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MONITORING, TESTING, AND MITIGATION OF IMPACTS  
TO ARCHAEOLOGICAL RESOURCES WITHIN  
THE 31 - 52 CHAMBERS STREET  
UTILITY TRENCH PROJECT  
MANHATTAN, NEW YORK CITY

DGS Job Number PW-77102F

LP-1901



Chambers Street Water Main Trench, facing west

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## EXECUTIVE SUMMARY

The Department of General Services undertook excavations to install utility lines between the Surrogates Court at 31 Chambers Street and the Tweed Courthouse at 52 Chambers Street from October 1995 through June 1996 within the African Burial Ground National Historic Landmark and the New York City African Burial Ground and Commons Historic District. This report presents the archaeological work associated with the excavations.

Excavations were designed to follow the path of a 1916 clay pipe trench, thereby minimizing disturbance to potential archaeological resources. Therefore monitoring excavations was considered appropriate. However, excavations for the utility trench were out of alignment with the 1916 trench in several locations. This observation resulted in modifications to the archaeological scope of work. In addition to monitoring construction excavations and collecting fragments of bone and artifacts from the backdirt, four excavation units were placed, as well as six shallow units in the base of the mechanically excavated trench.

Artifact collection during monitoring produced 64 fragments of previously displaced human bone and 11 unidentifiable fragments. No intact burials were disturbed as a result of this project. The collection also produced 931 faunal bones and 1015 diagnostic artifacts. Non-diagnostic artifacts were not retained during this phase.

Archaeological hand excavations exposed three features; a footing, decaying marble, and a brick vault. All features were not deeply buried. In some cases, there was only six inches of topsoil covering the intact historic deposits. The footing and decaying marble were associated with artifacts which dated the features to the early- to mid-nineteenth century. Supplemental documentary research conducted subsequent to the field work helped identify these features as part of the Second Almshouse which stood in that location from 1796 - 1854. The vaulted brick feature was likely part of a warehouse which stood on the north side of Chambers Street in the second half of the nineteenth century. Hand excavation also unearthed fragments of human bone. Five fragments of previously displaced human bone and nine unidentifiable fragments were all recovered from fill deposits.

The 31 - 52 Chambers Street Utility Trench project uncovered pockets of intact archaeological remains at a number of locations along its path. These were all documented, generally by excavation. It is not inconceivable to imagine similar deposits in other parts of the historic district and these should be considered when planning future actions there.

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Scope of Work for Archaeological Monitoring - October 25, 1995

Landmarks Preservation Commission Permit Report - Docket # 96-1640; PMW # SR96-0040 - October 27, 1995

Modification to the Scope of Work for Archaeological Monitoring - November 30, 1995

Scope of Work for Archaeological Documentation of the Brick Feature - December 4, 1995

Landmarks Preservation Commission Requests to Modify the Scope of Work - December 11 & 12, 1995

Addendum to the Modification of the Scope of Work - December 12, 1995

Amendment to the Scope of Work - December 15, 1995

Landmarks Preservation Commission Staff Report Amendment - LPC 96-2178; MISC 96-0060 - December 18, 1995

Letter Request for Guidance on Determining Appropriateness of Thin-Section Analysis - December 19, 1995

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## INTRODUCTION

The Department of General Services, City of New York was planning to lay cooling pipes between Tweed Courthouse and the Hall of Records on Chambers Street during 1995-1996. This is the report on the excavation for the utility trench going between 31 - 52 Chambers Street in lower Manhattan, within the African Burial Ground and Commons Historic District, a National Historic Landmark as well as a New York City Landmark District. See Figure 1 for the general location of the project area. While the archaeological component of this project was conducted to comply with environmental review regulations, it was not done using the standard phased approach. Therefore, what began as archaeological monitoring of construction excavations ultimately turned into a data recovery of historic archaeological resources. This report will provide some of the project background, the methodology used for monitoring and hand excavation, the analysis of the finds, research of the project area, and synthesize the results and conclusions.

In general, the trench project was proposed to follow the path of an existing steam tunnel which was installed around 1916, thereby minimizing any impacts to potential archaeological deposits by excavating within the previously disturbed soils. The utility trench project consisted of the excavation of a trench roughly six feet wide by seven feet deep by 230 feet long running from a point on the east side of Tweed Courthouse, across an existing driveway, then north along the western edge of the grassy section of City Hall Park and to the sidewalk along Chambers Street, then easterly along the sidewalk of the south side of Chambers Street, then north across Chambers Street to the Hall of Records on the north side of the street (see Figure 2). One exception to this description of the utility trench excavations was related to a 20-foot segment of pipe, already known to be lying within Chambers Street, wrapped with asbestos material. This segment of the project was excavated to a depth of up to ten feet to accommodate the removal of the pipe and asbestos material. The other exception to the description was an existing 12-inch diameter low pressure water line extending through the westbound lane of Chambers Street, just north of the center line, at an estimated depth of between five and six feet. At this point, an east-west trench extending for 28 feet (14 feet on either side of the existing clay pipe) was planned to be excavated to the depth of the pipe in order to replace a segment of it as required by City code.

Fieldwork was conducted 10/28/95, 11/4-5/95, 11/11-12/95, 11/15-16/95, 11/18-19/95, 12/2-3/95, 12/5-7/95, 12/9-11/95, 12/18/95, 12/22/95, 12/26-29/95, 1/2/96, 1/4-5/95, 1/20/96, 1/23-24/96, 1/26-27/96, 4/18/96, 4/20/96, 6/1-2/96, 6/8-9/96, and 6/21/96. Most of the work was conducted on weekends

because street closing permits were required and not available on the heavily trafficked Chambers Street on week days.

This report was prepared for Primer Construction under contract to the New York City Department of General Services (DGS) by Linda Stone with sections written by Anagnostis Agelarakis and Patience Freeman. The archaeological work described in this report was conducted by Linda Stone, Principal Investigator; Patience Freeman, Field Supervisor; Anagnostis Agelarakis, Physical Anthropologist, and Matthew Cohen, Anna Konstantatos, George Myers, and Elizabeth Romanczyk, field technicians. Laboratory processing was done by Linda Stone, Patience Freeman, George Myers, and Michael Perna. Human bone identifications were done by Dr. Agelarakis. Faunal identification and analysis was done by Patience Freeman. Non-bone artifact identification was done by Linda Stone.

The author would like to thank Meta Janowitz for her advise on identifying certain ceramic pieces and Diane Dallal for her dating of the recovered smoking pipes fragments. She would also like to thank Mr. Jerry Primer, President of Primer Construction, as well as his entire field crew. Thanks also go to numerous personnel at both the Department of General Services and the New York City Landmarks Preservation Commission as well as the then Mayor's Office representative, Peggy King-Jorde for her presence from the start of the project as well as her advocacy and ability to gain attention for it. From DGS, the author would like to thank those who were involved in the daily running of the project, including David Holowka, Dilip De, and Vinod Desai, as well as other DGS personnel and management up to, and including, Commissioner William Diamond who made himself available to the project on numerous occasions. The author would also like to acknowledge the participation of many individuals from the Landmarks Preservation Commission. Those who made personal site visits and inspections as well as processed paperwork in a very timely manner include Commissioner Jennifer Raab, Mark Silberman, Gina Santucci, Daniel Pagano, and Amanda Sutphin. The 31 - 52 Chambers Street Utility Trench project was planned and executed over a considerable period of time and many members of both DGS and LPC had been involved and, at this writing, continue to be involved, therefore the author would also like to acknowledge the many unnamed individuals at both agencies for their roles in completing this project.

Many other professionals were also contacted and consulted during various phases of this project. The author would like to single out Michael Blakey, Director of the Federal GSA African Burial Ground project, who was available by phone at the early phases of this project to provide his opinion on possible

candidates for physical anthropologist. Although Dr. Blakey clearly did not want to be perceived as endorsing any particular candidate, his candid evaluation of credentials as may be applied to the task at hand was appreciated. Additionally, Allan Gilbert of Fordham University accepted several brick samples from the project for his extensive archive of historic New York area bricks.

## PROJECT BACKGROUND

From the prospective of phased archaeology, the way the 31-52 Chambers Street Utility Trench Project was conducted, was far from optimal. Rather than using a phased approach, conducting supplemental documentary research followed by test excavations and later possibly by data recovery, perhaps followed-up with monitoring as a final check that no additional archaeological resources would be disturbed, this project was conducted in reverse order, making this report seem a bit out of sequence at first.

Prior to award of the contract to conduct the archaeological services discussed in this report, a scope of work was sent to potential bidders by the contractor who was given the scope by the Department of General Services (DGS), now called the Department of Citywide Administrative Services (DCAS). That scope was for archaeological monitoring of mechanical trench excavations and is attached to this report in Appendix A, as are all the other scopes, permits, reports and correspondence related to the archaeological scope of work. Upon receipt of the award of the monitoring contract some modifications to the scope were made by the author. This scope, on which the archaeological contract reported on herein was based, is also attached in Appendix A. This scope was submitted by DGS to the Landmarks Preservation Commission who in turn responded by issuing a permit report for the work, also in Appendix A. The issuance of this report allowed the excavation monitoring to begin.

According to the records provided by DGS, the footprint of the utility trench was within that of a 1916 pipe tunnel. Therefore no disturbance to intact archaeological deposits was expected and the agency felt that monitoring of the excavations was an appropriate archaeological methodology. This interpretation was concurred by LPC by their issuance of the permit. Thus, the phased archaeological approach was determined unnecessary. In case this alignment was not entirely as planned, however, the approved archaeological scope included a proviso that the archaeologist would have the authority to stop construction excavations should intact or potentially intact archaeological deposits be encountered. In addition to potential archaeological features, there was the obvious concern for the unearthing of human remains related to three known historic burial places in the vicinity, most particularly the African Burial Ground, but also the burial of American prisoners of the Revolutionary War and the burial of dead from the First Almshouse and Bridewell (Hunter Research, Inc. 1994)

Shortly after excavation began, fragments of bone were found. One or two of these had the potential to be identified as human. Therefore the archaeologist recommended and DGS agreed to add the services

of a physical anthropologist to the contract, although this was specifically not part of the original scope of work. DGS was quick to respond and a physical anthropologist was added to the team by the second weekend of monitoring.

When excavations were begun in the City Hall Park portion of the project, the archaeologist noted conditions which were not conducive to the identification of potential archaeological features and, in consultation with the LPC archaeologists, proposed a modification to the scope of work to place an archaeological excavation unit in the park area. This modification is attached as part of Appendix A. During the monitoring of excavations within the northern lane of Chambers Street, a vaulted brick feature was identified. Another modification to the original scope was submitted enabling the excavation and documentation of the area of the feature, also attached in Appendix A.

During this same time frame the Landmarks Preservation Commission was evaluating both outstanding changes to the original scope and provided verbal guidance prior to issuance of an amendment to their permit report, they also issued a written request to have additional archaeological work included in their upcoming report. This included the excavation of a number of shallow units at the base of areas of the mechanically excavated trench as well as screening of all backdirt removed from the trench. These requests are also attached in Appendix A. In response to the LPC request, an addendum to the modification of the scope was issued to include these items (see Appendix A). However DGS requested the backdirt issue be deferred until logistics were ironed out and money allocated. The backdirt issue remains outstanding as of this writing.

On December 18, 1995, the Landmarks Commission issued a report amendment to cover only the issues they requested, in addition to the excavation of a unit in the park (see Appendix A). This amendment raised one issue which required clarification. Page 3 of the report states, "At the request of concerned members of the community, there will be no analysis of the skeletal remains retrieved...". However there were a small number, less than 15 at that time, of bone fragments which could not be readily identified as human, as opposed to animal. Therefore a request was made to DGS and LPC to determine whether the thin-section analysis of these fragments was considered appropriate (see Appendix A). At the time of writing this report, no answer has been provided by LPC or DGS regarding the acceptance of thin-section analysis, a method which would damage, but not destroy, the bone fragments.

During the archaeological excavations in the park, a modification and an addendum to it were submitted

in order to expand the area of excavation (see Appendix A). Aside from the numerous changes to the scope based on archaeological concerns, an additional change was needed due to logistical concerns. DGS found previously unidentified electrical lines under the street and had to widen half of the 28 foot water main trench portion of the project. Therefore an archaeological test unit was proposed in that area. This amendment to the scope is also attached in Appendix A. The LPC report amendment addressing these three issues is also attached.

The time consumed by the archaeologist in preparing changes to the original scope of work and by the DGS and LPC in evaluating and reviewing the scope changes was obviously extensive and not optimal for the smooth completion of a project. However all parties tried to minimize delays by doing this work immediately, sometime the same day or the day following a discovery. Therefore, what was originally envisioned as a simple archaeological monitoring project ultimately became a complex operation. Part of the intense concern by all involved was surely due to the fact the project area fell within the African Burial Ground and Commons District and that a nearby project had been conducted without archaeological work and had to be stopped by concerned citizenry when intact burials were encountered. While no intact or partially intact burials were encountered during this utility trench project, awareness was heightened because of the perception ancestral remains could be desecrated. Mayor's Office representative, Peggy King-Jorde, was often present during excavations. Additionally, Sonny Carson, an activist vocal on matters of the African Burial Ground, made several site visits. The author also fielded phone calls from numerous concerned individuals, including members of the Landmarks Commission and its staff, the African descendant community, and archaeological colleagues during the course of the project. The main concern relayed to the author in most of these phone calls was the apparent lack of protocol for agency actions within the National Historic Landmark and City Landmark District. Many found the departure from the phased archaeological approach objectionable.

## METHODOLOGY

### Monitoring

The monitoring component of the 31-52 Chambers Street Utility Trench project, because of the location of the trench within the African Burial Ground and Commons Historic District and its visibility to the public in the heart of the government center of New York City, became more than an effort to monitor excavations to ensure no intact archaeological deposits were disturbed, although that was the original intent of the scope. The project was also an exercise in collecting bone fragments and artifacts which, perhaps because of their association with the historic district, may convey more meaning to them than other collections recovered from unprovenienced contexts in such a manner. The professional archaeological community continues to disagree about the appropriateness, validity, and value of such methods and the resulting artifact collections. It is not the intention to rehash these ideas in this forum or to provide an opinion, but to note that each case needs to be reviewed on its own merit and to add that the author/principal investigator of this project had no influence, one way or another, in this decision, which appears to have been made jointly between the Landmarks Preservation Commission and the Department of General Services.

The details of the methodology used during the monitoring phase of the project are provided in the documents included in Appendix A. Monitoring basically included the archaeologist(s) being present while a contractor performed excavations, collecting materials from the backdirt, and ensuring that excavations were stopped should any intact burials or archaeological features be encountered. All of these activities were recorded in a diary format and by photograph and drawings. The work took place over a thirteen day period between November 4, 1995 and June 21, 1996 with most of the work being conducted during the cold and snowy winter of 1995/96. The results are provided later in this report.

The monitoring contract ultimately was modified due to a variety of factors. First, the recovery of fragments of human remains led to adding a physical anthropologist to the team. This also required that more effort be placed on going through backdirt during and after removal, however screening of soils was specifically prohibited. Another key factor in modifying the contract was the observation by the archaeologist that the soil within the park segment of the trench was such a homogeneous sand making it difficult to discern the 1916 clay pipe tunnel trench. This led to a brief interruption of the mechanical excavations while the archaeologists hand excavated several units within the park segment of the trench. It also led to the Landmarks Commission requesting shallow units be excavated in key portions of the base of the mechanically excavated trench. LPC also wanted shoring removed in these locations so the

archaeologist could further document trench profiles under the observation of their staff who were not available to be on site during the original excavations in those areas. The other key modification was the archaeological excavation of a unit in the center of Chambers Street, in the eastern portion of the water main trench. Results from each of these activities are provided later in the report.

Once sections of the trench were shored and the backdirt picked over for recovery of bone and diagnostic artifacts, the dirt was carted away. This was generally done one truckload at a time. However, after November 12, 1995, because of an increased density of cultural material in the backdirt, additional time was taken to pick through the soil as it accumulated in the park area. At this time, the feasibility of screening all mechanically excavated backdirt was discussed. However, it was never made part of this contract. Nevertheless, DGS/DCAS decided to store the backdirt indefinitely or until a decision could be reached. Beginning on January 19, 1996 four or five truckloads of mechanically excavated backdirt were taken from the project staging area to a storage area in Bridgehampton. The soil remains there, reportedly uncovered, at the time of this writing. Knowing LPC wanted all of this backdirt screened to retain all cultural material, even non-diagnostic artifacts, the utility trench archaeologists began retaining such non-diagnostic artifacts as corroded metal and window glass fragments for this future task. The concern was breakage during several moves would cause further fragmentation. A total of two bags of non-diagnostic artifacts were retained to be included with the DGS/DCAS backdirt project to be part of another contract.

#### Field Testing and Data Recovery

Field testing and data recovery, while generally two entirely different sequential steps in the archaeological evaluation process, were combined during the 31 - 52 Chambers Street Utility Trench project. The combination of the steps was necessary due to time constraints. Testing began as the excavation of a single unit within the City Hall Park segment of the trench. It became a data recovery operation when structural remains of a historic building were identified. This led to the excavation of the feature and surrounding deposit in two additional excavation units, within the impact area of the trench. The other area tested was the eastern segment of the water main trench in Chambers Street. The locations of these tests are depicted on Figure 3.

## Artifacts

### *Processing*

All artifacts and faunal remains were washed and rinsed in tap water and left to air dry before labelling and rebagging in clean 4-mil zip-lock bag. Bone identified as human or possibly human prior to cleaning was dry brushed, wrapped in acid-free tissue paper and bagged in perforated zip-bags for long-term storage. All zip bags were labeled with the project identification number (PW77102F) and the provenience.

Artifacts in the following categories were also individually labeled; ceramic, glass, plastic, and stone. Artifact labels consist of a composite number representing the provenience from which an artifact or group of artifacts was recovered. One digit codes signifying the recovery methodology were developed and used as a prefix to the provenience. Artifacts collected during monitoring begin with the number "1", test units or excavation units are assigned the number "2", shallow units are assigned the number "3", and features are assigned the number "4".

Artifacts collected from monitoring of mechanical excavation also include location abbreviations and date of recovery as the provenience. The table contained at the beginning of Appendix B lists the abbreviations for the locations of the trench from where artifacts were recovered. One addition to this labeling convention is for a small number of artifacts recovered from backdirt excavated on 11/11 or 11/12/95 by a concerned citizen and later returned to the project archaeologist. These artifacts were bagged separately with his name (Eric Byron) in addition to the typical provenience.

Artifacts recovered from hand excavation include the unit, stratum, and level numbers separated by a decimal point, after the recovery method code. For example, a provenience number of 2.3.2.5 refers to excavation unit 3-stratum 2-level 5. If multiple numbers are required they are separated by a slash. For example 2/4 would refer to a unit containing a feature. The exception to this convention pertains to Feature 3 which was not excavated stratigraphically.

### *Identification*

All recovered bone fragments were inspected by both a physical anthropologists and a faunal analyst. To identify human bone fragments and possible human bone, macroscopic examinations coupled by identification of the small bone fragments using low magnification (x90) were employed to determine the nature of the structural composition of compact and cancellous bone fragments. Studies of compact

osseous surface morphology were also conducted in order to forensically identify the presence or absence of human osseous remains. Once human skeletal structures were distinguished, osseous anatomical loci helped further identify the nature of the specific structure(s) involved. No destructive techniques were applied as mandated by the scope of work.

The faunal assemblage was identified using the comparative faunal collection at the Bioarchaeology Laboratory of Hunter College (C.U.N.Y.) and the faunal analyst's private collection. Supplementary references used include the manuals of Schmid (1972), and Gilbert (1985). Identification was made to the lowest taxonomic level possible. Where a fragment could not be assigned at the genus/species level the next higher taxonomic level was used. Morphological characteristics were used to distinguish the different species. The designation of *ovis/capra* or sheep/goat is used because there is such close similarity between the postcranial bones of the domestic sheep (*Ovis ovis*) and the domestic goat (*Capra hircus*) (Boessneck 1970). No evidence for the presence of goat has been found in lower Manhattan contexts, including the nearby Five Points site, but the possibility cannot be overlooked (Pam Crabtree, personal communication). The abundance of the taxa were quantified using ordinal level analysis with the NISP (number of identified specimens) and TNB (total number of bones) as basic ordinal terms (Grayson 1979). This allows the taxonomic abundance to be treated as variables and is statistically valid for analysis of a single site (Grayson 1979).

Preservation of all faunal material was good. Fragmentation of the bones had occurred in part from depositional damage, exacerbated by the fact that the soil has been disturbed at least twice, first in 1916 and again in 1995-6 for the current project. Additionally, prior to deposition, butchery of the original animal carcasses into cuts of meat suitable for home or institutional kitchens resulted in an archaeological record that contains only chopped, sawn or otherwise broken pieces of discarded faunal bone.

All ceramic and glass artifacts are considered sherds, unless otherwise noted in the inventories. Ceramic identifications and date ranges of manufacture for white-bodied refined earthenwares were based on style of decorations, when available, and are referred to in the inventory as "refined earthenwares". If identifications were also based on ware type, such as creamware/pearlware/whiteware, then these types are used as identifiers in the inventory. Dates of manufacture for stoneware sherds were assigned based on whether or not contexts contained wasters and/or kiln furniture. A wider date range of manufacture was used for sherds without these associations, stoneware still being manufactured today. However the presence of wasters and/or kiln furniture indicates the possible association with the point of manufacture

in this location, the Crolius and Remmey potteries which operated in the neighborhood during much of the eighteenth century and into the first quarter of the nineteenth century, *providing* the possibility of a narrower date range. For all collection contexts and hand excavated contexts which contained wasters and/or kiln furniture, the narrower date range was assigned to all stoneware in that context.

## RESULTS

It must be stated up front that no intact or partially intact burials were ever found during the course of the 31 - 52 Chambers Street Utility Trench project. However fragments of previously displaced human bone were recovered. A total of 69 human bone fragments were recovered from all phases of the project. In contrast, faunal remains numbered 1187. Fauna identified from this project include Mammalia-*Bos taurus* (cow), *Ovis aries* (sheep)/*Capra hircus* (goat), *Sus scrofa* (pig), *Canis familiaris* (dog), *Felis catus* (cat), *Procyon lotor* (raccoon), and *Rattus rattus* (rat). Of the class Aves, *Gallus gallus* (chicken) and *Meleagris gallopavo* (turkey) were present with other bird bone fragments identified only to their family, Anatidae (waterfowl): swans, geese and ducks. *Pisces* (fish) were scarce, a bone from *Lutjanus campechanus* (red snapper) was found and another from the Scorpenidae family, which contains snappers. A turtle, family Emydidae, was found, perhaps a box or painted turtle and both would have been locally present. A piece of a crab's claw, suborder Brachyura, was also found.

### Monitoring and Collected Artifacts

Monitoring of mechanical excavations and collection of artifacts began on November 4, 1995 and continued through June 21, 1996, mainly conducted on the weekends. Figure 4 depicts the general locations of monitoring by date. The contractor would excavate roughly fourteen foot segments and then shore them. The excavations were done using the backhoe whenever possible. However, particularly within Chambers Street, when the trench was crisscrossed with existing pipes, the construction crew would have to hand excavate (see Plate 1). All members of the crew, including the contractor, his foreman, backhoe operator, and laborers, were apprised of the potential archaeological discoveries. Often times members of the crew would pick artifacts out while hand excavating and give them to the archaeologists. The mandate was to recover all bone and only diagnostic artifacts. The archaeologists would watch the backhoe and then trowel through the excavate to recover artifacts (see Plate 2). Artifacts and bone were bagged separately. Each bag was labelled with the date of recovery and the location from which it came, generally the fourteen foot segment. For analytical purposes these 14 foot segments or collection locations were grouped into three larger units: Collection Context A) From the northern end of the trench south through the eastern part of the southern sidewalk (about 85 feet of trench), Collection Context B) The western side of that sidewalk through the northern part of City Hall Park (about 46 feet), and Collection Context C) The second fourteen foot segment south of the sidewalk and west through the remainder of the trench (about 95 feet).

A number of previously unmapped conduits were discovered buried below the street. LPC requested that the archaeologist work with DGS to map the pipe locations. This decision was made after most pipes were identified and most trenches shored and the street plated over, therefore it was not always possible to get precise measurements and some locations had to be inferred. Figure 5 is a copy of the DGS generated plan. Figure 6 is the archeological drawing reconstructing the locations of conduits.

### *Human Bone Fragments*

The first weekend of bone/artifact recovery included several fragments of possible human bone, subsequently confirmed as human bone fragments. Therefore a physical anthropologist was added to the team to be on site during the remainder of monitoring of the mechanical excavations. From all collection contexts, a total 64 fragments of human bone were recovered, all from previously disturbed contexts. In addition, there were eleven fragments of possible human bone, too small to morphologically identify. Once again, no intact, or partially intact, burials were found or disturbed during the course of this project. Appendix B includes tables identifying the human bone fragments and unidentifiable bone fragments recovered from monitoring. Of the fragments conclusively identified as human, 84% (n=54) were fragments of long bones, that is the six major bones comprising arms and legs. In looking at the parts of the trench from which the human bone fragments came, 12 (19%) came from Collection Context A, 46 (72%) from Collection Context B, and 6 (9%) from Collection Context C. Because no intact or partially intact burials were identified and there were three known historic burial places in the vicinity, no conclusion could be made at that time regarding the origin of the recovered human bone fragments. In addition, no analysis of human remains was mandated by the scope of work (see Appendix A).

### *Faunal Bone*

All collection contexts produced a total of 931 fragments of faunal bone (TNB), of which it was possible to identify 409 (43.9%) to species (NISP). The breakdown of faunal remains from the collection contexts can be seen in Table 1. Where the degree of fragmentation has precluded identification beyond the level of class (i.e. Mammalia, Aves, Pisces), the assignments have been subdivided into large, medium, and small terrestrial mammals and a number of small fragments fall into a category of general scrap. The term large mammal refers to animals the size of a cow or horse, a medium mammal is a pig or sheep size and small mammals are those such as cats, dogs or rodents.

There were 18 areas of collection which contained faunal remains. These have been consolidated into the three collection contexts described above. The quantities of bones and the percentage identified to

Table 1 Faunal Remains Identified to Species from Collection Contexts,  
31 - 52 Chambers Street Utility Trench Project

COLLECTION CONTEXTS		ANIMAL														TNB	NISP	Percent
		Cow	Sheep	Pig	Chicken	Turkey	Dog	Cat	Raccoon	Rat	Waterfowl	Bird	Large Mammal	Medium Mammal	Small Mammal			
CS1	Chambers Street North																	
	Chambers Street North Sidewalk																	
	SUBTOTAL	3	2										3	1		9	5	55.56
CS2	Chambers Street South																	
	Sidewalk East																	
	SUBTOTAL	10	1	3									3	1	3	21	14	66.67
CS3	From 11/11-12/95 Sidewalk Backdirt																	
	From 11/11-12/95 Sidewalk Backdirt																	
	SUBTOTAL	7	7	3									7	11	8	43	17	39.53
	SUBTOTAL A	20	10	6	0	0	0	0	0	0	0	0	13	13	0	73	36	49.32
CS4	From 11/12/95 Sidewalk West Backdirt																	
	From 11/4/95 Park North Test																	
	Park North Test																	
	Sidewalk to Park North																	
	South Sidewalk West																	
	SUBTOTAL B	141	132	16	5	1	6	3	7	0	0	1	94	183	13	643	311	48.37
PK1	Park North 14' - 28' (P1)																	
	From 11/18-19/95 Backdirt																	
	SUBTOTAL	8	4		1								8	9		42	13	30.95
PK2	Park North 28' - 42' (P2)	3	3	1	2					1			10	9		29	10	34.48
PK3	Park North 42' - 56' (P3)	5	1		1	1					1		5	15		29	8	27.59
PK4	Park South 16' - 25' (P4)	5	2	1	2					2		6	6	11	6	41	12	29.27
PK5	Park South 16' (P5)																	
	Park South Drive																	
	SUBTOTAL	11	8								2	1	21	16	1	74	19	25.68
	SUBTOTAL C	32	18	2	6	1	0	0	0	3	3	7	50	60	1	215	62	28.84
	GRAND TOTAL	193	160	24	11	2	6	3	7	3	3	8	157	256	14	931	409	43.93

species are listed for the separate contexts in Table 1, with subtotals A, B, and C giving the numbers for the three major sections, including TNB and NISP. Collection Context A (subtotal A) produced a TNB of 73, with 36 NISP. Very little can be deduced from this, the context being very disturbed by decades of conduit trench excavations.

Collection Context B (subtotal B) stands out because it contained 69% of all fauna from the trench monitoring work. In an attempt to understand the nature of this context, even though intact strata were absent and many decades were represented, the identified domestic mammal bone has been separated into that deriving from cuts of meat as opposed to that having no real food value. Collection Context B is the only collection context which contained a large enough sample to make this type of comparison possible.

Table 2 Cuts of Meat Represented in Collection Context B  
from the 31 - 52 Chambers Street Utility Trench Project

Cow			Sheep			Pig		
Total	Meat Cuts	%	Total	Meat Cuts	%	Total	Meat Cuts	%
141	37	26.2	132	27	20.5	16	7	43.8

The poorest cuts from the cow (excluding the cranium, mandible, extreme lower limbs, and feet) are those from the hock bones of the hind quarter and the cross-cut hind shank and heel-cut round steak from the distal femur and proximal tibia. From the fore quarter, the cross-cut fore shank from the proximal radius and ulna provides little meat. Three navel cuts, short plate-flank separations across the distal ribs, and costal cartilage are extremely fatty and contain a minimum of muscles (meat) (Tucker, Voegeli & Wellington 1952). In the sheep, the shank (knee and elbow region) supplies little meat. The same holds true for the pig. It can be seen from the above figures that identified bone fragments give evidence for poor quality food.

The original area where the soil deposited in Collection Context B came from may have been where rubbish was discarded for later collection, burning, or burial elsewhere. There was no evidence of rodent gnawing on any of the bone fragments in this context, indicating that they did not remain on the ground there for any length of time - or that there were no rats, an unlikely possibility. Bones from a minimum of 2 raccoons were also found here, so the area must have had some trees and shrubs at the time of deposition.

It should be noted that context PK5, at the southern end of the utility trench, contained heavily gnawed bones, indicating a different method of disposal, perhaps an open dump. This area in the far south of the trench also contained evidence for better cuts of meat, sirloin and chuck steaks, lamb chops and red snapper.

### *Artifacts*

A total of 1015 diagnostic artifacts were collected and retained during monitoring of the 31 - 52 Chambers Street Utility Trench project. A complete inventory of recovered artifacts is attached in Appendix B. Artifacts recovered date from a broad time period, at least from the early eighteenth century through the present. To name a few, artifacts include ceramics of all types (discussed below), glass bottles and sherds (Plate 3 and 4), three gun flints and a musket ball (Plate 5), carbon arc lighting rods, buttons and button blanks, plastic, and a quill pen tip.

Table 3 is a summary of the material types of artifacts collected by location within the trench by count. When the collection contexts are subtotaled, Collection Context B represents about 40% of all artifacts. The same may be said of Collection Context C, however this context represents about twice the volume of excavated soil as Collection Context B, making the concentration of artifacts truly significant. It is not a surprise that most diagnostic artifacts recovered fall within the ceramic category. Table 4 provides a summary of ceramic types and shows that a wide range of diagnostic ceramics were recovered. The variety is also shown in Plates 6-9. Major categories include stoneware (n=161, 18.36%), earthenware (n=114, 13.00%), and decorated white-bodied refined earthenwares (n=172, 19.61%). The stoneware sherds include nine pieces of kiln furniture (see Plate 8), used to support ceramic wares during firing, indicating the stoneware may be associated with the Crolius and Remmey potteries which were located in the neighborhood during much of the eighteenth through early nineteenth centuries. This is important because it implies the fill used in the 1916 pipe tunnel was likely local dirt. Perhaps it was backfilled with the excavate from the trench itself. However the presence of nineteenth century earthenware, mainly Rockingham type (n=83; 9.46%), and late eighteenth and nineteenth century decorated wares indicates the deposit may have been churned up from mixed soils in 1916 and perhaps even later, if the deposit had in fact been homogeneous to begin with. However, because the material came from a collection of mechanically excavated soil, it is not possible to evaluate the homogeneity of the deposit.

Collection Context B contained the highest density of human bone fragments, faunal bone, and diagnostic artifacts. The density of all material recovered from Collection Context B could be due to its association

Table 3 Count of Artifacts by Material Type Collected From Monitoring  
the 31 - 52 Chambers Street Utility Trench Project

	MATERIAL											
COLLECTION CONTEXT	Asphalt	Bone	Carbon	Ceramic	Feather	Glass	Marble	Metal	Plastic	Shell	Stone	Grand total
Chambers Street North	1	1	2	49		8				3	1	65
Chambers Street North Sidewalk			3	40		6	1			1		51
Chambers Street South				7		2						9
Sidewalk East		1		44		2						47
From 11/11-12/95 Sidewalk Backdirt				8		1						9
From 11/11-12/95 Sidewalk Backdirt				10		1						11
SUBTOTAL A	1	2	5	158	0	20	1	0	0	4	1	192
From 11/12/95 Sidewalk West Backdirt				59		7					1	67
From 11/4/95 Park North Test				3								3
Park North Test				8		4						12
Sidewalk to Park North		1	1	209		14		4	3		3	235
South Sidewalk West		1	2	79	1	6		1		1	1	92
SUBTOTAL B	0	2	3	358	1	31	0	5	3	1	5	409
Park North 14' - 28' (P1)		1		53		7		1				62
From 11/18-19/95 Backdirt				2								2
Park North 28' - 42' (P2)				33		5		2		1		41
Park North 42' - 56' (P3)				54		2		1				57
Park South 16' - 25' (P4)		1		104		17						122
Park South 16' (P5)			1	63		4			3			71
Park South Drive		1	1	52		4				1		59
SUBTOTAL C	0	3	2	361	0	39	0	4	3	2	0	414
Grand total	1	7	10	877	1	90	1	9	6	7	6	1015

Table 4 Diagnostic Ceramics Recovered from Monitoring  
the 31 - 52 Chambers Street Utility Trench Project

IDENTITY	COUNT	PERCENT
bisque	1	0.11
black basalt	1	0.11
brick	12	1.37
creamware	59	6.73
delft	7	0.80
delftware	11	1.25
earthenware	114	13.00
ironstone	29	3.31
jackfield	1	0.11
kaolin	66	7.53
marble	1	0.11
mocha	1	0.11
pearlware	44	5.02
porcelain	47	5.36
redware	57	6.50
refined earthenware	128	14.60
salt glaze stoneware	19	2.17
soft paste porcelain	5	0.57
stoneware	161	18.36
stopper	1	0.11
terra cotta?	1	0.11
utility pipe	11	1.25
white granite	53	6.04
whiteware	23	2.62
yellowware	24	2.74
Grand total	877	100.00

with remnants of structural remains observed in the north profile of the trench. The edge of a possible footing or wall was observed during monitoring of mechanical excavations in this area. Plate 10 depicts several courses of brick separated by stone slabs, clearly flush with the cut of the sidewalk. However, the backhoe bucket scraped beyond that point after the photograph was taken and thus removed the remains of this feature. It appeared to be only two courses of brick thick. A sample of unmarked brick was retained. After removal, sterile sand was exposed and then shored in. It may be inferred that historic archaeological deposits in the heavily disturbed area contain pockets of intact archaeological material. This observation combined with the sandy nature of the soils in the park led to temporarily halting mechanical excavations the following weekend. Other structural remains found in the utility trench path were subsequently archaeologically investigated and are discussed below.

#### Hand Excavations - Units and Features

A total of four excavation units were completed during the course of the 31 - 52 Chambers Street Utility Trench project. Three were located within the City Hall Park portion of the trench and one within the water main trench portion in Chambers Street (see Figure 3). Three features were also excavated, two as part of the units in the park and one on its own. Feature 1 was a stratum of decaying white marble located within units 1, 2, & 3. Feature 2 was a brick and stone footing and possible ledger also located within units 1 - 3 and probably with Feature 1 as well. Feature 3 was a vaulted brick feature found in the northern lane of Chambers Street. In addition to these excavations, six shallow units were placed in the base of the mechanically excavated trench.

The following describes the findings within each unit, feature and shallow unit. Appendix C provides the stratigraphy of each unit and shallow unit, including excavation date, corrected center point elevations, Munsell soil colors, textural descriptions, and comments as recorded on the field forms. Elevations were measured from temporary data later tied into the site plan and are corrected to reflect actual elevation above sea level in Appendix C. Appendix D contains the human bone fragment identifications and faunal bone and artifact inventories from hand excavated contexts. All hand excavated units contained only four fragments of human bone. A total of 256 faunal bone fragments were recovered from all excavation units and shallow units with a NISP of 80. In sharp contrast, 2207 other artifacts were recovered from these contexts, 1935 from excavation units, including 90 from features, and 272 from shallow units.

### *Unit 1 - Features 1 & 2*

Unit 1 was the first unit placed within the park segment of the trench. The unit was excavated between December 5 -11, 1995. It was located within an unexcavated portion of the utility trench to determine the actual alignment of the trench with respect to the 1916 clay pipe tunnel. As discussed above, the trench seemed to be out of alignment somewhat in the western portion of the sidewalk and the sandy soil within the northern part of the park segment precluded making such a determination during backhoe excavations. While there appeared to be a discrepancy in the alignment in these segments of the utility trench, in the southern part of the park where the trench crossed the driveway all soil appeared to have been previously disturbed. In fact, as the sandy fill fell away from the trench wall, a probable architectural element appeared in the profile (see Plate 11). However, since there was no planned disturbance to this feature and it was outside of the utility trench impact area, it was not archaeologically investigated as part of this project.

After observing the removal of the three manholes previously located at the turns in the utility trench, the conclusion reached was that the manhole at the western end of the Chambers Street southern sidewalk and the manhole at the southern end of the park segment had been replaced since 1916. These two were constructed mainly of concrete as opposed to the other manhole which was made primarily of brick. The newer manholes were aligned slightly off from the originals, thus the 31 - 52 Chambers Street Utility Trench was slightly off from its intended path. The outcome being the disturbance of unknown and potentially archaeologically significant deposits. This hypothesis would have to be investigated after the fact, during the supplemental documentary research phase of the project.

### *Stratigraphy*

Unit 1 was four feet long by six feet wide, the utility trench width. The topsoil was removed in two levels, stratum 1-level 1 and stratum 2-level 1. Stratum 1 was actually a mix of topsoil and redeposited soil from the mechanical trench excavations. Underneath the topsoil, in the western part of the unit, was a feature composed of decaying marble, presumably architectural (see Plate 12). This was Feature 1. It appeared to have been laid in blocks and left *in situ* buried just below the topsoil. Also emerging at about the same elevation were two mortared bricks, identified as the top of Feature 2. The base of the marble contained decaying schist which was also probably part of the same architectural element. The base of this feature corresponded to the uppermost level of bricks in Feature 2.

Stratum 2 continued down in five more levels for about 6.5 feet, the planned depth of the utility trench

in that location. This stratum represented the 1916 clay pipe tunnel trench fill and also included fill associated with more recent pipes which crossed the unit at about 2.5 feet below ground level. These soils were sandy with a loamy texture toward the surface and a silty component toward by base. Stratum 3 was a brown/dark brown sandy deposit in the western part of the unit above segments of Feature 2 which expanded in plan as the unit continued. Stratum 4 was below stratum 3 in the western part of the unit at an elevation near the base of the footing; Feature 2. Level 1 was a moist coarse sand which contained cultural material while level 2 represented subsoil. Plate 13 depicts the northern profile of the unit upon completion of excavation and Figure 7 is the north and west unit profiles. Figure 8 is the south profile. No eastern profile was drawn because it represented the fill from the clay pipe tunnel trench.

### *Artifacts*

Prior to excavation of Unit 1, no primary documentary research was conducted by the author, as specified in the scope of work. However it was known that two buildings were located in the vicinity of the features, the Upper Barracks (1757-1790) and the Second Almshouse (1796-1854), although the footing and marble location did not correspond to the footprint mapped on the overlay drawings (Figure 9) (Hunter 1994a:A7,A9). Therefore dating of these architectural elements through artifact identification held the possibility of associating the features with a particular time period which could later be used to focus research warranted by the findings.

Unit 1 contained only one fragment of human bone. It came from stratum 2-level 1, the topsoil level. This level also contained a 1970 penny, emphasizing the previously disturbed nature of the deposit.

The *tpq* (*terminus post quem*), or date after which the soil could have been deposited, was determined for each level based on the inventory (Appendix D). Stratum 2-levels 2 through 6 have a *tpq* of the 1890s derived from several fragments of milk glass. This date is in line with the interpretation of Stratum 2 as the 1916 clay pipe tunnel trench. Stratum 3's *tpq* comes from a sherd of spatter decorated refined earthenware manufactured as early as 1850, found in level 1. Stratum 3 was found above segments of Feature 2, the footing, and below Feature 1, identifying this stratum as a possible mid-nineteenth deposit. The *tpq* of Stratum 4 is the early-nineteenth century based on two whiteware sherds, indicating the footing could date to this time period or later.

Feature 1 contained a small number of artifacts imbedded in the sand and fragments of decaying marble. The *tpq* of Stratum 1 is 1783 from a sherd of blue transfer printed refined earthenware. The *tpq* of

Stratum 2 comes from a glazed redware sherd manufactured beginning in 1750. Therefore, the marble feature could not have been deposited prior to that time. However these artifacts were manufactured over a substantial period of time, into the twentieth century. Therefore the marble was probably laid after 1850 based on the stratum 3 interpretation above.

Feature 2 also contained a small number of artifacts associated with the upper layers of brick. The *tpq* of this deposit was 1805 based on the presence of a sherd of green shell edge earthenware. Therefore the cultural material recovered from Unit 1 indicates the likelihood the features it contains date from the early- to mid-nineteenth century and is possibly the Second Almshouse, rather than the eighteenth century Upper Barracks.

The breakdown of faunal remains recovered from Unit 1 shows a total of 110 bone fragments with 69% coming from strata 1 and 2, the topsoil and 1916 pipe fill. Only strata 3 and 4 had the potential for providing an interpretation of the faunal assemblage associated with the feature contexts. However only stratum 3-level 1 contained any faunal bone fragments which could be associated with meat value. All four cow bones and the one sheep/goat were meat bearing, indicating the deposit contained refuse from higher quality meals.

### *Unit 2*

Upon completion of excavation of the features in Unit 1, the decision had been made to expand the excavation to the north and perhaps the south to define the limits of the features. A corridor of topsoil three feet wide, half the width of the utility trench impact, was removed to both the north and the south of Unit 1. The width of three feet was determined based on the maximum width of previously undisturbed archaeological deposit in Unit 1. The topsoil was removed in a band eight feet long to the south and nine and a half feet long to the north. This length represented the length of the utility trench which had not yet been mechanically excavated within the park. Decaying marble was observed in both segments for almost the entire length of excavation (see Figure 10). The segment to the north of Unit 1 can be seen in Plate 14.

The sampling strategy was to maximize the archaeological information obtained from the smallest possible area in the shortest amount of time. Therefore, although Feature 1 (the marble) could have been excavated both to the north and the south of Unit 1, Feature 2 (the footing) clearly extended only to the north and both features could be investigated by placing one unit to the north of Unit 1. Unit 2 was a

three foot wide by five foot long unit excavated on December 28 & 29, 1995. The width was designed to avoid excavating and screening the fill from the 1916 clay pipe tunnel trench. The length was arbitrary, but intended to ensure the entire footing was exposed.

