Jersey State Historic Preservation Office, Trenton, NJ.

2010b Phase 1B Cultural Resource Field Monitoring of the St. George's Church Fence Replacement Project, Flushing, Queens, Queens County, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2010c Phase IA Cultural Resource Documentary and Archaeological Assessment of Memorial Field, Mount Vernon, Westchester County, New York - NY SHPO #: 09PR05470. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2010d Phase IB Cultural Resource Monitoring of the excavation in front of Murphy Hall; United States Merchant Marine Academy, Kings Point, Nassau County, New York (N62472-08-C-2103). Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York

2009a Phase IA Cultural Resource Documentary Study of the Cranbury Wetlands Mitigation Bank Site Block 13 (Lots 13, 15, 16, 17 and 20) Cranbury Township, Middlesex County, New Jersey. Report on file with Matrix New World Engineering.

2009b Phase IA Cultural Resource Documentary Study of the Replacement of the trestle at U.G. Bridge (12.22), Block 400, Lot 7 (Deptford Township) and Block 278, Lot 1 (Mantua Township) - Vineland Section branch of Conrail - Town of Mantua, Gloucester County, New Jersey. Report on file with Princeton Hydro, LLC.

2009c Phase IA Cultural Resource Survey and Documentary Report for the Depot Park Daylighting of Overpeck Creek; Depot Park, Englewood, Bergen County, New Jersey Project. Report on file with Princeton Hydro, LLC.

2009d Phase IA Cultural Resource Documentary Report of the Fulton Street Reconstruction - Project Extension - Fulton Street between Water Street and South Street, New York (New York County), New York (NY SHPO # 07PR06477). Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2009e Phase 1B Cultural Resource Monitoring of the Stapleton Senior Housing Construction Project; Staten Island, Richmond County, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008a Phase IA Documentary Report – West Village Housing/Whitehall Storage Project – Greenwich Village, New York (New York County), New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008b Phase 1B Cultural Resource Field Testing of Phase II – South Jamaica Urban Renewal Project 107-49 157th Street (Block 10125, Lot 116) and 153-20 and 22 South Road (Block 10121, Lots 70 and 71) – Jamaica, Queens (Queens County), New York: Project Number: 96-HPD-014Q. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008c Phase IA Cultural Resource Documentary Study of Ocean Breeze Park, Staten Island (Richmond County), New York (Block 3355). Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008d Phase 1B Cultural Resource Monitoring of the Path Project – Bartow-Pell Mansion, Bronx (Bronx County), New York, Contract Number: X039-108M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2008e Technical Brief Memo for the Removal of burials at 79 Christopher Street, New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007a Wall Street Water Mains Project - New York, New York - Monitoring and Limited Phase IA Documentary Report - Project Number: MED-583A. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007b Columbus Park; New York, (New York County) New York –Monitoring Report for Phase II Construction Project Number: M015-203MA NYSOPRHP Project Number: 02PR03416. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007c Phase IA Cultural Resource Documentary Study of the Fortune Academy Residence Addition Project – 625 West 140th Street - New York (New York County), New York 10176 (Block 2088, Lot 16) - NY SHPO #: 07PR02606. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2007d Phase 1B Cultural Resource Monitoring of the Infrastructural Improvements at the Dyckman Farmhouse Property – New York (New York County), New York, Contract Number: MG6-07M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007e Rufus King Park Reconstruction Project- Phase IB Field Archaeological Monitoring Project, Jamaica, Queens (Queens County), New York – Project Number: 023-205M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007f Phase 1B Cultural Resource Field Testing of Phase I – South Jamaica Urban Renewal Project (104-65 East 165th Street – Block 10163, Lot 63) – Jamaica, Queens (Queens County), New York: Project Number: 96-HPD-014Q. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2007g Phase IA Cultural Resource Documentary Study of the 210 Broad Street (Stapleton Housing) Project – Staten Island (Richmond County), New York (Block 545, Lot 100 (portion only)). Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006a Martin's Field - Phase II Project; Queens, New York – Phase 1B Cultural Resource Monitoring Report Project Number: Q017-105M. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006b Rufus King Manor, Rufus King Park - Tree Placement Monitoring Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006c Phase IA Archaeological Documentary Study for the proposed development of 102 Franklin Avenue, (Block 1898, Lots 45 and 46), Brooklyn (Kings County), New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2006d Phase 1A Archaeological Documentary Study for the proposed development of the Hunterdon, New Jersey Bridge Project. Report on file with the New Jersey State Historic Preservation Office. Trenton, New Jersey.