### *Stratigraphy*

Although the width of the unit was selected to avoid the excavation of previous pipe trench fill, this was unavoidable. Stratum 2 represented the edge of the pipe trench in the eastern part of the unit. Stratum 3 was decaying marble and schist; Feature 1. Stratum 4 represented fill from the driveway in the western part of the unit. Stratum 5, a dark loamy sand, overlaid parts of the footing as it appeared to spread out in plan as the excavation went deeper. Stratum 6, a marbly sand, was in the northwestern part of the unit at the same depth as stratum 5-level 3. Both strata 5 and 6 were underlaid by stratum 7, a dark silty sand with charcoal, and then stratum 8, a mortary sandy deposit. Stratum 8 was excavated in two levels. Excavation of stratum 8-level 1 revealed what appeared to be a ledger attached to the footing in the northern part of the unit. This part of the feature extended to the northern limit of Unit 2, leaving soil in only the northeastern corner. Stratum 9 represented an artifact bearing deposit of dark yellowish brown slightly silty sand, coincident with the ledger portion of Feature 2. Stratum 10 was the sterile subsoil beneath.

Plate 15 shows Units 1 & 2 after excavations of Unit 2-stratum 8-level 1 taken from the northern end of Unit 2. All of the elements of Feature 2 are visible. The footing becomes wider after the top several courses of brick. The wider portion extends down for a few more courses and then a stone slab is seen extending to the north and somewhat to the east and a possible ledger extends to the north in the western part of the unit. Figure 11 depicts the northern profile of Unit 2. The constricting base of the unit can be seen in Plate 16 which was taken after the completion of Unit 2. This photograph also shows the eastern profile of the unit which is drawn as Figure 13. The western profile is drawn as Figure 12.

### *Artifacts*

Artifacts recovered from the driveway fill of stratum 4 have a *tpq* of 1927 coming from several pieces of plastic. The artifacts from pipe trench fill (stratum 2) have a *tpq* of 1876 from the beginning date of manufacture of a piece of carbon arc lighting rod. No diagnostic artifacts were recovered from stratum 3, the marble feature. Stratum 5, which was excavated around the area of Feature 2, the footing, contained artifacts indicating a *tpq* of 1830 coming from a sherd of Rockingham-type pottery. No diagnostic artifacts were found in association with stratum 6. However stratum 7, which underlaid both

strata 5 and 6, contained two white granite sherds which provide a *tpq* of the 1840s. Stratum 8-level 1 contained a creamware sherd, providing that deposit with a *tpq* of 1762. Stratum 8-level 2 contained the only fragment of human bone found in Unit 2. However this stratum contained no other diagnostic artifacts. Stratum 9 contain a sherd of Rockingham-type pottery, providing a *tpq* of 1830 thus indicating the fragment of displaced human bone was deposited after 1830, beyond the active date of any of the area burial grounds.

Faunal remains recovered from Unit 2 include two sheep/goat bones and three pig bone fragments. From stratum 8-level 1. The sheep/goat bones are considered to have been meat bearing while the pig bones were not. No meat value can be ascribed to the five cow bones recovered from stratum 9-level 1, emphasizing the observation made during monitoring; better cuts of meat were recovered from the southern part of the project area.

### ***Unit 3***

Unit 3 was deemed necessary to further define the extent of Feature 2 which extended into the northern wall of Unit 2. This unit was excavated on January 2 and 4, 1996. It was three feet wide with a length of four feet on the east and five feet on the west. The length represented the entire remaining unexcavated portion of the utility trench north of Unit 1.

### ***Stratigraphy***

Stratum 1 contained topsoil or redeposited soil mixed with decaying marble and schist. It was underlaid with stratum 2, a dark ashy sand deposit filled with small brick fragments and decomposing schist. Stratum 3 represented the 1916 clay pipe trench fill. Stratum 4 was a dark brown ashy sand, likely ashy from burning, perhaps from the 1854 fire which destroyed the Second Almshouse building. Stratum 5 was a dark brown sand. The top level covered the entire unit and had a loamy component. Stratum 5-levels 2 and 3 were coarse dark brown sand. Level 2 was underlain with brick rubble, in the northern part of the unit, and level 3 with mortar in the south. Stratum 6 covered the entire unit in level 1. The excavation of this dark brown sand exposed the top of Feature 2 as it extended into the southwestern corner of the unit. Stratum 6-level 2 continued down over all of the unit except this corner. The soil surrounding the feature was excavated as Stratum 7. Plate 17 shows the western profile of the unit after excavation was completed. This profile is drawn in Figure 12. The eastern profile is Figure 13.

### *Artifacts*

The topsoil contained a 1980 penny. Stratum 2 had a *tpq* of 1762 based on a creamware sherd. No diagnostic artifacts were recovered from the pipe trench fill, stratum 3. Stratum 4, the burned and ashy deposit, contained a sherd of whiteware which provides a *tpq* of the early-nineteenth century. This stratum also contained a fragment of sheep/goat bone which was derived from a cut of meat. Stratum 5-level 1 has a mid-nineteenth century *tpq* based on a large fragment of an embossed medicine-type bottle. Level 2's *tpq* comes from a metal button back dating to 1837. Stratum 5-level 3 contained a sherd of white slip decorated redware dating from 1825. The only meat bearing bones found in stratum 5 were two fragments of sheep/goat recovered from level 1. No diagnostic artifacts were recovered from stratum 6. No cultural material at all was found in association with stratum 7.

### *Feature 2*

Upon completion of excavations associated with the architectural element, it was photographed and drawn. The feature was left *in situ* to be mechanically removed during completion of excavation of the utility trench. Plates 18 and 19 are photographs of the feature from different angles. Figure 14 is a planview and Figure 15 contains the reconstructed cross-sections.

The excavations for the utility trench in the vicinity of Feature 2 were completed on January 23 and 24, 1996. Plate 20 is the western profile of the trench after Feature 2 was removed. Remnants of mortared brick, schist and building debris can be seen in the profile. The right of the photograph also shows the destruction of the pipes which were uncovered in Unit 1. Figure 16 is the profile drawing in the vicinity of the footing.

### *Unit 4*

Identification of previously unmapped conduits in the northern lane of Chambers Street created logistical problems for the water main portion of the utility trench. This required that the water main trench portion be redesigned. The redesign changed the impact area in the part of the water main trench east of the utility trench from four feet wide to seven feet wide. The change in design can be seen in this area by looking at the difference shown between Figure 2 and Figure 3.

The redesign of the water main trench allowed an opportunity to revise the archaeological scope of work to include a test excavation unit. Unit 4 was a four by seven foot unit placed at the furthest point east in the water main trench (see Figure 3). It was excavated on June 1 and 2, 1996.

### *Stratigraphy*

A four by seven foot area of the pavement of Chambers Street was saw cut and the asphalt, concrete and paving block removed mechanically. A temporary datum was created within the unit at this level and later tied to the site plan. Because a series of concrete encased electrical lines was found in the utility trench, it was also expected in part of Unit 4. Therefore, in order to expedite hand excavation, which was limited to two days, a shovel test was placed in the suspected area at the southern part of the unit to determine the depth of fill above the conduits. The fill, stratum 1-level 1, extended down to about 2.8 feet below street level. The exposed conduits covered about half of the area of Unit 4.

Stratum 2 began at the level of the top of the concrete encased electrical lines and included only the northern part of the unit (see Plate 21). The entire stratum was a dark yellowish brown silty sandy fill. Excavation of level 1 exposed three different soils which were ultimately observed as pockets within stratum 2, between levels 2 and 5. Stratum 3, in the northwest of Unit 4, was a dark brown silty sand. Stratum 4, in the southwest of Unit 4, was brown stony sand. Stratum 5, in the north center of Unit 4, was a brown clayey silt. Stratum 2 continued down in the eastern part of Unit 4 and covered the entire unit by level 5. Stratum 6, a dark yellowish brown stony sand, underlaid stratum 2 in the southeastern part of the unit. Stratum 7 was a mixed deposit excavated by undercutting the concrete. The undercut can be seen in the west profile drawing (see Figure 17). Plate 22 shows the western profile of Unit 4. Figure 18 depicts the southern and eastern profiles.

### *Artifacts*

Consideration was given to not screening stratum 1, the deposit above the concrete encased conduits because of time. However this was rejected because a fragment of human bone was found in the initial shovel test. Three additional fragments of human bone were recovered from this stratum during screening, representing the only fragments of human bones recovered from Unit 4. Stratum 1 also contained such modern materials as a plastic coffee stirrer and cellophane. Stratum 2 was also a modern fill deposit containing creamware, with a *tpq* of 1762, black basalt from the mid-eighteenth century along with styrofoam. Several pieces of a Schaefer beer can were found near the base of the stratum. They were noted and not retained. There is no interpretation which can be ascribed to the human bone fragments and artifacts recovered from Unit 4 other than they represent the contents of a twentieth-century fill deposit. Cultural material dating from earlier periods was found in association with modern materials all the way down to the base of the unit. This fill deposit was a churned up mix of artifact types dating from at least the early-eighteenth century through modern times and is probably associated

with the installation and/or repair of the many conduits within Chambers Street.

The absence of archaeologically significant deposits in this unit cleared the entire water main trench for mechanical excavation. Excavations were monitored by the archaeologist on June 8 and 21, 1996. Three human bone fragments were recovered from the backdirt and profiles of the western trench segment were drawn. The north and south profiles are attached as Figure 19. Other than drawings of Unit 4, no other drawings were done in the eastern part of the water main trench because it was shored immediately.

### *Feature 3*

During excavations in the northern lane of Chambers Street on December 3, 1995, an asphalt-capped brick feature was identified at less than two feet below the street level. The feature appeared vaulted and hollow (see Plate 23). It had been undercut to allow installation of the 1916 clay pipe tunnel, therefore Feature 3 predated 1916. However the feature was suspected to date from the late nineteenth century. A scope of work revision was submitted and approved allowing minimal archaeological investigation of the feature on December 10, 1995, prior to its destruction. A sample of three buckets of soil was screened from three locations; the feature exterior, inside the feature towards the top and from near the base of the feature excavation at a depth of about 13 bricks down. Sketches were done and photographs taken.

### *Stratigraphy*

The top stratum of the interior of Feature 3 contained a dark brown coarse sand filled with heavy demolition rubble. The feature fill continued to contain coarse sand to the base of excavation which was encountered at nineteen courses deep or about 5.3 feet below street level. The base of the feature was never encountered. The backhoe removed the necessary parts of the feature leaving the cross section visible in the profile of the trench and underneath the sidewalk (see Plate 24 and 25). An inverted "T" beam supported the structure at the vault's lowest point. The edge of the beam can just be seen in the lower right part of Plate 25. The reconstructed utility trench profile shows the relationship of Feature 3 to the area it was found. A truncation can be seen in the northern part of the feature (see Figure 20).

### *Artifacts*

Brick and mortar samples were retained. Bricks were unmarked, although they may have been handmade. Artifacts recovered from the exterior of the feature have a *tpq* of 1830 provided by a sherd of Rockingham type ceramic. The fill near the top of the feature contained a sherd of milk glass,

indicating a deposition date of post-1890. The only diagnostic artifact recovered from the screening of the deepest part of the feature was a sherd of stoneware which could have been manufactured anytime after 1720. However, a date of construction sometime in the mid- to late-nineteenth century seems most likely with disuse in the late-nineteenth or early-twentieth century. One suspected the feature to be a vault associated with a building located on the northern side of Chambers Street. However the research would have to be done later to make this conclusion.

### Shallow Units

A series of six shallow units was excavated at the base of the mechanically excavated utility trench to prove that there were no intact archaeological deposits at that level (see Figure 3). The Landmarks Preservation Commission requested these shallow units be placed in eight locations. Two of the shallow units were subsequently eliminated. One was omitted because it coincided with Excavation Units 1-3 and the other because it coincided with Excavation Unit 4. This change was made after numbers were assigned to the units, therefore there is no shallow unit number 2 or number 7. Each shallow unit measured four feet by the six feet, the width of the trench.

Additionally, there was speculation by LPC that trench profiles could be drawn after the removal of sheeting in those locations and that a profile for the entire trench could then be reconstructed based on these locations. Unfortunately, removal of sheeting cause too much instability of the sandy trench walls and, for engineering reasons, this activity was prohibited after three attempts were made. A compromise was reached between DGS and LPC whereas the trench would be partially filled with sterile sand to cover the newly installed utility lines, thus protecting them, and then sheeting removal would be attempted in fewer locations. LPC agreed to allow elimination of the north side of Shallow Unit (SU) 1, the north side of SU 4 and SU 5, and both sides of SU 3, SU 6 and SU 8, leaving only three areas to attempt. The three remaining profiles, SU 1, SU 4 and SU 5 south profiles, are discussed below.

The stratigraphy of each shallow unit is provided in Appendix C. Appendix D includes the identifications of human bone fragments, faunal material and the artifact inventory. Only one human bone fragment was recovered from the excavation of all shallow units. A total of only 26 faunal bone fragments and 272 artifacts were recovered from them. Since these units had little depth to them observations about the faunal bone are of limited interest. However gnawed bone was found in SU 1 supporting the proposal that debris lay unprotected in this area of PK5.

### *Shallow Unit 1*

SU 1 was the first of this type of unit excavated. The work was done on December 18, 1995. It became obvious that the nature of this activity would be cleaning all of the washed-in soil off the base of the trench and exposing the pipe and surrounding deposits, which were expected to be remnants of the 1916 pipe trench fill and subsoil.

#### *Stratigraphy*

The uppermost soil layer, stratum 1, was a deposit of washed-in wet silty coarse sand. Once removed, two distinct strata were identified. Stratum 2 was the 1916 clay pipe trench fill. Stratum 3 was subsoil. Plate 26 depicts SU 1 after excavation was complete. The pipe is seen almost squarely in the center of the trench. Several more modern pipes were identified at a higher elevation and they are seen on the left side of the photograph. Concrete encased pipes were found underlaying the visible pipes. The two soil types show up clearly in the photograph. The profile of the southern side of the trench adjacent to SU 1 is attached as Figure 21. The profile indicates the possible presence of structural remains and may be associated with the feature observed in the southern profile of that segment of the trench during mechanical excavations (Plate 11).

#### *Artifacts*

Artifacts recovered from the wash-in and the pipe trench fill exhibit the same diversity of character and date range of manufacture as was seen in the excavation units. They included cloth, paper and celluloid which were not retained as well as numerous diagnostic and non-diagnostic artifacts and a small number of faunal bones as seen in Appendix D. Stratum 3-level 1 contained one sherd of slip glazed earthenware. However the excavation comments indicate there was some contamination from pipe trench fill to this level (see Appendix C).

### *Shallow Unit 3*

SU 3 was located in the northern part of the City Hall Park segment of the utility trench. It was excavated on both December 18, 1995 and January 4, 1996. The exposed 1916 clay pipe was visibly off center from the trench in this location (see Plate 27).

#### *Stratigraphy*

Stratum 1 was a coarse sand covering a swath over the center of the unit. Stratum 2 was a similar deposit, although slightly lighter, located in the southwestern corner of the unit. It was underlaid with

a silty soil. Stratum 3 was the 1916 pipe trench, located adjacent to the exposed clay pipe. Stratum 4 was located in the northwestern part of the unit. Like stratum 2, stratum 4 was a coarse sand underlaid with silt. Stratum 5 was the silty deposit which underlaid the sandy strata. Although subsoil in the area is generally sandy, it is presumed that while the 1916 trench was originally open and prior to filling, the silt washed in and was subsequently buried by the pipe trench fill.

#### *Artifacts*

Stratum 1 artifacts included a range of material from kiln furniture, possibly dating from the 1720s, to a Bic pen cap, which was noted and not retained from level 2. Stratum 2 was also an artifact bearing deposit. It contained ribbed refrigerator-type glass, likely dating to the early twentieth century. No diagnostic artifacts were recovered from stratum 4. Stratum 5 represented subsoil and contained no cultural material.

#### *Shallow Unit 4*

SU 4 was located in the western part of the south sidewalk of Chambers Street. It was excavated on December 26 and 27, 1995. Like SU 3, the clay pipe was off center in SU 4. It can be seen covered with snow and ice on the left side of Plate 28.

#### *Stratigraphy*

The frigid weather during all excavation occasionally made the work somewhat more difficult, especially when soil was frozen, as was the case with top inch of stratum 1-level 1, the washed-in fill deposit. Removing this deposit exposed three soil types. Stratum 3 represented the clay pipe trench fill. Stratum 2 was a silty sand running through the center of the unit. Stratum 4 was the silty subsoil. Again, it seems that while the trench was open in 1916, silt washed in prior to backfilling. Figure 21 contains the southern profile of the utility trench in the area of SU 4 after it was partially filled and a section of the sheeting was removed. As stated above, no structural elements or features were expected in this profile.

#### *Artifacts*

Artifacts recovered from stratum 1 contain some relatively early types, however the *tpq* comes from a sherd of brown transfer print possibly manufactured as early as 1840. Stratum 2 also contained a variety of ceramics, some possibly manufactured as early as the late-seventeenth century. Stratum 3 contained very few artifacts, among them a sherd of creamware. There were no artifacts recovered from the subsoil.

### *Shallow Unit 5*

SU 5 was located in the eastern end of the southern sidewalk of Chambers Street. Like SUs 3 and 4, the 1916 clay pipe was off center from the trench. SU 5 was excavated on December 27, 1995.

#### *Stratigraphy*

The stratigraphy of SU 5 was very simple. Stratum 1 represented the wash-in and 1916 pipe fill deposits. Stratum 2 was the sandy subsoil. The profile of the southern side of the utility trench in the area of SU 5 is shown on Figure 21.

#### *Artifacts*

The fill deposit in SU 5 contained the usual array of artifact types, dating from the late-eighteenth century to the twentieth century, including some asbestos insulation, which was noted and not retained.

### *Shallow Unit 6*

SU 6 was located within the southern lane of Chambers Street. It was excavated on January 20, 1996. Unlike SUs 3, 4, and 5, the 1916 clay pipe was squarely in the center of SU 6.

#### *Stratigraphy*

Stratum 1 was wet gravelly sand which washed into the unit. Removal of the stratum exposed four pipes flanking the 1916 pipe, two on a side. There was also a conduit above the clay pipe (see Plate 29). Stratum 2, in the western part of the unit, was a sandy gravel with pockets of clay. The base of this stratum was never encountered, presumably because it was a fill for another unidentified pipe. Stratum 3 was a narrow band along the eastern edge of the unit which may have been the subsoil. Such a small portion was exposed as to preclude a definitive identification.

#### *Artifacts*

Again, the fill deposit was characterized in the same way as other units. It contained a mix of cultural material. Stratum 2 had a *tpq* of the late-nineteenth century, provided by a sherd of whiteware. This stratum also contained a fragment of human bone, the only human bone fragment recovered from any of the shallow units. The presence of the bone fragment in association with a whiteware sherd implies the bone was mixed with the stratum 2 deposit at a time after the three historic neighborhood burial grounds were no longer actively used as such. No cultural material was recovered from stratum 3.

### *Shallow Unit 8*

SU 8 was located in the northern lane of Chambers Street. Excavated on January 26, 1996, it was the last of the shallow units excavated. It was also the deepest. The 1916 clay pipe sloped down from the Tweed Courthouse, 52 Chambers Street, to the Surrogates Court building at 31 Chambers Street. The design of the 31 - 52 Chambers Street Utility Trench did not include excavation to the level of the pipe in this location. However the shallow unit allowed the opportunity to expose a portion of it.

### *Stratigraphy*

There was a driving rain storm the day of excavation of SU 8. Considerably more wash-in was excavated from this unit than from any other shallow unit. Stratum 1 represented over one foot of the wash, most of which was not screened. A possible foundation stone or footing was uncovered in the northwestern corner of the unit at this level, likely associated with Feature 3. Stratum 2 was a sandy deposit excavated from the center to the western side of the unit. A part of the 1916 clay pipe was exposed in the center of the unit to identify this stratum as the pipe trench fill. Subsoil was not reached.

### *Artifacts*

Once again, the pipe trench fill contained a mix of cultural material including a stoneware waster, possibly from the local eighteenth-century potteries, as well as a sherd of ironstone, a type which is still manufactured today.

### Supplemental Documentary Research

Supplemental documentary research was conducted after the fact. Therefore research was aimed at identifying the features discovered during excavations and explaining specific archaeological finds. The Archaeological Sensitivity Study (Hunter 1994) was used as a basis for starting the research. The key targets of investigation included the 1916 pipe trench and associated manholes, the Second Almshouse, Chambers Street, buildings formerly located along the route of the utility trench, and the historic burial places.

Research was conducted at a variety of repositories including the New York Public Library, the New-York Historical Society, the Municipal Library, the Municipal Archives, the Library of Congress, the Map File of the New York City Department of Parks and Recreation, the Landmarks Preservation Commission, the New York County Surrogate Court Old Records Department, the Manhattan Borough President's Topographic Bureau, the Office of the Register of Deeds of Manhattan, and the Manhattan Buildings Department.

### *1916 Pipe Trench and Associated Manholes*

The aim of this investigation focused on speculation that two of the three manholes within the project area had been replaced and moved slightly, making the alignment of the utility trench slightly off. Documentary data was expected to prove this theory and thus provide an explanation as to why a trench which was supposed to have been dug into previously excavated soil encountered undisturbed archaeological deposits.

Five surveys of City Hall Park in the vicinity of the pipe trench were used to try to determine whether or not the alignment of the manholes had changed. They date from c. 1916, 1934, 1956, 1963, and 1981/82. In studying the surveys, they were traced at the same scale (20" = 1') to overlay the location of the manholes, using the corner of the Tweed Courthouse, the vault where the pipe tunnel enters the building, and the eastern manhole, suspected to be the earliest, as stationary locations. It became clear that this analysis would not be fruitful because even the two points used along the Tweed Courthouse were not consistent between each plan, over a period of time when there were no major structural changes to the building.

The earliest plan of the manhole locations is depicted on an undated layout plan (Figure 22). Although undated, the plan's date can be pinned down to between c.1916 when the pipe tunnel was installed and

1928 when the depicted City Court Building was demolished. A closer examination of this plan reveals that it is not scaled properly. If one measures the segment between the two manholes (only one is marked) on the north side of the City Court Building, the distance is about 35 feet. However, in actuality, this distance is closer to fifty feet (see Figure 3).

The most intriguing evidence came from the 1942 contract drawing for widening of Chambers Street. The two manholes in the sidewalk were lowered between one and one-and-a-half feet at that time. Plans and sections show the eastern manhole was a solid brick construction and the western manhole made of concrete, just as they were found during their removal as part of this contract. The implication is that, if the western most manhole was replaced and moved slightly since its original installation, it would have been replaced prior to 1942. Therefore efforts were made to locate earlier detailed drawings or general manhole design plans which may have indicated when standards were changed from brick to concrete construction. Unfortunately, inquiries to the following agencies/companies did not produce any information predating 1942; Manhattan Topographic Bureau, Department of Parks and Recreation, Con Edison, NYNEX, and Department of Transportation.

### *Second Almshouse*

Research on the Second Almshouse was expected to confirm the identity of Feature 2 and perhaps Feature 1 as well. Efforts were focused on finding data relating to building materials or construction or views of the Second Almshouse building as well as information which may relate the artifact collection to the building. Research began by looking at images and descriptive information in Stokes' *Iconography of Manhattan Island* (1915). A lithograph depicting the north end of City Hall Park in 1825 shows the western elevation of the Second Almshouse building, the main entrance (Stokes 1915:V3:plate 95-b; Vail 1954:48). Unfortunately, the lithograph is stylized and does not provide a view of either the south or west elevations which could establish an identity for Features 1 and/or 2. Another lithograph in Stokes depicts more of an oblique view, although it too focuses on the western elevation. Such a small portion of the northern facade is visible as to preclude reaching any meaningful interpretation (Stokes 1915:V5:plate 96-a).

The resolution to construct the Second Almshouse was passed on May 16, 1796 (New York City 1917:V2:239). The building of the Second Almshouse "represented much more than another movement toward confinement. It signalled a new understanding of and commitment to institutionalization". Rather than merely isolating the ill and reducing costs for relief, there was an attempt to rehabilitate the indigent

(Ross 1988:160-1). However, the rehabilitation efforts were tested to their limit by the increasing number of people needing relief. The number of paupers residing at the Second Almshouse increased from 636 in 1798 to 1525 in 1816 when the "inmates" were moved elsewhere (Mohl 1971:86).

The Second Almshouse building itself was described by the New-York Historical Society, a tenant in the building from 1816 to 1832, as "a plain three-story-and-basement brick building, 260 by 44 feet in size, with two 15- by 20-foot projections on the Broadway front" (Vail 1954:45, 48). The views depicted in Stokes show no projections on the Broadway (western) side. However historic maps show the building with projections on the northern side (see Figures 23 and 24).

The Second Almshouse building was used as an almshouse until 1816 when the building was remodeled and converted to use by various societies. A major tenant of the building during that period was The New York Institution for the Blind. The Second Almshouse then became known as the New York Institution. Other tenants included the Academy of Arts, the First Society Library, the Historical Society, the New York Literary and Philosophical Society, and Scudder's American Museum, which was located in the building until 1830. The building was then converted to use by City government and popularly referred to as New City Hall. Presumably, in preparation for this new usage, alterations were done to the building after they were authorized by the Common Council in 1831. No record of the specific work was found, however the minutes reflect a desire to have the Chambers Street side of the building match the park side. The structure was destroyed by fire in 1854 (Stokes 1915:V3:584-585; V5:1583, 1701, 1857).

Historic maps depict the Second Almshouse building abutting the City Courthouse building from 1851, when the Courthouse was built; until 1854, when the Almshouse burned down (Figure 24). However two later maps could lead one to conclude there may actually have been some space between the two buildings. An 1861 survey of the land to be used to build the Tweed Courthouse depicts a plot parallel to Broadway, but at an angle to the City Courthouse, with seven feet distance between them at the Court's northwestern corner and more space to the south (Serrell 1861). A similar situation is depicted on the 1869 Street Paving Plan (NYC Dept. of Parks). If it is assumed that the former Second Almshouse plot was reused to construct the Tweed Courthouse, one can only speculate why a plot of land where a building stood in the recent past would have an irregular shape when compared to the nearby buildings.

Logic also provides support for the theory the two buildings never abutted. If one assumes that Second Almshouse was symmetrical, it may be inferred the eastern end of the building, like the western end depicted in lithographs, had an entrance. Use of this entrance would have not been possible if the City Court Building was constructed against the eastern wall of the Second Almshouse. However, one cannot discount the possibility the two structures were connected with access through the former eastern entrance of the building. Further research revealed a number of architectural plans to renovate the exterior of the Second Almshouse. Plans dating from 1825 and 1829 contain elevation renderings of the eastern and/or western facades. All plans included enhancing the entrances (Davis 1825a, 1825b, 1829; Trumbull n.d.). One of the grander looking schemes called for a three bay wide portico (Davis 1825a). Such a building addition could be an explanation for the identification of Features 1 and 2. However no plans of the actual design used for the renovation were found.

### *Chambers Street*

Understanding the width and grade of Chambers Street, historically, could potentially provide an explanation regarding the identity and nature of Feature 3, as well as a basis for interpreting historic maps of the area, and adding to the understanding of the near-surface historic features.

The Street Opening Book of the Borough of Manhattan shows that Chambers Street was opened in 1796. By 1797, "the common council orders that the street commissioners 'take order for removing the Building from the Lot at the East End of the Alms House lately recovered from ... Provost'" (Stokes 1915:V5:1369). In 1798, "a petition for paving Chambers... was read and referred to the Street Committee" (New York City 1917:V2:431). The council then ordered that Chambers Street be paved in front of the Almshouse. Although the minutes of the Common Council indicate substantial grade changes in Chambers Street at this time, from adding over two feet of fill to digging out one and a half feet of soil, the grade in the vicinity of the project area remained about the same (New York City 1917:V2:327-28). The Manhattan Street Paving Book shows a repaving of Chambers Street within the project area in 1929 with four inches of granite on a base of 9 inches of concrete. Five inch thick granite blocks were used to pave the southern segment of the street, after the road was widened, in 1942. The entire area was then resurfaced in 1953.

Grades in Chambers Street were altered numerous times since its original paving in 1799. Elevations mapped in 1871 show the street raised at the intersection of Centre and Chambers Streets from 32.3 to 33.2 feet (New York City Commissioner of Public Works 1871). In 1916, the grade was raised again

at the Centre Street intersection to 33.5 feet and at the Elk Street intersection on the north side of Chambers Street from 35.3 to 35.58 feet. However the grade was lowered on the southern side of Chambers across from Elk Street from 36.95 to 36.9 feet (New York City Topographic Bureau 1916).

Chambers Street was widened by fifteen feet in 1939 in the project area. The curb to curb distance increased from 35 to 50 feet, with all of the increase on the southern side of the street (New York City Department of Borough Works 1939). The street was subsequently widened another 15.5 feet in 1941, also on the southern side of Chambers Street (New York City Department of Borough Works 1941). The grade was lowered from one to one-and-a-half feet in the area of widening at that time (New York City Department of Borough Works 1942). The raising and lowering of grade in the project area over time provides an explanation for the lack of a substantial amount of fill. Unlike other archaeological projects conducted in the vicinity in recent years, the utility trench project contained intact archaeological deposits buried as little as six inches deep, just below the topsoil. Other projects near the Tweed Courthouse revealed intact deposits at over 2.5 feet below ground surface and at the African Burial Ground excavations to the north, about 20 feet of fill were found covering the site. These facts alone may have been used as a predictor of archaeological potential for the utility trench project, had this documentary research been conducted prior to excavation. While the changes in grade and street width provide evidence which can be used to explain various fill episodes, none of this can explain Feature 3.

### *Former Buildings*

It is more likely Feature 3 could be documented as part of a former building located in that area. Additionally, the structural remains observed in the profile of the southern sidewalk segment of the utility trench (Plate 10) could also potentially be defined in researching former buildings in that location, as can the remains observed in the southern profile of SU 1 and vicinity (Plate 11).

### *North Side of Chambers Street*

On the north side of the street, 33 Chambers Street was the former address at the location of the area where the utility trench now enters the Surrogate Court Building areaway, also known as Block 153, Lot 19. Presumably, Feature 3 was associated with this building. Research was aimed at identifying the nineteenth-century structure, based on the artifacts recovered at that location, and determining what the structure was and whether or not a vault or other below ground feature could have been associated with the address at 33 Chambers Street. Unfortunately, Buildings Department records do not contain any information on this former building.

Numerous nineteenth-century maps were consulted to see if any structure was depicted at the location of 33 Chambers Street. Several problems are inherent with this type of analysis. Most prominently, very few detail maps or plans from that time period, particularly the earlier part of the century, exist. Those that do exist are often not scaled or are highly stylized, with sizes of buildings out of proportion. Additionally, smaller structures are often omitted or only public buildings depicted. That being said, several useful nineteenth-century maps were identified.

The earliest nineteenth-century map depicting the project area and showing a structure in the vicinity of 33 Chambers Street in the Longworth 1808 Plan of the City of New York (Figure 23). Structure 51 is keyed as the Reservoir and Water Works. The Jarvis 1818 map also depicts the Manhattan Company Reservoir. However that map is not scaled in a way which places the Reservoir at 33 Chambers Street, but rather to the east of that address. The Manhattan Company reservoir supplied water to the city during the early- to mid-nineteenth century. Dripps' 1851 map of the area depicts a large structure covering both 31 and 33 Chambers Streets (Figure 24). Although the structure is not labeled, it is assumed to be the Reservoir. By 1853, the area does not show any structure built on 33 Chambers Street (Perris 1853). The 1879 Taylor view depicts the entire block built upon, albeit in a stylized manner (Figure 25). This image is reinforced by the reliable Bromley atlas of 1891 which also depicts the entire vicinity of the project area along the northern side of Chambers Street with buildings. This atlas shows 33 Chambers Street containing a brick building with a stone front running all the way through the block to Reade Street. A similar view is depicted in the 1894 Sanborn-Perris map (Figure 26). Combined, the map data reveals that 33 Chambers Street contained two different structures during the nineteenth century. During the first half of the century, the lot contained part of the Manhattan Company reservoir. In the second half of the century, it contained a five story commercial structure.

Directories and censuses from the mid- to late-nineteenth century, the time period of the structure most likely related to Feature 3, were consulted to no avail. There were no listings of individuals at those addresses. The only listing which showed activity was the 1851 street directory which listed "Emigrant's lodgings" at 31 and 33 Chambers Street (Doggett 1851:96). Assuming these addresses were one structure, based on the single entry, it is logical to infer the building in the Directory was the Manhattan Company reservoir which covered both addresses rather than the later building which did not.

Indices of deeds were consulted to determine ownership of the 33 Chambers Street property during that time period. Unfortunately, no deed was filed with the Register of Deeds for the lot showing it being

transferred to the City. This deed is critical in showing chain of title because ownership could then be traced back to the construction of the 33 Chambers Street building prior to the City constructing the Surrogates Court Building on that location in 1906. Although this particular deed was not indexed, there were a number of mid- to late-nineteenth-century deeds filed for the property. However most deeds included multiple lots, making it almost impossible to determine ownership of 33 Chambers Street from the deed indices.

Although these avenues of research on the 33 Chambers Street late-nineteenth-century building reached dead ends, court documents related to the dollar amounts paid to the "owners, or persons entitled thereto" when the City took title to the properties now comprising the lot of the Surrogate Court/Hall of Records building in 1897 were extremely useful (New York County Court 1901:45). The 33 Chambers Street address was owned by the same parties as 9 and 11 Reade Street, explaining some of the confusion in interpreting the deed indices. Adding to the confusion, the three properties were owned in two undivided shares at that time, each share being worth \$117,363.50 at the turn of the century. One share belonged to Georgette Wetmore Brown. The other share was held in trust for her sister, Sybil K.W. Hoffman, by J. Frederic Kernochan, John Ellis Hoffman and Willian O. Platt (New York County Court 1901:49). The notice of argument to the court describes "33 Chambers street, a five-story marble front brick building, 30 feet by 75 feet" on its own worth \$105,619.85.

Knowledge of the property owners at the time the title of 33 Chambers Street was vested to the City provided a basis to refer back to the deeds. Thus, a chain of title was established for the property. Number 33 Chambers Street was part of the larger parcel of land which included the African Burial Ground in the eighteenth century. The land was disputed by heirs of Sarah Roeloff, Cornelius Van Borsum's wife, during much of the eighteenth century (see Howson & Harris 1992:5-7 and Ingle, Howson & Rutsch 1990:69-73 for a more thorough discussion of this subject). Henry H. Kip, an heir of one of Roeloff's daughters, sold the parcel containing 33 Chambers Street to Daniel Denniston of New Jersey in 1795 (New York County Register L545:303). After holding the property for only five years, Denniston and his wife sold the lot to the President and Directors of the Manhattan Company (New York County Register L58:465). The deed did not mention any buildings on this property, however in describing the parcel, the deed mentions the Reade Street side of the property being directly east of a lot "now in possession of Clarkson Crolius". The Crolius name is associated with the earliest stoneware pottery made in the area.

The Manhattan Company held the parcel of land and built a reservoir on Chambers Street by 1808 when it was mapped by Longworth (Figure 23). Figure 27 is a lithograph of the Reservoir in 1825. The situation of the structure in relation to the neighboring buildings is similar to that seen in Figure 25, the 1851 map. Precious little data on this specific reservoir of the Manhattan Company exists, even Stokes confuses this reservoir with a nearby one on Reade and Centre Streets (Stokes 1915:V5:1369). Photographs taken during the demolition of that reservoir in 1914 show a series of interconnected subterranean vaults, although seemingly more massive than Feature 3 (American Scenic Historic Preservation Society 1915:203-210). The Chambers Street reservoir was still standing in 1850 when the property was sold by the Manhattan Company to Jacob Snider Jr. of Philadelphia (New York County Register L545:296,299). Assuming the 1851 map is accurate, the reservoir was also standing that year when Snider sold the property to Simeon Draper, a New York merchant (New York County Register L574:241). What isn't clear is when the reservoir was converted to use as Emigrants' lodgings or when it was demolished.

Only two years after holding the property, in 1853, as part of a larger tract, it was purchased by William S. Wetmore from Simeon Draper for \$87,500. The deed did not specify any of the structures which may have been on the lots, however it did mention the release of a mortgage made by Jacob Snider to the President and Directors of the Manhattan Company (New York County Register L619:470). In 1871, the lot in question, along with other property, was vested to Annie Derby Wetmore Sherman by her late father. The deed described the lot at 33 Chambers Street containing a warehouse (New York County Register L1194:21). Apparently Annie died in 1878 and her husband William Watts Sherman took possession of the property. Upon William's remarriage in 1890, half of Annie's estate went to her two daughters, Georgette and Sybil (New York County Register L5:282). At the time of the property transfer to the City in 1897, Georgette and Sybil had both married and court documents refer to Georgette Brown and Sybil Hoffman.

Knowing the identity of individual property owners during the mid- to late-nineteenth century provided an opportunity to consult directories to see if 33 Chambers Street was the primary or business address of those named in deeds. In the early 1850s, Simeon Draper was an auctioneer at 54 Williams Street with a residence at 10 Warren Street (Doggett 1851:152). William S. Wetmore was a merchant at 73 South Street with a home at 15 Waverly Place, indicating his Chambers Street warehouse may have been used as storage for his business or perhaps leased (Doggett 1851:536). In 1854, Wetmore's business address was still at South Street, but his residence was not listed (Rode 1853-4:682). Mr. Wetmore's

home address was not listed in any of the later directories consulted, however there remains a listing for his business, Wetmore and Cryder, at 73 South Street through at least 1880, many years after his death (New York City Directory 1870/1, 1880/1). Wetmore's Chambers Street property was given to his daughter Ann, wife of William Watts Sherman, in 1871. At that time, Sherman was a banker at 11 Nassau Street with a home at 245 Fifth Avenue (New York City Directory 1870/1:1110). A William W. Sherman was listed in later directories as an assistant cashier then a cashier at 29 Nassau Street (New York City Directory 1880/3:1426, 1885/6:1763, 1886/7:1800). It is not unlikely these were in fact the same Sherman, however the home address differs. In 1880/1, Sherman's home was in Brooklyn and by 1885/6 was at East 25 Street in Manhattan. It is not inconceivable to think Sherman moved several times after his wife's death in 1878 and before his 1890 remarriage, however this has not firmly been established.

While the deeds and directories were useful in establishing the chain of ownership of 33 Chambers Street, they were not very useful in establishing facts related to the structure it contained during the late-nineteenth century. Tax assessment records were used to try and determine facts about the building(s) at 33 Chambers Street. During the time the Manhattan Company owned the property, they also owned or leased a substantial number of properties in the vicinity of the project area. The tax records for 1830 show the reservoir valued at \$10,000. By 1840, the value jumped to \$35,000. Neither assessment listed any other structures on the property. The 1850 assessment for 33 Chambers Street included a house and lot valued at \$32,000 and the same for 1851 when the lot was attributed to Simeon Draper. This would imply either the reservoir was demolished and a house built in its place by 1850, at a reduced value, or the reservoir was converted to a house, or the assessment record is wrong. All possibilities have equal weight. The 1852 and 1853 assessments are blank for property description, however by 1856 the assessment describes a house covering the entire lot at a size of thirty feet and three inches by 151 feet and five inches, assessed to Simeon Draper. Obviously the tax rolls are somewhat behind in that Draper sold the property to William Wetmore in 1853. The property was taxed to Wetmore in 1859 through at least 1870, however the width decreased slightly to 29 feet and 10 inches. Ann Wetmore was taxed for 33 Chambers Street by 1876 through 1897, also many years after her death. Although the tax records may be outdated they clearly show the property going from a reservoir at the beginning of the nineteenth century to perhaps an empty lot at mid-century to a warehouse size structure a short time later, as was seen on the historic maps.

The court documents were more useful in providing information on the materials the building was

constructed of, as they were described in 1901. Therefore an effort to obtain more information on the building was elicited from court records. Three volumes of court testimony related to the valuation of the properties consolidated to construct the Hall of Records were consulted. Testimony by real estate appraisers described "33 Chambers Street is...an open loft building with a heave-hoist, in substantial condition" (New York County 1898:V1:297). "A five story stone front, cellar and subcellar building on Chambers Street being a six story and cellar brick front on Reade Street, extending through from street to street" (New York County 1898:V2:727). "The Chambers Street front is of Eastchester marble on the four upper stories and iron on the first story" (New York County 1898:V3:995). Appraisers, in giving testimony for the case, often discussed multiple structures. One assumes that the neighborhood buildings were similar based on both the testimony and atlases of that era. No specific testimony of a vault under the sidewalk in front of 33 Chambers Street was given. However in testimony about 35 and 37 Chambers Street, an appraiser talks about vaults "under the sidewalk as well as under the house (New York County 1898:V3:955). Therefore, it is not unreasonable to conclude that 33 Chambers also may have had a vault. Vaults were common in the neighborhood during the nineteenth century. Nearby lots on Duane, Reade, and demapped Republican Alley all contained numerous structures with vaults extending below the sidewalks. These "vaults would have been used for coal delivery and storage in the nineteenth century, and later to provide light wells for basements" (Ingle, Howson & Rutsch 1990:98).

#### *South Side of Chambers Street*

On the south side of Chambers Street, there were a number of historic buildings which appear to have been along the path of the utility trench. Although they are depicted south of Chambers Street on the historic maps, the twentieth century widening of the street's southern side would mean these buildings actually have the potential to fall within the sidewalk section of the project impact area, another indication of the archaeological potential of the project area. A number of these buildings are identified in the Archaeological Sensitivity Model (Hunter 1994). However only two of these structures are depicted within the project impact area and neither of them within the sidewalk portion. Those which fall within the project area in the park section are the Upper Barracks and the Second Almshouse (Figure 9). Of these two structures, archaeological remains were most likely associated with the later structure, the Second Almshouse, based on both location and dated artifacts recovered (see above). No other structures could be identified within this section of the project impact area using the Sensitivity Model overlays.

Early maps support the views depicted on the Sensitivity Model overlays within the project area. However nineteenth-century maps show additional structures not depicted. Dripps' 1851 map of the area

shows three or four small unidentified buildings within the project area (Figure 24). The eastern-most of these could possibly be the Second Almshouse Stable built c. 1820 (Hunter 1994a:2-233). However the Sensitivity Model Overlay depicts the stable (#96) to the east of the 1916 pipe tunnel (#141), thus to the east of the project impact area (Figure 9). The explanation for this discrepancy is that the c. 1916 plan used to prepare the overlay is inaccurate, as discussed above. This is one example of the inherent problems with conducting analysis based on historic maps.

The Archaeological Sensitivity Model provides a construction date of c. 1820 for the Second Almshouse Stable, with dimensions of nineteen by forty feet. The minutes of the Common Council provided several references to the planning of the stable and its location. There was also a reference which indicates the stable may have been constructed on one location and moved to another because of the plans to build the Rotunda which stood on Chambers Street from 1818 to 1870. However the references are vague, therefore it is also possible the plans for the stable location were changed rather than the location itself, particularly since the two buildings were constructed around the same time. (Hunter 1994a:A-9, 2-233-234). There is no indication in the Sensitivity Model of what the other two or three small buildings within the project impact area may be. Perhaps one could be the building vaguely referred to in the minutes of the Common Council as a building in the Second Almshouse yard (Hunter 1994a:2-194), although this can only be speculation. One could infer this and other small buildings also were associated with the Second Almshouse since they are even closer to the structure than the stable. No specific references to these buildings were found in the minutes of the Common Council or the other sources consulted during this research.

In 1851, the City Courthouse was built, adjacent to the Second Almshouse building. Both the Sensitivity Model overly (Figure 9) and the 1852 Harrison map (Figure 28) show the Courthouse abutting the Second Almshouse. The Harrison map, published by Dripps, appears to be an update of the 1851 Dripps map. The addition of the Courthouse to that map shows it overlays the stable and two of the three small buildings within the project impact area. It is not known if the small buildings were destroyed or demolished or truncated and buried. However, chronologically speaking, this is the last historic map which depicts the small structures together with the Second Almshouse before it was destroyed by fire in 1854.

### *Historic Burial Places*

Although all recovered fragments of human remains had been previously displaced, research on the areas known historic burial places was conducted to see if there could be any possible association.

The earliest documented use of the vicinity of the project area as a burial place is the African Burial Ground, which is now a National Historic Landmark and part of the New York City Landmark designated African Burial Ground and Commons Historic District. The African Burial Ground was used at least as early as 1712 (Howard U. and JMA 1993:10, Howson & Harris 1992:6). While the southern extent of the African Burial Ground has never been determined by archaeological excavation, there is sufficient evidence to believe the displaced fragments of human bone recovered during the utility trench excavations could have come from it. Figure 29 is a reprint of the Van Borsum Patent/"Negroes Burial Ground", taken from the National Register of Historic Places nomination (Howson & Harris 1992:Figure 12). It depicts most of the project area outside of the bounds of the Burial Ground, as mapped. However, recovered stoneware sherds, wasters and kiln furniture associated with the eighteenth-century potters, such as Crolius, whose kilns were on Pot Bakers hill, slightly to the north of the project area and clearly within the bounds of the mapped "Negroes Burial Ground", found in association with human bone fragments add to the possibility that the bone fragments may have originated from individuals buried in the African Burial Ground.

"In 1757... the cemetery was established on a small piece of ground east of and adjoining the [first] Almshouse" (Hunter 1994a:2-140). This would be to the south of the project area and would have been disturbed by construction of City Hall in 1803. However, if the excavate from the construction of City Hall contained human bone and was used as fill in the area, some of the bone fragments recovered from this project could related to the First Almshouse cemetery.

During the Revolutionary War period of 1776-1782, British troops killed American prisoners and buried them in the area behind the Upper Barracks (Hunter 1994a:2-399). The precise location of these burials is not known, however Hunter feels "the human remains encountered during 1992 excavations could be from this site. The connection is presumably drawn because of the location of those excavations in an area which was almost squarely behind the former location of the Upper Barracks. The 31 - 52 Chambers Street Utility Trench project can also be described in that location. Therefore an association of the recovered fragments of human remains from this project could be drawn with the burial place of the American Revolutionary War prisoners.

Several years later, in 1785, the Common Council "ordered that vacant ground behind the Barracks not *in dispute be used for burial of the dead from the First Almshouse and the Bridewell until further notice*" (Hunter 1994a:2-140). Again, the precise location is unknown.

None of these four burial places can be discounted as the source(s) of the fragments of displaced human bone recovered during the utility trench excavation. However, it seems the least likely of the four possibilities is the First Almshouse cemetery which would have been destroyed during the construction of City Hall.

## DISCUSSION

### Human Bone Fragments

No intact or partially intact burials were disturbed during the 31-52 Chambers Street Utility Trench project. The project excavations yielded 69 fragments of human bone, all previously displaced, as well as 20 unidentifiable fragments. These numbers are extremely low when compared to the nearby Con Edison Utility Vault excavations which unearthed 1,399 human bones and bone fragments plus 1,138 grams of human bone fragments too small to assign to specific skeletal elements (Hunter 1994b:6-1). Like the 1994 collection, none of the recovered bone fragments from the utility trench project can be definitively assigned to any of the likely historic period burial places in the area; the African Burial Ground, Revolutionary War period burials, or burials associated with the First Almshouse or Bridewell. The potential for the street bed of Chambers Street to contain burials related to the African Burial Ground was presented in the National Register of Historic Places Registration form. However most of this potential would have been to the west of the utility trench project (see Figure 29). Nevertheless, since no *in situ* burials were uncovered or disturbed during this project, and because fragments of stoneware wasters and kiln furniture were also recovered, there is the possibility the bone fragments were in fact from individuals buried within the African Burial Ground. Locational information on the other possible sources of the fragments of human bone is scarcer.

No specific artifact types associated with burials excavated from the nearby GSA African Burial Ground excavations were recovered during this project. Based on the author's observations during her work with that project, the major class of artifacts recovered from the African Burial Ground excavations were coffin nails and hardware. The artifact sample recovered during the utility trench project did not include most iron objects because they are generally non-diagnostic and the mandate was to recover only diagnostic artifacts during the monitoring phase. What gave the coffin nails and hardware their meaning at the African Burial Ground excavations was the context from which they came, as part of intact burials and decaying coffin wood or wood stains. These types of corroded metal found within a mixed fill deposit cannot be readily distinguished from other hardware and nails, such as that used for furniture or building construction. The other major artifact class recovered from the African Burial Ground excavations was shroud pins. No shroud pins were recovered from the utility trench excavations. Beads and buttons were also excavated from individual graves at the African Burial Ground. No such beads were recovered during the utility trench project. Recovered buttons, some of which post-date the African Burial Ground, came from displaced contexts and cannot be associated with specific burials or groups

of burials or even cemeteries.

Grave goods at other African-American cemeteries include smoking pipes, stone tools, copper, beads, and ceramic vessels (Jamieson 1995:49). Many of these types of artifacts were recovered during the utility trench project. Although there is a strong possibility recovered fragments of human bone originated from the African Burial Ground, there is equally strong evidence they may be associated with two other historic burial places in the area.

Had intact or partially intact burials been encountered during the utility trench project, an opportunity to evaluate individuals and/or individual graves may have provided a basis for assigning the findings to a particular cemetery. However that was not the case. Therefore the other possibility regarding the 69 human bone fragments and the 20 unidentifiable fragments is that they originated from more than one historic burial place. Unfortunately, none of these hypotheses can be evaluated with the available data.

#### Faunal Remains

A total of 1187 faunal bones and bone fragments were recovered from the utility trench project. Of these, 931 were retained from collection during monitoring, 230 from excavation units, and 26 from shallow units. In evaluating the contexts from which the faunal material was recovered in relation to historic property use and historic buildings, two points of interest stand out. Excavation Units 1-3 and Shallow Unit 1, all towards the southern portion of the utility trench, contained heavily gnawed bones, indicating a different method of disposal, perhaps an open dump. This area in the far south of the trench also gives evidence for better cuts of meat; sirloin and chuck steaks, lamb chops and red snapper.

The area of Collection Context B may have coincided with the northeastern corner of the Second Almshouse, built in 1796. Maps of the time show several smaller ancillary buildings also in the vicinity. Almshouse operations ceased after 1816, but the building was subsequently used by several societies, a bank and the American Museum. In 1831 it became a part of City Hall until it was destroyed by fire in 1854.

Local butchers bid for the right to supply the Almshouse with pork and beef, while cornmeal and molasses, rice, cheese and peas were bought wholesale (Mohl 1971:96). However records listing institutional rations detail very sparse fare. For those in the New State's Prison in Greenwich Village (destroyed in 1829) meals consisted of oxheads and hearts, Indian meal mush and molasses, pork, black

bread and "lamb's plucks" (liver, heart and lungs) (anonymous 1897:105). Outdoor relief from a soup kitchen on nearby Tryon Row was one pound bread, one half pound pork and one quart of bean porridge for each person in 1809 (Mohl 1971:112). Mohl also notes that local ordinances stipulated that any food products (flour, butter, vegetables etc.) found to be sub-standard should be confiscated for the poor (1971:96). On the other hand there are instances of generosity such as happened in 1801, when a decorated ox paraded by Republicans when Jefferson was elected, was sent to the Almshouse (Mohl 1971:96).

It has been noted that the Almshouse, besides serving the poor, had other practical functions, "The common council occasionally held official meetings at the house; more regular were dinners, political gatherings, and boisterous assemblies of hard-drinking, incumbent councilmen." (Mohl 1971:99). Perhaps the above areas near the southeast corner of the Second Almshouse contained the trash from such events, while it was in the northeast that the daily garbage from the poor inmates was discarded, based on the better quality of meat in the south and the proximity to the street and the lack of gnaw marks in the north. These conclusions assume all of the pipe trench fill came from the location at which it was originally excavated. However the soil into which the trench was dug could have come from almost anywhere. It might have even been fill brought from another neighborhood. This can only be speculation.

### Structural Remains

Based on the documentary research and archaeological finds, Features 1 and 2 are likely portions of the Second Almshouse which stood at that general location from 1796 to 1854, rather than the Upper Barracks. Remains of part of a mortared stone wall, suspected to be part of the eighteenth-century Upper Barracks, were found in 1994 excavations for an electrical conduit to the west of the Tweed Courthouse (Hunter 1995: 5-2). These remains were of an entirely different nature from the structural remains of Features 1 and 2. The size and construction of the footing are fairly substantial and it may be interpreted as a support for the structure. However there are two inherent problems with this interpretation. First, the historic maps indicate this location was not a corner post. Perhaps the footing supported part of the eastern side of the Second Almshouse structure. This presents a second problem. As depicted in Plates 18 and 19, the ledgers extend to the east of the footing, thus away from the interior of the former Second Almshouse location. It is hypothesized this may have been a ledger to support a portico or side entrance. Unfortunately, no photographs or plans of the eastern view of the building have been found to support or refute this theory. Although architectural designs for possible renovations to the entrance bolster this

conjecture. Nevertheless, the artifact assemblage from this feature places it within a date range consistent with its use as the Second Almshouse.

Diagnostic artifact types associated with Feature 2 or soils surrounding it include a wide variety of ceramics, glass, and a few buttons, as well as food remains. Dates of manufacture from all soil levels may cover a broad time period, but none of these deposits contain any material with a *tpq* of later than the mid-nineteenth century. Furthermore, end dates of manufacture for earlier pieces all cover at least part, if not all, of the time period during which the Second Almshouse stood, 1796-1854.

If Features 1 and 2 were in fact part of the Second Almshouse, then the maps depicting it abutting the City Court Building are incorrect (Figures 9 and 28). Were these features associated with a portico, it was located mainly to the west of where the 1916 clay pipe trench was excavated. Figure 22 clearly shows the City Court Building to the east of the 1916 utilities in that location. Therefore, the width of the trench was likely the distance between the structures. A similar distance of seven feet, as discussed earlier, was shown between the City Court Building and the lot of the proposed Tweed Courthouse (NYC Department of Parks 1869, Serrell 1861).

Structural remains observed, but not excavated, in the southern side of the trench as it crosses the driveway to enter the Tweed Courthouse may also relate to the Second Almshouse, based solely on their location in relation to historic maps (Plate 11 and Figure 21). However the location is slightly to the south of where the Second Almshouse has been mapped (Figure 9). Again, this may be attributed to inaccuracies in the historic maps.

Structural remains were also observed in the north profile of the western sidewalk trench segment (Plate 10). Because of their location on historic maps, it is possible these remains may be associated with one of the suspected buildings ancillary to the Second Almshouse. However this will never be known with certainty since that segment was removed without archaeological investigation.

#### Artifact Collection

The 1015 artifacts recovered by collection during monitoring provide little more than a general idea of site use at the location from which the soil originated. Without this evidence, these artifacts can merely be viewed as a bias sample of types which are preserved in the archaeological record in the best condition. The association of the gun flints and musket ball to support the tentative conclusion that

human bone fragments may be American prisoners of the Revolutionary War may impart some meaning, as may the association of presumably locally made stoneware to human bone fragments originating from the African Burial Ground.

Almost 4,600 artifacts recovered from a similar volume of soil at the nearby Con Edison Utility Vault excavations are "broadly representative of 18th- and 19th-century land use and occupation of the Chambers Street area, and are mostly consistent with domestic activity" (Hunter 1994b:6-3). Little more can be said about the utility trench collection beyond these conclusions.

Assumptions regarding the relationship of stoneware sherds, wasters and kiln furniture to the Crolius pottery were made based on the historic proximity to the project area and the similarity between these finds and those of the DGS Broadway Block excavations of the African Burial Ground. "The singularity of this site and its importance to the history of the potter's craft in New York, and in the entire Northeast, cannot be over-emphasized" (Howard U. & JMA 1993:30). However sherds from both sites were not directly compared. A stoneware typology for that site has been in preparation, but not yet available at this writing. It has been suggested this typology will be useful in assigning sherds from other sites a more definitive relationship to the local potters, based on decorative motifs and possibly other characteristics (Brighton 1996:7).

Artifacts recovered during hand excavation are more useful in drawing conclusions because their context is known. These deposits were used as the basis for identifying Features 1 and 2 as part of the Second Almshouse (see above).

## CONCLUSIONS AND RECOMMENDATIONS

The 31 - 52 Chambers Street Utility Trench project contained a variety of archaeological finds, including previously displaced human bone fragments, likely from burial places historically located in the neighborhood, as well as intact archaeological features in the form of nineteenth-century structural remains. Structural remains of two buildings were investigated. A footing and decaying marble on the east side entrance to the Second Almshouse was excavated. The vault to a warehouse to the north of Chambers Street was also identified. Although the utility trench was designed to coincide with a previously disturbed context, the 1916 clay pipe trench, misalignment of the two trenches occurred most probably because two of the three associated manholes had been replaced and slightly relocated since 1916. However no documented proof of this theory was ever found. Although the utility trench project has been completed, with the new utility lines installed, a number of issues remain outstanding; the disposition of the stored backdirt, long-term curation, and the determination of the appropriateness of thin-section analysis to categorize the unidentifiable bone fragments. These issues as well as recommendations for future actions follow.

Pockets of archaeological remains were observed and documented at a number of locations along the 31 - 52 Chambers Street Utility Trench project impact area buried just below the topsoil, although reports of filling and grading in the vicinity may have led one to believe differently prior to excavation. The grade changes at the specific location of the utility trench were examined and found to be relatively small in comparison to other parts of Chambers Street or to the north in the vicinity of the GSA African Burial Ground excavations. Fragments of previously displaced human bone and unidentifiable bone were recovered from most sections of the utility trench. Fragments of human bone found within soils associated with the construction of the footing, Feature 2, in the excavation units within the City Hall Park portion of the trench indicate that they were part of the fill used during the nineteenth century.

In writing on procedures for archaeological investigations in City Hall Park, now Director of Archaeology with the New York City Landmarks Preservation Commission, then Urban Archaeologist with that agency, Daniel Pagano discusses finds of human remains, both previously disturbed and *in situ*, within the park and Historic District. "Given this information, archaeological field testing and mitigation should be completed prior to the start of construction of any new and expanded water mains within the area of City Hall Park" (Pagano 1992:2). However neither the Commission nor DGS/DCAS took this advice in designing the utility trench project, located not far from the water mains described by Dr. Pagano.

In light of finding fragments of human bone and intact archaeological deposits, it is recommended that all future agency actions in this historic district conduct their archaeological investigations in the phased approach, as outlined in the CEQR Technical Manual and that this work be done as far in advance of construction as possible (New York City, Mayor's Office 1993).

While the Archaeological Sensitivity Model is a good basis for general decision making regarding agency actions, it should not be considered a substitute for documentary research or as a basis for eliminating archaeological field testing from a planned action, as proven the 31 - 52 Chambers Street Utility Trench project. The Archaeological Sensitivity Model rated the Second Almshouse as having no archaeological potential (Hunter 1994a:2-162), however the in-ground finds disproved this. The supplemental documentary research demonstrated certain areas of the utility trench project could have been flagged as having archaeological potential prior to construction excavations, had this project been carried out using the phased approach (i.e. documentary research followed by testing and then, if necessary, by data recovery). Had this project been conducted in the normal order, it would not have been as cumbersome, from an archaeological or administrative standpoint. The key parties would not have had to work overtime to revise scopes, approve changes and issue permit reports under the constraints of a tight construction schedule. Informed decisions could have been made prior to construction excavations.

In defence of the DGS strategy, the project design, excavating within a previous disturbance, was optimal. However archaeological testing would best have been done prior to construction in order to support their theory. Testing is particularly important for this location because it is part of an archaeologically landmarked district. Future actions should take a more cautious approach.

"Although close links between archaeology and the African-American community should be promoted at every opportunity, archaeologists should avoid entanglement with contemporary social agendas in carrying out research and interpreting evidence (McKee 1994:1). Certainly the African descendant community has a stake in the future of projects in the African Burial Ground and Commons Historic District and in the backdirt excavated from the utility trench project and currently stored in Bridgehampton. Although many truck loads of dirt excavated from this project are being retained for future archaeological investigations, one should consider or reconsider the motive. It may be assumed this soil is significant because it contains, or contained, fragments of human bone possibility associated with the African Burial Ground, a National Historic Landmark and part of a New York City Landmark District, as has been done. However I would not recommend retaining any of the other artifactual

material contained in the stored backdirt. "The value of the artifacts available to the archeologist is in the knowledge their analysis imparts to the scientist as well as to the general public" (Roberts 1989:55). A disproportionate number of diagnostic materials have already been retained as part of this project and the non-diagnostic artifacts have virtually no potential, using current methods and standards, to contribute to the understanding of the primary resources, the displaced human bone fragments.

It is not always an easy task, however, to convince others that a sampling strategy can be as informative as total excavation or that the archaeological record is an imperfect witness to the historic past, especially when you try asking it a specific question (Noble 1996:77).

Therefore, when DCAS makes the final determination regarding the disposition of the stored backdirt, hopefully in conjunction with LPC and members of the African descendant community, it will be based on informed knowledge, potential research issues, and overall project costs. As seen with this project, 69 fragments of human bone goes along with a collection of 4,411 artifacts and faunal remains which all require inventory and curation. As specified in the Appendix A documents, DGS/DCAS takes responsibility for curation and therefore should have a stake in determining whether curation of additional unprovenienced artifacts with limited archaeological value is worthwhile or cost effective. That being said, should it be determined necessary to screen the soil and collect all artifactual material for processing, identification, and inventory, a reasonable approach may include a sampling strategy. All bone fragments could be retained until they can be separated into human and faunal categories, ultimately discarding the non-human fragments. A more conservative approach to the non-bone artifacts may include weighing or measuring and discarding entire classes of artifacts such as brick, shell, window glass, and metal and recovering only a sample of other materials. Any plan to retain materials by sampling should be made in view of what has already been done as part of the current project with recommendations taken by potential project archaeologists.

As detailed in Appendix A, DGS/DCAS intends to store the human bone fragments in appropriate conditions and ultimately to rebury them. Of the artifacts and faunal bone already retained, DCAS should review its curation of this material. The federal standards, which LPC defers to, are outlined in 36 CFR Part 79, the *Curation of Federally-Owned and Administered Archeological Collections*. Artifacts should be stored in a facility with temperature and humidity controls. The optimal temperature range is 65 to 75 degrees. Humidity should be kept between 45 and 55 percent. The federal standards also dictate collections must be available for study. The current procedure for gaining access to the storage area could be reconsidered. It may be expected requests for access could come from members of the

archaeological community, some of whom have already expressed interest, particularly in the stoneware sherds. Requests could also be directed through LPC. It is recommended that DCAS work with LPC to establish a protocol for access to this and other DCAS archaeological collections stored at the same location.

The other major outstanding issue from the utility trench project is the disposition of the 20 fragments of unidentifiable bone. The project physical anthropologist has determined a high likelihood of being able to assign these bone fragments as either human or faunal by use of thin-section analysis. The request for clarification is included in Appendix A. Thin-section analysis would damage, but not destroy, the bone fragments. The method, in effect, sands down the rough edge of the break, already present in the edge of the fragment, to provide a complete half cross section of it. This section can then be examined under high power magnification to determine its identity as human or faunal. It is a relatively inexpensive procedure which can provide the desired interpretation. DCAS should ask both LPC and, perhaps through LPC, the descendant community how to handle this decision on use of thin-section analysis for this relatively small number of bone fragments (n=20). The decision should be made prior to making plans for reburial. The agencies should consider the possibility the descendant community either may not want or may not mind having possible faunal bone fragments reburied with their ancestral remains.

## FIGURES



NOT TO SCALE

Figure 1 The location of the Utility Trench project on a schematic map of New York City.



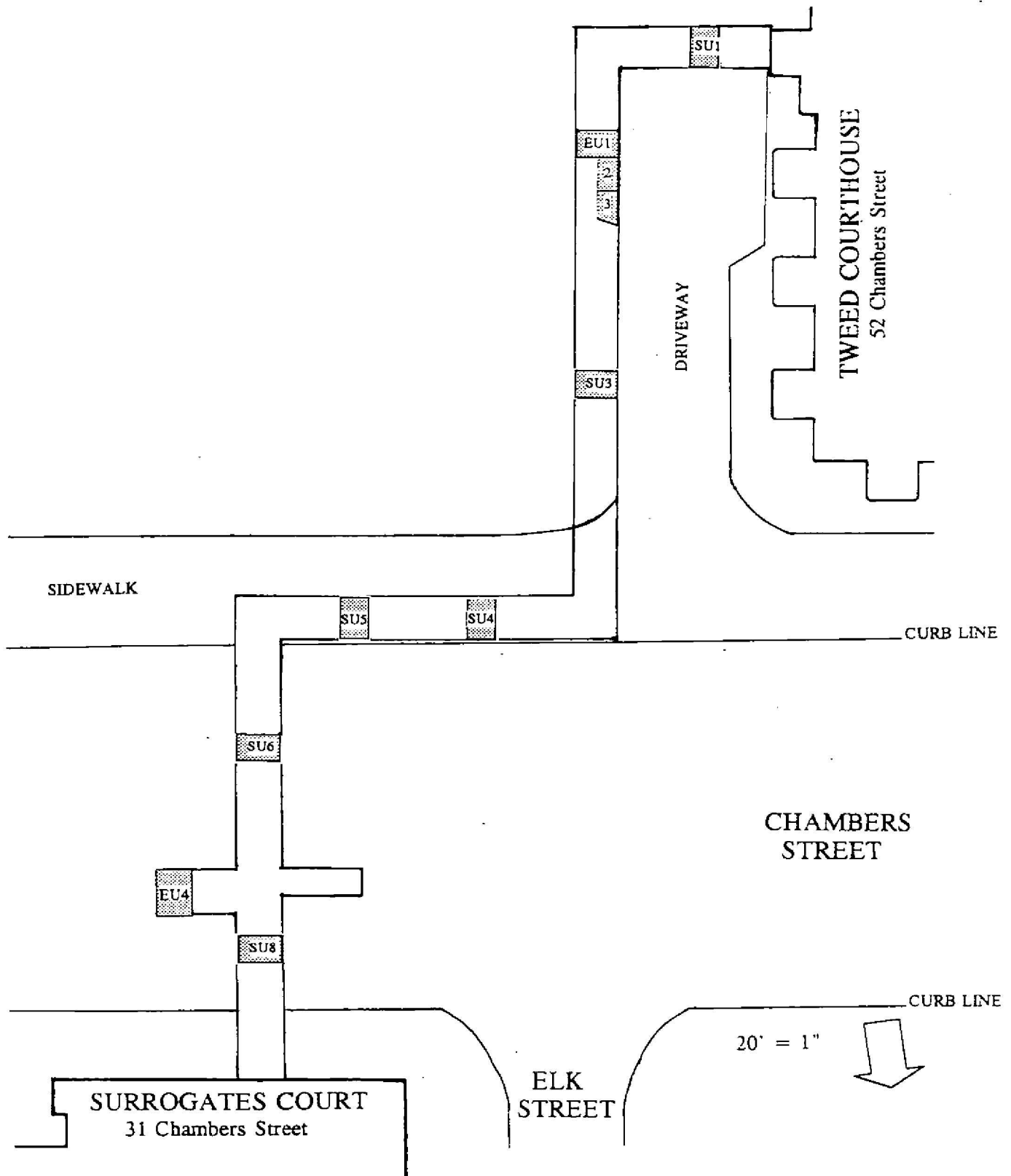


Figure 3 Location of excavation units and shallow units within the project impact area.

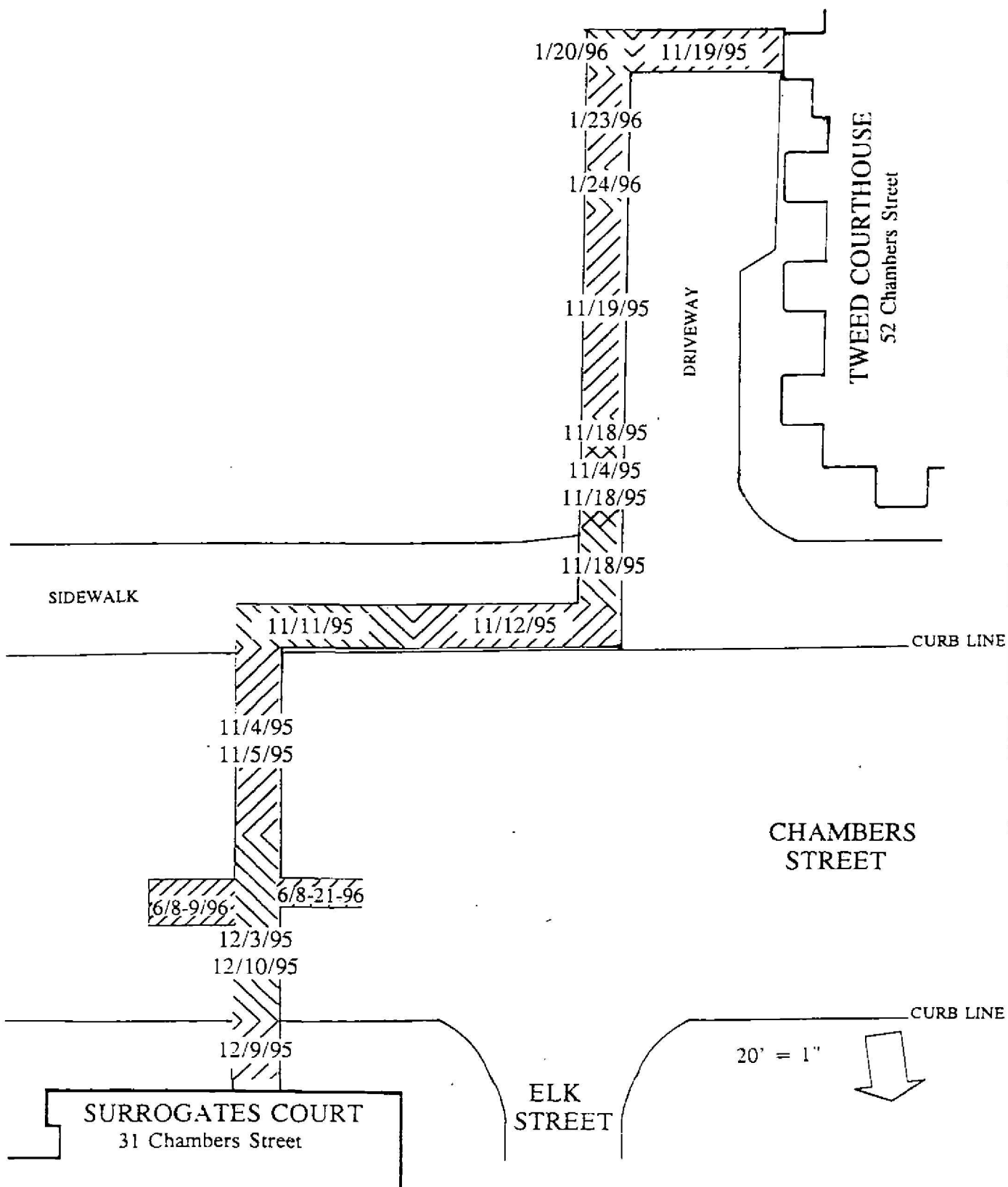


Figure 4 Location of areas of the trench project excavations by date of excavation.

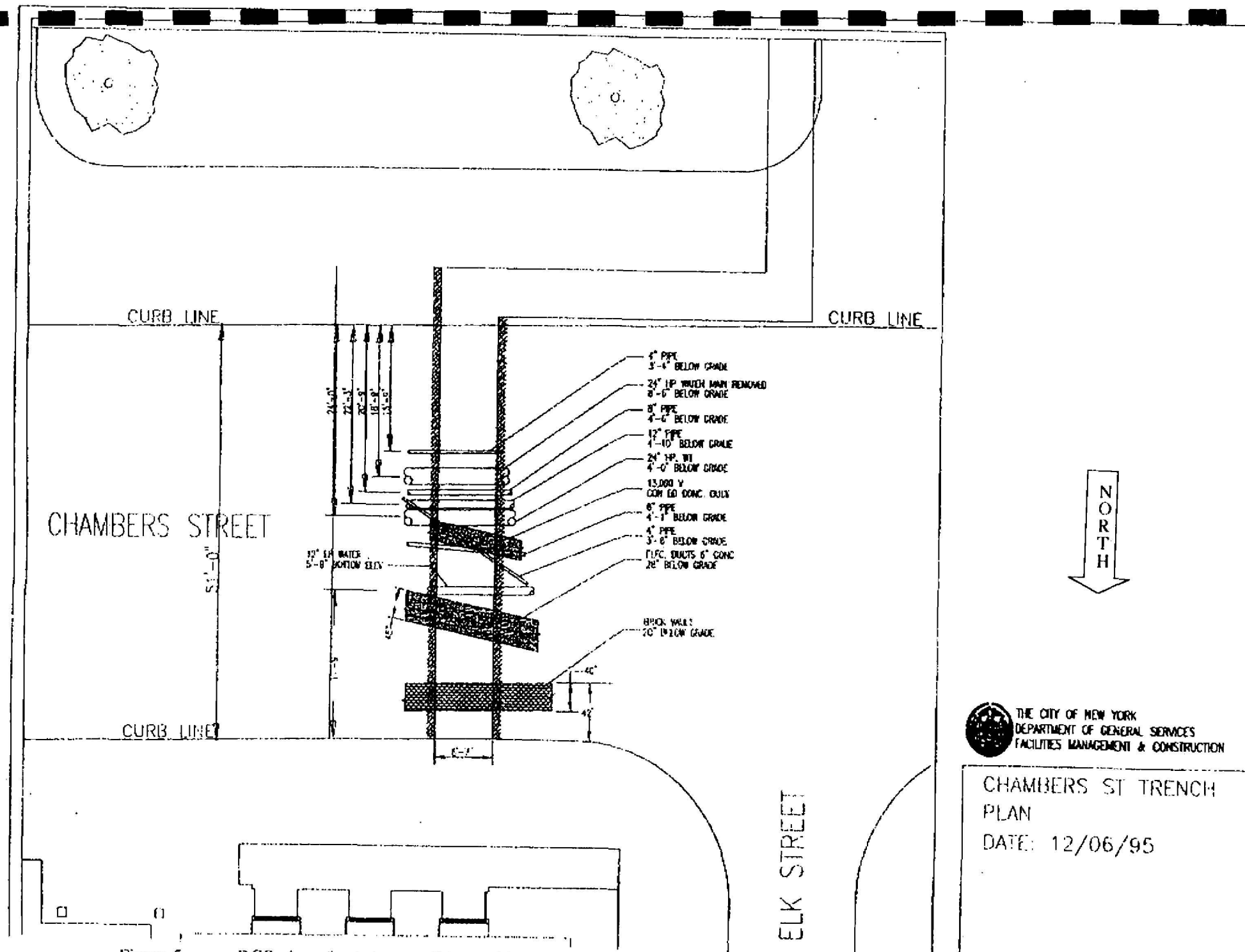


Figure 5 DGS plan of existing conditions within Chambers Street.

THE CITY OF NEW YORK  
 DEPARTMENT OF GENERAL SERVICES  
 FACILITIES MANAGEMENT & CONSTRUCTION

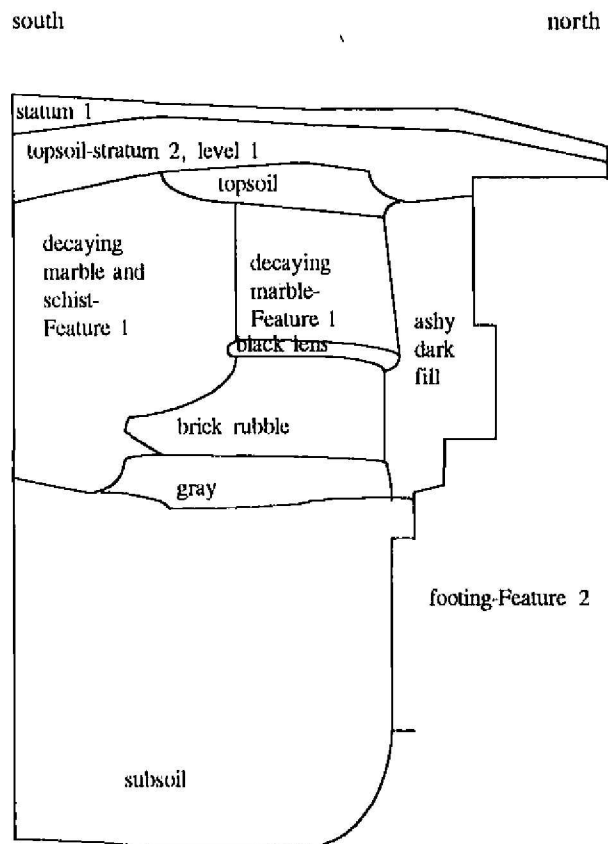
CHAMBERS ST TRENCH  
 PLAN  
 DATE: 12/06/95



ELEVATION (ft)



# WEST PROFILE



# NORTH PROFILE

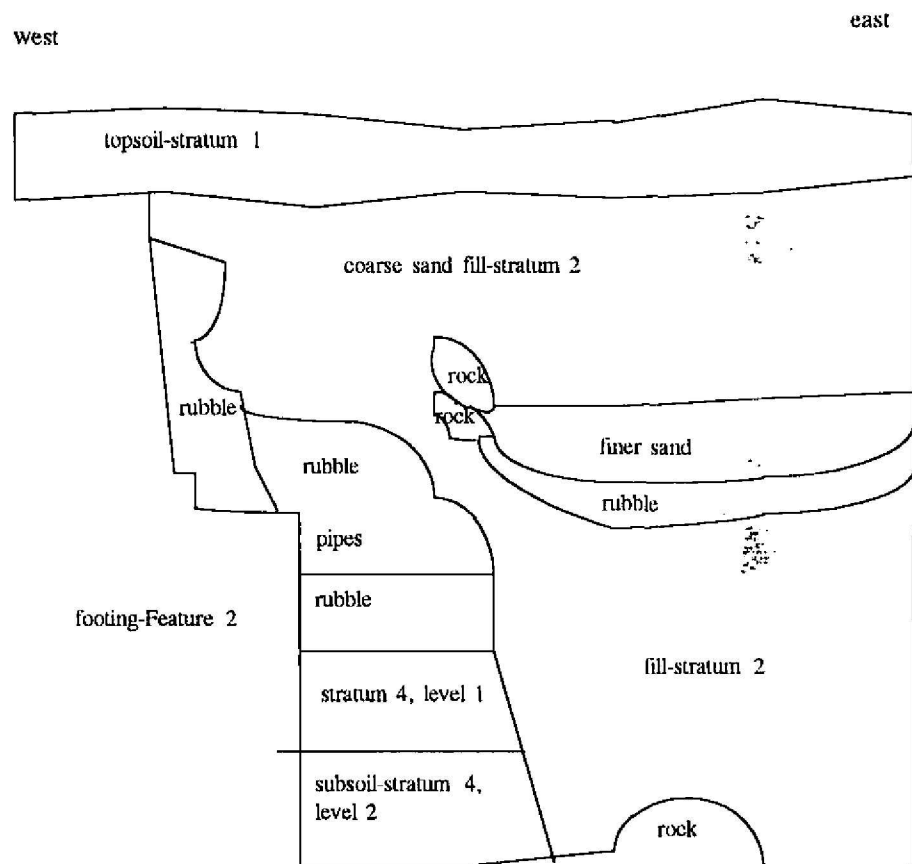


Figure 7 Excavation Unit 1, west and north profiles

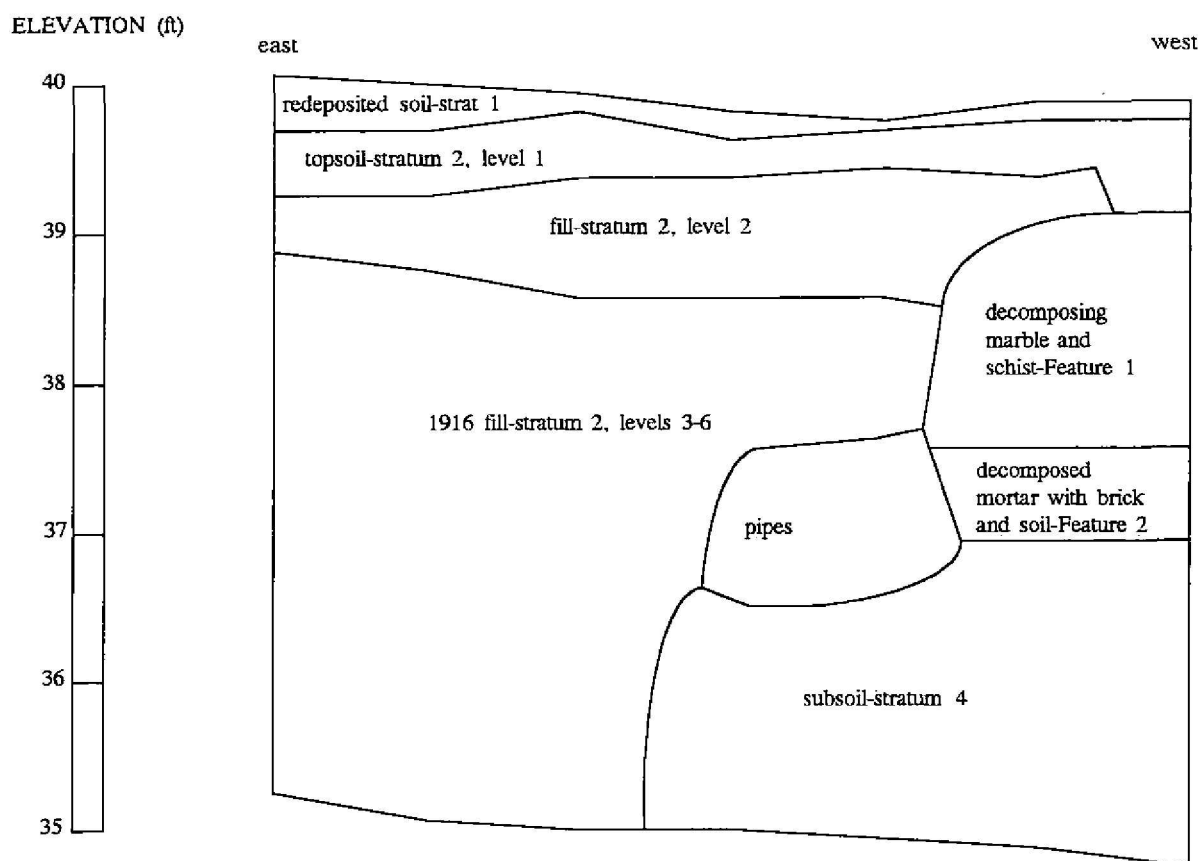


Figure 8 Excavation Unit 1, south profile.

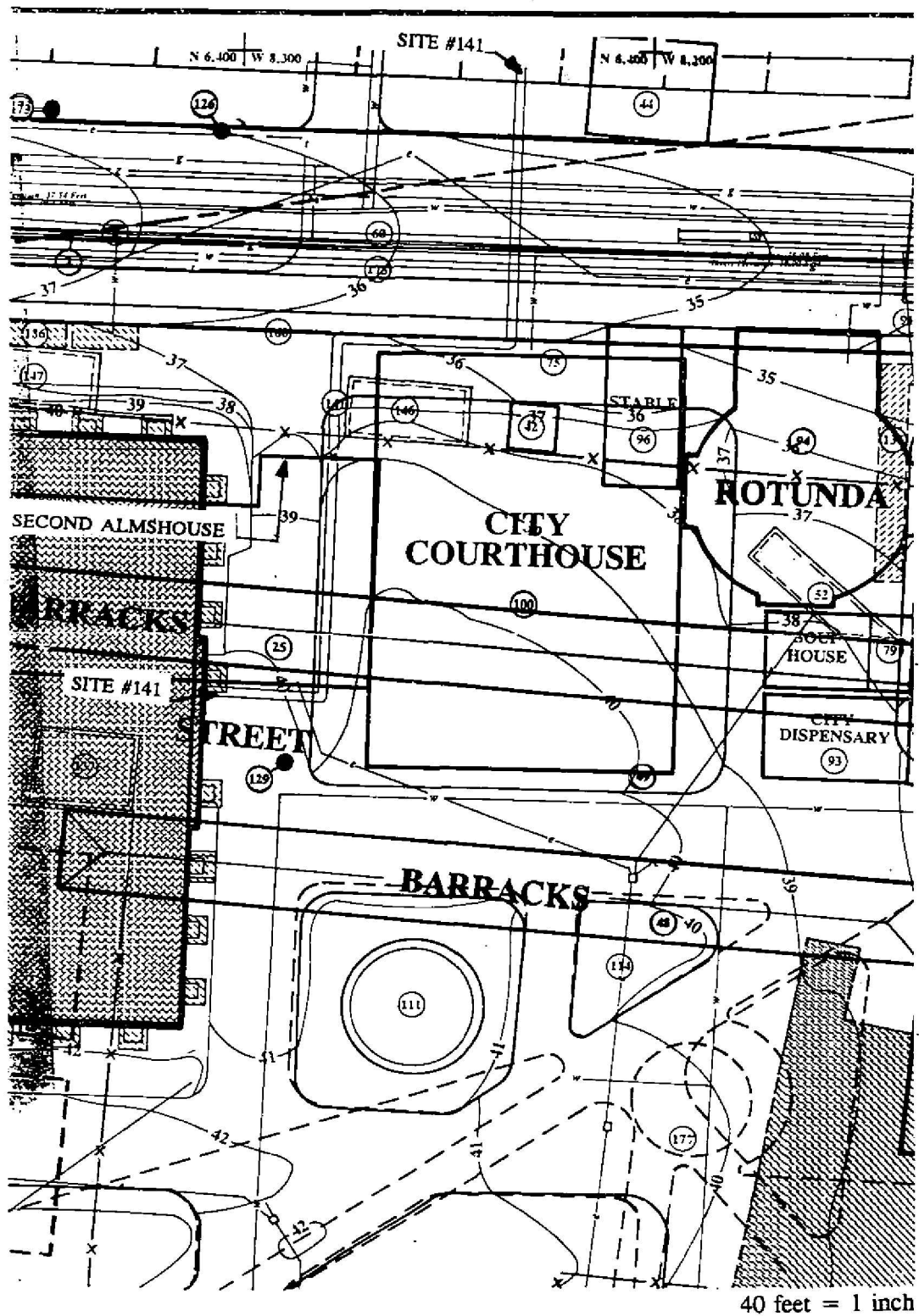
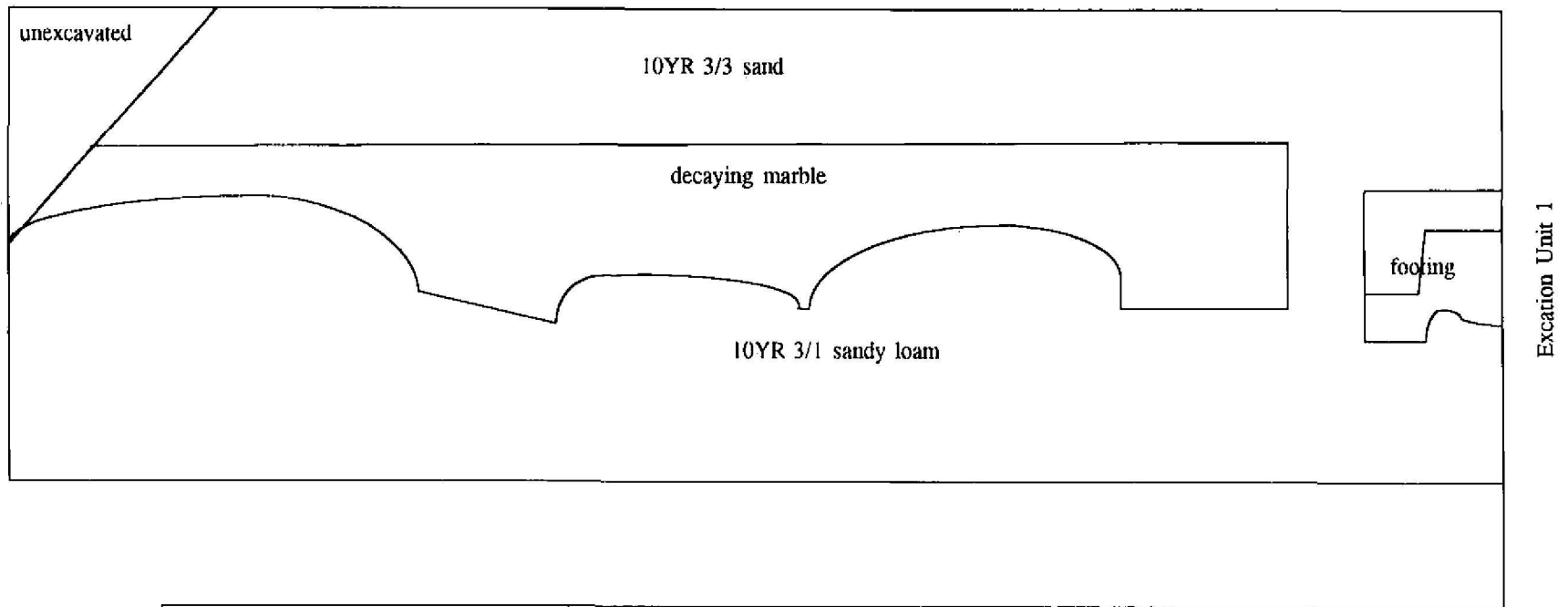


Figure 9

Section of Composite Overlay Sheet 2 from Hunter's 1994 Archaeological Sensitivity Model.