2005a Phase IA Archaeological Documentary Study for the proposed development of 63-65, Columbia Street, (Block 299, Lots 7 and 8), Brooklyn (Kings County), New York – BSA 04BSA005K. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005b Phase 1 Archaeological Report for Block 7792 – Staten Island (Richmond County), New York. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2005c Phase 1B Archaeological Monitoring of the Reconstruction of the Retaining Wall for Morris-Jurmel Mansion-Robert Morris Park, New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005d Phase 1A Documentary Study for the 311 West Broadway Project, Block 228, Lot 12 – New York, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005e Phase IB Archaeological Monitoring of the Reconstruction of Martin's Field (Phase I) Project, Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2005f Phase 1A Documentary Study and Partial Field Monitoring of Columbus Park, New York (New York County), New York (NYSOPRHP #: 02PR03416 and NYC Parks #: M015-203MA. Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

2004a Queens County Farm Museum – Phase 1B Monitoring Project; Queens, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

2004b Pieter Claesen Wyckoff House – Phase 1B Monitoring Project; Brooklyn, New York. Report on file with the New York City Landmarks Preservation Commission. New York, New York.

1998a The PS 134 Archaeological-Education Program October 1997 through January 1998, New York, New York. Report on file with the Institute for Archaeological Education at Manhattanville College; Purchase, New York.

1998b Unearthing Van Cortlandt Park: The History and Material Culture of the Van Cortlandt Family; Bronx, New York. Report on file with the Brooklyn College Archaeological Research Center; Brooklyn College, Brooklyn, New York.

Loorya, Alyssa, Christopher Ricciardi and Diane George.
2011 Phase IB Archaeological Monitoring – Sewer Replacement - John Street/Burling Slip, New York, New York - Project Number: MG41100-107MA - (NY SHPO: 07PR3695) Report on file with the New York State Office of Parks, Recreation and Historic Preservation. Albany, New York.

Loorya, Alyssa, Christopher Ricciardi, Edward Morin and Daniel Eichinger.
2010a "City Hall Park Update", *SHA Newsletter*, 43(4):26, Winter 2010.

2010b "City Hall Park Update", *CNEHA Newsletter*, 77:4-5, October.

2010c "City Hall Park Update", NYAC *Newsletter*, Fall:16.

MEDIA DESIGN:

BROOKLYN COLLEGE ARCHAEOLOGICAL RESEARCH CENTER
Created press and field school promotional material and packets.

HENDRICK I. LOTT HOUSE PRESERVATION ASSOCIATOIN
Created press and promotional material and packets. Project's Newsletter co-editor.

TRAINING:

Introduction to Civil Works (U.S. Army Corps of Engineers) 2002
Leadership Training (U.S. Army Corps of Engineers) 2002
Introduction to Cultural Resource Management (U.S. Army Corps of Engineers) 2003
Identification of Mid-Twentieth Century Historic Structures (N.P.I.) 2004
Introduction to Planning, Principals and Practices (U.S. Army Corps of Engineers) 2005
New York City Department of Parks and Recreation (Asbestos Awareness Course) 2005

PROFESSIONAL SERVICES:

2012 to present	President – Professional Archaeologists of New York City
2005 to 2006	Board of Trustees - Salt Marsh Alliance
2005	CNEHA – Student Paper Judge
2004 to 2005	President – Professional Archaeologists of New York City
2003 to 2006	President – Brooklyn Heritage, Incorporated
2002	Trustee/Treasurer - Brooklyn Heritage, Incorporated
2002 to 2003	Vice President – Professional Archaeologists of New York City
2001 to 2008	Advisor - Pieter Claesen Wyckoff House Museum Advisory Board
2001	Advisor - Brooklyn Heritage, Incorporated
1997 to 2008	Trustee - The Hendrick I. Lott House Preservation Association
1997 to 2001	President – Metropolitan Chapter–NYS Archaeological Association

CONFERENCE PAPERS/CHAIRS:

04-08-95	Middle Atlantic Archaeological Conference; Ocean City, Maryland "The History And Archaeology Of Van Cortlandt Park; Bronx, NY"
04-22-95	New York State Archaeological Association Conference; Syracuse, New York "The History And Archaeology Of Van Cortlandt Park; Bronx, NY"
10-20-96	Council for Northeast Historical Archaeology Conference; Albany, New York "Archaeological Investigations at the Timothy Knapp House; Rye, NY"
01-09-97	Society For Historical Archaeology Conference; Corpus Christi, Texas "From Private to Public: Changing Landscape of Van Cortlandt Park; Bronx, NY"

01-09-97 Society For Historical Archaeology Conference; Corpus Christi, Texas
"Archaeology and Education: An Example from Rye, NY"

03-09-97 Middle Atlantic Archaeological Conference; Ocean City, Maryland
Chairperson: Current Perspectives In CRM Archaeology In The Middle Atlantic

03-09-97 Middle Atlantic Archaeological Conference; Ocean City, Maryland
"Archaeology and Education: An Example from Rye, NY"

05-02-97 National Council on Public History Conference; Albany, New York
"Education in Archaeology: Using local history as a tool to educate the public on issues of preservation"

09-27-97 Lower Hudson Valley Conference; New Paltz, New York
"From Private to Public: Changing Landscape of Van Cortlandt Park; Bronx, NY"

10-18-97 Council for Northeast Historical Archaeology Conference; Altoona, Pennsylvania
"From Private to Public: Changing Landscape of Van Cortlandt Park; Bronx, NY"

01-08-98 Society For Historical Archaeology Conference; Atlanta, Georgia
"Education and Archaeology: Getting Grade Schools Involved"

01-09-98 Society For Historical Archaeology Conference; Atlanta, Georgia
"Where Did The Family Farm Go? Excavating 19th Century Brooklyn, NY"

04-05-98 1998 Annual Meeting of The Holland Society; New York, New York
" Rediscovering Brooklyn's Dutch Heritage: The Hendrick I. Lott House Project"

04-14-98 New York State Archaeological Association - Metropolitan Chapter; New York, New York
"Excavating the 4th Largest City in America: The Hendrick I. Lott House Archaeological Project"

04-10-99 Middle Atlantic Archaeological Conference; Harrisburg, Pennsylvania
Chairperson – Contributed Papers in Farmstead Archaeology Session

04-10-99 Middle Atlantic Archaeological Conference; Harrisburg, Pennsylvania
"Excavating Brooklyn's Farmsteads: Urban Archaeology Meets Traditional Rural Sites"

10-12-99 New York State Archaeological Association - Metropolitan Chapter; New York, New York
"More Questions Then Answers: The Hendrick I. Lott Archaeology Project"

10-14-99 Norwalk Community-Technical College, Norwalk, Connecticut Lecture Series
"Historical Archaeology at the Hendrick I. Lott House in Brooklyn, NY"

01-08-00 Society for Historical Archaeology Conference; Quebec City, Canada
"Excavating Brooklyn, New York's Rural Past: The Hendrick I. Lott House Project"

04-16-00 Professional Archaeologists of New York City's Public Program, New York, New York
"Archaeology at the Hendrick I. Lott House in Brooklyn, NY"

06-13-00 Suffolk County Archaeological Association, Long Island, New York
"Historical Archaeology at the Hendrick I. Lott House in Brooklyn, NY"