# NORTHERN CORRIDOR



# SOUTHERN CORRIDOR

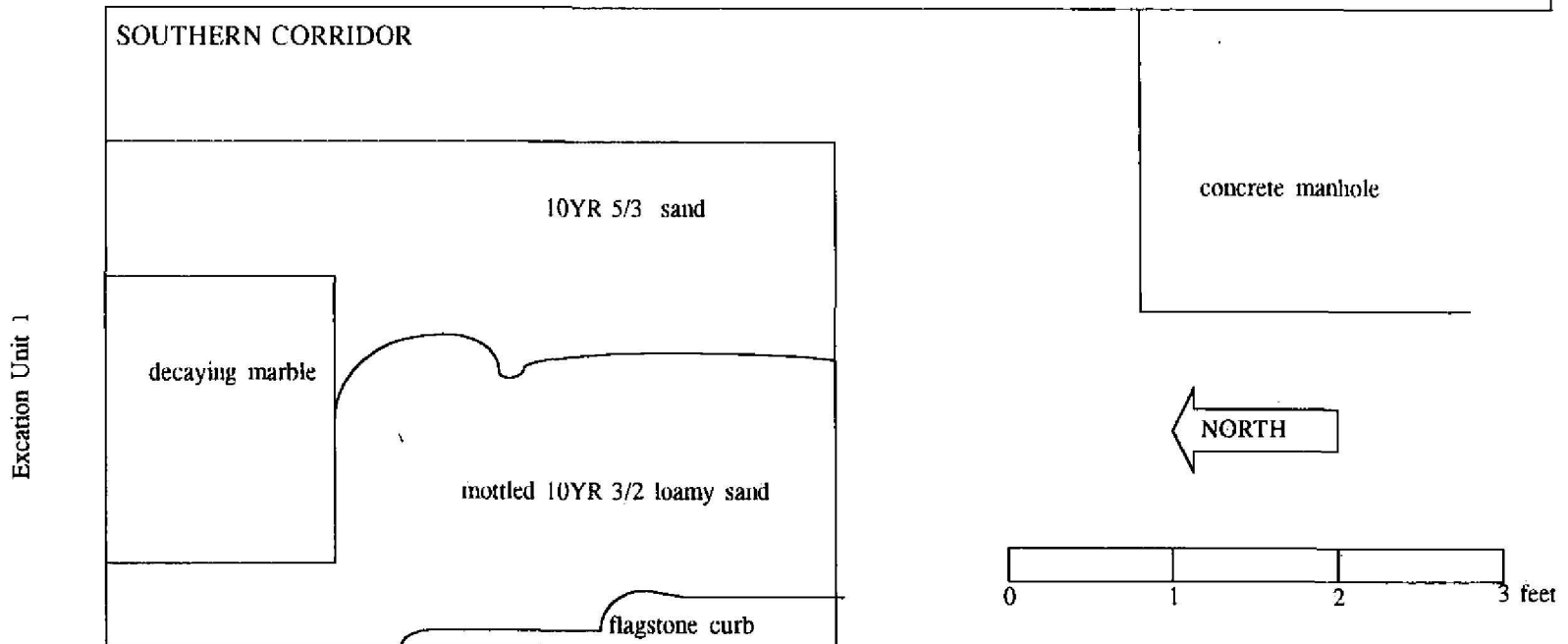


Figure 10 Planview of the vicinity of Excavation Unit 1 after the removal of a corridor of topsoil to the north and south of the unit.

ELEVATION (ft)

NORTH PROFILE

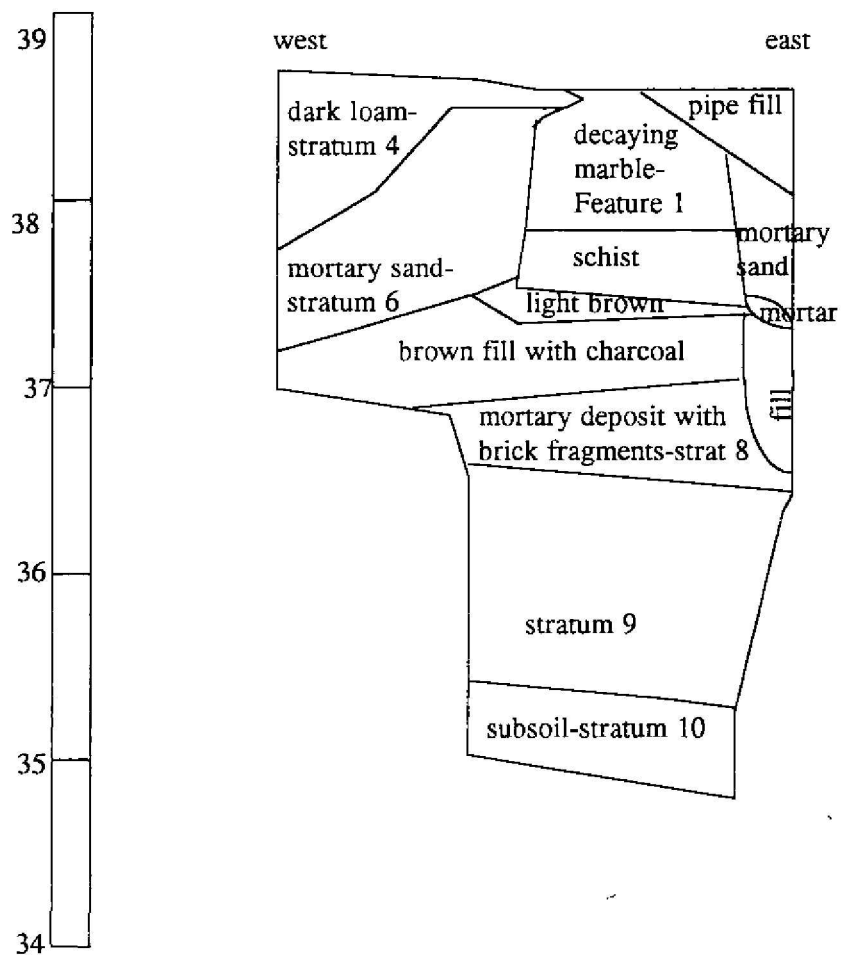


Figure 11 Excavation Unit 2, north profile drawing.

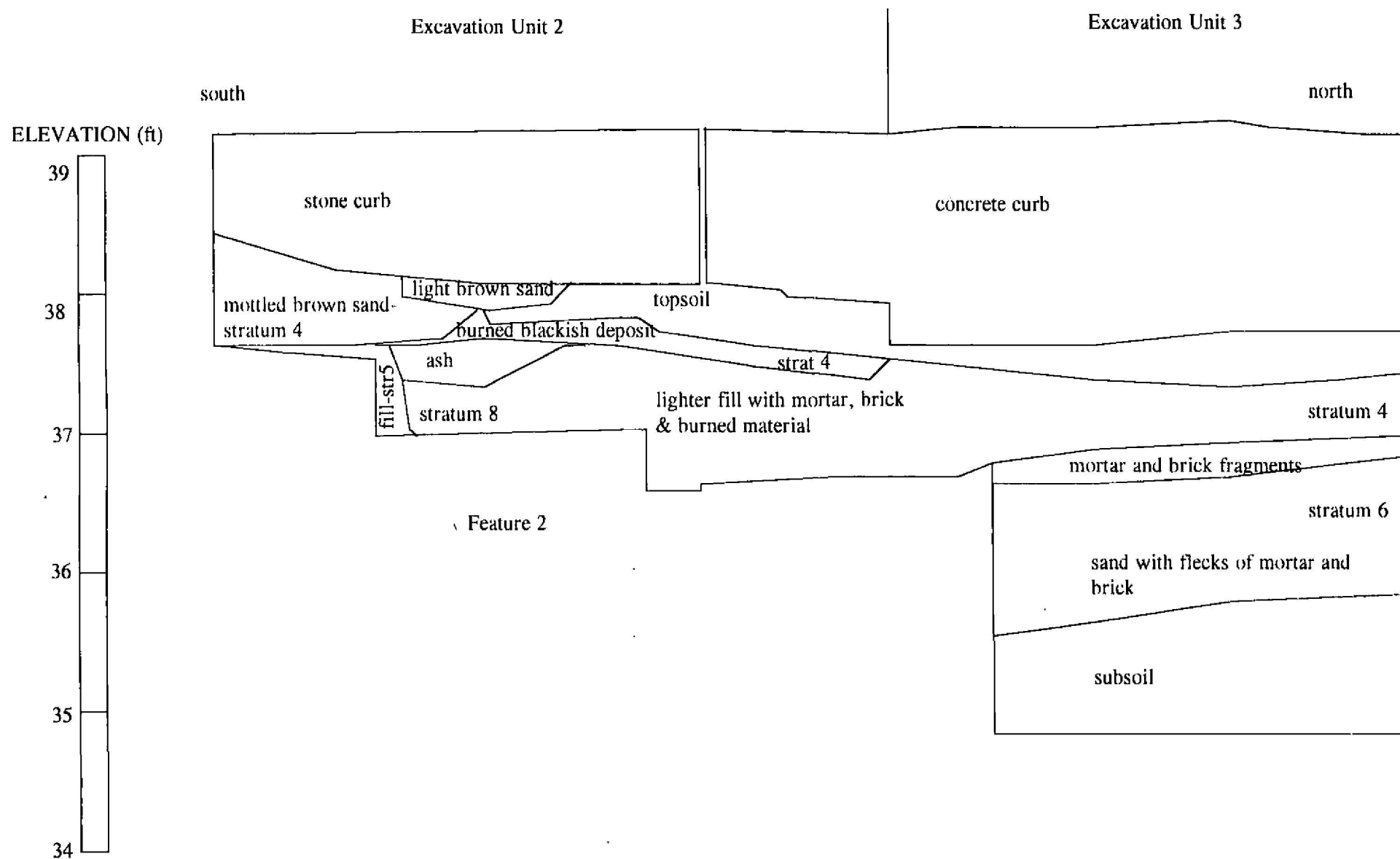


Figure 12 Excavation Units 2 and 3, west profile drawing.

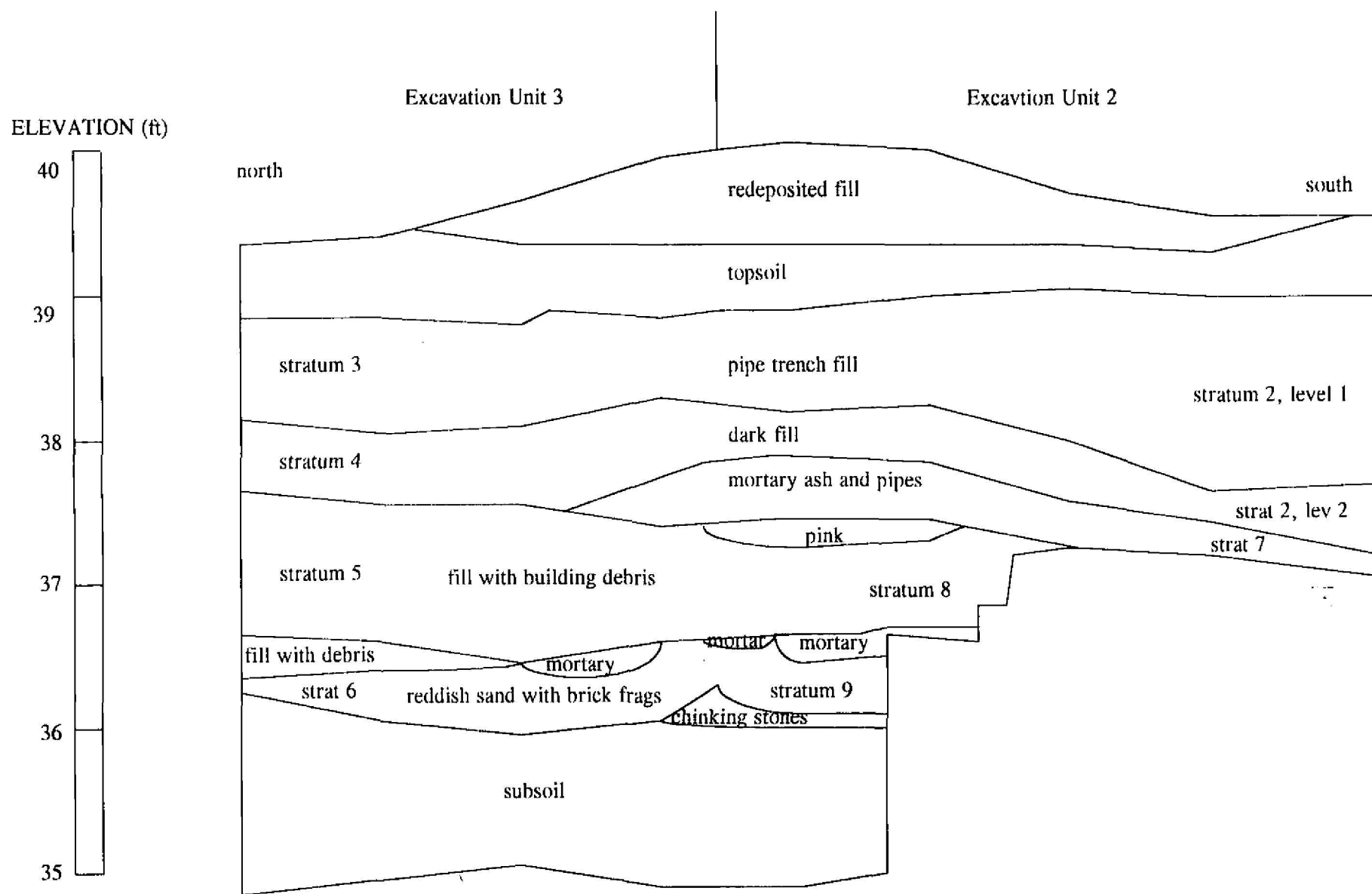


Figure 13 Excavation Units 2 and 3, east profile drawing.

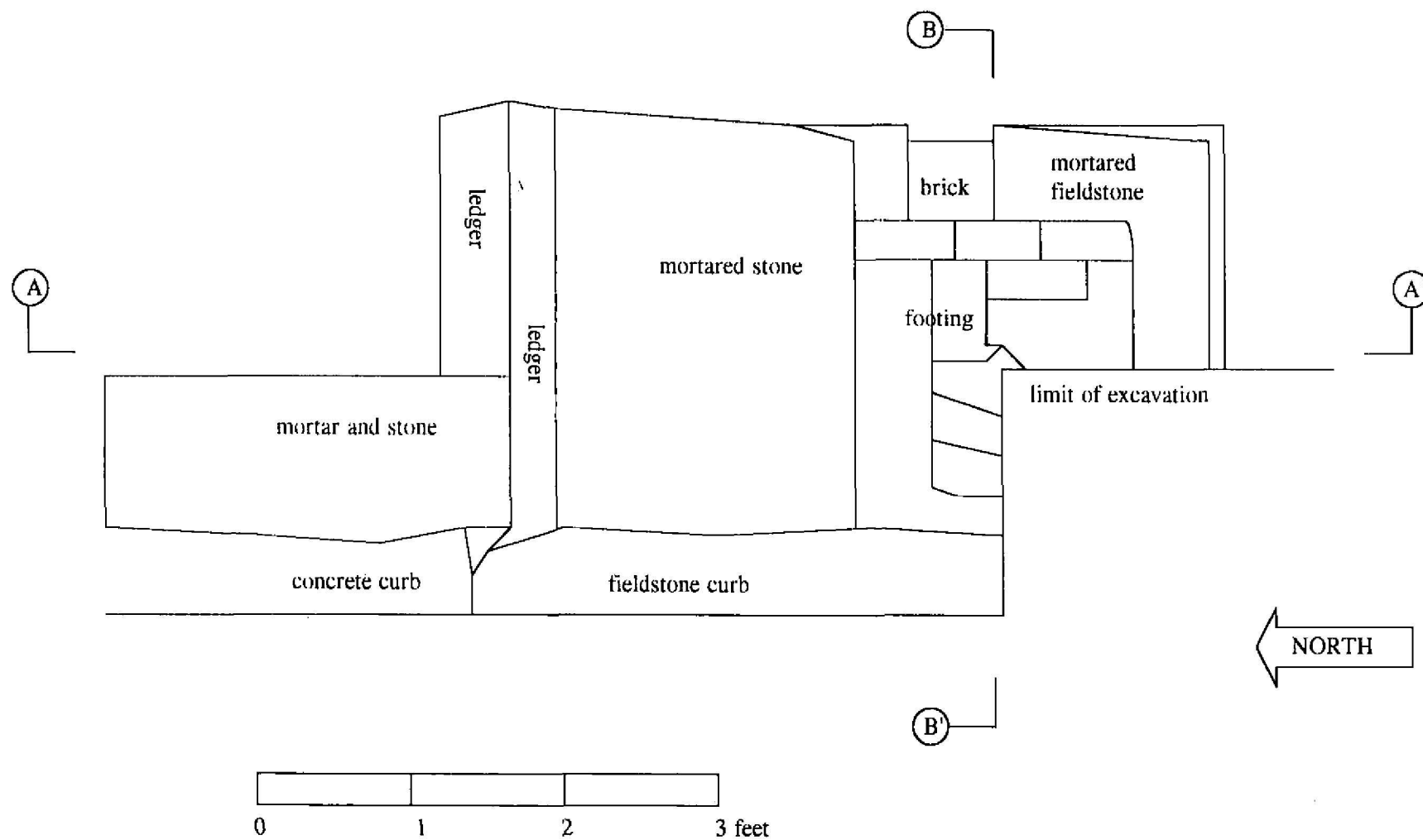


Figure 14 Feature 2, planview.

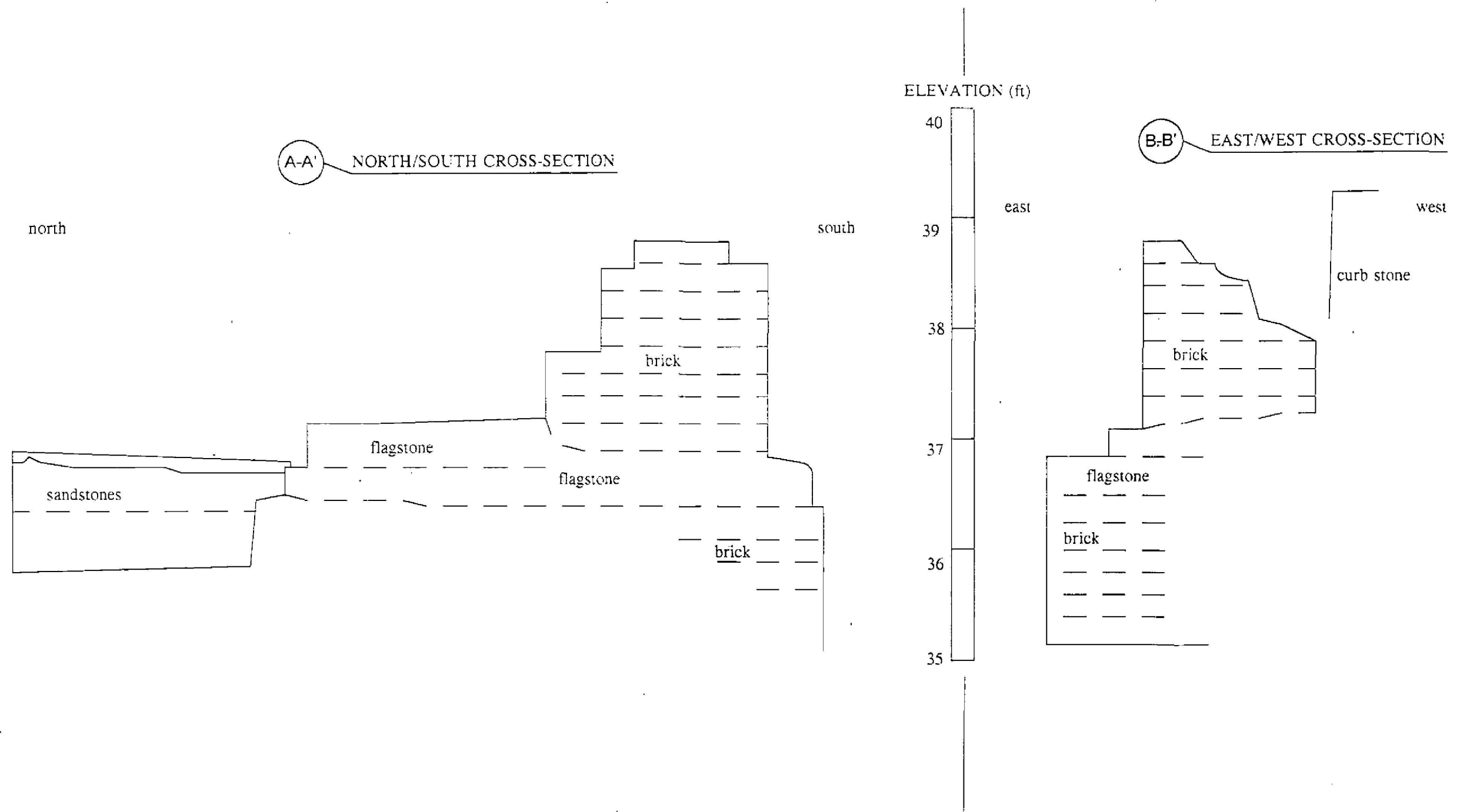


Figure 15 Feature 2, reconstructed cross-sections, north south (A-A') and east/west (B-B').

ELEVATION (ft)

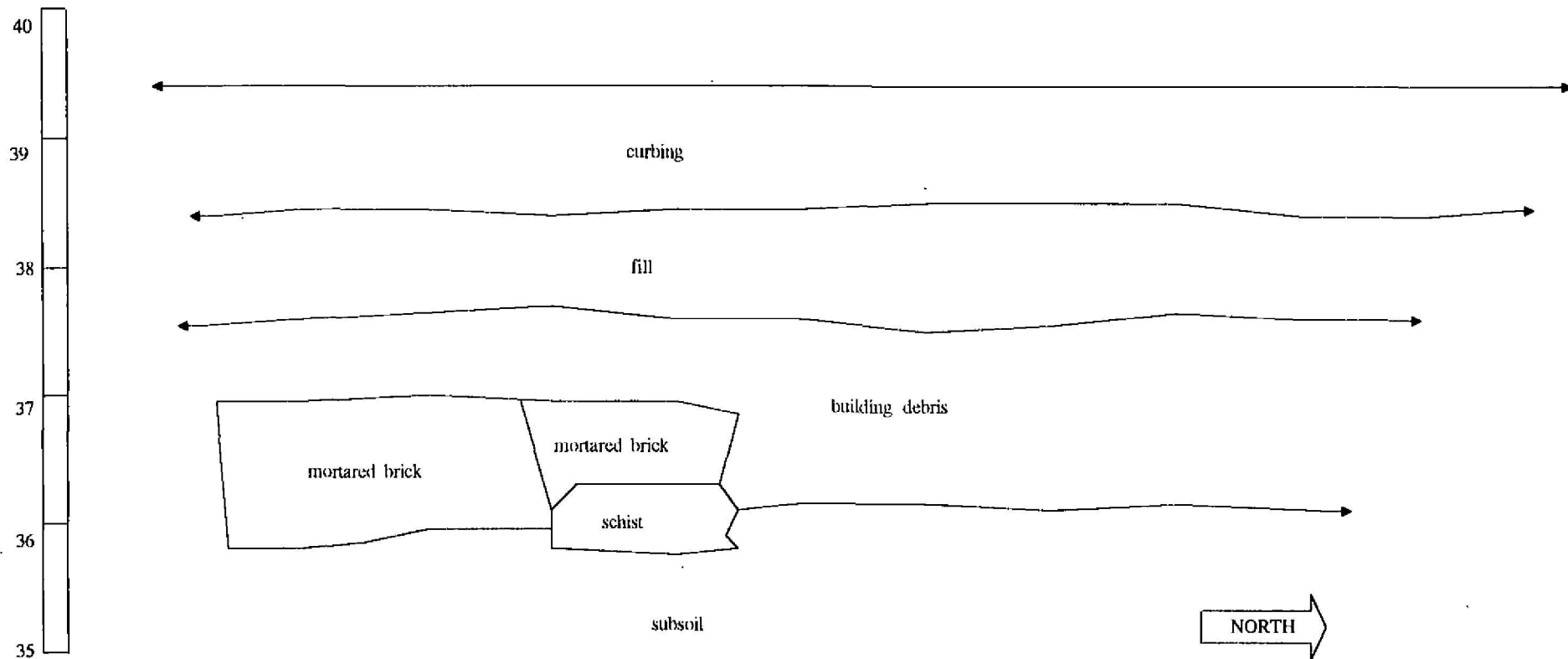


Figure 16 Utility trench west profile after the removal of Feature 2.

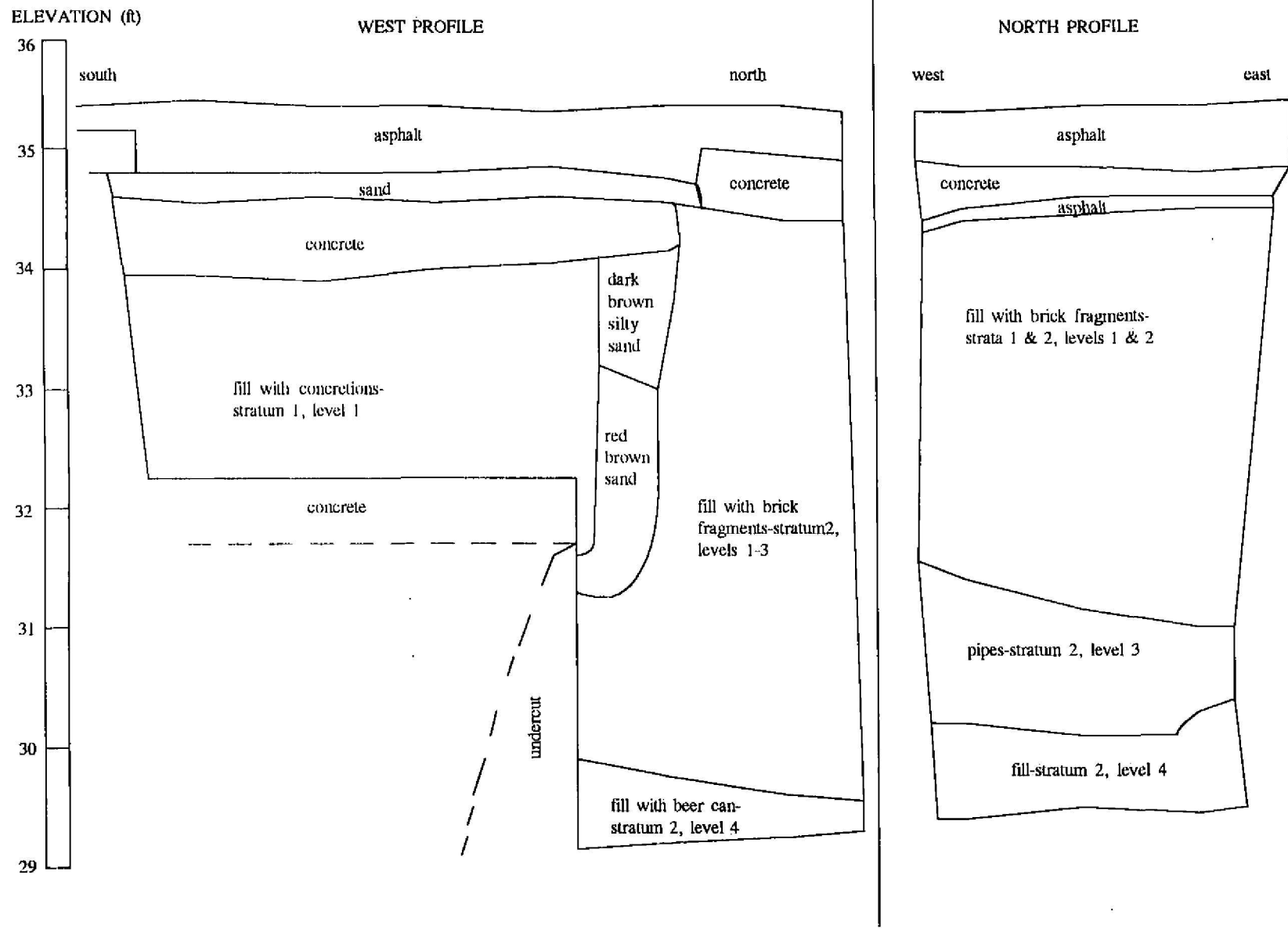
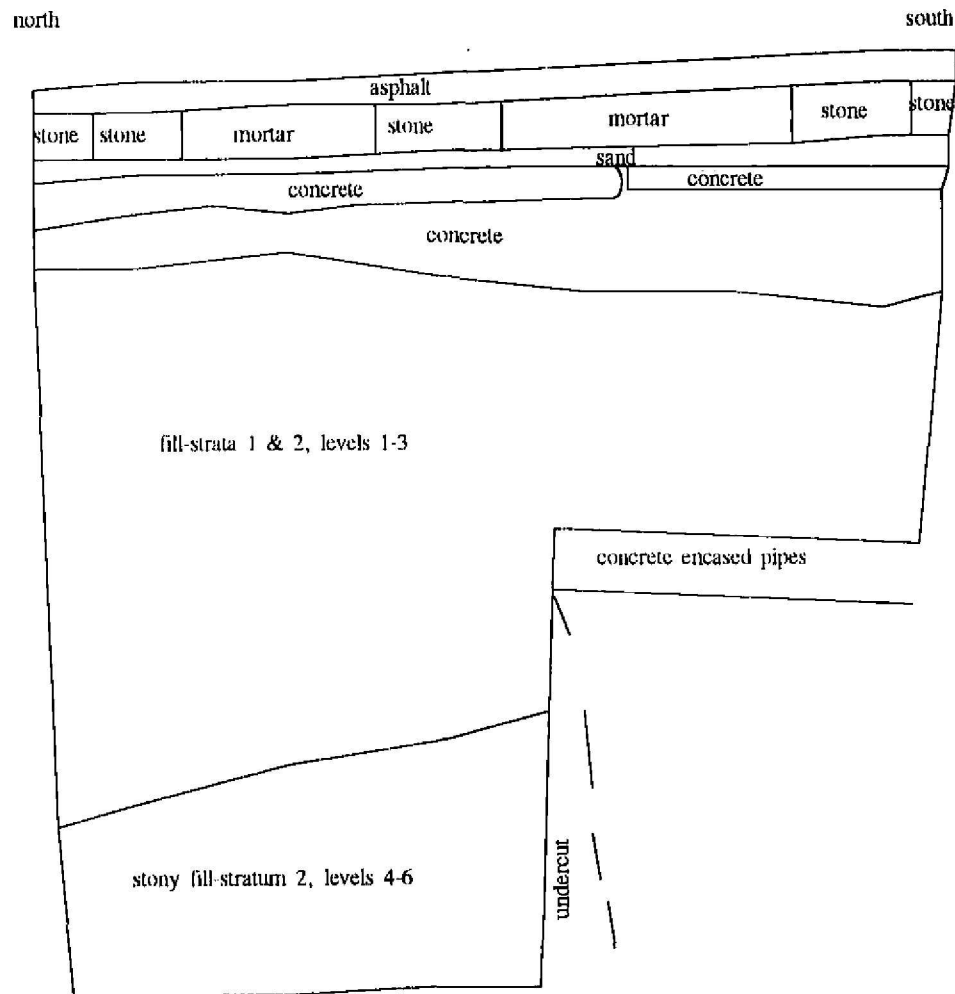


Figure 17 Excavation Unit 4, west and north profile drawings.

ELEVATION (ft)

36  
35  
34  
33  
32  
31  
30  
29

# EAST PROFILE



# SOUTH PROFILE

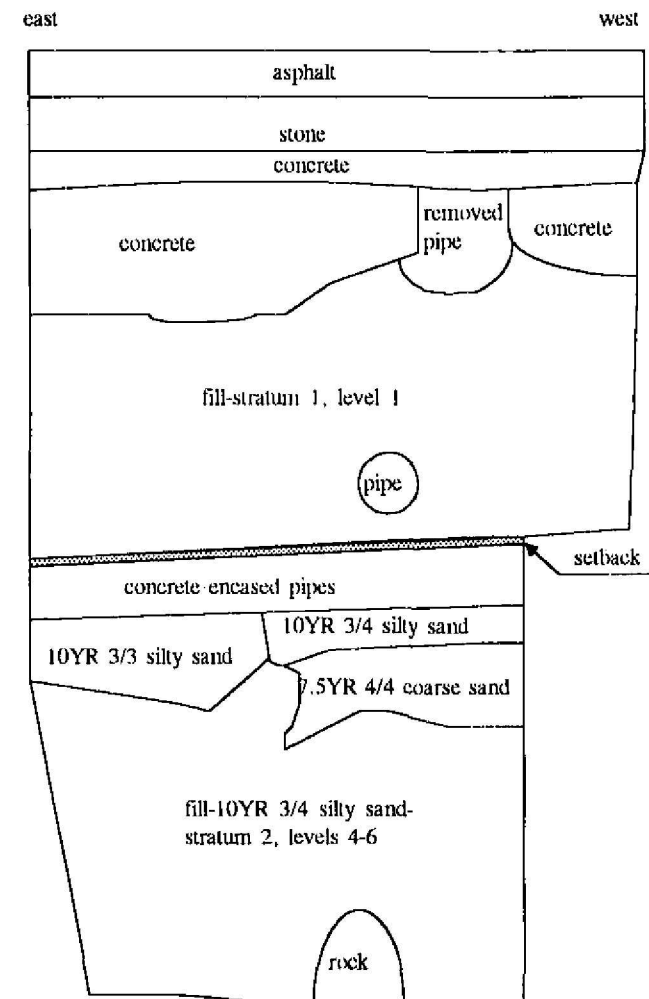


Figure 18 Excavation Unit 4, east and south profile drawings.

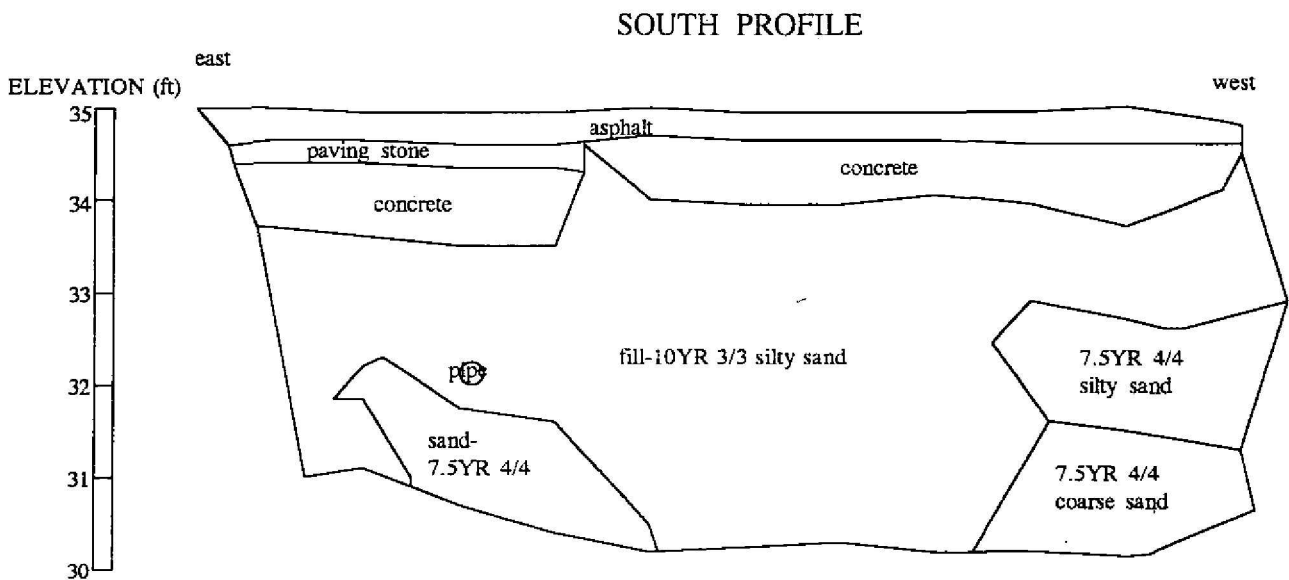
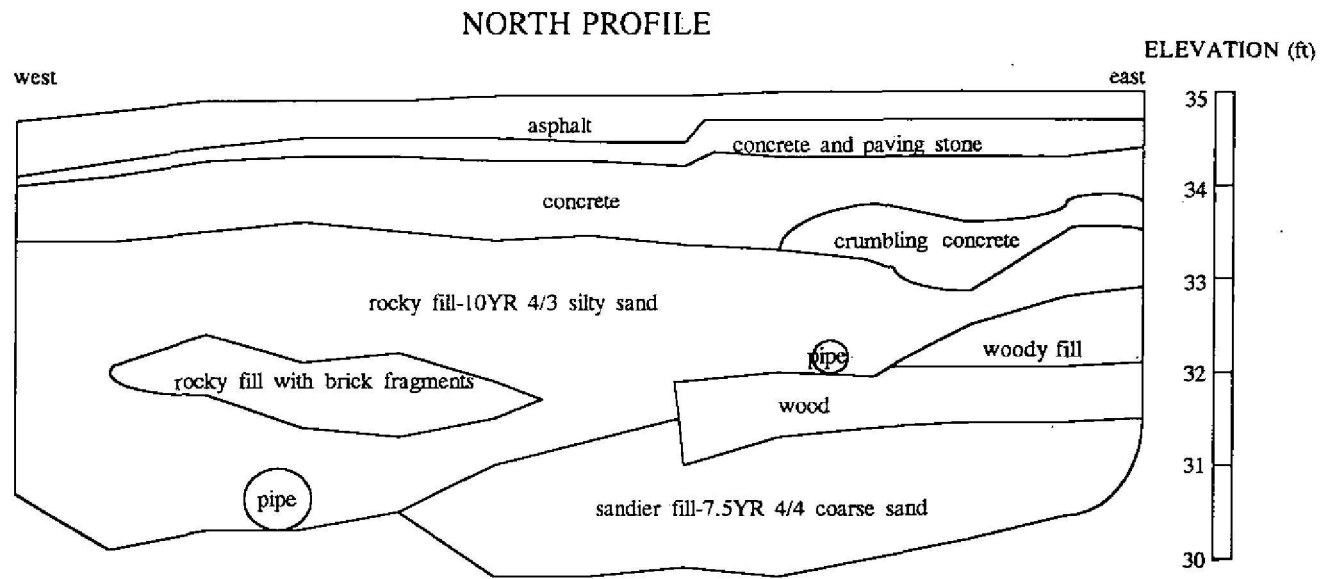
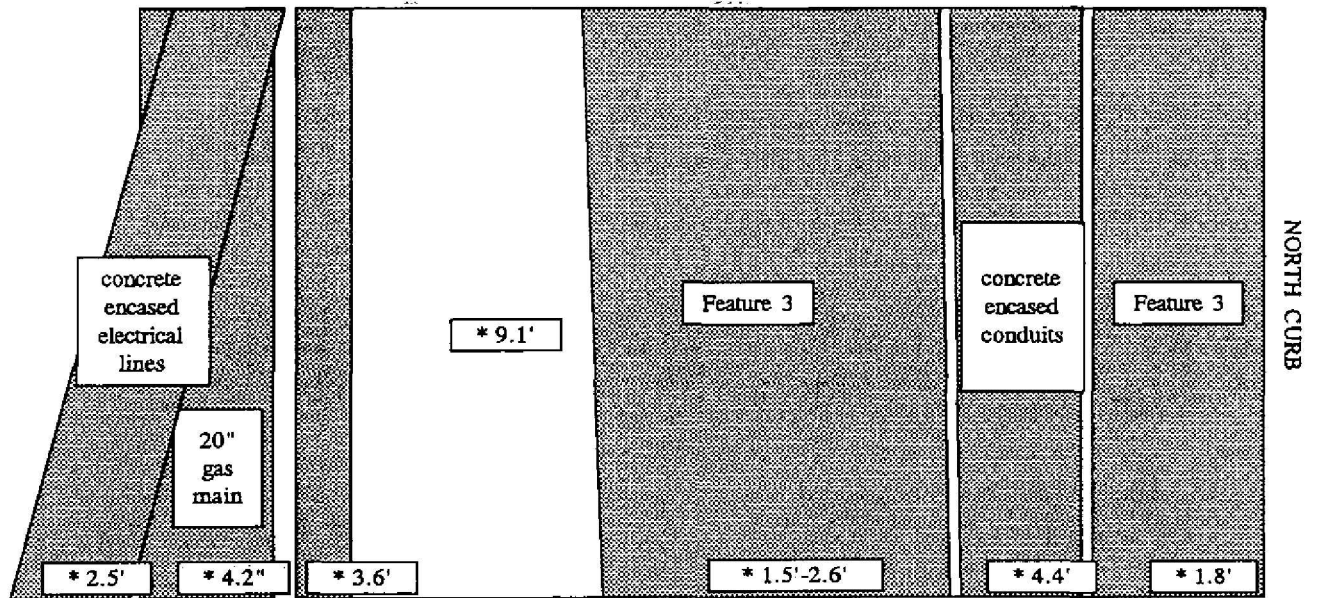


Figure 19 Water main trench western segment, north and south profile drawings.

# RECONSTRUCTED PLANVIEW (from Figure 6)



## RECONSTRUCTED EAST PROFILE

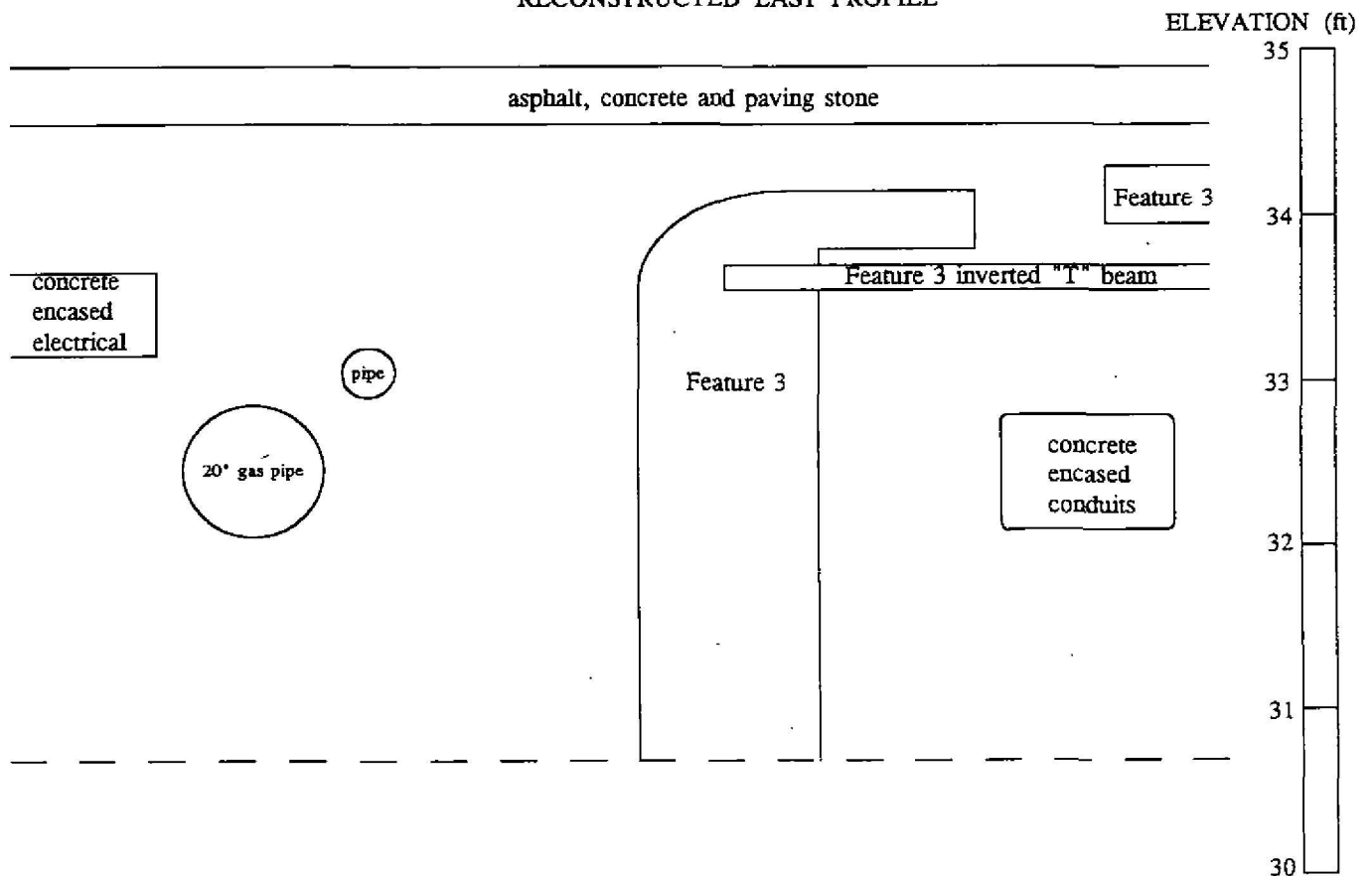
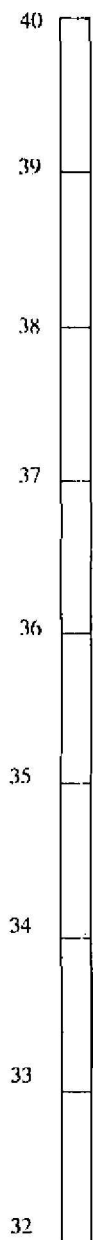
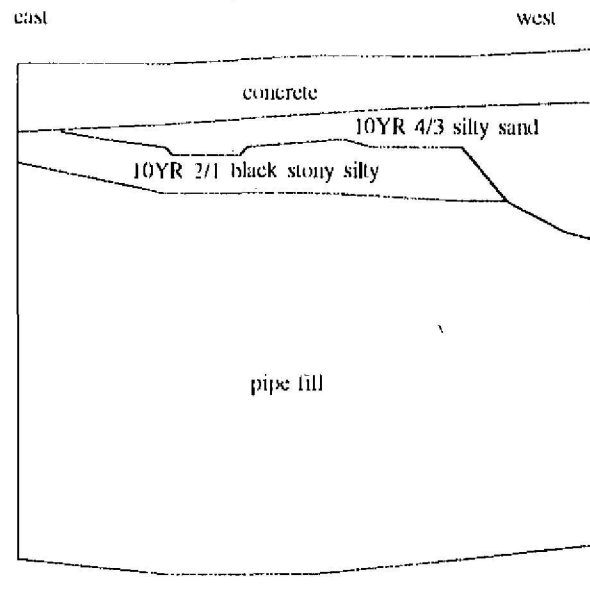


Figure 20 Reconstructed utility trench east profile in the vicinity of Feature 3 within Chambers Street with the planview from the same location.

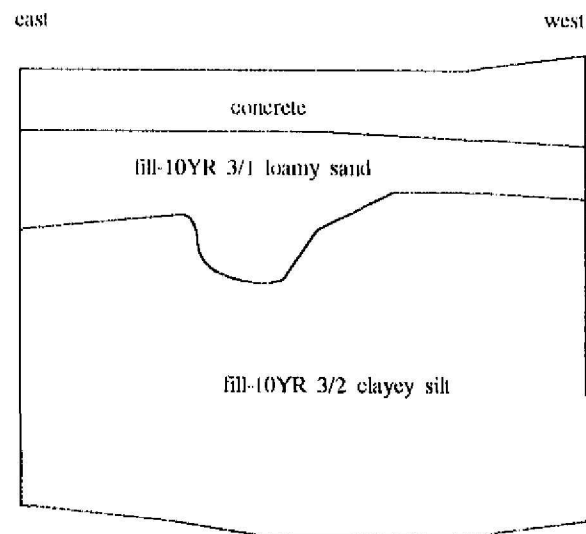
ELEVATION (ft)



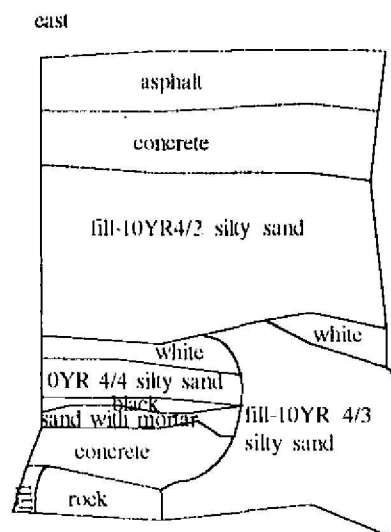
SHALLOW UNIT 5



SHALLOW UNIT 4



SHALLOW UNIT 1



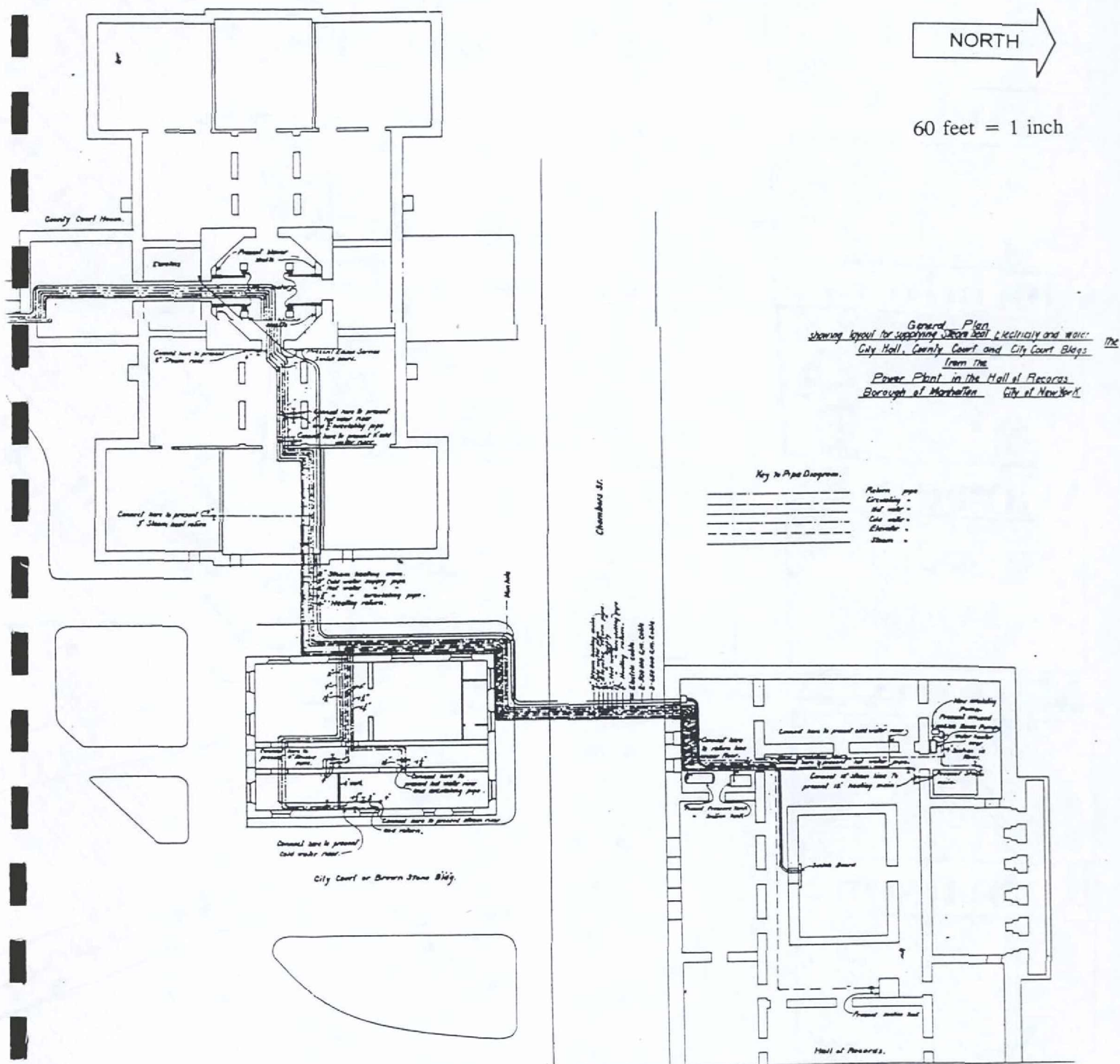


Figure 22

Section of the General Plan Showing Layout for Supplying Steam Heat Electricity and Water to the City Hall, County Court and City Court Buildings from the Power Plant in the Hall of Records, Borough of Manhattan, dated c.1916-1928.

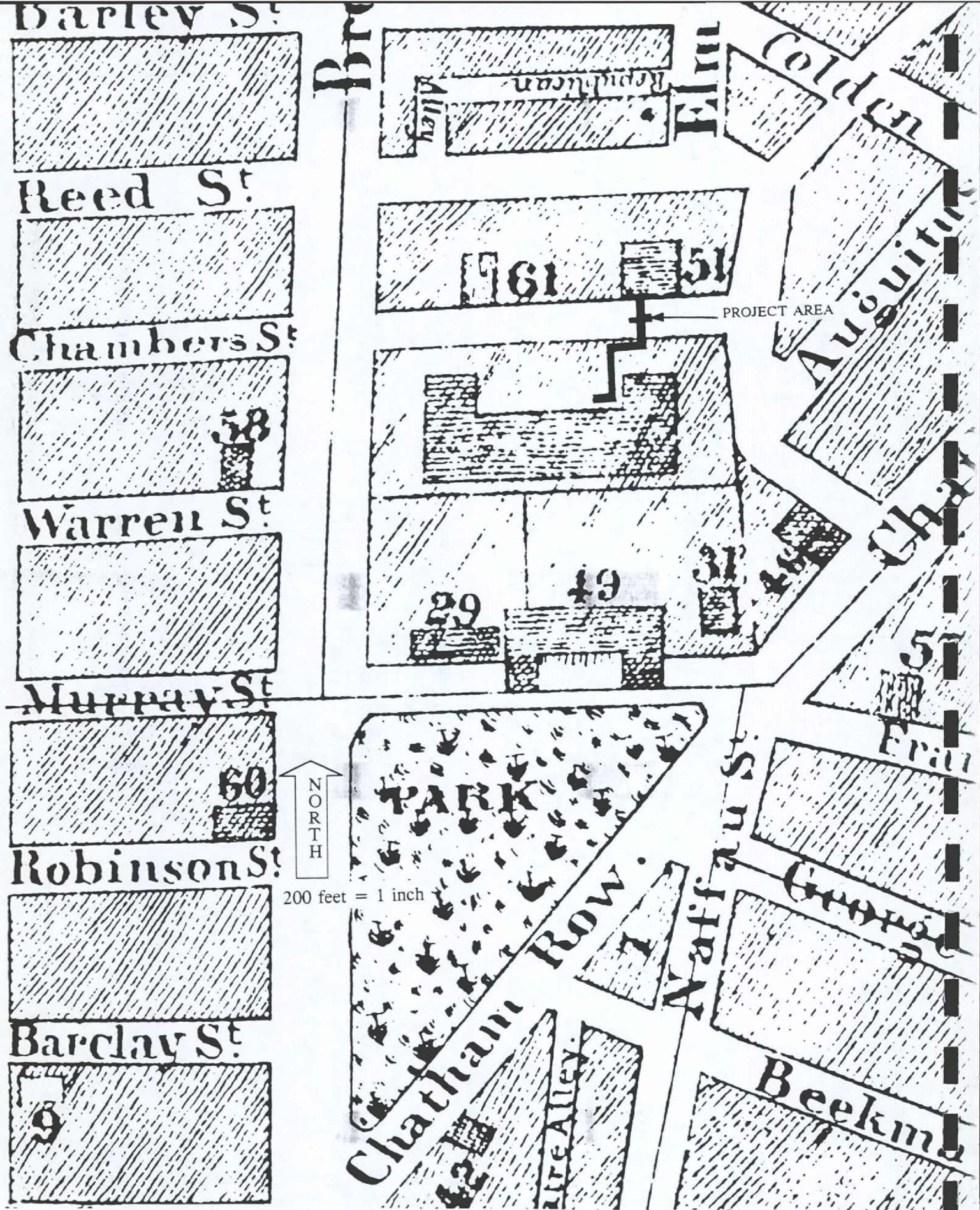


Figure 23

Section of the 1808 Longworth Plan of the City of New York showing the Second Almshouse south of Chambers Street and the Manhattan Company Reservoir as #51 to the north.



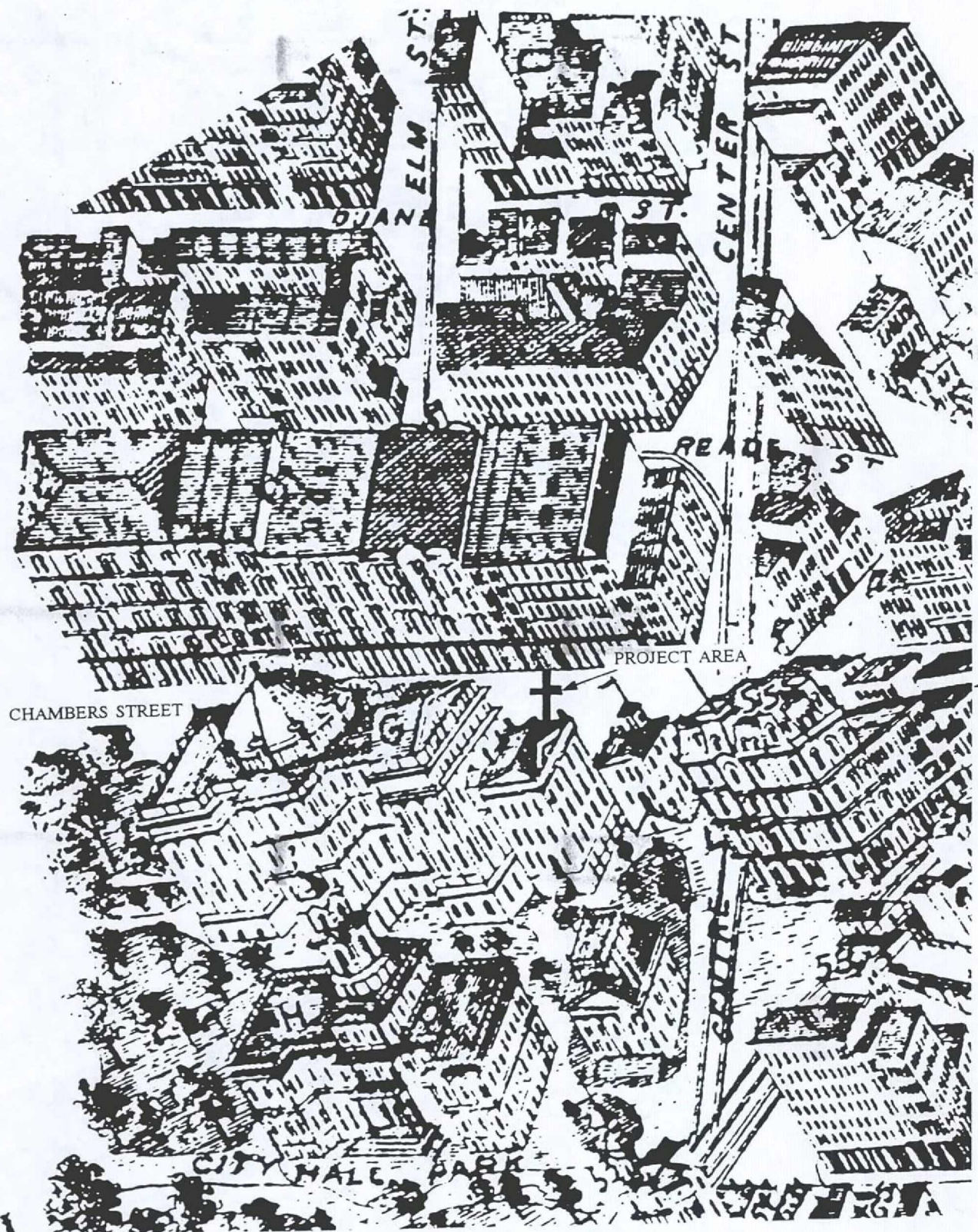


Figure 25

Section of Taylor's 1879 view of the City of New York.

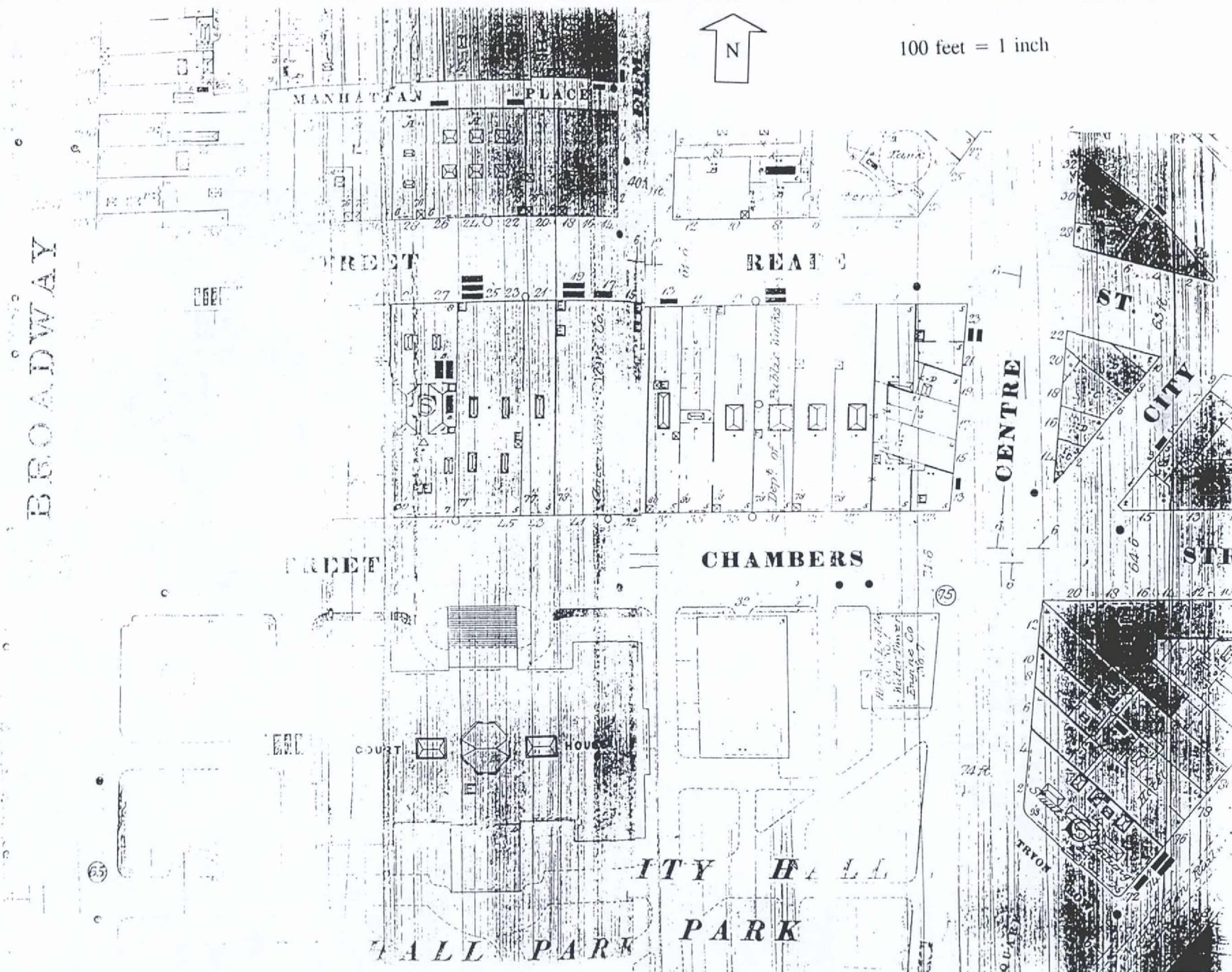
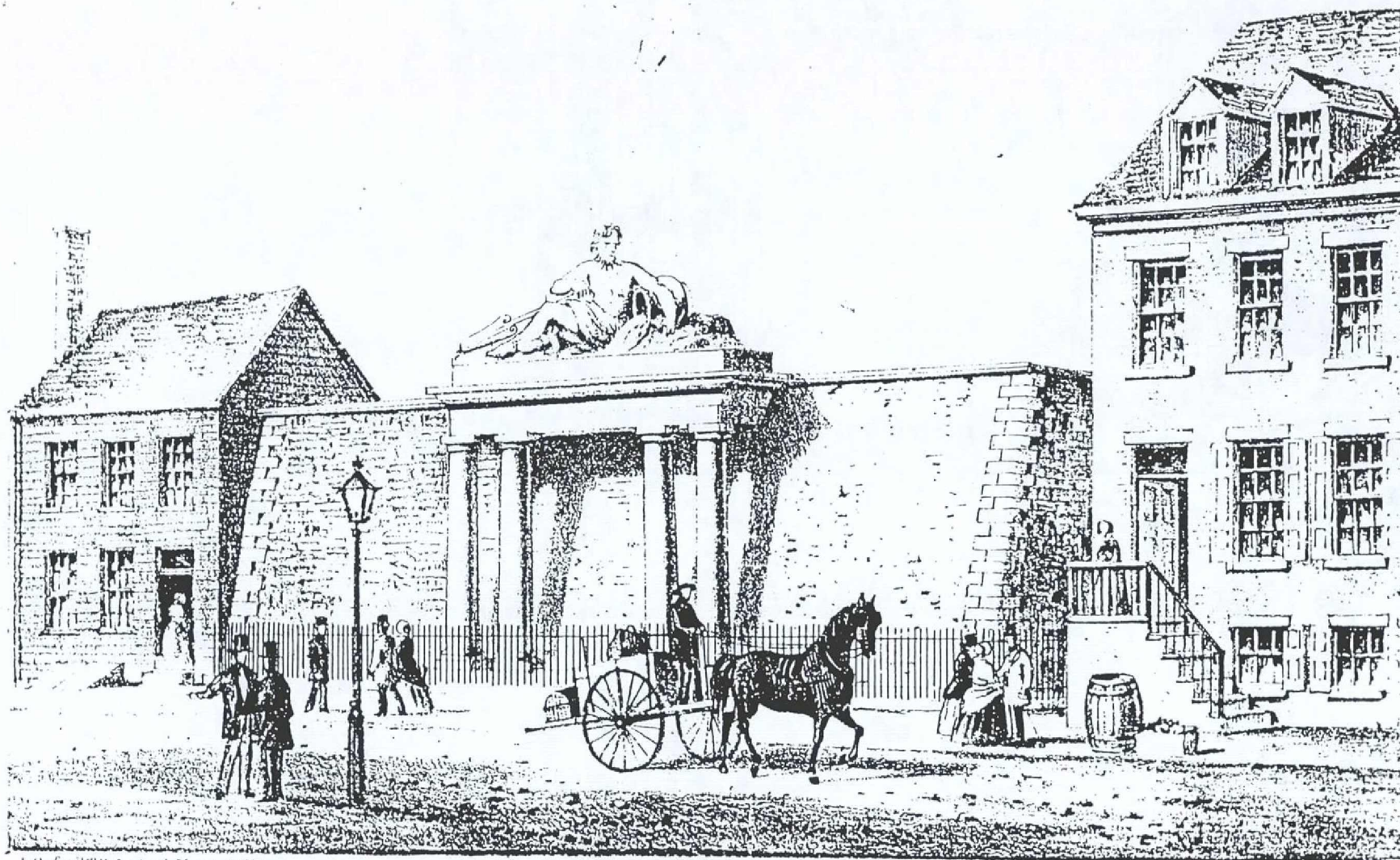


Figure 26 Section of the 1894 Sanborn-Perris Insurance Maps of the City of New York.



*Lith for D.T. Valentine's Manual, 1855.*

*By Geo. Hayward, 120 Water Street, NY*

# RESERVOIR OF MANHATTAN WATER WORKS.

*Chamber St. 1825.*

Figure 27      Hayward Lithograph of the Chambers Street Reservoir of Manhattan Water Works in 1825.



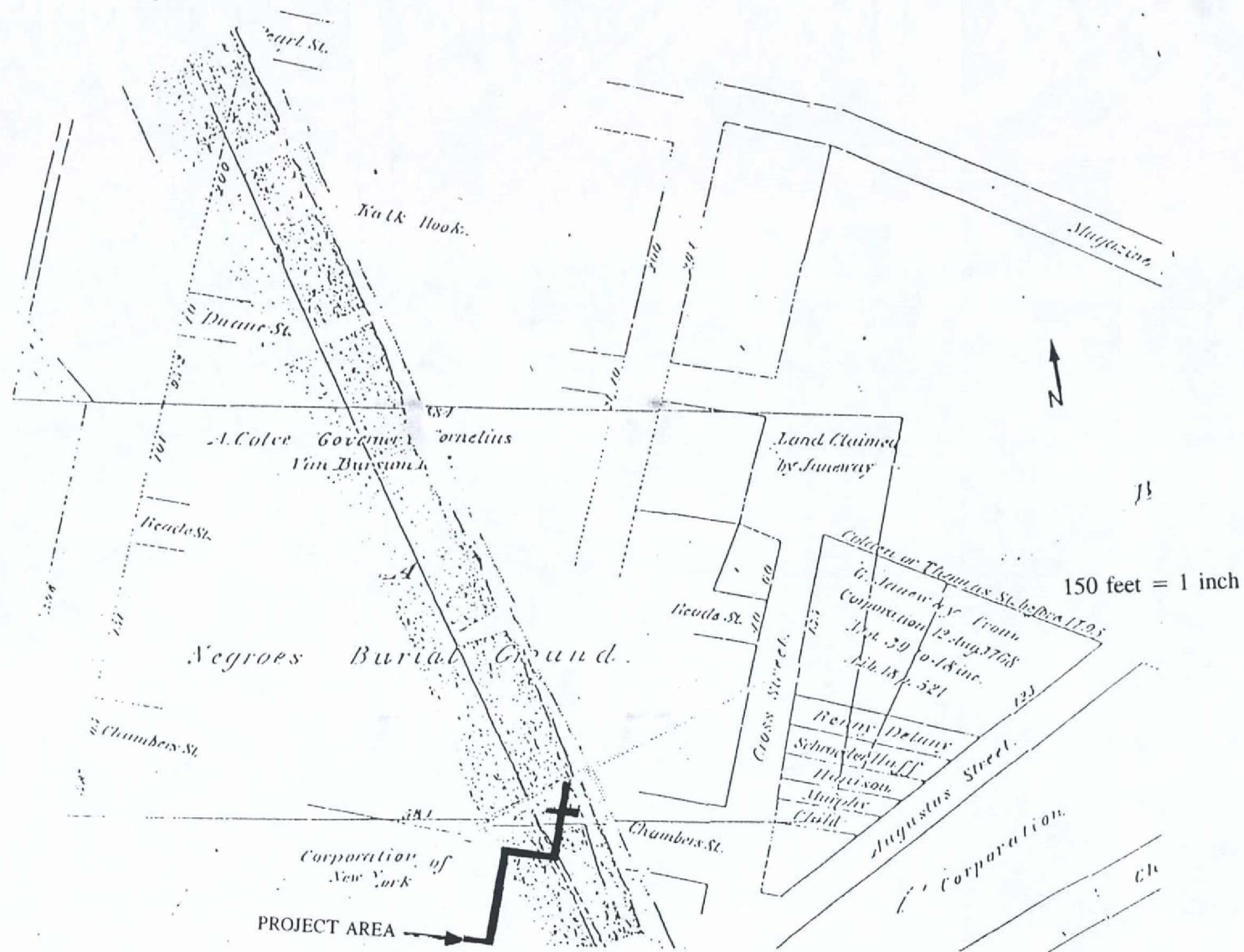


Figure 29 Reprint of Figure 12 from the African Burial Ground National Register of Historic Places Registration Form showing the project area location.

PLATES



Plate 1

Chambers Street southern lane, trench facing northwest. November 5, 1995.



Plate 2

Collecting artifacts from backdirt excavated from the southern part of the trench in City Hall Park, facing north.



Plate 3

Bottle finishes collected from the excavation of the northern part of the City Hall Park trench on November 18, 1995.

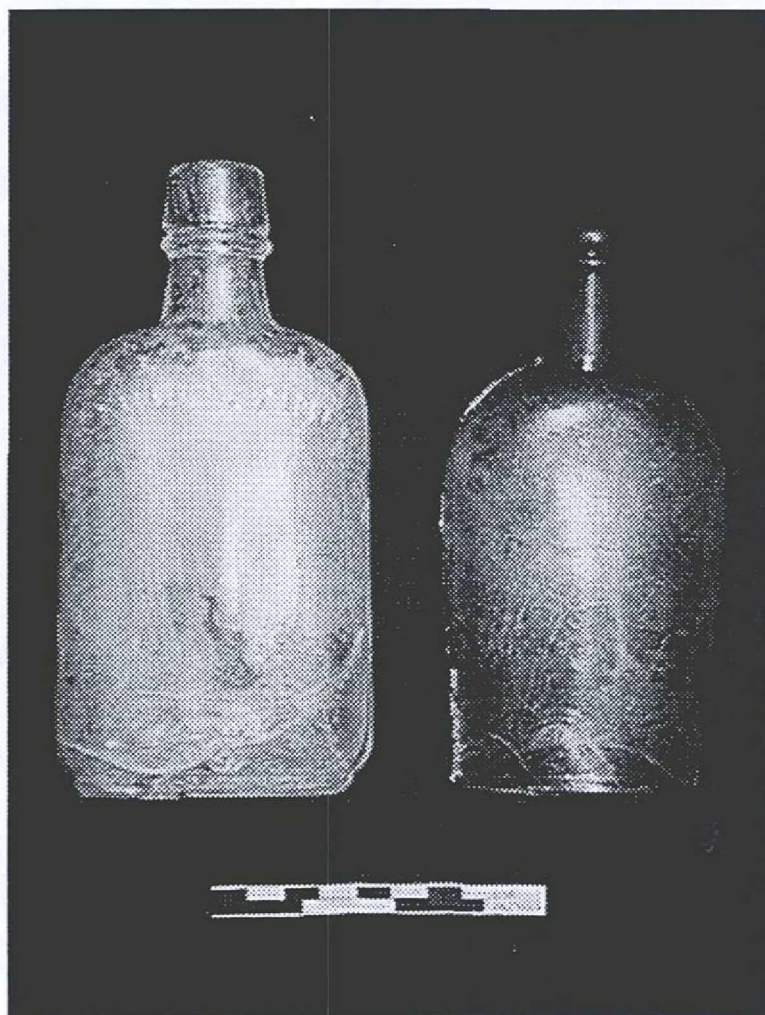


Plate 4

Flasks collected from the excavation of the trench across the Park driveway on November 19, 1995.



Plate 5

Gun flints and a musket ball collected from the areas of the western part of the Chambers Street south sidewalk and the northern part of the City Hall Park part of the trench from November 12 - 18, 1995.



Plate 6

Decorated ceramics collected from the excavation of the middle part of the City Hall Park excavations on November 19, 1995.

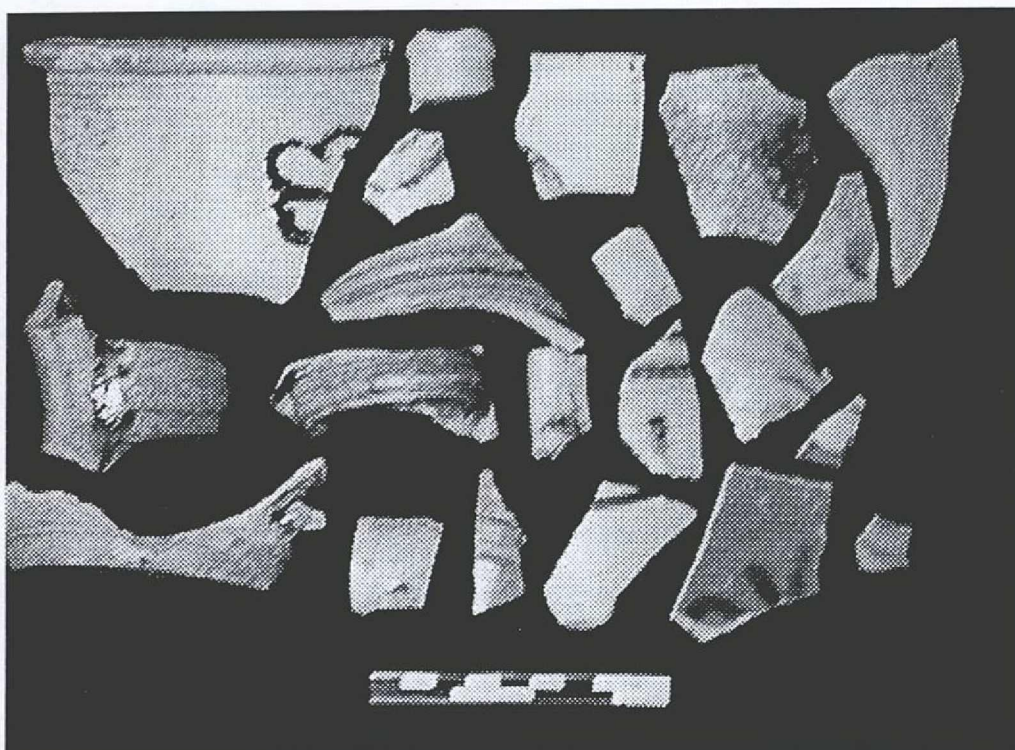


Plate 7

Decorated stonewares collected from the excavation of the northern part of the City Hall Park trench on November 18, 1995.

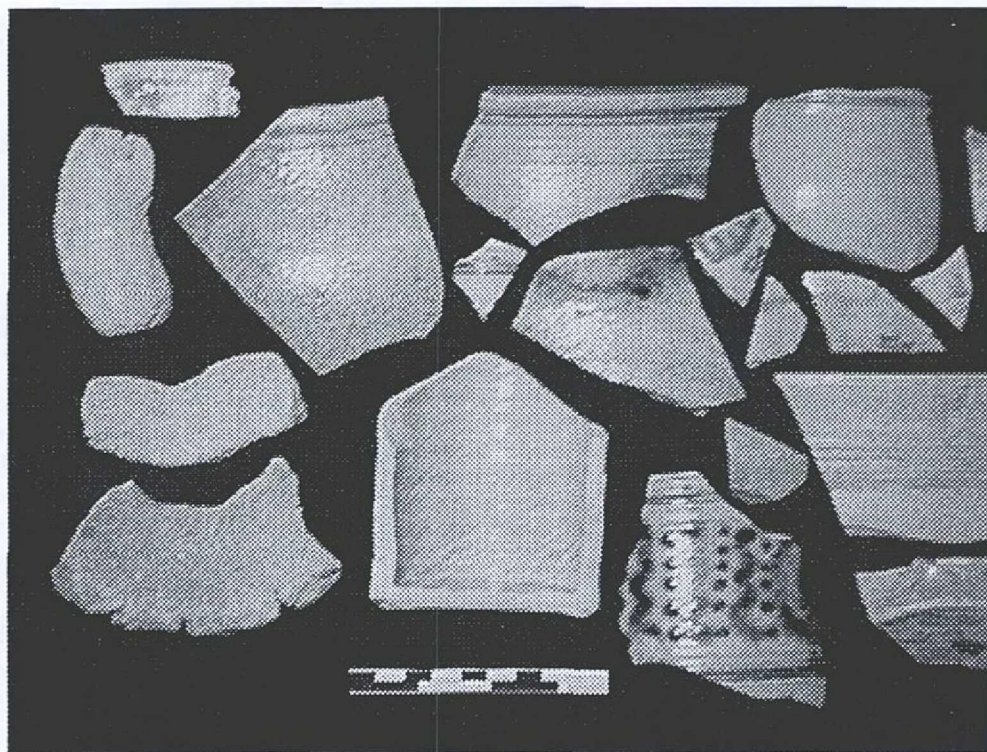


Plate 8

Stoneware collected from the excavation of the western part of the Chambers Street south sidewalk on November 12, 1995.



Plate 9

Slip decorated redwares and a yellow brick fragment collected from the excavation of the northern part of the City Hall Park trench on November 18, 1995.

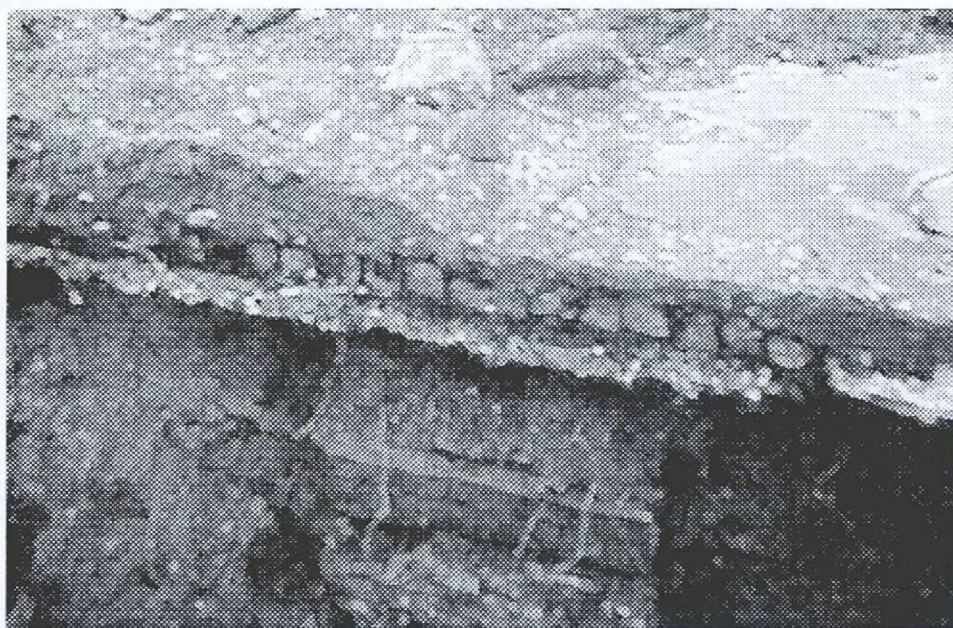


Plate 10      Chambers Street south sidewalk, western portion, facing north, November 12, 1995.

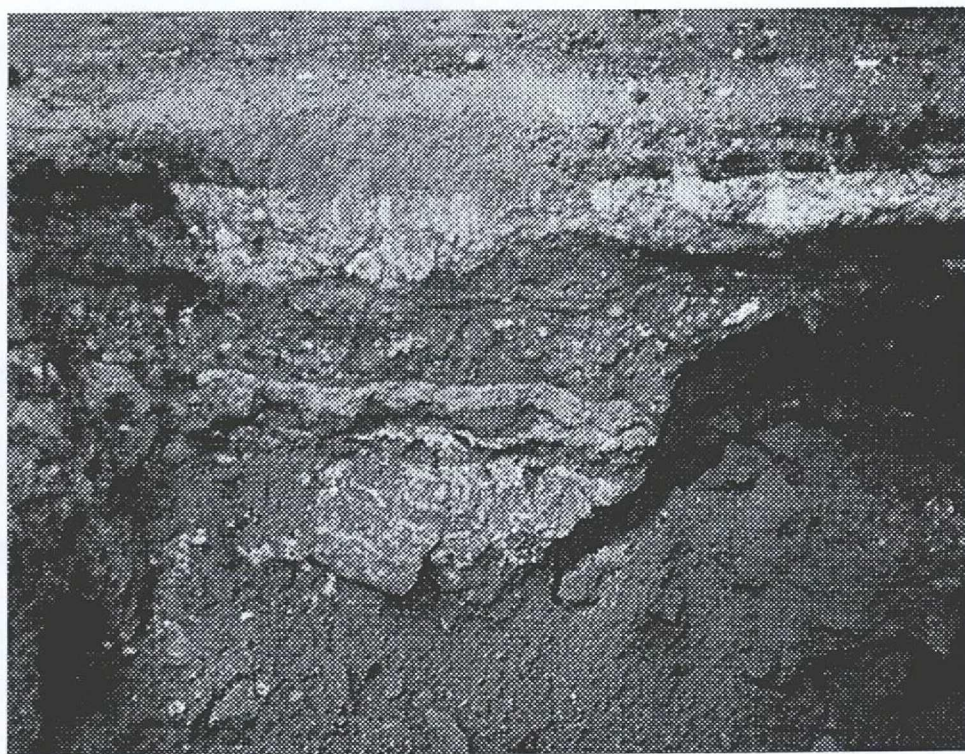




Plate 12

Unit 1, Feature 1, decaying marble, facing north, December 3, 1995.