06-15-00 New York History Annual Conference; Bronx, New York
"Public Archaeology at the Hendrick I. Lott House in Brooklyn, New York"

04-19-01 Society for American Archaeology Conference, New Orleans, Louisiana
"Beyond Community Involvement: The Hendrick I. Lott House Archaeological Project and its Impact in the Surrounding Community"

10-07-01 Gotham Center for New York City History Conference, New York, New York
"Unearthing 19th Century Farm Life in New York: The Lott House Project"

10-19-01 Council for Northeast Historical Archaeology Conference, Niagara, Canada
"Unearthing 19th Century Farm Life in New York: The Lott House Project"

11-26-01 New York University; New York, NY: "Slavery at the Lott House"

10-03-02 The Dutch In New York Conference, Brooklyn College, Brooklyn, New York
Conference Chairman and Organizer

04-19-03 Professional Archaeologists of New York City – 23rd Annual Conference, New York, New York: Conference Chairman and Organizer

04-xx-10 Professional Archaeologists of New York City; New York, NY: "The Changing Landscape of Van Cortlandt Park, Bronx, NY"

LECTURES TO COMMUNITY GROUPS, ORGANIZATIONS, TEACHER WORKSHOPS, GRADE/HIGH SCHOOL CLASSES:

04-20-93	John Dewey High School; Brooklyn, New York: "The Archaeology Of New York City"
06-05-95	St. Luke's School; New York City, New York: "What It's Like To Be An Archaeologist"
04-10-97	Cos Cob Elementary School; Cos Cob, Connecticut: "Archaeology in Your Backyard"
05-20-97	Parkway School; Greenwich, Connecticut: "Archaeology and History – What it all Means"
05-29-97	Order of Colonial Lords of Manors in America Annual Meeting; New York, New York "The Archaeology of Van Cortlandt Park; Bronx, NY"
06-08-97	Glenville Elementary School; Glenville, CT: "Archaeology and History – What it Means"
01-27-98	The Science Activity Exchange - Dig Into Archaeology; Greenwich, Connecticut "Integrating Archaeology Into The Grade School"
03-12-98	John Dewey High School; Brooklyn, New York: "Archaeology in Your Backyard"
03-17-98	James Madison High School; Brooklyn, New York: "Archaeology and the Lott Family"
04-04-98	James Madison High School; Brooklyn, New York: "The Archaeology of Flatlands"
09-08-98	Community Board 13; Brooklyn, New York: "Archaeology and Education in Brooklyn"
09-15-98	Marine Park Civic Association; Brooklyn, New York: "Excavating the Lott House"
10-25-98	Brooklyn History Day; Brooklyn, New York: "Brooklyn History from the Dirt Up"
12-21-98	Brooklyn New School, Brooklyn, New York: "The Archaeology of Brooklyn"
01-28-99	*Brooklyn Historical Society/Saint Francis College, Brooklyn, New York: "Archaeology In Brooklyn – Excavations at the Hendrick I. Lott House"*
03-09-99	Historic House Trust Lecture Series; New York, New York: "The Archaeology of New York City's Historic Houses"
06-09-99	Architectural Institute of America - Brooklyn Chapter; Brooklyn, New York "Excavating the Hendrick I. Lot House"
07 & 08-99	South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, New York
07-19-99	92nd Street YM-YWHA Dig Day at the Hendrick I. Lott House in Brooklyn, New York
07-21-99	Brooklyn Center for the Urban Environment; Hendrick I. Lott House; Brooklyn, New York "Excavating The Lott House"
10-16-99	New York State Archives, New York, New York "Teaching Into the Millennium: Integrating Archaeology into the Curriculum"
10-26-99	Brooklyn History Day; Brooklyn, New York: "Brooklyn History from the Dirt Up"
11-16-99	Marine Park Civic Association; Brooklyn, New York: "Excavating the Lott House in '99"
11-19-99	Hewlitt School; New York, New York: "Archaeology In Your Backyard"
12-02-99	P.S. 207 Brooklyn, New York: "Archaeology In Your Backyard"
04-28-00	Marble Hill Senior Center; Bronx, New York: "The Archaeology Of New York City"
05-12-00	James Madison High School; Brooklyn, New York: "Archaeology at the Lott House"
05-23-00	I.S. 68; Brooklyn, New York: "Digging at the Lott House"
05-28-00	92nd Street YM-YWHA Dig Day at the Hendrick I. Lott House in Brooklyn, New York
06-01-00	Millennial Stews: Food and Food Systems in the Global City, Brooklyn, New York "Foodways at the Lott House"
06-12-00	Dyker Heights Middle School: Dig Camp at the Lott House
06-13-00	I.S. 68: Dig Camp at the Lott House
07 & 08-00	South Street Seaport - Dig Camp at the Hendrick I. Lott House in Brooklyn, New York
07-10-00	Salt Marsh Environmental Center; Brooklyn, New York: "Discover Brooklyn's Cultural Landscape Through Archaeology at the Lott House and Marine Park"
08-13-00	The Museum at Stony Brook; Stony Brook, NY: "The Archaeology of New York City"
08-14-00	Brooklyn Historical Society: Dig Camp at the Lott House
09-19-00	Five Towns Senior Center; Queens, NY: "The Archaeology of New York City"
10-11-00	Fraiser Civic Association, Brooklyn, NY: "The Lott House Archaeology Project
10-21-00	Richmond Hill Historical Society; Queens, NY: "The Archaeology of New York City"
10-26-00	New York Public Library; New York, NY: "The Archaeology of New York City"
11-11-00	Selfhelp Clearview Senior Center; Queens, NY: "The Archaeology of New York City"
01-04-01	Roy Reuther Senior Center; Queens, NY: "The Archaeology of New York City:

03-25-01 Mount Vernon Museum and Garden, New York, NY: “The Archaeology of New York City”
03-28-01 Katonah Village Library, Katonah, New York: “The Archaeology of New York City”
05-08-01 Long Beach Senior Center; Long Beach, New York: “The Archaeology of New York City”
05-30-01 Audubon Society of Connecticut; Greenwich, CT: Archaeological-Education Dig Day
06-01-01 P.S. 195; Brooklyn, New York: “Digging Up Your Backyard: Archaeology in NYC”
10-09-01 Suffren Library; Suffren, New York: “The Archaeology of New York City”
11-11-01 Brooklyn Historical Society; Brooklyn, NY: “Archaeology in Your Backyard”
11-18-01 Brooklyn Historical Society; Brooklyn, NY: “Lott House Archaeology Project”
01-06-02 Archaeological Society of Staten Island; Staten Island, NY: “The Archaeology of NYC”
03-16-02 New Images for the Widowed: New York, New York: “The Archaeology of NYC”
06-02-02 Planting Field Arboretum; Long Island, New York: “The Archaeology of New York City”
06-26-02 Woodhaven Historical Society; Queens, New York: “The Archaeology of New York City”
07-08-02 Freeport Memorial Library; Freeport, NY: “The Archaeology of the Lott House”
10-26-02 King Manor Historical Society; Queens, New York: “The Archaeology of New York City”
10-27-02 Fishkill Historical Society; Fishkill, New York: “The Archaeology of New York City”
11-08-02 Port Washington Library; Port Washington, NY: “The Archaeology of New York City”
11-20-02 Bay Ridge Historical Society; Brooklyn, New York: “Lott House Archaeology Project”
12-16-02 Curtis High School; Staten Island, New York: “Archaeology in Your Backyard”
02-05-03 Society for Old Brooklyn; Brooklyn, NY: “The Lott House Archaeology Project”
02-09-03 Archaeological Society of Staten Island; Staten Island, NY: “Lott House Archaeology”
02-28-03 Leif Erickson Society; Brooklyn, NY: “The Lott House Archaeology Project”
10-00-03 Hendrick I. Lott House; Brooklyn, New York: “Teacher Workshop-Archaeology”
01-15-04 Bartow-Pell Society; Bronx, NY: “The Lott House Archaeology Project”
01-30-04 Malloy College; Rockville Center, NY: “The Archaeology of New York City”
03-09-04 Fraunces Tavern; New York, NY: “The Archaeology of New York City”
04-13-04 Oyster Bay Historical Society; Oyster Bay, NY: “The Lott House Archaeology Project”
06-30-04 Woodhaven Historical Society; Queens, NY: “The Lott House Archaeology Project”
07-12-04 Historic District Council/Architectural Institute of America Conference; New York, NY: “Archaeology and Preservation – Working Together”
08-29-04 Sons of the American Revolution; Brooklyn, NY: “The Revolutionary War Project”
10-22-04 City Hall Academy; New York, NY: On Being An Archaeologist