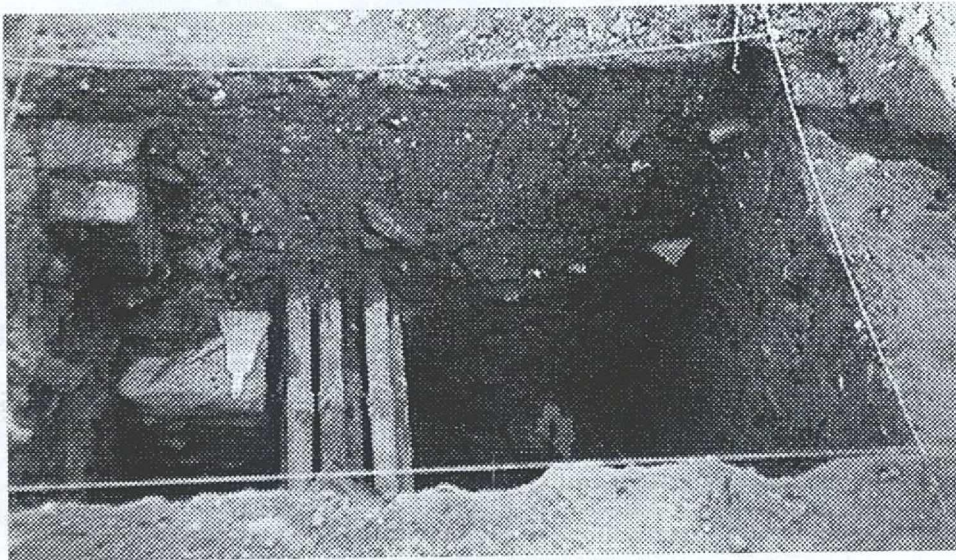


Plate 13

Unit 1, north profile, as drawn, December 7, 1995.



Plate 14

Decaying marble, north of Unit 1 after removal of topsoil, facing east, December 28, 1995.



Plate 15

Unit 2 after excavation of Stratum 8, Level 1, facing south, December 29, 1995.

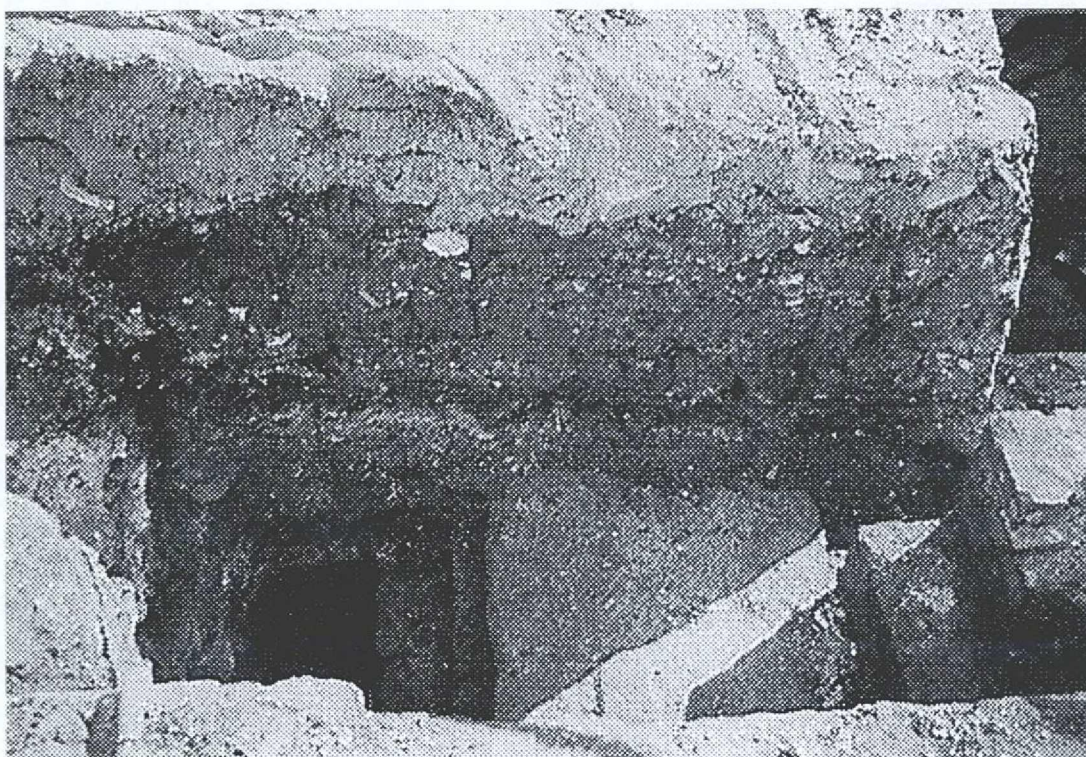


Plate 16      Unit 2, east profile, December 29, 1995.

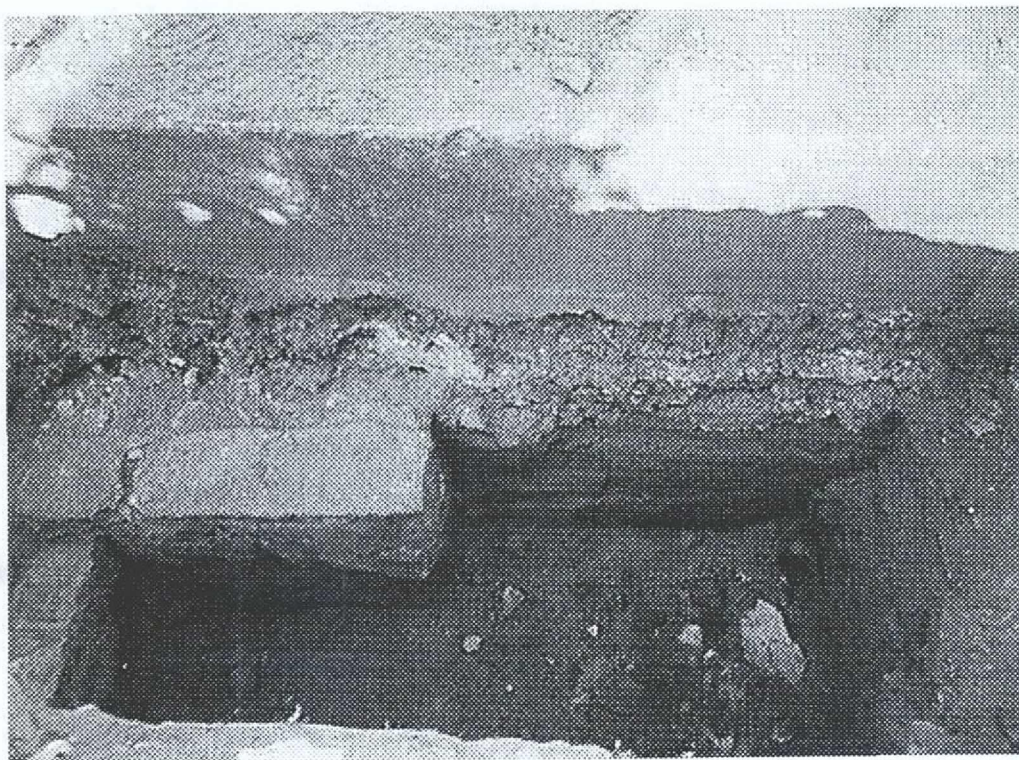


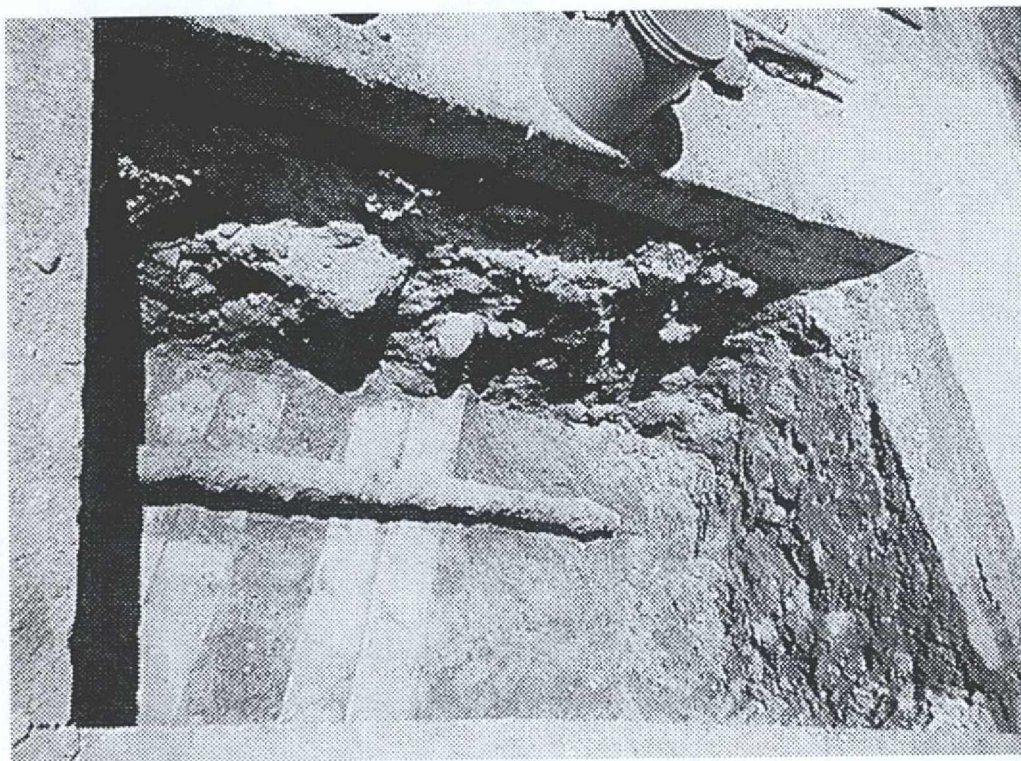


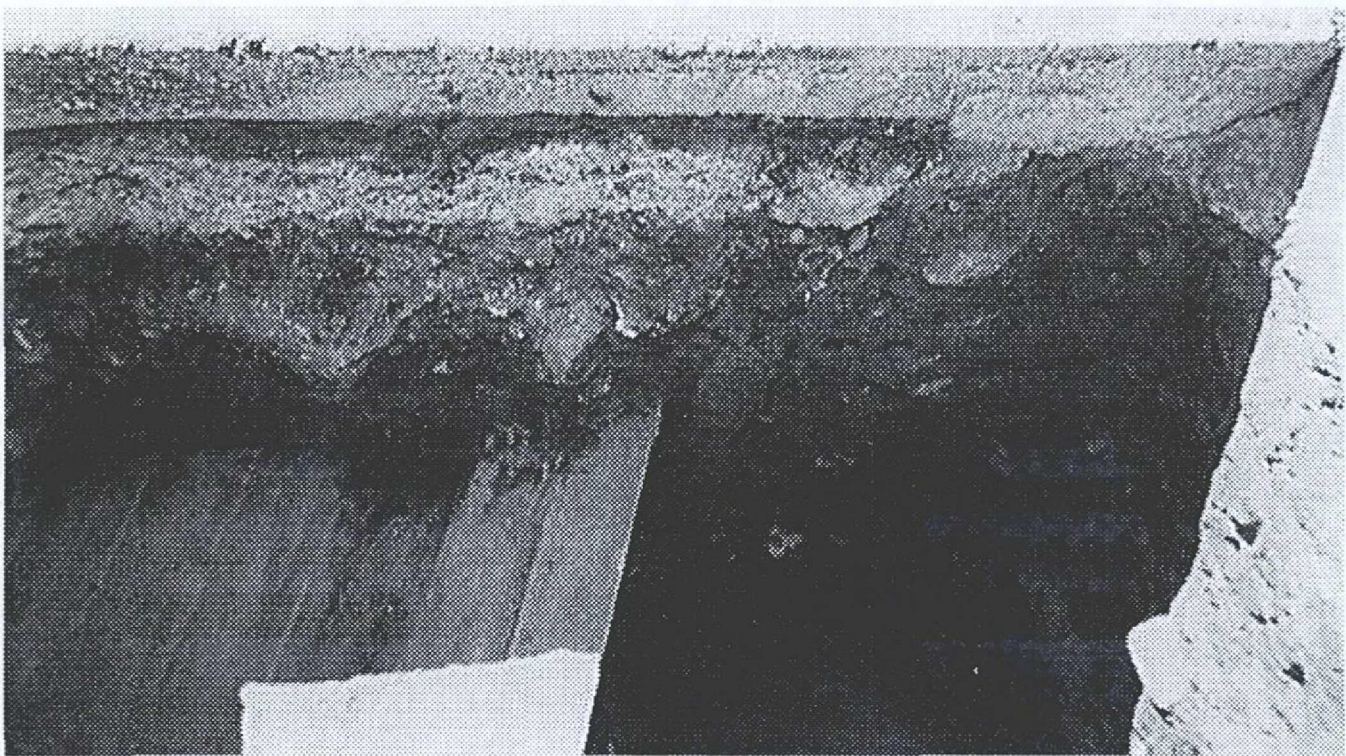


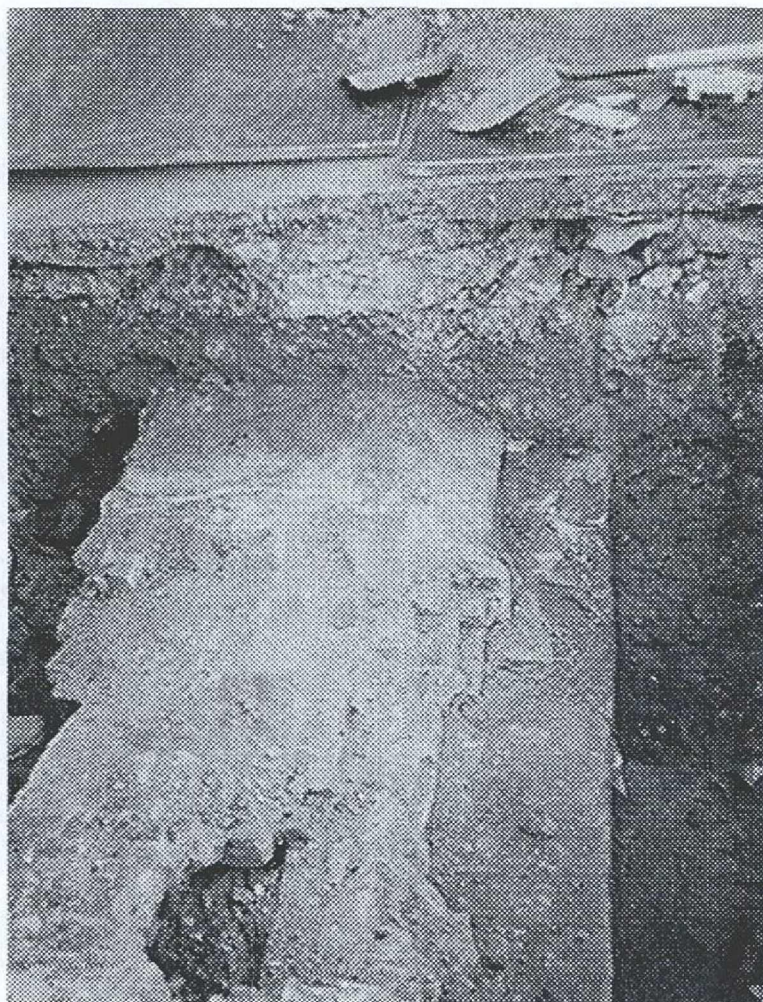


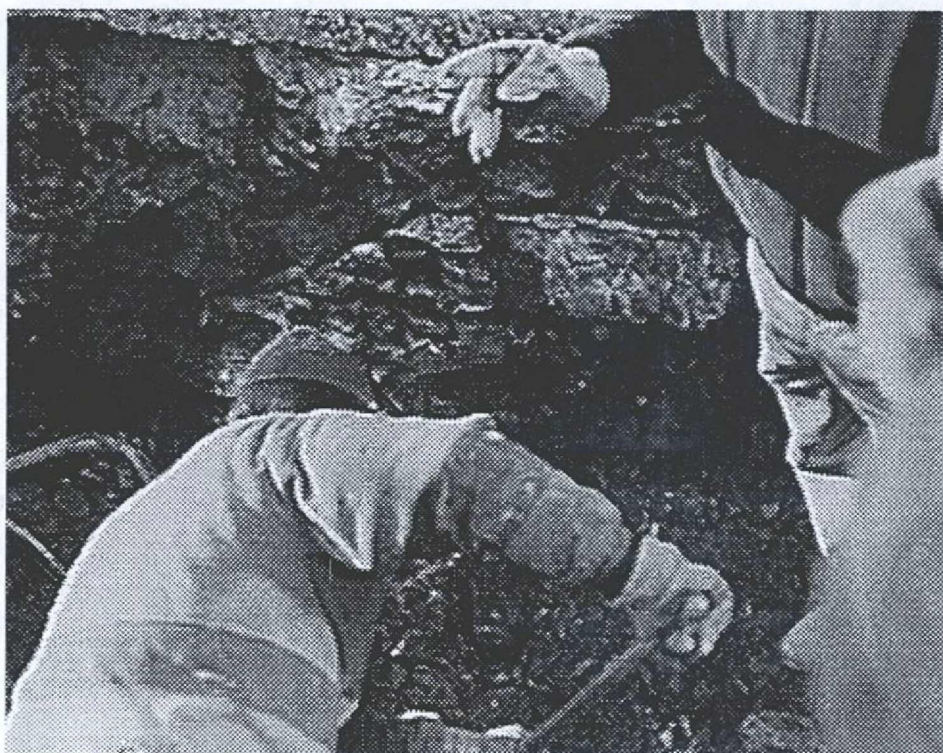
Plate 20

Completion of trench excavations in southern part of City Hall Park, west trench profile, January 23, 1996.

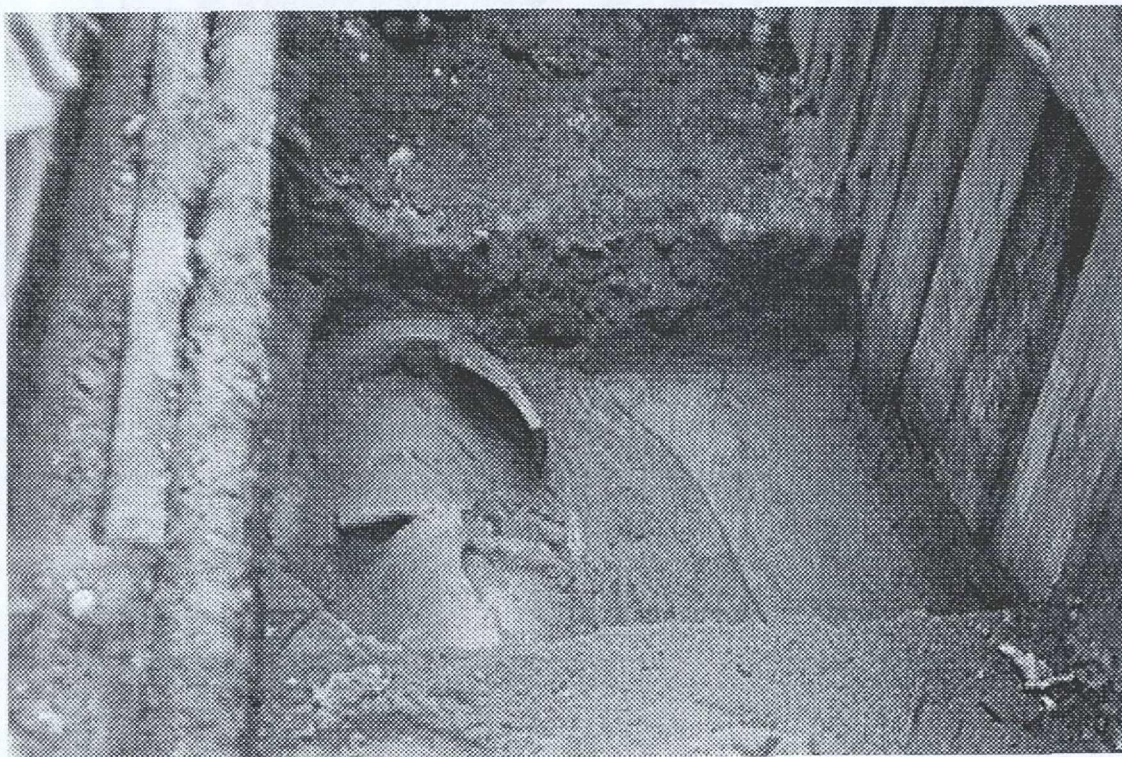




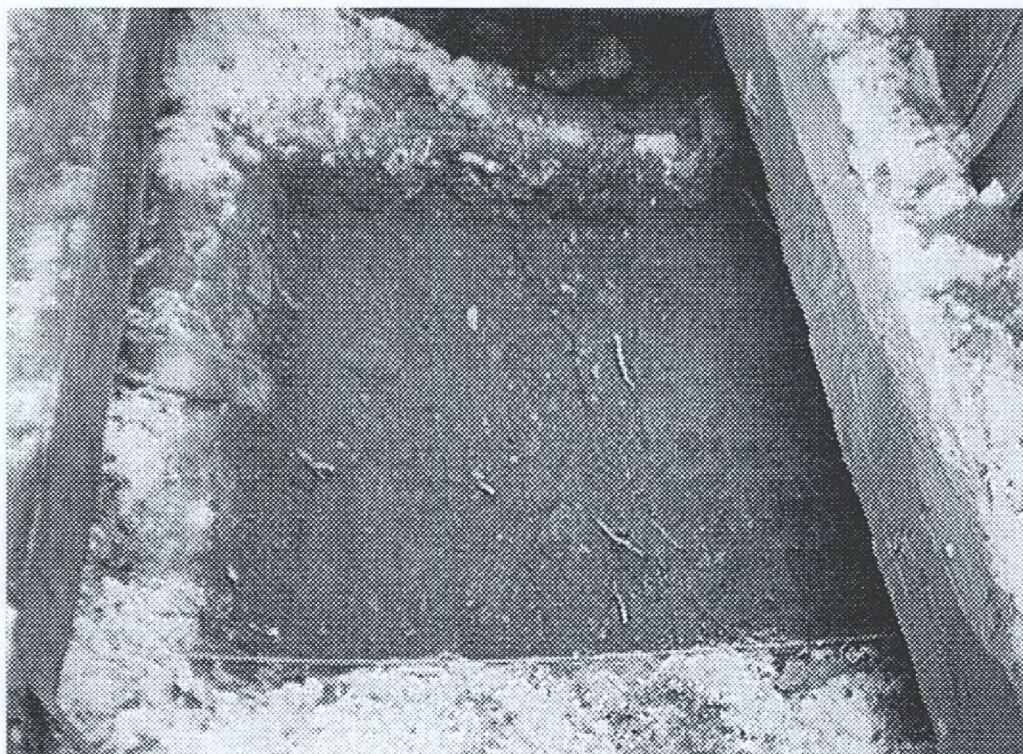


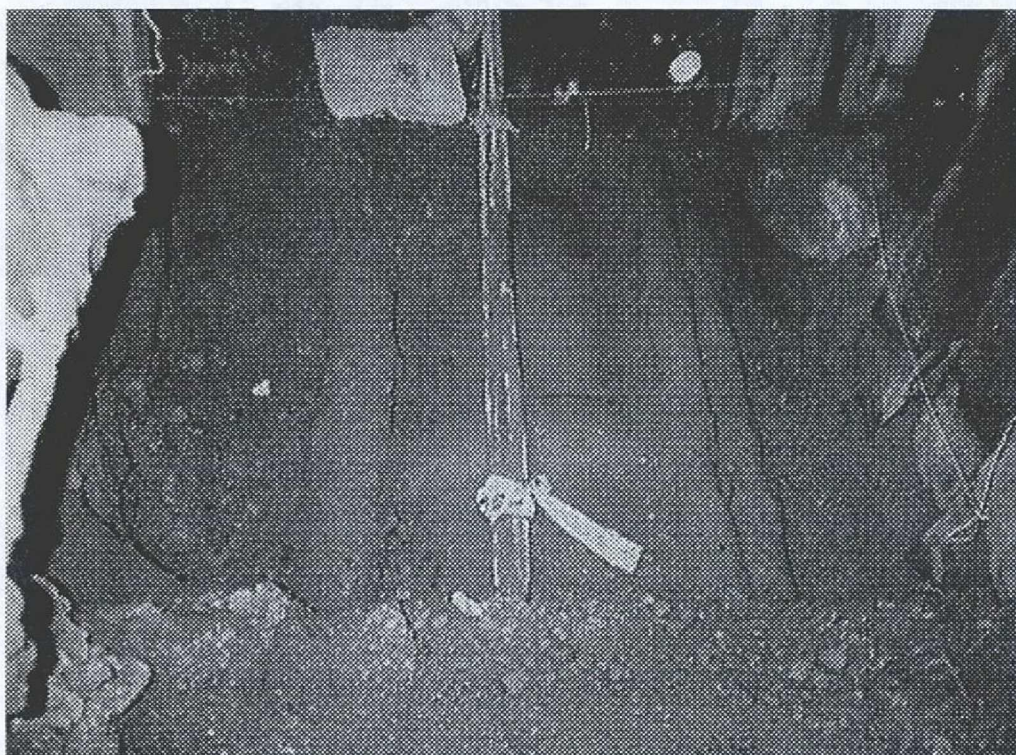












## BIBLIOGRAPHY

- Albert, Lillian Smith and Jane Ford Adams  
1951 *The Button Sampler*. New York: Gramercy Publishing Company.
- American Scenic and Historic Preservation Society  
1915 Twentieth Annual Report.
- Anonymous  
1897 *Old New York*. New York: G.P. Putnam's Sons.
- Boessneck, J.  
1970 Osteological Differences Between Sheep and Goats. In *Science in Archaeology*. D. Borthwell & E. Higgs (eds). New York: Praeger Publ.
- Boger, Louise Ade  
1971 *The Dictionary of World Pottery and Porcelain*. New York: Charles Scribner's Sons.
- Bowers, Brian  
1982 *A History of Electric Light & Power*. Stevenage, UK: Peter Peregrinus Ltd.
- Brighton, Steven  
1996 Findings From Pottbaker's Hill. Paper presented to the Metropolitan Chapter of the New York State Archaeological Association. April 2, 1996.
- Bromley, George W. and Walter S.  
1891 *Atlas of the City of New York, Manhattan Island, from actual survey and official plans*. Plate 2 Part of Wards 2, 3, 4, 5, and 6.
- Chisman, Evelyn Meade  
1978 *Small Dolls and Other Collectibles*. New York: Drake Publishers.
- City of New York  
n.d. General Plan showing layout for supplying Steam heat Electricity and Water to the City Hall, County Court and City Court Bldgs. from the Power Plant in the Hall of Records, Borough of Manhattan.
- City of New York, Department of Parks & Recreation  
1982 City Hall Park, Borough of Manhattan Topographic Survey. Surveyed by Norman Porter Associates on 4 Dec. 1981-24 Dec. 1982. File Map No. M-T-13-2.
- City of New York, Department of Public Works, Division of Engineering Services  
1963 Topographical Map showing site for Manhattan Civic Center Area located between Chambers St. and Reade St., west of Elk St. Borough of Manhattan. Number TR423/427V. Re-dated April 3, 1974.

- Claassen, Cheryl  
1994 Washboards, Pigtoes, and Muckets: Historic Musseling in the Mississippi Watershed. *Historical Archaeology* 28(2).
- Copeland, Robert  
1988 Blue and White Transfer-Printed Pottery. Shire Album 97. Originally published in 1982. Buckle, UK: Shire Publications Ltd.
- Davis, Alex J.  
1825a Design for improving the old Almshouse. Imbert's Lithograph. In *Studies in Architecture* by Col. John Trumbull.  
1825b Old Almshouse on Chambers Street New York in 1825. Drawing in the Collection of the New-York Historical Society, neg. 50707-H.  
1829 Academy of Science and Art, New York. In *Studies in Architecture* by Col. John Trumbull.
- Doggett, John Jr.  
1851 *Doggett's New York City Street Directory for 1851*.
- Dripps, Matthew  
1851 *Map of the City of New-York extending northward to Fiftieth Street*. Library of Congress G3804.N4 1851.D7.
- DuBois, J. Harry  
1972 *Plastics History U.S.A.* Boston: Cahnners Books.
- Fike, Richard E.  
1987 *The Bottle Book: A Comprehensive Guide to Historic, Embossed Medicine Bottles*. Salt Lake City: Gibbs M. Smith, Inc. Peregrine Smith Books.
- Gilbert, B.M.  
1985 *Avian Osteology*. Flagstaff, AZ.
- Godden, Geoffrey A.  
1992 *An Illustrated Encyclopedia of British Pottery and Porcelain*. Second Edition. Leicester, England: Magna Books.
- Grayson, D.K.  
1979 On the Quantification of Vertebrate Archaeofaunas. In *Advances in Archaeological Method and Theory*. Vol. 2, Pp. 200-239. M. Schiffer (ed.). New York: Academic Press.
- Harrison, John F.  
1852 *Map of the City of New-York Extending to Fiftieth Street*. New York: M. Dripps. Library of Congress G3804.N4 1852.H3.

Howard University and John Milner Associates

- 1993      Foley Square Federal Courthouse and Office Building, New York, New York. Research Design for Archaeological, Historical, and Bioanthropological Investigations of the African Burial Ground (Broadway Block), New York, New York. Prepared for General Services Administration Region 2. April 22, 1993.

Howson, Jean and Gale Harris

- 1992      African Burying Ground: National Register of Historic Places Registration Form. Prepared for the New York City Landmarks Preservation Commission. November 9, 1992.

Hunter Research, Inc.

- 1994a      African Burial ground and The Commons Historic District Archaeological Sensitivity Study. Report prepared for Mesick-Cohen-Waite Architects and the New York City Department of General Services.
- 1994b      Analysis of Cultural Materials Including Human Skeletal Remains Retrieved From Soils Originating From Chambers Street North of Tweed Courthouse at City Hall Park, Borough of Manhattan, New York City. Report prepared for Mesick-Cohen-Waite Architects.
- 1995      Archaeological Investigations in City Hall Park, Electrical Conduit Trench, Tweed Courthouse to Broadway, Borough of Manhattan, City of New York, New York State. Report prepared for Mesick-Cohen-Waite Architects. August 1995.

Ingle, Marjorie, Jean Howson and Edward S. Rutsch

- 1990      A Stage 1A Cultural Resource Survey of the Proposed Foley Square Project in the Borough of Manhattan, New York, New York. Report prepared by Historic Conservation and Interpretation, Inc. for Edwards & Kelcey Engineers, Inc.. September 1989, Revised May 1990.

Jamieson, Ross W.

- 1995      Material Culture and Social Death: African-American Burial Practices. *Historical Archaeology* 29(4):39-58.

Jarvis, LeGrand

- 1818      *Map of the Sixth Ward, New York*. June 1, 1818. Topographic Bureau accession number 205.

Jones, Olive

- 1971      Glass Bottle Push-Ups and Pontil Marks. *Historical Archaeology* 5: 62-73.

Jones, Olive and E. Ann Smith

- 1985      *Glass of the British Military 1755-1820...* Studies in Archaeology, Architecture and History. Ottawa: National Historic Parks and Sites Branch, Parks Canada, Environment Canada.

- Jones, Olive and Catherine Sullivan  
1989 *The Parks Canada Glass Glossary for Description of Containers, Tableware, Flat Glass, and Closures. Studies in Archaeology, Architecture, and History.* Ottawa: National Historic Parks and Sites Branch, Parks Canada, Environment Canada.
- Ketchum, William C., Jr.  
1983 *Pottery and Porcelain.* New York: Alfred A. Knopf.
- 1991a *American Redware.* New York: Henry Holt and Company.
- 1991b *American Stoneware.* New York: Henry Holt and Company.
- Kovel, Ralph and Terry  
1986 *Kovel's New Dictionary of Marks: Pottery and Porcelain 1850 to the Present.* New York: Crown Publishers, Inc.
- Longworth, D  
1852 *Plan of the City of New York, 1808.* New York: G. Hayward. Library of Congress G3804.N4 1808.L6.
- Majewski, Teresita and Michael J. O'Brien  
1987 The Use and Misuse of Nineteenth-Century English and American Ceramics in Archeological Analysis. *Advances in Archaeological Method and Theory* 11:97-209, M. Schiffer (ed.).
- McKee, Larry  
1994 Is It Futile to Try and Be Useful? Historical Archaeology and the African-American Experience. *Northeast Historical Archaeology* 23:1-7.
- Miller, George L.  
1987 Origins of Josiah Wedgwood's Pearlware. *Northeast Historical Archaeology* 16: 80-92.
- 1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1):1-25.
- Miller, George L. and Robert H. Hunter, Jr.  
1990 English Shell Edged Earthenware: Alias Leeds, Alias Feather Edge. *Thirty-Fifth Wedgwood International Seminar* 201-232.
- Mohl, Raymond  
1971 *Poverty in New York, 1783-1825.* New York: Oxford University Press.
- Myers, Susan H.  
1978 The John Paul Remensnyder Collection of American Stoneware. November 1978 - November 1979. Washington, D.C.: The National Museum of History and Technology, Smithsonian Institution.

New York City

multiple years Annual Record of Assessed Valuation of Real Estate.

1917 Minutes of the Common Council of New York, 1784-1831. New York: Dodd and Mead.

New York City Commissioner of Public Works

1871 Map showing the grades of the streets embraced within the area bounded by Chambers, Bleecker and Chatham Streets, Broadway and the Bowery as fixed and established. April 18, 1871. Topographic Bureau accession number 2856.

New York City Department of Borough Works

1939 Curb, Gutter, Pavement and Trade Grades... February 6, 1939. Topographic Bureau accession number 27814.

1941 Map Showing a Change in the City Map by widening Chambers Street along the Southerly side between Broadway and Centre Street... April 15, 1941. Topographic Bureau accession number 28142.

1942 Contract Plan for Regulating, Widening and Repaving with Used Granite Block Furnished by the City on a Concrete Foundation the Widened Areas of Chambers Street From Centre Street to Broadway and Centre Street. May 22, 1942. Topographic Bureau accession number 28383.

New York City Department of Parks and Recreation

1869 Paving City hall Park - Fisk Concrete Pavement. Drawing # 2041.

New York City Mayor's Office

1993 *City Environmental Quality Review/Technical Manual*. Issued by Mayor's Office of Environmental Coordination. December 1993.

New York City Topographic Bureau

1916 Change of grade, Chambers Street, Centre Street to Broadway. Dated November 29, 1916. Topographic Bureau accession number 22797.

1959 Street Paving of All Kinds, Borough of Manhattan.

New York County Court

1898 Hall of Records Property Owners Proofs of Title and Value. 3 Volumes.

1901 Notice of Argument. Hall of Records. Filed September 21, 1901.

New York County Register of Deeds

various dates

Noble, Vergil E.

1996 Yesterday, Today, and Tomorrow: A Plea for Change in the Practice of Historical Archaeology. *Historical Archaeology* 30(2):74-85.

- Noël Hume, Ivor  
1991 *A Guide to Artifacts of Colonial America*. Originally published 1969. New York: Vintage Books.
- Pagano, Daniel  
1992 Memorandum to Dominic Butler, P.E., DEP from Daniel Pagano LPC. Subject: City Hall Park, Water Main Excavations.
- Perris  
1853 *Maps of the City of New York surveyed under directions of insurance companies of said city*. Volume 3. Plate 28.
- Ramsay, John  
1939 *American Plates and Pottery*. Boston: Hale, Cushman and Flint.
- Roberts, Michael E.  
1989 Ethics and Archeology for Profit. In *Predicaments, Pragmatics, and Professionalism: Ethical Conduct in Archeology*. Society of Professional Archeologists Special Publication 1.
- Rode, Charles R.  
1853-4 *The New-York City Director for 1853-1854*.
- Ross, S. T.  
1988 Objects of Charity: Poor Relief, Poverty, and the Rise of the Almshouse in Early Eighteenth Century New York. In *Authority and Resistance in Early New York*. Pp. 138-172. W. Pencak & C.E. Wright (eds). New York Historical Society.
- Sanborn-Perris  
1894 *Insurance Maps of the City of New York*. Volume 1. Plate 9.
- Schmid, E.  
1972 *Atlas of Animal Bones*. Amsterdam: Elsevier Publ. Co.
- Serrell, John  
1861 Map of Commissioners, Appointed to Appraise the Value of the Land Proposed to be Acquired and Taken by the Board of Supervisors of the County of New York, pursuant to Provisions of an Act, Entitled, An Act to Enable the Supervisors of the County of new York, to Acquire and Take Lands for the Building of a Court House in Said County, Passed, April 10, 1861. Topographic Bureau accession number 2102.
- South, Stanley  
1978 Evolution and Horizon as Revealed in Ceramic Analysis in Historical Archaeology. In *Historical Archaeology: A Guide to Substantive and Theoretical Contributions*. Robert L. Schuyler (ed.). Pp. 68-82. Reprinted. Farmingdale, NY: Baywood Publishing Company, Inc. Originally published 1971. In *The Conference on Historic Site Archaeology Papers* 6(2):71-106.

- Stokes, I.N. Phelps  
1915        *The Iconography of Manhattan Island*. 6 Volumes. New York: Robert H. Dodd.
- Taylor, Will L.  
1879        *The City of New York*. New York: Galt and Hoy. Library of Congress G3804.N4A3  
1879.T3.
- Toulouse, Julian Harrison  
1969a       A Primer on Mold Seams. *Western Collector* 7. November 1969: 526-535.  
1969b       A Primer on Mold Seams. *Western Collector* 7. December 1969: 578-587.
- Trumbull, Col. John  
n.d.        Trumbull's Almshouse. In *Studies in Architecture* by Col. John Trumbull.
- Tucker, H.Q., M.M. Voegeli & G.H. Wellington  
1952        *A Cross Sectional Muscle Nomenclature of the Beef Carcass*. East Lansing, MI:  
Michigan State College Press.
- U.S. Department of Interior  
1991        *Curation of Federally-Owned and Administered Archeological Collections*. 36 CFR Part  
79. Washington, DC: U.S. Department of Interior, National Park Service. Cultural  
Resources, Departmental Consulting Archeologist, Archeological Assistance.
- Vail, R.W.G.  
1954        *Knickerbocker Birthday - A Sesqui-Centennial History of the New-York Historical Society,  
1804-1954*. New York: New-York Historical Society.
- Wills, Geoffrey  
1989        *Wedgwood*. Secaucus, NJ: Chartwell Books, Inc.
- Wilson, Henry (compiler)  
1852-3      *The Directory of the City of New-York for 1852-1853*. New York: John F. Trow.  
1862        *Trow's New York City Directory*.



## Appendix A

### 31 - 52 Chamber Street Utility Trench Project Archaeological Scopes of Work and Requests and Landmarks Preservation Commission Permits, Reports and Correspondence

DGS Provided Scope of Work for Archaeological Monitoring for the 31 - 52 Chambers Street Utility Trench Project

Scope of Work for Archaeological Monitoring - October 25, 1995

Landmarks Preservation Commission Permit Report - Docket # 96-1640; PMW # SR96-0040 - October 27, 1995

Modification to the Scope of Work for Archaeological Monitoring - November 30, 1995

Scope of Work for Archaeological Documentation of the Brick Feature - December 4, 1995

Landmarks Preservation Commission Requests to Modify the Scope of Work - December 11 & 12, 1995

Addendum to the Modification of the Scope of Work - December 12, 1995

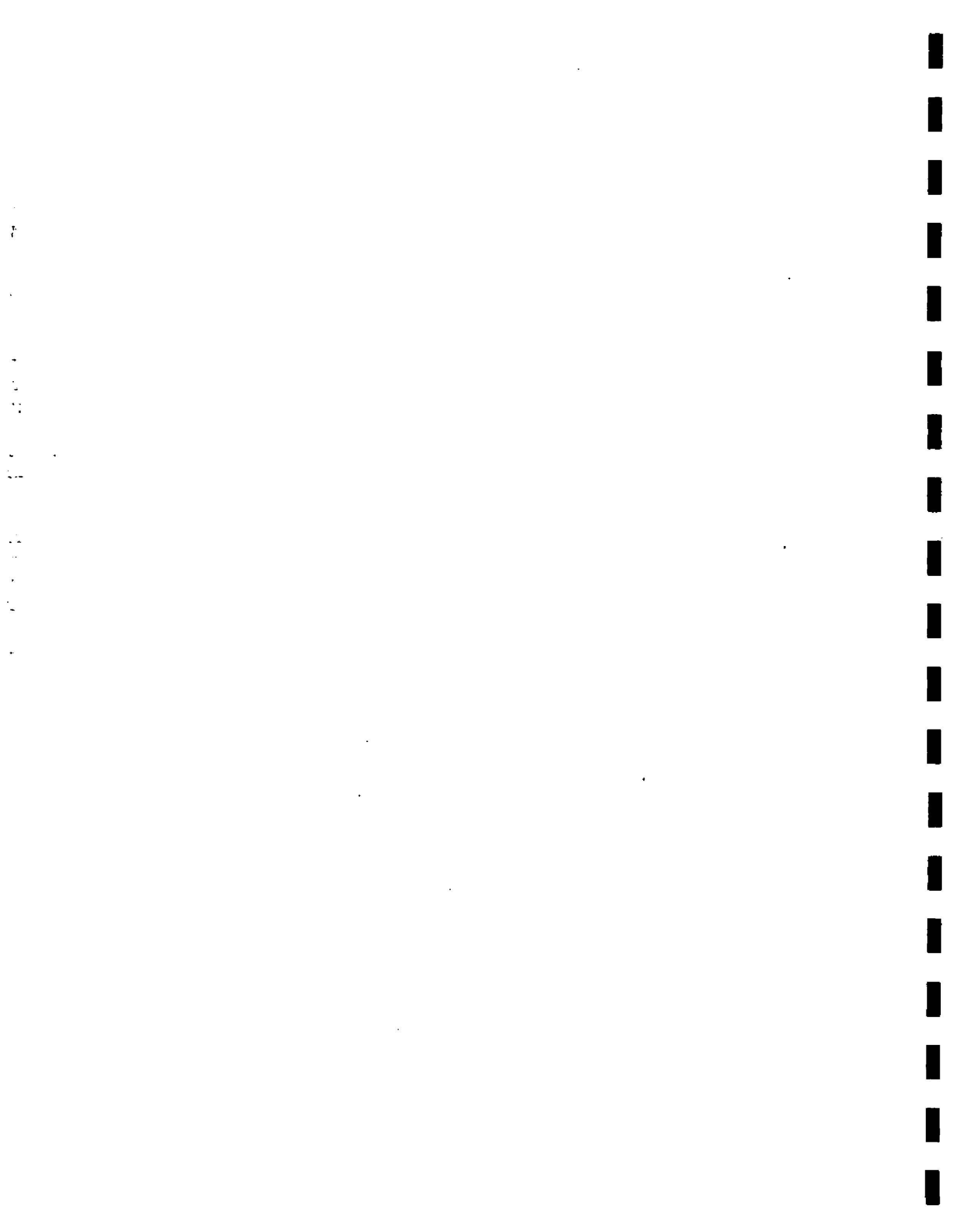
Amendment to the Scope of Work - December 15, 1995

Landmarks Preservation Commission Staff Report Amendment - LPC 96-2178; MISC 96-0060 - December 18, 1995

Letter Request for Guidance on Determining Appropriateness of Thin-Section Analysis - December 19, 1995

Modification and Addendum to the Scope of Work of Archaeological Excavation in City Hall Park - December 22 & 31, 1995

Landmarks Preservation Commission Staff Report Amendment - LPC 96-2401; MISC 96-0088 - February 9, 1996



**Scope of Work for proposed trench leading from a point on the eastern side of Tweed Courthouse, proceeding north along the western edge of a segment of City Hall Park, easterly along the south side of Chambers Street, and north across Chambers Street into the Hall of Records**

The Department of General Services, City of New York, is requesting proposals for work which will take place within the African Burial Ground Historical District for the purpose of laying cooling pipes between Tweed Courthouse and the Hall of Records on Chambers Street. The proposed project consists of the excavation of a trench six feet wide by seven feet deep (except where noted below in paragraphs a and b) by 230 feet long (containing an estimated 6000 cubic feet of dirt) running from a point on the east side of Tweed Courthouse, across an existing driveway, north along the extreme western edge of City Hall Park and the sidewalk along Chambers Street, easterly along the south side of Chambers Street, thence north across Chambers Street to the Hall of Records on the north side of Chambers Street (see attached figure). The proposed trench will follow the path of an existing steam tunnel which was installed around 1916.

a) A 20-foot segment of the proposed trench lying within Chambers Street contains a three-foot diameter clay pipe, wrapped with asbestos material. This will be removed, bagged and disposed of off-site by the general contractor. The removal process will include two inches of dirt from around the pipe as required by abatement procedures. At no time will any of this material be screened or otherwise investigated by archaeologists. This segment of the project will be excavated to a depth of up to ten feet to accommodate the removal of the pipe and asbestos material.

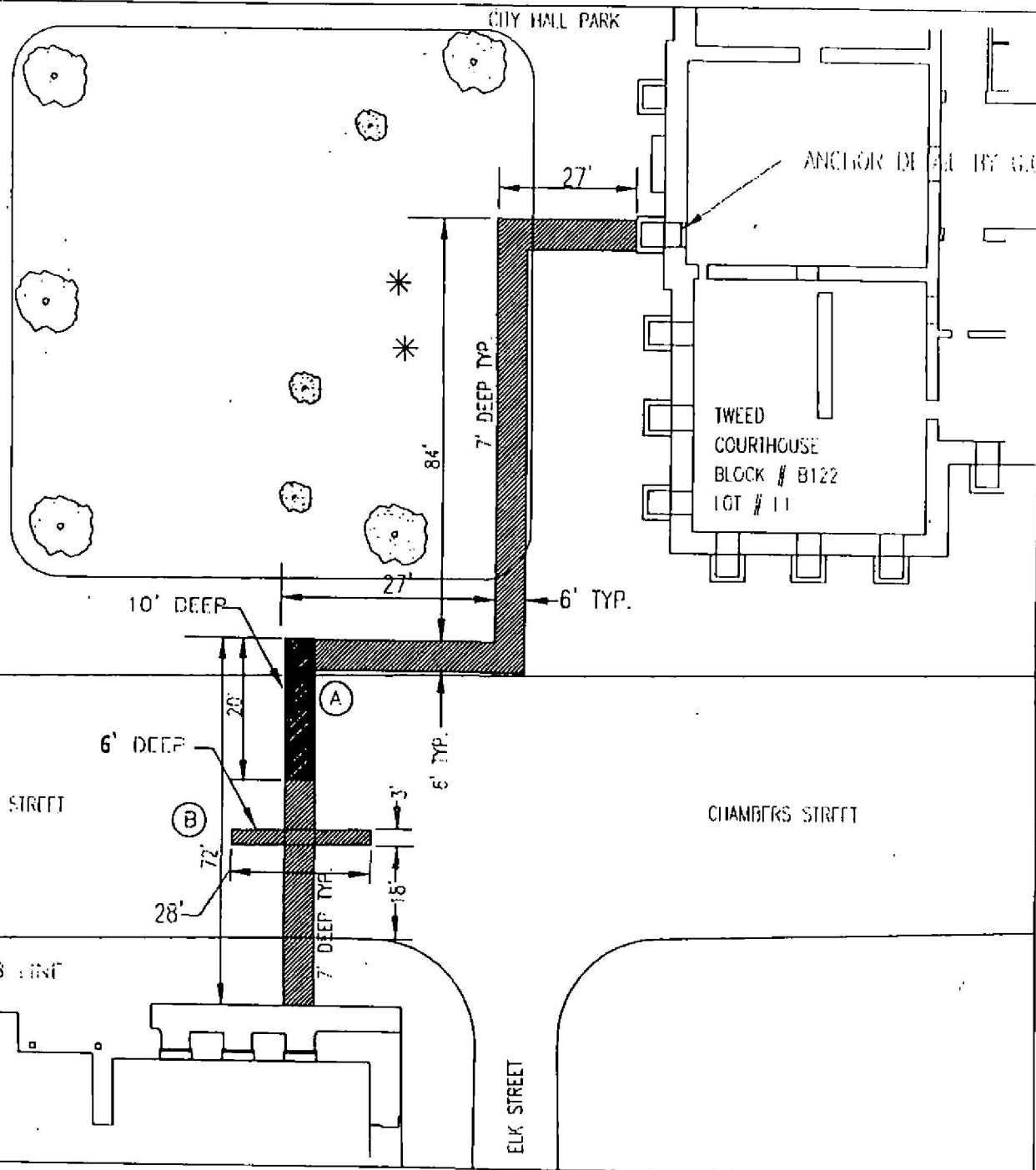
b) A 12-inch diameter low pressure water line extends through the westbound lane of Chambers Street, just north of the center line at an estimated depth of between five and six feet. At this point, an east-west trench extending for 28 feet (14 feet on either side of the existing clay pipe) will be excavated to the depth of the pipe in order to replace a segment of the pipe as required City code.

Requirements call for archaeological monitoring of mechanical trenching in its entirety by a professional archaeologist (certified by the Society of Professional Archaeologists). Fieldwork will include monitoring and photographing the trench during the mechanical excavation. No screening of soils will take place, and there only will be informal recovery of any cultural materials observed within redeposited soils. A brief follow-up report describing the observations made during the fieldwork is to be submitted at the close of the project. It is understood that there will be no controlled excavations within any redeposited soils that have been used to backfill the trench when it was originally excavated in 1916. The cost of controlled archaeological excavations, analysis of cultural materials and completion of a full report is therefore excluded from this work scope. If intact soils are encountered during the trenching activities which will require controlled archaeological investigations, the mechanical excavation will be immediately halted and the cost for archaeological excavation will be negotiated separately.

Because of the location of the trench there is a strong possibility of human remains being encountered. Given the results of previous subsurface excavations in the area, it is probable that these remains are not from intact burial pits, but are materials that have been disturbed and reburied during these activities. Any remains that are recovered from disturbed contexts are to be retrieved from the excavated soil, carefully packed in temporary storage units and placed in a secure area. At the completion of the project, all human remains from redeposited soils which may be encountered during the excavation of the trench will be reburied within the trench. No screening of soils, cleaning of recovered bone or cultural materials, photographs, or inventory of recovered cultural material is to be undertaken.

If intact burials are encountered in previously undisturbed soils, the archaeologist will immediately direct the excavator to halt excavation activities, and the proper authorities will be notified of the presence of the burial(s). Any excavation of intact burials will be negotiated under a separate contract.

The work schedule for the proposed project requires excavation and backfill to take place on five weekends (Saturday and Sunday) at 10 hrs/day and four weekdays at 8 hrs/day.



THE CITY OF NEW YORK  
 DEPARTMENT OF GENERAL SERVICES  
 FACILITIES MANAGEMENT & CONSTRUCTION

CHAMBERS ST. TRENCH  
 PLAN

DATE: 10/17/95

**SCOPE OF WORK  
FOR ARCHAEOLOGICAL MONITORING OF UTILITY TRENCH EXCAVATIONS  
AT CHAMBERS STREET AND CITY HALL PARK  
CONNECTING TWEED COURTHOUSE TO HALL OF RECORDS  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F**

October 25, 1995

The Department of General Services (DGS), City of New York is planning to lay cooling pipes between Tweed Courthouse and the Hall of Records on Chambers Street. For purposes of this scope of work, their excavation consists of the excavation of a trench six feet wide by seven feet deep (except where noted below) by 230 feet long. It will run from a point on the east side of Tweed Courthouse, across an existing driveway, north along the extreme western edge of City Hall Park and the sidewalk along Chambers Street, easterly along the south side of Chambers Street, thence north across Chambers Street to the Hall of Records on the north side of Chambers Street (see attached figure). The proposed trench will follow the path of an existing steam tunnel which was installed around 1916. Plans of existing conditions and the proposed trench are being transmitted under separate cover.

A 20-foot segment of the proposed trench lying within Chambers Street contains a three-foot diameter clay pipe; wrapped with asbestos material. This will be removed, bagged and disposed of off-site by the general contractor. The removal process will include two inches of dirt from around the pipe as required by abatement procedures. At no time will any of this material be screened or otherwise investigated by archaeologists. This segment of the project will be excavated to a depth of up to ten feet to accommodate the removal of the pipe and asbestos material.

A 12-inch diameter low pressure water line extends through the westbound lane of Chambers Street, just north of the center line at an estimated depth of between five and six feet. At this point, an east-west trench extending for 28 feet (14 feet on either side of the existing clay pipe) will be excavated to the depth of the pipe in order to replace a segment of the pipe as required by City code.

DGS provided a scope of work prepared by Hunter Research in consultation with their office and input from the Landmarks Preservation Commission (LPC). That scope was sent to potential bidders to use in preparing proposals. Major portions of that scope of work have been incorporated into this document. Changes and additions have been made which clarify aspects of the earlier scope and better define the task at hand. Key differences are in the disposition of any redeposited human remains recovered, more technical definitions of cultural material which may be recovered, better definition of temporary storage of human remains, and a discussion of the contents of the final report.

Requirements call for archaeological monitoring of mechanical trenching in its entirety, including an area where asbestos abatement will be undertaken, by a professional archaeologists (certified by the Society of Professional Archaeologist). The work schedule for the proposed project requires excavation and backfill to take place on five weekends (Saturday and Sunday) at 10 hrs/day and four weekdays at 8 hrs/day. Fieldwork will include monitoring and photographing the trench during the mechanical excavation (or hand excavation of the trench by the contractor). This will necessarily require the excavator to conduct work in a slower and more careful manner and to be responsive to requests from the archaeologist to scrape carefully and perhaps to stop briefly while the archaeologist examines soils

in and photographs the trench. This scope assumes this has been taken into account when the time frame in the scope was developed. The scope indicates the possibility of intact archaeological deposits. Therefore it is even more critical that the excavator and the archaeologist have an understanding of what such intact deposits might look like and what may be found in them. If intact deposits are encountered, the scope requires mechanical excavation in areas to be immediately halted while another contract can be negotiated. It should be noted, in this case, the archaeological consultant would contact DGS and the Archaeological Director of the LPC to request an inspection of the trench and provide independent confirmation of the intact finding(s).

It is understood that there will be no controlled excavations within any redeposited soils that have been used to backfill the trench when it was originally excavated in 1916. The cost of controlled archaeological excavation, analysis of cultural materials and completion of a full report is therefore excluded from this work scope. No screening of soils will take place during this monitoring contract. Should the archaeologist identify potentially diagnostic artifacts in the trench excavation within redeposited soils or backdirt, these materials will be recovered. No provenience will be established for recovered materials other than date of excavation. A daily field log will be kept on the trench recording progress of excavation. If it is possible to identify a general depth of recovered materials, such as "near surface" or "base of trench", this will be done. However, this most likely will not be possible. No cleaning of recovered bone or cultural materials, or analysis will be undertaken as part of this contract. Photography of recovered materials will be kept to a minimum. A preliminary inventory of recovered cultural material and a count of recovered human bone(s) or fragments will be made. No analysis of any of any recovered cultural material or human remains will be undertaken as part of this contract. A brief report describing the observations made during the fieldwork is to be submitted at the close of the project. This report will include the trench plan drawing, photographs and descriptions of the trench excavations, excavation methodology, descriptions of artifact and human remains recovered, and a preliminary inventory of artifacts and human remains count (should there be any). Should any intact archaeological deposits be identified, their location(s) will be shown on a trench plan similar to that attached. This scope also includes responses to one set of report comments each from DGS and LPC. However it does not include revisions which require work or analyses which were not part of the scope or contract. These types of revisions could be made with appropriate revisions to the contract and budget.

Because of the location of the trench, there is a strong possibility of human remains being encountered. Given the results of previous subsurface excavations in the area, it is probable that these remains are not from intact burial pits, but are materials that have been disturbed and reburied. Any remains that are recovered from disturbed contexts are to be retrieved from the excavated soil, carefully packed in acid-free tissue paper and stored in buffered archival boxes on a temporary basis and placed in a secure area in the Tweed Courthouse where human remains found during other DGS projects are stored. At the completion of the project, temporary storage of all human remains from redeposited soils which may have been encountered during the excavation of the trench will be maintained and reburial will take place at a later point in time. The issues surrounding reburial are not the subject of this scope or contract. DGS has taken full responsibility for that task.

Costs of attending meetings with members of the descendant community (on site or elsewhere), preparing correspondence or advise, or doing research for this component of work are not included in this scope. However if this task should become necessary, a modification to the contract and budget could be made. Further, DGS has been advised that the absence from the scope of identification, inventory, or analysis of human remains could be cause for concern. While analysis of "redeposited" human remains may not be appropriate, some lower level of documentation was advised. However this contract contains no provision for hiring a physical anthropological sub-consultant who could identify the remains and provide a count of the minimum number of individuals recovered from the trench.

All work associated with this scope; trench monitoring, potential recovery of diagnostic artifacts and human remains and potential identification of intact archaeological deposits will be supervised by an archaeologists certified by the Society of Professional Archaeologists (SOPA) assisted by up to two technicians. The SOPA archaeologist will personally prepare the brief report which will be completed within four weeks of completion of trench excavations.



THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION  
100 OLD SLIP NEW YORK, NY 10005 TEL: 212-487-6800 FAX: 212-487-6723

## REPORT

October 27, 1995	121/1-153/24	Manhattan	52 Chambers Street to 31 Chambers Street
DATE	BLOCK/LOT	BOROUGH	ADDRESS
October 27, 1999	96-1640	SR96-0040	African Burial Ground and the Commons Historic District
PERMIT EXPIRES ON	DOCKET #	PMW #	HISTORIC DISTRICT/NAME OF BUILDING

To the Mayor, the City Council, and the Commissioner of the New York City Department of General Services:

This report is pursuant to Section 25-318 of the Administrative Code of the City of New York, which requires such a report by the Landmarks Preservation Commission on plans for the construction, reconstruction, alteration or demolition of any improvement or proposed improvement which is owned by the City or is to be constructed upon property owned by the City and is or is to be located upon a landmark site or in an historic district or which contains an interior landmark.

The proposed work consists of excavating five interconnected trenches, a total length of 238 feet, with the following maximum dimensions: 1) twenty-seven feet long, six feet wide and seven feet deep, extending east from the eastern wall of the Tweed Court House; 2) eighty-four feet long, six feet wide and seven feet deep, extending north from the eastern most end of trench one; 3) twenty-seven feet long, six feet wide and seven feet deep, extending east along the southern sidewalk of Chambers Street from the northern most end of trench two; 4) seventy-two feet long and six feet wide, extending north across Chambers Street from the eastern most end of trench three, the southern twenty feet of which will be ten feet deep and the northern fifty-two feet of which will be seven feet deep; and 5) that is twenty-eight feet long, three feet wide and six feet deep, and extending from west to east perpendicular across trench four within the roadbed of Chambers Street. The trenches will commence at the eastern wall of the Tweed Court House at 52 Chambers Street and end at the northern wall of the Surrogates Court at 31 Chambers Street. The proposed work also includes refilling the pit with clean fill and resurfacing the pit with concrete and asphalt. All of the proposed work will take place within the African Burial Ground and the Commons Historic District as shown on an application and scope of work for archaeological monitoring dated October 24, 1995 and plan docketed by the Commission as #96-1640 with a site plan dated October 17, 1995, all of which were submitted as components of the application.

In reviewing this proposal, the Commission notes that the designation report states that the portion of lower Manhattan within the historic district has undergone intense public use since the mid-seventeenth century, resulting in the overlay of many significant historic improvements and resources--both above ground and below--all of which document the changing nature of the important area long devoted to communal, public, and civic purposes; and that, within the district, the African Burial Ground is historically significant in that it is one of the few preserved eighteenth-century African burial grounds in the Americas, and that it reflects the establishment at an early date of the society of Africans in New York City, which had one of the largest urban populations of Africans in the American colonies. The report also cites the significance of structures related to the civic use of the Commons. The Commission further notes that the location of the proposed work is within an area that is on the border of and may be within the African Burial Ground as illustrated on the 1795 partition map of the Van Borsum Patent; and a portion of the proposed work is within the designated African Burial Ground National Historic Landmark.

With regard to this proposal, the Commission finds that the proposed work will not require the removal of or damage to any significant above-ground features of the historic district; that the removal of street paving will be temporary in nature; that the streetbed paving to be excavated is composed of modern materials and is not a significant feature of the historic district; that the new streetbed paving will match the surrounding paving to remain in material, color, and detail, and therefore that the new paving will blend unobtrusively with the surrounding street paving.

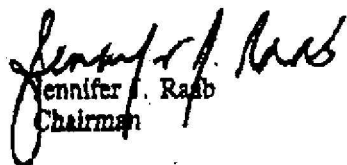
The Commission also finds that the location of the proposed work is within an area that is on the border of and may be within the African Burial Ground as illustrated on the 1793 partition map of the Van Borsum Patent, and a portion of the proposed work is within the designated African Burial Ground National Historic Landmark; that, although it has requested such materials, the Commission has not received measured plans and sections of existing conditions and thus it is unclear if the proposed excavation will be limited to the disturbance of only previously excavated soils within an existing utility corridor constructed in 1916; that the proposed archaeological monitoring methods will allow for observation of artifacts or other cultural material uncovered during the work; and there is medium to high probability of encountering intact archaeological deposits, features, or human burials in the proposed work area.

Based on these findings, and provided that the stipulation outlined below is followed, the Commission determines the proposed work to be appropriate to the African Burial Ground and the Commons Historic District, and has no objection to the proposed work proceeding. The proposed work, therefore, is approved.

In issuing this report, the Commission stipulates that should archaeological features consisting of artifacts, human remains or other cultural materials be encountered during the course of work, work should stop immediately pending Commission notification and review. If such materials are encountered, contact Daniel Pagano, Director of Archaeology, at (212) 487-6848.

The approved work is limited to that described above. Other work or amendments to this filing must be reviewed and approved separately. Direct inquiries and correspondence related to this permit to Daniel Pagano, Director of Archaeology.

Sincerely,

  
Jennifer A. Raab  
Chairman

IJR/dnp

cc: Herbert Lackner, Director, Bureau of Design and Construction, NYC DGS  
Ken Egan, Chief Engineer, City Hall Buildings  
Frank Addeo, Asst to Chief of Staff, Commissioner's Office, NYC DOT  
Lynee Fealy, Manhattan Permit Supervisor/NYC DOT BOH  
Peggy King-Jorde, Mayor's Office, African Burial Ground Project  
Linda Stone, Archaeological Consulting  
Anne Seel, Alex Herrera, Jeremy Woodoff, Gina Sanucci, Daniel Pagano, Files

**MODIFICATION OF THE  
SCOPE FOR ARCHAEOLOGICAL WORK  
WITHIN THE UTILITY TRENCH LOCATION  
AT CHAMBERS STREET AND CITY HALL PARK  
CONNECTING TWEED COURTHOUSE TO HALL OF RECORDS  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F**

November 30, 1995

The following scope modification refers to the original scope of work prepared by Linda Stone on October 25, 1995. Based on the ongoing work as conducted according to the original scope, a reevaluation of that scope was deemed necessary by the findings to date. It should be noted that two modifications to that scope have already been approved and implemented. The first modification was the addition of a physical anthropologist. The second was the change in wording of the original scope to accommodate weekday work for artifact collection from previously excavated backdirt. The following modification relates to the addition of an archaeological excavation unit, inclusion of analysis of all recovered materials, and a change in the reporting to reflect these modifications. These changes are necessitated by several factors; the homogeneity of the soils in the park area, the proximity to potentially "virgin soils", the difference in size of the 1916 conduit between the street and the park, the unavailability of plans showing the precise limits of the 1916 disturbance, the possibility of encountering intact remains in "virgin soil", and the recovery of a substantial number of human bone fragments, faunal bones and diagnostic artifacts.

Using the methodology of monitoring and collecting artifacts from the excavate in the park area has not provided an accurate picture of the 1916 disturbance. This is because the soils in that area, as opposed to those encountered in Chambers Street and the sidewalk, are more homogeneous. The indigenous soil is a reddish brown slightly silty sand. The encountered artifact density is low. However a substantial number of diagnostic artifacts have been recovered, as well as faunal bone and fragments of previously displaced human remains. The most notable is a fragment of a human skull measuring a few inches in diameter which was recovered from near the bottom of the trench excavation toward the northern end of the park. Although this skull fragment is not from a primary or burial context, it is significant that such a sizable fragment was recovered from such a depth. It leads one to speculate about the location of the rest of the remains of that individual, as well as the location of other potential archaeological remains in that area. Using the backhoe in this context, it is not possible to discern the actual limit of the 1916 excavations. One may speculate, based on the eighteen inch diameter and the location of that pipe, off center of the utility trench in the part of the park already excavated, that intact remains could be encountered at the interface. The placement of an archaeological excavation unit in this area could address these issues as well as to provide a more scientific baseline on artifact density which could be quite useful in planning future actions within that area of the park.

The attached schematic plan, also provided with the original scope of work, shows the general location of the planned excavation unit. It should be noted this plan drawing is not to scale and that the dimension of the portion of the trench within the Chambers Street sidewalk is identified incorrectly. That dimension is actually 40 feet, according to the scaled site plan (Drawing Number GC-2 of 5, portion attached), not 27 feet. The proposed excavation unit will be placed within the limits of the utility trench and excavated into an area which has not yet been disturbed as part of this project. The unit will be four by six feet, the entire width of the utility trench. It will be excavated to the depth of the planned impact

from the utility trench, about six and a half feet. At a depth of about five feet, shoring will be introduced to stabilize the unit. Primer Construction will provide the shoring. Excavation would proceed systematically and be conducted using the following archaeological methodology. Soils will be removed based on similar color and texture. In the expected absence of stratigraphic changes, soils will be removed in six to twelve inch increments, depending on field conditions. All soils excavated from the unit will be screened through 1/4 inch mesh for the recovery of artifacts. Each layer of soil will be measured, color compared with the Munsell soil color charts, and soil texture identified. These characteristics will be recorded along with any artifacts which the soil stratum may contain. This process will continue to the depth at which the top of the 1916 pipe is encountered.

To date, a range of diagnostic artifactual material has been recovered from the utility trench excavations. These materials date from the eighteenth century through 1916 when the pipe was placed. It was the original intention to provide an annotated listing of recovered finds along with a brief report, presuming a low density throughout the utility trench excavations. However artifact density has not been uniform and a large number of finds have been recovered, estimated to be close to 1500 at this time (although a count has not yet been completed). Recovered materials obviously relate to specific historic uses of this part of our city. Fragments of human remains could be associated with the African Burial Ground, the First Almshouse and Bridewell Burial Ground, or the execution and burial of Revolutionary War prisoners. Recovered sherds of locally manufactured stoneware are likely from the eighteenth century when the pottery industry had a foothold in the neighborhood. This presumption is bolstered by the finding of pieces of kiln furniture, used in manufacture of the stoneware. Pieces of three gun flints and a musket ball are presumed to date from uses of the area during the Revolutionary War period. The most prevalent finds during the utility trench excavations are pieces of faunal bone. These may have been associated with the former site of either the Barracks which were located in the park area during the mid-to late-eighteenth century or the nearby second Almshouse which was located in the area from the late eighteenth century through the mid-nineteenth century.

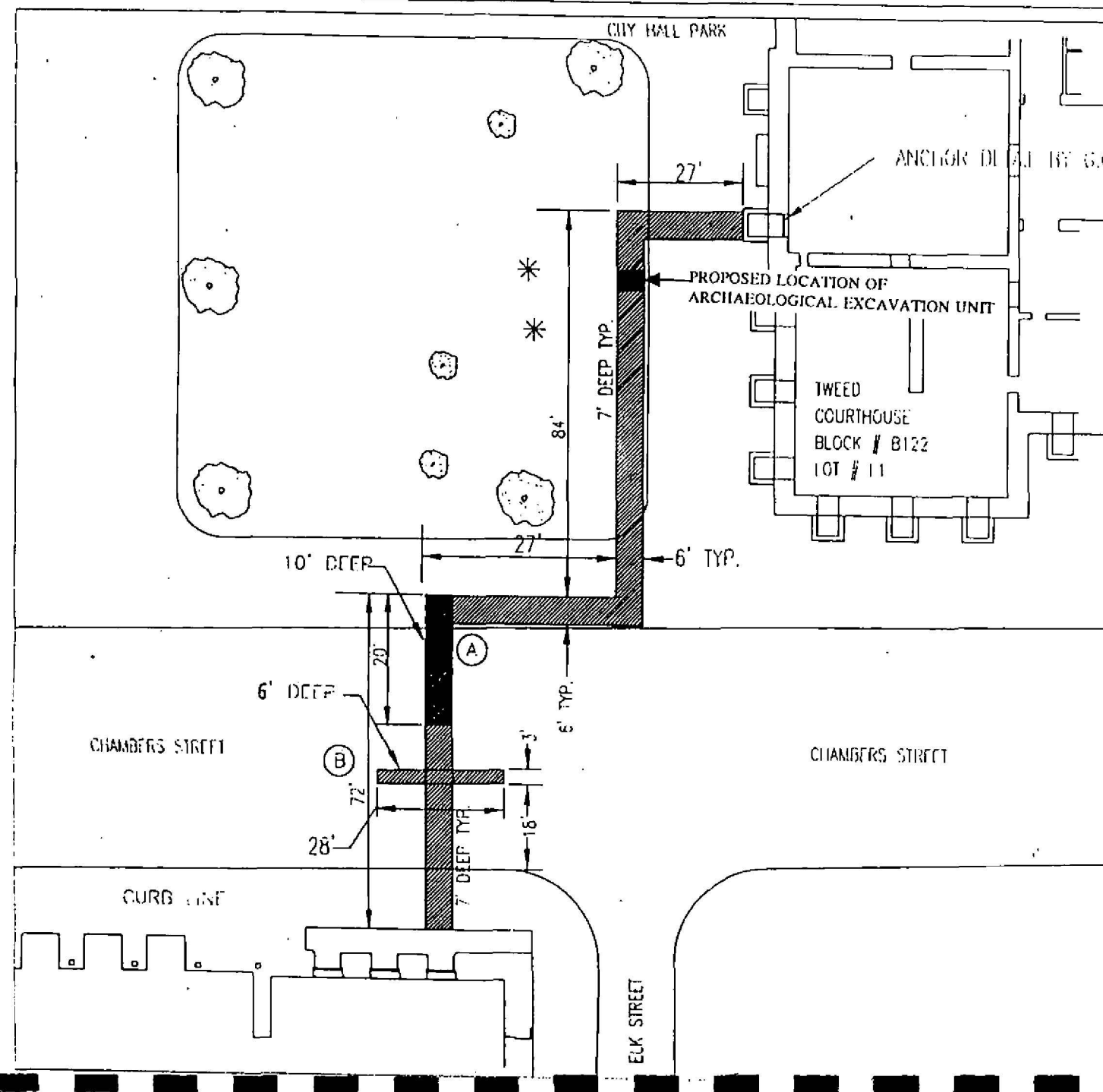
The number and obvious significance of the collection from the utility trench project warrant a more complete study. Therefore this scope proposes to incorporate the processing and analysis of recovered materials and to change the documentation and reporting. Artifacts recovered will be washed, labelled, identified, and inventoried while maintaining separate contexts based on date of excavation for finds from monitoring and collection and by provenience for material recovered from the excavation unit. Once the inventory is completed, an analysis of these materials will be conducted. The analysis will attempt to associate specific finds with specific known uses of the area and to provide a picture of the changing uses of the project impact area over time. However, because all of what has been recovered and most of what may be recovered before the completion of the project is from a previously disturbed context, some of these types of conclusions will necessarily be speculative.

The three areas of analysis most likely to provide more meaningful data are the analysis of the fragments of human bone, the analysis of faunal material and the analysis of the proposed archaeological excavation unit. The Physical Anthropologist has proposed modification of his scope based on the number and condition of recovered remains to date. He plans to evaluate the fragments of remains for mending, identification under powerful laboratory magnification, and comparison with laboratory anatomical specimens as well as making several thin sections of the cortical-cancellous bone surfaces for microscopic evaluation. He will take forensic measurements, evaluate for sex and age, and identify pathologies, as specific fragments may warrant. Analysis of the faunal collection will allow scientific conclusions to be reached about the types of animals consumed and the cuts of meat eaten. Comparisons can be made with faunal collections from other sites in lower Manhattan dating from time periods of

known use of the project area vicinity and from other sites with similar known uses in the wider region. It may be possible to use these comparisons to reach conclusions about the actual source of the faunal material recovered from the utility trench project as well as provide an opportunity to analyze the institutional economy from the most likely period of use, dating to the Second Almshouse. The analysis of the proposed archaeological excavation unit may be able to provide data on the limits of the 1916 trench excavations. Regardless, it will yield quantitative information on artifact density within the disturbed context of the 1916 trench in the park area.

To best accommodate the constraints of the project as originally designed, a scheduling of the archaeological excavation unit is recommended to take place during week days as soon as possible but completed no later December 17, the last scheduled weekend of work. Archaeological monitoring and collection will continue as in the October 25 scope of work.

Changes from the original scope in the type of reporting are necessitated by the proposed addition of an archaeological excavation unit and of an analysis component. An elimination of the "brief" report is recommended in lieu of two other written reports. The first would be a letter format report to be provided within two weeks of completion of trench excavations. This report will confirm the completion of the trench excavations, provide a summary of the archaeological component of the fieldwork, provide a quantified summary of recovered materials and refer to the second report for details. The second report will be a complete or final site report of the archaeological work and analysis associated with the utility trench excavations. It will be completed within two months of either the monitoring of backfill or removal of all excavated soils, whichever comes first. This report will detail the progress of the project and include complete sections on field methodology of both the monitoring and collection part of the project as well as the archaeological unit excavation, artifact processing and analysis, evaluation of the recovered human remains, and conclusions and recommendations. It will contain appropriate back-up documentation including a complete inventory of finds, photographs, magnification of microscopic sections of fragments of human remains, and drawings. Drawings to be presented will include the excavation site plans, the work completed by day of monitoring, archaeological excavation unit plans and profiles (as appropriate), and the DGS plan of existing conditions found during excavation (as to be provided by DGS).

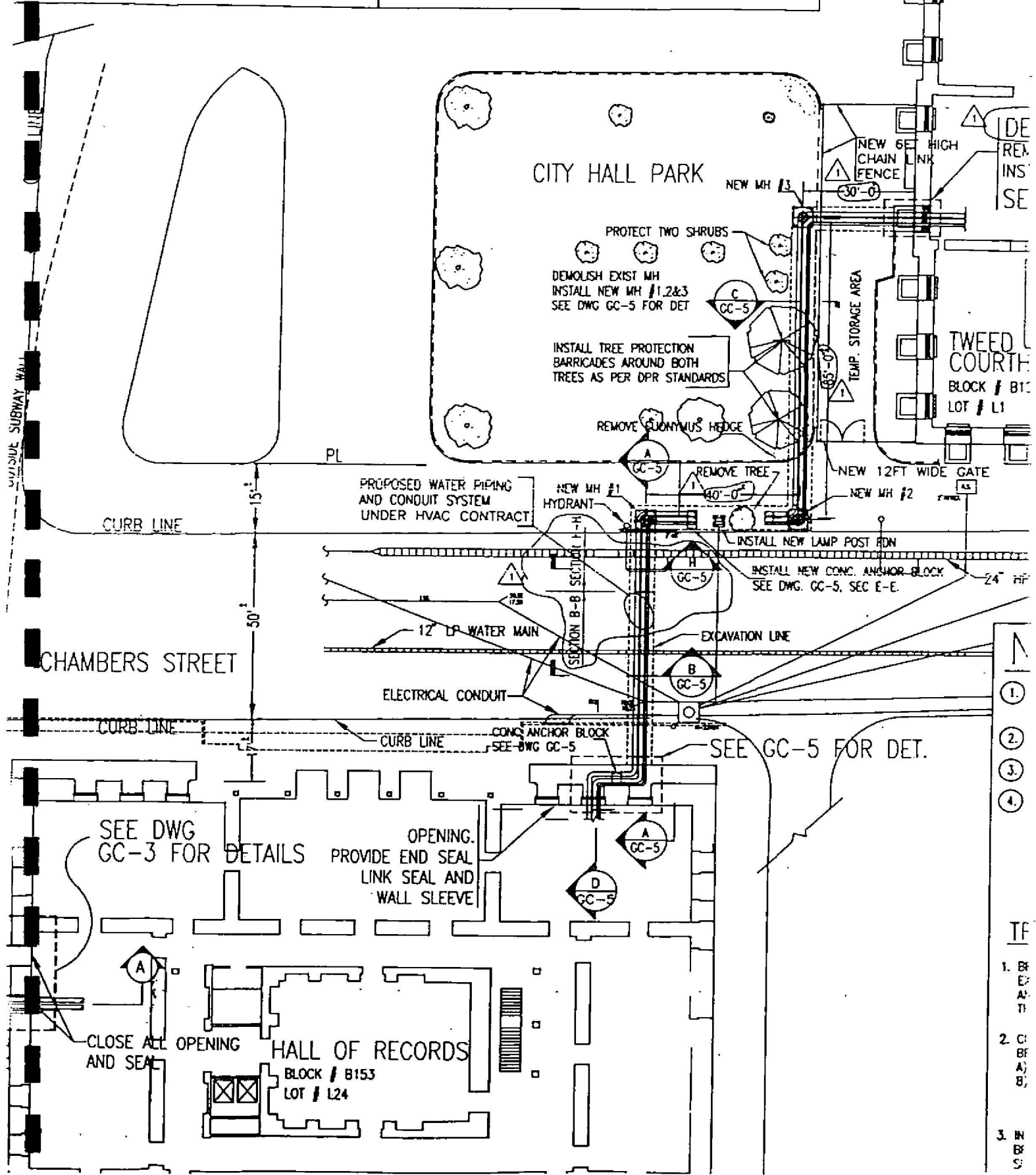


THE CITY OF NEW YORK  
DEPARTMENT OF GENERAL SERVICES  
FACILITIES MANAGEMENT & CONSTRUCTION

CHAMBERS ST. TRIMMED  
PLAN  
DATE: 10/17/95

THIS CONTRACT. COPIES CAN BE PICKED UP  
 JMWSTED CENTER, FLUSHING MEADOWS, CORONA PARK, NEW YORK.  
 THE PROTECTION AROUND THE TWO MAGNOLIA TREES AS PER  
 N.Y.C.D.S.  
 S. PRUNING IS REQUIRED FOR THE TWO MAGNOLIA TREES  
 SPECIFICATIONS. PRUNING OF THE TREES AND ANY PRUNING OF  
 SHALL BE DIRECTED IN THE FIELD BY THE DCS LANDSCAPE  
 TO THE EXISTING CONCRETE CURB, ASPHALT PATH/ROAD AND  
 FENCE SHALL BE RESTORED TO MATCH EXISTING CONDITIONS  
 SATISFACTION OF THE RESIDENT ENGINEER.

TREE AND INSTALL GRANITE BLOCK AS PER DPR STANDARDS.  
 LOCATION SHALL BE WITHIN 1/4 MILE OF CITY HALL PARK AS  
 DIRECTED IN THE FIELD BY THE DCS LANDSCAPE ARCHITECT.  
 8. CONTRACTOR SHALL SUPPLY AND INSTALL THE FOLLOWING PLANT  
 MATERIAL:  
 25 EUONYMUS KIATSCHOWICA 'MANHATTAN', 2'-2-1/2', B & B.  
 1 GLEDITSIA TRICANTHOS INERMIS, 1/2' CZIPEN, B&B  
 (SEE NOTE 7)



IDE  
 REM  
 INS  
 SE

TWEED  
 COURTH  
 BLOCK # B15  
 LOT # L1

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- 2.
- 3.
- 4.

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**SCOPE OF WORK  
FOR ARCHAEOLOGICAL DOCUMENTATION OF  
THE BRICK FEATURE IDENTIFIED  
WITHIN THE UTILITY TRENCH EXCAVATION  
OF THE NORTHERN LANE OF CHAMBERS STREET  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F**

December 4, 1995

The following is a proposed scope of work for archaeological documentation of the previously unknown brick, mortar, and asphalt feature identified during excavation of the northern lane of Chambers Street on December 3, 1995. It includes five components: 1) exposure of the top of the entire feature as well as the adjacent soil to identify a builder's trench, 2) archaeological excavation of one side of the exterior of the feature to examine the builder's trench, should one exist, 3) drawing and documenting the exterior of the feature, 4) archaeologically excavating the interior of the feature to identify deposits which may date from the period the feature went into disuse, and 5) drawing and documenting the interior of the feature.

The soil and rubble covering the feature will be removed by hand to expose the entire extent of the top of the feature. The same will be done for the soils to the south of the feature for an arbitrary distance of four feet and to the curb to the north. This process should provide an opportunity to evaluate for the presence or absence of a builder's trench. It is possible such a trench would contain materials dating to the time of construction of the feature. Whether or not a builder's trench is identified at this level, I recommend systematic excavation of an archaeological unit to further explore this possibility. If no builder's trench is exposed from the top, I would recommend a minimal effort be made to look a bit deeper by excavating down one foot further to be certain. If no builder's trench is identified at that point, the exterior of the feature could be removed in a less systematic way, without screening or measuring, until the base of the feature is exposed.

The archaeological excavation of the test unit or of a unit to excavate a possible builder's trench would proceed systematically and be conducted using the following archaeological methodology. The unit would be a width of three feet, or half of the trench width. It will extend out from the feature for a distance of at least three feet, or to an appropriate extent to encompass the entire width of a builder's trench, should one be identified. Soils will be removed based on similar color and texture. In the expected absence of stratigraphic changes, as may be the case in a builder's trench, soils will be removed in six to twelve inch increments, depending on field conditions. All soils excavated from the unit will be screened through 1/4 inch mesh for the recovery of artifacts. Each layer of soil will be measured, color compared with the Munsell soil color charts, and soil texture identified. These characteristics will be recorded along with any artifacts which the soil stratum may contain. This process will continue to the depth at which the base of the disturbance from the feature is identified or the top of the 1916 pipe is encountered, whichever is shallower. In the absence of a builder's trench, excavation would be to a depth of one foot below the soil surface.

Once the soil at the exterior of the feature is removed, measured drawings and photographs will be recorded to document the structure. All of the excavations will be tied into the nearby Hall of Records and the site plan drawings for mapping purposes. Once this documentation is completed, brick from the top of the feature will be dismantled to expose the interior cavity. An archaeological excavation unit is

recommended for the interior of the feature. This unit may provide data on the period the feature went into disuse. The methodology will be similar to that of the excavation unit along the exterior. However it is likely that the contents of the feature will be excavated in its entirety, that is to the six foot limit of the Chambers Street trench. This will enable the final documentation of the interior of the feature to include measured drawings and photographs.

Any recovered artifacts will be processed, identified, inventoried and analyzed. This analysis will accompany appropriate research into the relationship of the recovered material to the feature and its historic use. A final report will include sections on methodology, artifact analysis, results, and conclusions and recommendations. All work, including the final report, will meet the appropriate standards for data recovery and archaeological documentation.

ATTENTION:  
LINDA STONE  
FROM:  
DAVE H.

To: David Helowka, DGS, By Fax 888 3238  
From: Daniel Pagano  
CC: Mark Silberman, Gina Santucci  
Date: December 11, 1995

Please provide this to L. Stone and ask her to incorporate it with her current scope of work for archaeology. We would like to get a revised draft scope from L. Stone to clarify what archaeological work is needed to complete the job. LPC may have additional requests. We will keep you posted.

Draft scope of work for archaeological recording for SR96-2178, MISC revisions.

Eight locations are recommended for recording plan and section soil conditions, features and stratigraphy from north, south, east, and west, profiles and floor plans of existing construction trench(s) of the referenced project. These are provided in Attachment 1. Each location shall be recorded on a scaled drawing of the construction trench(s). Each location shall accurately record existing soil conditions, features and stratigraphy of no less than two wall profiles (north and south or east and west) and floor plans with dimensions approximately four feet long, six feet wide and seven feet deep. An exception is location # 7 which, based on the proposed construction trench dimensions, the recording plan and section shall be four feet long, three feet wide and six feet deep. All features shall be recorded and if artifacts are found within the plan and section are to be separated according to feature and recovered at the end of the immediate field recording effort. Plan records shall be made prior to the start of construction within the existing excavation trench.

All plans and sections along with an inventory of soil stratigraphy and features, and a catalog of artifacts recovered from them, shall be included in the archaeological report documenting the entire construction project.

The Commission shall be notified so a representative may observe trench walls and profiles at the time of archaeological profile recording and at the time shoring is removed from the sides of the construction trench.