11-08-04 BELHS High School; Bronx, NY: “On Being An Archaeologist”
11-13-04 Hendrick I. Lott House; Brooklyn, New York: “Teacher Workshop-Archaeology”
11-20-04 The Wyckoff House; Brooklyn, NY: “Teacher Workshop – Archaeology”
12-02-04 City Hall Academy; New York, NY: “On Being An Archaeologist”
01-12-05 City Hall Academy; New York, NY: “NYC Archaeology”
01-20-05 City Hall Academy; New York, NY: “NYC in the Revolutionary War”
02-20-05 Salt Marsh Nature Center; Brooklyn, NY: “Archaeology In Your Backyard”
02-28-05 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
05-23-05 Brooklyn College; Brooklyn, New York: “Archaeology and the Parks Department”
06-11-05 Historic District Council; New York, NY: “Where Have All The Dutch Gone?”
07-27-05 Hofstra University, New York: “Slavery at the Lott House”
10-25-05 Fraunces Tavern Museum; New York, New York: “The Lott House”
02-01-06 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
02-27-06 City Hall Academy; New York, NY: “NYC Archaeology and the Revolutionary War”
03-06-06 Salt Marsh Nature Center; Brooklyn, NY: “Dutch Brooklyn: Where Is Everyone?”
05-06-06 Knickerbocker Chapter - Daughters of the American Revolution Annual Meeting; New York, New York: “Lott House Archaeological and Restoration Project”
07-16-06 Salt Marsh Nature Center; Brooklyn, NY: “History in your backyard”
10-15-06 Brookhaven Library; Brookhaven, NY: “The Archaeology of NYC”
10-20-06 Archaeological Society of Staten Island; Staten Island, NY: “Dutch Brooklyn”
05-07-07 Greater Astoria Historical Society; Queens, NY: “The Archaeology of NYC”
05-15-07 Marine Park Civic Association; Brooklyn, NY: “Lott House Update”
07-15-07 Salt Marsh Nature Center; Brooklyn, NY: “Lott House Update”
11-13-07 Southold Historical Society; Greenport, NY: “Where Have The Dutch Gone?”
11-17-07 Lefferts Homestead, Brooklyn, NY: “Where Have The Dutch Gone?”

12-03-07 Salt Marsh Nature Center; Brooklyn, NY: “Historic Houses in NYC Parks”
12-17-07 Long Island Alzheimer’s Foundation; Port Washington, NY: “The Archaeology of NYC”
08-02-08 New Paltz Historical Socity; New Paltz, NY: “Where Have The Dutch Gone?”
10-19-08 Archaeological Society of Staten Island; Staten Island, NY: “Where Have The Dutch Gone?”
11-16-08 Lefferts Homestead, Brooklyn, NY: “Where Have The Dutch Gone?”
03-04-11 Staten Island Mason’s; Staten Island, NY: “The Archaeology of New York City”
10-01-11 King Manor House; Queens, NY: “Where Have The Dutch Gone?”
03-27-12 American Association of University Woman; Staten Island, NY: “The Archaeology of New York City”

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