P:\DIG\96-2178.MS2

CITY OF NEW YORK  
DEPARTMENT OF GENERAL SERVICES

REC'D DEC 11 1995

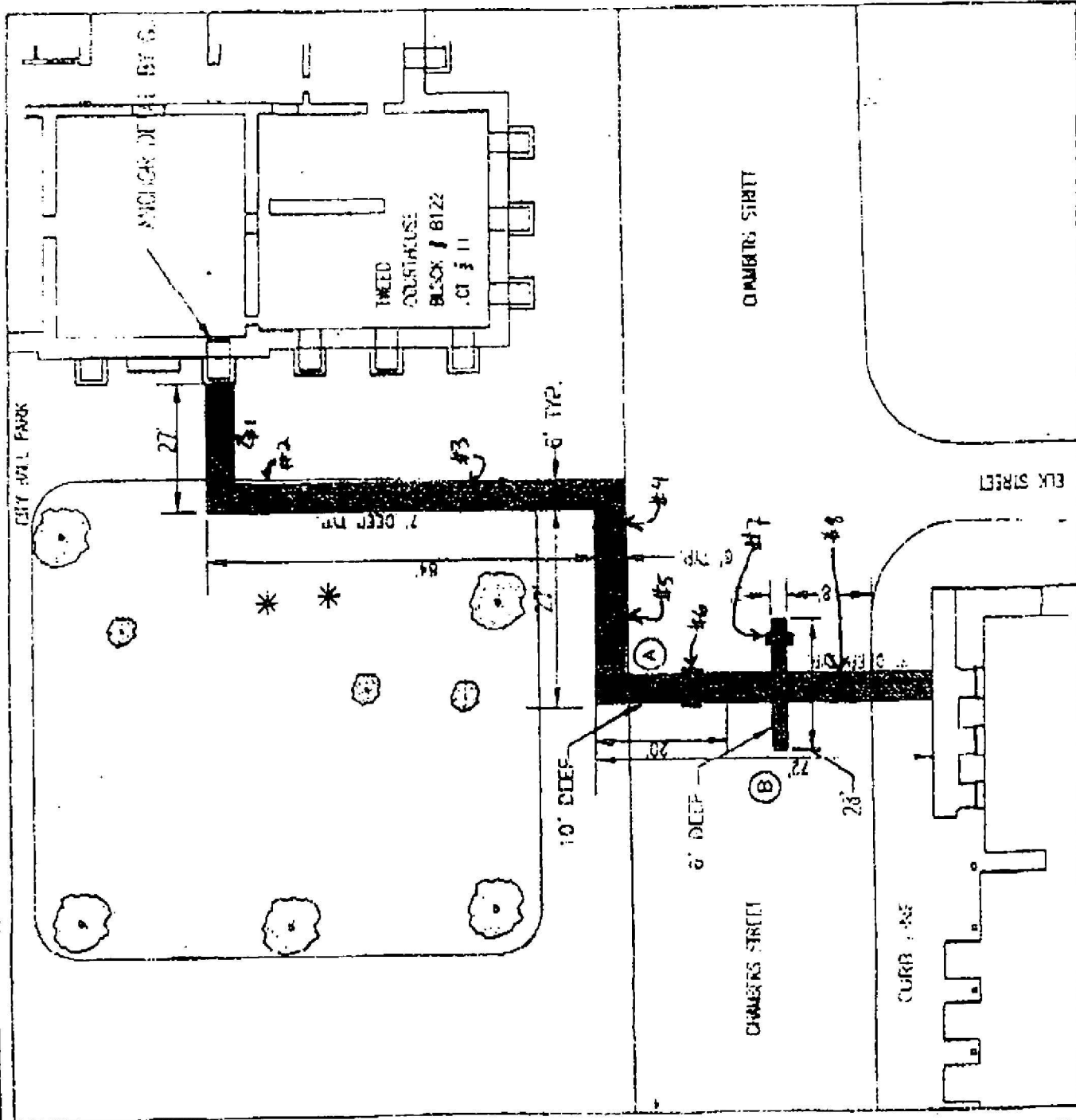
DRES / FMC / CPM

**Figure 1**

DATE: 10/7/95

Atchmont I

12-8-95



To: David Holowka, DGS, By Fax 669 3236

Date: December 12, 1995

From: Daniel Pagano

Subject: LPC Docket 96-2178 MISC. Revised scope of work for archaeology.

CC: Mark Silberman, Gina Santucci, Linda Stone (by fax 888 3130)

We request that DGS incorporate the following specifications in your current scope of work for archaeology. We would like to get a revised draft scope at your earliest convenience to clarify what archaeological work is needed to complete the job. Thank you.

Eight locations are recommended for recording plan and section soil conditions, features and stratigraphy from north, south, east, and west, profiles and floor plans of existing construction trench(s) of the referenced project. These are provided in Attachment I. Each location shall be recorded on a scaled drawing of the construction trench(s). Each location shall accurately record existing soil conditions, features and stratigraphy of no less than two wall profiles (north and south or east and west) and floor plans with dimensions approximately four feet long, six feet wide and seven feet deep. An exception is location # 7 which, based on the proposed construction trench dimensions, the recording plan and section shall be four feet long, three feet wide and six feet deep. All features shall be recorded and if artifacts are found within the plan and section are to be separated according to feature and recovered at the end of the immediate field recording effort. Plan records shall be made prior to the start of construction within the existing excavation trench.

All plans and sections along with an inventory of soil stratigraphy and features, and a catalog of artifacts recovered from them, shall be included in the archaeological report documenting the entire construction project.

The Commission shall be notified so a representative may observe trench walls and profiles at the time of archaeological profile recording and at the time shoring is removed from the sides of the construction trench.

The Commission recommends that the archaeological work be conducted under the supervision of a SOPA-certified archaeologist; that a physical anthropologist shall be available for on-site consultation; that if intact burials are encountered, excavation shall cease immediately pending consultation with the Commission; that the work shall use standard archaeological procedures; that the horizontal and vertical provenience of all finds shall be recorded; that all features, stratigraphic, excavation and monitoring units shall be recorded in section and plan in scaled drawings; that all soil removed from the excavation unit and previous archaeological monitoring be screened through 1/4 inch mesh screen; that any artifacts uncovered shall be catalogued, conserved, and curated according to professional standards outlined in 36 CFR Part 79; and that a final report documenting all activities shall be provided to the Commission within six months of completion of archaeological field work.

P:\DIG\96-2178.MS3

**ADDENDUM TO THE MODIFICATION OF THE  
SCOPE FOR ARCHAEOLOGICAL WORK  
WITHIN THE UTILITY TRENCH LOCATION  
AT CHAMBERS STREET AND CITY HALL PARK  
CONNECTING TWEED COURTHOUSE TO HALL OF RECORDS  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F  
LPC DOCKET 96-2178 MISC**

December 12, 1995

The following addendum refers to the scope modification prepared by Linda Stone on November 30, 1995. It encompasses four issues not specified in the original modification; 1) archaeological excavation of seven shallow units within different parts of the excavated trench, 2) drawing of trench profiles in the areas of each unit upon removal of sheeting in areas already excavated, 3) screening of all backdirt excavated from the trench project, and 4) excavation of a corridor of topsoil within the portions of the park trench not yet excavated as part of this project. Some of the language in this addendum has been taken either directly from or modified from the December 12, 1995 memo from Daniel Pagano of the Landmarks Commission to David Holowka of the Department of General Services.

Seven locations have been recommended for archaeological excavation of shallow units within the existing construction trench(s) of the referenced project with the goal of recording from each plan, two trench sections, soil conditions, stratigraphy, and features. All soil removed during this process will be screened through 1/4 inch mesh for the recovery of artifacts. Eight locations were originally recommended by LPC, however location #2 of the attached plan was eliminated since the same level of archaeological work has been completed in the eighth location according to the November 30, 1995 modification. The results from the eighth location will be compiled with those from the seven shallow units for reporting purposes.

Each shallow excavation unit will be approximately as wide as the exposed portion of the trench inside of the sheeting, or six feet wide by four feet and begin at the base of the construction trench. Location #7 is the exception at three feet wide, or the width of the trench as to be excavated. Soils, stratigraphy, artifacts and features (if present) will be recorded for each shallow unit as well as the profile of the trench above each unit. Measured drawings of one plan and two sections will be made of each unit location.

Excavation would proceed systematically and be conducted using the following archaeological methodology. It is assumed that all soils in the base of the trench have been disturbed by the excavation process and that an unknown depth below the base of the trench is affected. Therefore the soils in the base of the trench will be leveled to a depth at which this disturbance no longer exists, estimated to be about 0.3 feet. This soil will be screened and any material recovered will be bagged separately, as is the standard practice with each subsequent level of excavation. Soils below this level will be removed based on similar color and texture. These deposits will be excavated to an arbitrary depth of 0.3 feet below the exposed level or to the base of the 1916 pipe trench, whichever is shallower. All soils excavated from each unit will be screened through 1/4 inch mesh for the recovery of artifacts. Each layer of soil will be measured, color compared with the Munsell soil color charts, and soil texture identified. These characteristics will be recorded along with any features or artifacts which the soil stratum may contain. Plan drawings will be made at the completion of each shallow excavation unit. All plan and section

drawings along with an inventory of soil stratigraphy, feature identifications, and a catalog of artifacts recovered from them shall be included in the archaeological report documenting the entire construction project.

The LPC shall be notified so a representative may observe trench walls and profiles at the time of archaeological recording and at the time shoring is removed from the sides of the construction trench. Recording of profiles above all seven shallow units will take place at the time the shoring is removed, except in location #7, where recording will take place at the time of excavation, currently planned for the weekend of December 16 and 17, and location #8, where profile recording has already been conducted.

All archaeological work will be conducted under the supervision of a SOPA-certified archaeologists. Standard procedures of archaeological excavation and recording will be used. Horizontal and vertical provenience of finds recovered from the shallow excavation units will be based on stratum and/or level. All units will be drawn in plan and profile, showing stratigraphy and features, when present. The scaled drawings of the unit plans and profiles will be presented in the final report in a way which will enable the reader to "connect the dots", so to speak, and get a picture of the entire utility trench plan and profile.

A physical anthropologist will be available for on-site consultation. If intact burials are encountered, excavation shall cease immediately pending consultation with the LPC.

The third issue, screening of the backdirt excavated from the trench project, will be conducted using standard 1/4 inch mesh. Artifacts recovered from this process will be catalogued, conserved, and curated according to professional standards outlined in 36 CFR Part 79, as will all material recovered from this project. Storage will be the responsibility of the DGS.

The fourth issue, excavation of a corridor of topsoil within the portions of the park trench not yet excavated as part of this project, arises after the completion of the four by six foot excavation unit in that area. That unit revealed intact historic architectural remains beginning at a depth below the topsoil down to roughly four feet deep in the western part of the trench. The topsoil excavated from the unit ranged in depth from about 0.4 to 0.7 feet thick. Although the artifacts have not yet been catalogued from this level, it appears quite modern because it contained a 1970 penny. Therefore it is recommended that a corridor measuring three feet wide beginning at the curb line be excavated to this depth by hand to expose any potentially historic deposits. No screening is recommended for this soil because of its likely date of deposit. However, should historic deposits be identified beneath the topsoil along this corridor a recommendation for archaeological excavation will be made which will include standard excavation procedure, including screening of soils.

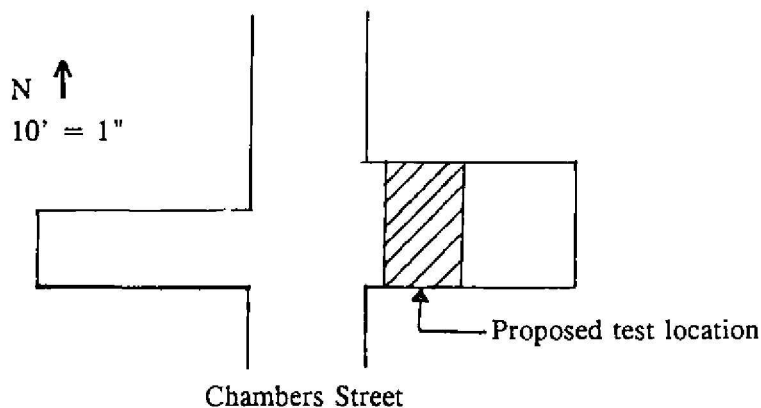
A final report documenting all activities shall be provided to DGS and LPC within six months of completion of archaeological fieldwork.

**AMENDMENT TO THE  
SCOPE FOR ARCHAEOLOGICAL WORK  
WITHIN THE UTILITY TRENCH LOCATION  
AT CHAMBERS STREET AND CITY HALL PARK  
CONNECTING TWEED COURTHOUSE TO HALL OF RECORDS  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F**

December 15, 1995

The following amendment refers to the October 25, 1995 scope of work prepared by Linda Stone. This amendment refers to changes in the DGS plans for the 28 foot segment of trench to be excavated in the northern lane of Chambers Street in an east-west direction. The conditions found during excavation of the northern lane of Chambers indicate a wide path of electrical ducts would be found over the 12 inch low pressure water main (see attached). Therefore, instead of a three foot wide trench DGS, now plans to make the trench four feet wide west of center and seven feet wide east of center (see attached schematic). Consequently, archaeological testing is recommended.

One archaeological test excavation unit is recommended to be placed in the eastern part of the seven foot wide segment, as shown, where there is the highest potential for going outside of the original water main trench.



It will measure as wide as the trench at top and four feet across, thereby covering a footprint of over one-third of the remaining surface area of the 28 foot trench, considered to be an ample testing strategy. The concrete encased electrical lines have been measured at 2.5 - 3.5 feet below grade. The date of installation of these lines is currently under investigation. If there is proof that these lines have been placed within the last fifty years, it is assumed that all of the deposits above the level of the top of the ducts postdate them and are not archaeologically significant. That being the case, prior to placement of the test unit, it is recommended that mechanical removal of the asphalt, paving deposit, and fill above the electrical ducts take place. Archaeological excavation would begin at that depth. However, should these electrical ducts date to earlier or should no information on the date of installation be available, only the asphalt and paving would be removed mechanically prior to archaeological excavation.

The exposed surface will be cleared off, elevations taken, and the test unit opened. The unit will be excavated to a depth of six feet, until the top of the low pressure water main is exposed, or until culturally sterile soil is encountered. Therefore excavation depth could vary in parts of the test unit.

Excavation would proceed systematically and be conducted using the following archaeological methodology. Soils will be removed based on similar color and texture. All soils excavated by hand from the unit will be screened through 1/4 inch mesh for the recovery of artifacts. Each layer of soil will be measured, color compared with the Munsell soil color charts, and soil texture identified. These characteristics will be recorded along with any features or artifacts which the soil stratum may contain. Plan drawings will be made as needed and profiles will be drawn at the completion of the test unit. All plan and section drawings along with an inventory of soil stratigraphy, feature identifications, and a catalog of artifacts recovered from them shall be included in the archaeological report documenting the construction project.

All archaeological work will be conducted under the supervision of a SOPA-certified archaeologist. Standard procedures of archaeological excavation and recording will be used. Horizontal and vertical provenience of finds recovered from the excavation unit will be based on stratum and/or level. The test unit will be drawn in plan and profile, showing stratigraphy and features, if present. The scaled drawings of the unit plans and profiles will be presented in the final report. The LPC shall be notified so a representative may observe excavation, unit walls, and profiles, as they deem necessary. A physical anthropologist will be available for on-site consultation. If intact burials are encountered, excavation shall cease immediately pending consultation with the LPC.



THE NEW YORK CITY LANDMARKS PRESERVATION COMMISSION  
100 OLD SLIP NEW YORK, NY 10005 TEL: 212-487-6800 FAX: 212-487-6723

December 18, 1995

David Holowka  
Department of General Services  
Division of Facilities Management and Construction  
Capital Project Management  
Municipal Building, 16th Floor North  
New York, NY 10007

STAFF REPORT AMENDMENT  
LPC 96-2178; MISC 96-0060  
Re: LPC 96-1640; SR 96-0040  
52 - 31 Chambers Street  
AFRICAN BURIAL GROUND AND  
THE COMMONS HISTORIC DISTRICT  
Borough of Manhattan  
Block/Lot: 122/1; 153/24

Dear Mr. Holowka:

Pursuant to Section 25-318 of the Administrative Code of the City of New York, the Landmarks Preservation Commission on October 27, 1995 issued Staff Report 96-0040 for the installation of a utility line involving excavation of five interconnected trenches, a total length of 238 feet, with the following maximum dimensions: 1) twenty-seven feet long, six feet wide and seven feet deep, extending east from the eastern wall of the Tweed Court House; 2) eighty-four feet long, six feet wide and seven feet deep, extending north from the eastern most end of trench one; 3) twenty-seven feet long, six feet wide and seven feet deep, extending east along the southern sidewalk of Chambers Street from the northern most end of trench two; 4) seventy-two feet long and six feet wide, extending north across Chambers Street from the eastern most end of trench three, the southern twenty feet of which will be ten feet deep and the northern fifty-two feet of which will be seven feet deep; and 5) twenty-eight feet long, three feet wide and six feet deep, and extending from west to east perpendicular across trench four within the roadbed of Chambers Street. The trenches will commence at the eastern wall of the Tweed Court House at 52 Chambers Street and end at the southern wall of the Surrogates Court at 31 Chambers Street. The proposed work also includes refilling the pit with clean fill and resurfacing the pit with concrete and asphalt. All of the proposed work will take place within the African Burial Ground and the Commons Historic District. A copy of the Staff Report is appended.

December 18, 1995  
STAFF REPORT AMENDMENT  
LPC 96-2178; MISC 96-0060  
Re: LPC 96-1640; SR 96-0040  
52 31 Chambers Street  
Mr. David Holowka, page 2.

Subsequently, on December 4, 1995, the staff of the Commission received a request to review a proposal from the Department of General Services to amend Staff Report 96-0040 to modify the archaeological monitoring method to allow for archaeological excavation of a test unit four feet long, six feet wide, and seven feet deep within the southern portion of trench (2), as referenced above, and to conduct archaeological analysis of finds from the monitoring of construction excavations and the archaeological test unit. The proposal is shown in a plan submitted with a scope of work titled "Modification of the Scope for Archaeological Work Within the Utility Trench Location at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, November 30, 1995," prepared and submitted to the Commission on the same date by Linda Stone, after approval of and upon the request of the Department of General Services.

An additional modification to the scope of work was subsequently received by the Commission staff on December 13, 1995, to allow for 1) excavation of seven shallow units approximately four feet long, six feet wide, and one-half foot deep within specified parts of the excavated trench, 2) drawing of north and south or east and west trench profiles approximately four feet long and with a seven foot face in the location of each unit upon removal of sheeting in areas already excavated, 3) screening of the backdirt excavated from the trench project, and 4) excavation of a corridor of topsoil within the portions of the park trench not yet excavated as part of this project. The proposal is shown in plan as Attachment I, dated December 8, 1995 and submitted with a scope of work titled "Modification of the Scope for Archaeological Work Within the Utility Trench Location at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, LPC Docket 96-2178, December 12, 1995," prepared and submitted to the Commission by Linda Stone, after approval of and upon the request of the Department of General Services.

With regard to the proposed amendment, the Commission finds that the proposed work will not require the removal of or damage to any significant above-ground features in the historic district; that the location of the proposed work is within an area that is on the border of and may be within the African Burial Ground as illustrated on the 1795 partition map of the Van Borsum Patent, and a portion of the proposed work is within the designated African Burial Ground National Historic Landmark; that the archaeological excavation methods proposed for the test unit will allow for recording measured plans and sections of existing and proposed conditions as well as observation and recording of artifacts or other cultural material uncovered during the work; and there is a medium to high probability of encountering intact archaeological deposits, features, or human burials in the proposed work area.

December 18, 1995  
STAFF REPORT AMENDMENT  
LPC 96-2178; MISC 96-0060  
Re: LPC 96-1640; SR 96-0040  
52 - 31 Chambers Street  
Mr. David Holowka, page 3.

The Commission recommends that the archaeological work be conducted under the supervision of a SOPA-certified archaeologist; that a physical anthropologist shall be available for on-site consultation; that if intact burials are encountered, excavation shall cease immediately pending consultation with the Commission; that the work shall use standard archaeological procedures; that the horizontal and vertical provenience of all finds shall be recorded; that all features, stratigraphic, excavation and trench units shall be recorded in section and plan in scaled drawings; and that all available soil removed from the excavation unit and previous archaeological monitoring of the trench shall be screened through 1/4 inch mesh screen.

The Commission also recommends that analysis of skeletal remains be conducted as follows. At the request of concerned members of the community, there will be no analysis of the skeletal remains retrieved from the above referenced excavation units and trenches. Human remains will be dry brushed and/or otherwise carefully cleaned, wrapped in acid-free tissue, packaged in plastic bags and placed in acid-free boxes. The New York City Department of General Services shall, at the direction of the Deputy Mayor for Planning and Community Relations, with the participation of the concerned community, seek an appropriate time and location for reinterment of these remains.

The Commission further recommends that analysis of cultural remains, i.e. non-skeletal materials, be conducted as follows. A full and detailed analysis shall be conducted on cultural materials recovered from the referenced excavation units and trenches. Analysis of material remains, including ceramics, glass and clay pipes, will be directed toward determining cultural affiliation of material remains, time periods during which material remains were manufactured and used, nature and extent of domestic occupation, socioeconomic position of occupants of the area, and questions regarding the origin of recovered ceramics and their relationship to the adjacent Crolus and Remmey potters. Upon completion of the analysis, the New York City Department of General Services shall, at the direction of the Deputy Mayor for Planning and Community Relations, with the participation of the concerned community, actively seek an appropriate storage site for the remaining artifacts and that artifacts shall be catalogued, conserved, and curated according to professional standards outlined in 36 CFR Part 79.

The Commission finally recommends that a final report of publishable quality be produced describing the various archaeological excavations, investigations and monitoring activities that took place at the 52-31 Chambers Street site for the duration of the project. The analysis of all excavated materials and stratigraphic information will be included in this document, as will descriptions of all materials recovered during the course of research.

December 18, 1995  
STAFF REPORT AMENDMENT  
LPC 96-2178; MISC 96-0060  
Re: LPC 96-1640; SR 96-0040  
52 - 31 Chambers Street  
Mr. David Holowka, page 4.

Results of this work shall be evaluated in the context of other related historical and archaeological data, with consideration of the nearby African Burial Ground and other resources identified in the African Burial Ground and the Commons Historic District Archaeological Sensitivity Study (Hunter Research, Inc. and Mesick Cohen Waite Architects 1994), and that a final report documenting all activities shall be provided to the Commission within six months of completion of archaeological field work.

Based on these findings, and provided that the recommendations outlined above are followed, the Commission determines the proposed work to be appropriate to the historic district. As a result Staff Report 96-0040 has been amended to incorporate the revisions, and the Commission has no objection to the work proceeding. Other work or amendments to this filing must be reviewed and approved separately.

Direct all inquiries and correspondence relating to this project to Daniel Pagano, Director of Archaeology, at (212) 487-6848.

Sincerely,

  
Jennifer J. Raab  
Chairman

cc: Ken Egan, Chief Engineer, City Hall Buildings  
Jim Zethraus, Capital Project Management, DGS  
Frank Addco, Ass't to Chief of Staff, Commissioner's Office, NYC DOT  
Lynne Fealy, Manhattan Permit Supervisor/NYC DOT BOLI  
Peggy King-Jorde, Mayor's Office, African Burial Ground Project  
Linda Stone, Archaeological Consulting  
Anne Seel, Mark Silberman, Alex Herrera, Jeremy Woodoff, Gina Santucci, Daniel Pagano, Files

**LINDA STONE, MA, SOPA**  
*Archaeological Consulting*

249 East 48th Street, #2B  
New York, New York 10017  
Phone or Fax: (212) 888-3130

December 19, 1995

Mr. David Holowka  
Department of General Services  
Division of Facilities Management and Construction  
Capital Project Management  
Municipal Building  
16th Floor North  
New York, New York 10007

Dear Mr. Holowka,

I am in receipt of the report issued yesterday by the Landmarks Commission. There is one area which remains unclear. Looking back on the various correspondence from my file, I am not sure we have discussed the issue of fragments of bone which are too small to be identified as either human or animal. I have spoken with Dr. Agelarakis who estimates that about one third of the fragments he has identified as human or possibly human fall into this category. These are the fragments he intended to identify by use of thin-section analysis under microscope. As we discussed over the phone some time ago, thin-section analysis damages, but does not destroy, fragments of bone. The 12/18 Landmarks report specifies no analysis of [human] skeletal material. I would like you to find out if this includes no thin-section analysis of the small fragments which can not be identified as human or faunal by the naked eye.

Thank you for your help.

Sincerely,



Linda Stone

cc: A. Agelarakis, Adelphi U.  
D. Pagano, Landmarks  
J. Primer, Primer Construction

**MODIFICATION TO THE  
SCOPE FOR ARCHAEOLOGICAL WORK  
WITHIN THE UTILITY TRENCH LOCATION  
AT CHAMBERS STREET AND CITY HALL PARK  
CONNECTING TWEED COURTHOUSE TO HALL OF RECORDS  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F**

December 22, 1995

Upon completion of a 4 X 6 archaeological test unit in the previously unexcavated portion of the utility trench project, two architectural features were identified; decaying marble on top of one coarse of brick and a brick footing. Because of the discovery of these intact deposits, a modification to the scope was proposed, approved and completed. That modification involved the removal of the topsoil within a three foot wide corridor throughout the remaining unexcavated portion of the utility trench. The location of the test unit and corridor are shown on the attached mark-up of the DGS excavation plan drawing.

The location of both of the architectural remains are not along the foundation edge of any known historic building (Hunter Research 1994 - *African Burial Ground and the Commons Historic District Archaeological Sensitivity Study*). The location of the 4 X 6 test unit is depicted in Hunter's report within the interior of the footprint of both the Upper Barracks (1757-1790) and the Second Almshouse (1796-1854). Diagnostic cultural material recovered from the areas of the decaying marble and brick footing include creamware, green shell edge, pearlware, and Whieldon ware. These types of wares have dates of manufacture ranging from early 18th through late 19th century (Godden 1992 - *An illustrated Encyclopaedia of British Pottery and Porcelain*) and therefore preclude definitively identifying either architectural feature as dating to one of the other or the known historic structures which were in their vicinity.

Therefore, a further modification to the scope is proposed which may help to associate the archaeological deposit with what is known about the history of the area as well as define them. One excavation unit measuring three feet by four feet will be placed in the location identified on the attached plan, north of the initial test unit. The surface has been exposed below the level of topsoil where the unit will be opened. The northern extent of the brick footing has been identified and the decaying marble continues within the corridor north to the excavated portion of the trench. The proposed unit will be excavated so as to allow further work in the area of both types of architectural remains. The unit will be excavated to a depth of culturally sterile soil, estimated to be about three to four feet below the ground surface. Excavation would proceed systematically and be conducted using the following archaeological methodology. Soils will be removed based on similar color and texture. All soils excavated by hand from the unit will be screened through 1/4 inch mesh for the recovery of artifacts. Each layer of soil will be measured, color compared with the Munsell soil color charts, and soil texture identified. These characteristics will be recorded along with any features or artifacts which the soil stratum may contain. Measured plan drawings will be made as needed and profiles will be drawn at the completion of the units. All plan and section drawings along with an inventory of soil stratigraphy, feature identifications, and a catalog of artifacts recovered from them shall be included in the archaeological report documenting the construction project.

All archaeological work will be conducted under the supervision of a SOPA-certified archaeologist. Standard procedures of archaeological excavation, recording, artifact processing and curation will be used. Horizontal and vertical provenience of finds recovered from the excavation unit will be based on stratum and/or level. The test unit will be draw in plan and profile, showing stratigraphy and features, if present. The scaled drawings of the unit plans and profiles will be presented in the final report. The LPC shall be notified so a representative may observe excavation, unit walls, and profiles, as they deem necessary.

30'-0"

CORRIDOR OF REMOVED TOPSOIL

COMPLETED 4 X 6 UNIT

PROPOSED 4 X 3 UNIT

CORRIDOR OF REMOVED TOPSOIL

85'-0"

TWEED  
COURTHOUSE

BLOCK # B122

LOT # L1

N 1" = 1'

**ADDENDUM TO DECEMBER 22, 1995  
MODIFICATION TO THE  
SCOPE FOR ARCHAEOLOGICAL WORK  
WITHIN THE UTILITY TRENCH LOCATION  
AT CHAMBERS STREET AND CITY HALL PARK  
CONNECTING TWEED COURTHOUSE TO HALL OF RECORDS  
MANHATTAN, NEW YORK  
JOB NUMBER PW-77102F**

December 31, 1995

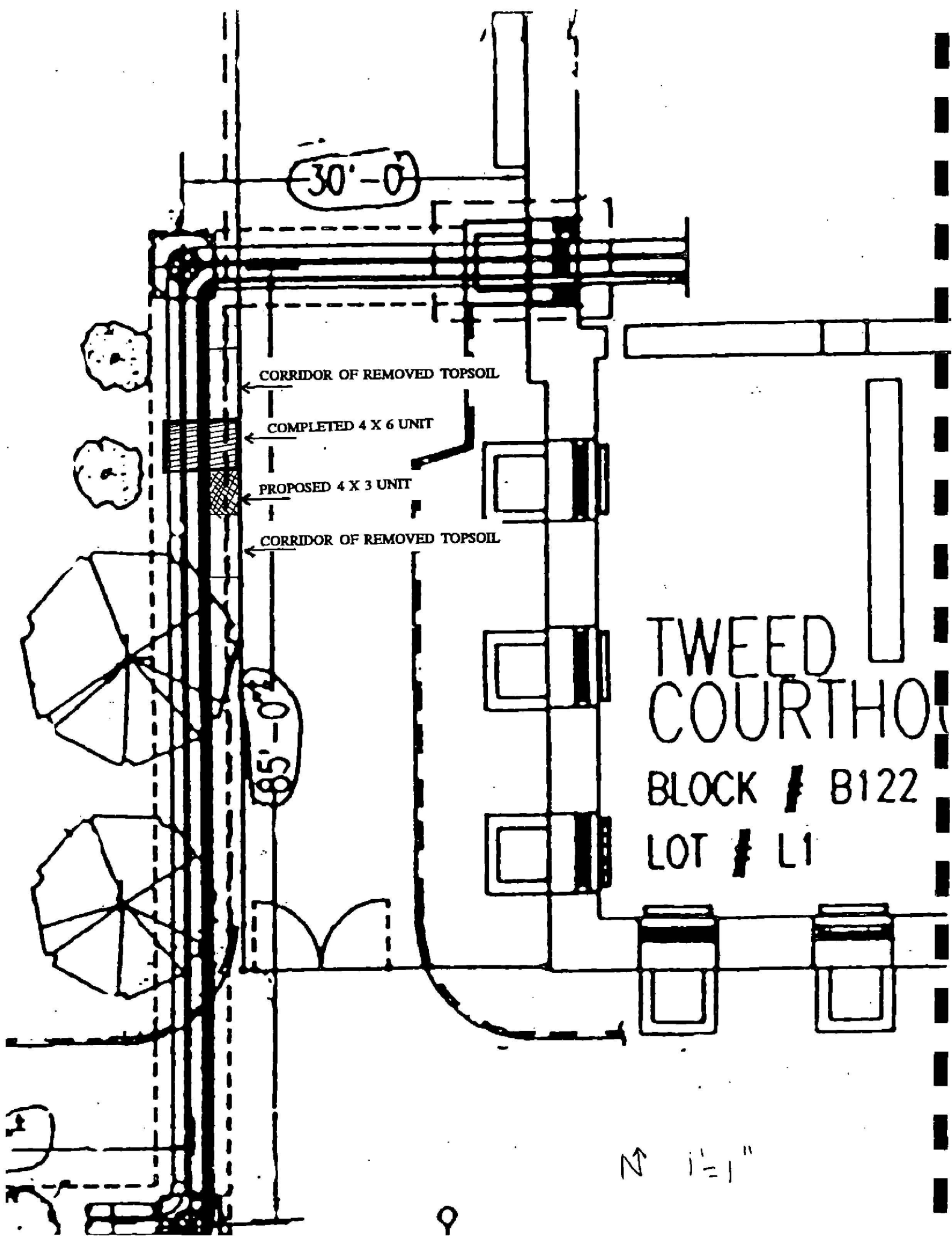
Field conditions during the excavation of the proposed and approved 4 x 3 archaeological unit required that the unit be expanded to 5 x 3 feet. Upon completion of the 5 X 3 archaeological excavation unit in the previously unexcavated portion of the utility trench project, a substantial architectural feature of stone, mortar, and brick covered most of the unit and a deposit containing burned architectural debris likely dating to the time period of the Second Almshouse was identified above it. A small number of artifacts was recovered from the burned stratum and below and the potential exists to further define this deposit north of the location of the unit. About four feet of potentially undisturbed archaeological deposits could remain. Therefore, an addendum to the modification of the scope of archaeological work is proposed.

This addendum addresses two issues; further archaeological excavations in the park and documentation of the architectural element(s) exposed in the above mentioned work. Both of these issues were discussed with Daniel Pagano of the Landmarks Preservation Commission during a site visit on December 29, 1995. A general understanding between this author, LPC and DGS was reached regarding this work.

Further archaeological excavations are proposed in the area south of where probable Second Almshouse deposits were identified with the expectation that additional deposits from this context may be recovered. This location is depicted on the attached plan in the southern of the areas labeled "corridor of removed topsoil". This area extends for about four feet south of the previous excavations and is three feet wide. In order to expedite the excavation process, all deposits above the level of the burned deposit will be shoveled off and not screened. The only documentation of these deposits will be a measurement of their thickness. All deposits below this level will be excavated archaeologically, as all previous archaeological units in this part of the park. Methodology is described in the December 22 Modification and need not be repeated herein.

The footing and related architectural element identified in both previously excavated archaeological units will be photographed, measured, and drawn. A plan drawing will be made and two cross section drawings constructed. It is possible this feature is the southeast corner of the Second Almshouse, although located to the northwest of its mapped location in *The African Burial Ground and the Commons Historic District Archaeological Sensitivity Study* (Hunter Research 1994). Should the archaeological excavation and subsequent analysis provide evidence which could confirm this location, it would add important data regarding the locations of other structures in relation to the Second Almshouse on historic maps and the Sensitivity Study. Having documentation of architectural elements of the Second Almshouse would add knowledge to the database of that structure.

LINDA STONE, MA, SOPA



30'-0"

CORRIDOR OF REMOVED TOPSOIL

COMPLETED 4 X 6 UNIT

PROPOSED 4 X 3 UNIT

CORRIDOR OF REMOVED TOPSOIL

85'-0"

TWEED  
COURTHOUSE  
BLOCK B122  
LOT L1

N 1" = 1'

February 9, 1996

David Holowka  
Department of General Services  
Division of Facilities Management and Construction  
Capital Project Management  
Municipal Building, 16th Floor North  
New York, NY 10007

STAFF REPORT AMENDMENT  
LPC 96-2401; MISC 96-0088  
Re: LPC 96-1640; SR 96-0040  
LPC 96-2178; MISC 96-0060  
52 - 31 Chambers Street  
AFRICAN BURIAL GROUND AND  
THE COMMONS HISTORIC DISTRICT  
Borough of Manhattan  
Block/Lot: 122/1; 153/24

Dear Mr. Holowka:

Pursuant to Section 25-318 of the Administrative Code of the City of New York, the Landmarks Preservation Commission on October 27, 1995 issued Staff Report 96-0040 for the installation of a utility line involving excavation of five interconnected trenches, a total length of 238 feet, with the following maximum dimensions: 1) twenty-seven feet long, six feet wide and seven feet deep, extending east from the eastern wall of the Tweed Court House; 2) eighty-four feet long, six feet wide and seven feet deep, extending north from the eastern most end of trench one; 3) twenty-seven feet long, six feet wide and seven feet deep, extending east along the southern sidewalk of Chambers Street from the northern most end of trench two; 4) seventy-two feet long and six feet wide, extending north across Chambers Street from the eastern most end of trench three, the southern twenty feet of which will be ten feet deep and the northern fifty-two feet of which will be seven feet deep; and 5) twenty-eight feet long, three feet wide and six feet deep, and extending from west to east perpendicular across trench four within the roadbed of Chambers Street. The trenches will commence at the eastern wall of the Tweed Court House at 52 Chambers Street and

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Mr. David Holowka, page 2.

end at the southern wall of the Surrogates Court at 31 Chambers Street. The proposed work also includes refilling the pit with clean fill and resurfacing the pit with concrete and asphalt. All of the proposed work will take place within the African Burial Ground and the Commons Historic District. On December 12, 1996 the Commission was notified by the Department of General Services that trench (3) is actually forty feet long as shown on a revised "Chambers St. Trench Plan" dated November 5, 1995.

On December 4, 1995, the staff of the Commission received a request to review a proposal from the Department of General Services to amend Staff Report 96-0040 to modify the archaeological monitoring to allow for archaeological excavation of a test unit four feet long, six feet wide, and seven feet deep within the southern portion of trench (2), as referenced above, and to conduct archaeological analysis of finds from the monitoring of construction excavations and the archaeological test unit. The proposal is shown in a plan submitted with a scope of work titled "Modification of the Scope for Archaeological Work Within the Utility Trench Location at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, November 30, 1995," prepared and submitted to the Commission on the same date by Linda Stone, after approval by and upon the request of the Department of General Services.

An additional request to review a proposal from the Department of General Services to amend Staff Report 96-0040 to modify the scope of work was subsequently received by the Commission staff on December 13, 1995, to allow for: 1) excavation of seven shallow test units approximately four feet long, six feet wide, and one-half foot deep within specified parts of the entire excavated trench, 2) drawing of north and south or east and west trench profiles approximately four feet long and with a seven foot face in the location of each of the test units upon removal of sheeting in areas already excavated, 3) screening of the backdirt excavated from the trench project, and 4) excavation of a corridor of topsoil within the portions of the park trench not yet excavated as part of this project. The proposal is shown in plan as Attachment I, dated December 8, 1995 and submitted with a scope of work titled "Modification of the Scope for Archaeological Work Within the Utility Trench Location at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, LPC Docket 96-2178, December 12, 1995," prepared and submitted to the Commission by Linda Stone, after approval by and upon the request of the Department of General Services.

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On December 18, 1995 the Commission approved the December 4 and December 13 proposals and issued Miscellaneous 96-0060 as an amendment to Staff Report 96-0040. Copies of the Staff Report and Miscellaneous amendment are appended.

Subsequently, on December 21, 1995, the staff of the Commission received a request to review a proposal from the Department of General Services to further amend Staff Report 96-0040 to expand trench (5), an east-west perpendicular cut across trench (4) in the roadbed of Chambers Street. In the original proposal, trench (5) was proposed to be twenty-eight feet long and three feet wide; the proposal is to expand the trench to a diameter of four feet wide to the east of the north/south cut in Chambers Street, and to a diameter of seven feet wide to the west of the north/south cut in Chambers Street. Trench (5) would remain six feet deep. In order to assess the effects of the proposed expansion of trench (5) on potential archaeological resources buried at this location, the proposed amendment includes a scope of work for archaeological excavation of a test unit four feet long, seven feet wide, and six feet deep within the western portion of trench (5). The proposal is shown in a plan submitted with a scope of work titled "Amendment to the Scope for Archaeological Work Within the Utility Trench Location at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, December 15, 1995," prepared and submitted to the Commission on December 19, 1995 by Linda Stone, after approval by and upon the request of the Department of General Services.

Subsequently, on December 22, 1995, and December 31, 1995 the staff of the Commission received requests from the Department of General Services to further amend Staff Report 96-0040. These proposals would, in two excavations, expand the test unit in trench (2) that was approved by the Commission in its December 18 amendment to the Staff Report. The purpose for expanding the test unit in trench (2) is to clarify if a buried foundation discovered in the existing test unit belongs to the Second Almshouse (1796-1854) and to recover archeological remains associated with the foundation. The December 22 proposal would expand the existing four foot long by six foot wide test unit an additional four feet in length and three feet in width, and the December 31 proposal would further expand the enlarged test unit by an additional four feet in length and three feet in width. The proposals are shown in plans submitted with scopes of work respectively titled "Modification to the Scope for Archaeological Work Within the Utility Trench Location at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, December 2, 1995," and "Addendum to December 22, 1995, Modification to the Scope for Archaeological Work Within the Utility Trench Location

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LPC 96-2401; MISC 96-0088  
Re: LPC 96-1640; SR 96-0040  
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52 - 31 Chambers Street  
Mr. David Holowka, page 4.

at Chambers Street and City Hall Park Connecting Tweed Courthouse to Hall of Records, Manhattan, New York, Job Number PW-77102F, December 31, 1995," prepared and submitted to the Commission by Linda Stone, after approval by and upon the request of the Department of General Services. These three requests for additional modifications to the scope of work were docketed by the Commission as LPC 96-2401.

With regard to the proposed amendments and modifications, the Commission finds that the work proposed in the December 21, December 22 and December 31 proposals will not require the removal of or damage to any significant above-ground features in the historic district; that the location of the proposed work is within the African Burial Ground National Historic Landmark; and that there is a medium to high probability of encountering intact archaeological deposits, features, or human burials in the proposed work area. The Commission also finds that the work proposed in the proposals and the scopes of work submitted therewith will not damage any archeological resources, if they exist, will allow for recording, in measured plans and sections, existing and proposed conditions, and will allow for the observation and recording of artifacts or other cultural material uncovered during the work. In addition, the Commission finds that the proposed work will provide information for the purpose of determining an appropriate course of action for treatment of any historic resources that would be affected by construction of the proposed trench.

In light of the concerns raised above, the Commission further recommends that the archaeological work be conducted under the supervision of a SOPA-certified archaeologist; that a physical anthropologist shall be available for on-site consultation; that excavation shall cease immediately if intact burials are encountered, pending consultation with the Commission; that the work shall use standard archaeological procedures; that the horizontal and vertical provenience of all finds shall be recorded; that all features, stratigraphic, excavation and trench units shall be recorded in section and plan in scaled drawings; and that all available soil removed from the excavation unit and previous archaeological monitoring of the trench shall be screened through 1/4 inch mesh screen.

The Commission further recommends that analysis of skeletal remains be conducted as follows. At the request of concerned members of the community, there will be no analysis of the skeletal remains retrieved from the above referenced excavation units and trenches. Human remains will be dry brushed and/or otherwise carefully cleaned, wrapped in acid-free tissue, packaged in plastic bags and placed in acid-free boxes. The New York City Department of General Services shall, at the direction of the Deputy Mayor for Planning

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and Community Relations, with the participation of the concerned community, seek an appropriate time and location for reinterment of these remains.

The Commission further recommends that analysis of cultural remains, i.e. non-skeletal materials, be conducted as follows. A full and detailed analysis shall be conducted on cultural materials recovered from the referenced excavation units and trenches. Analysis of material remains, including ceramics, glass, clay pipes, flora and fauna, will be directed toward determining cultural affiliation of material remains, time periods during which material remains were manufactured and used, nature and extent of domestic occupation, socioeconomic position of occupants of the area, and questions regarding the origin of recovered ceramics and their relationship to the adjacent Crolus and Remmey potters. Upon completion of the analysis, the New York City Department of General Services shall, at the direction of the Deputy Mayor for Planning and Community Relations, with the participation of the concerned community, actively seek an appropriate storage site for the remaining artifacts and that artifacts shall be catalogued, conserved, and curated according to professional standards outlined in 36 CFR Part 79.

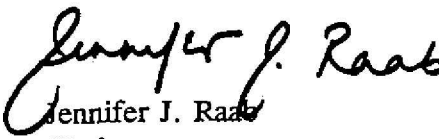
Finally, the Commission recommends that a final report of publishable quality be produced describing the various archaeological excavations, investigations and monitoring activities that took place at the 52-31 Chambers Street site for the duration of the project. The analysis of all excavated materials and stratigraphic information will be included in this document, as will descriptions of all materials recovered during the course of research. Results of this work shall be evaluated in the context of other related historical and archaeological data, with consideration of the African Burial Ground and other resources identified in the African Burial Ground and the Commons Historic District Archaeological Sensitivity Study (Hunter Research, Inc. and Mesick Cohen Waite Architects 1994), and that a final report documenting all activities shall be provided to the Commission within six months of completion of archaeological field work.

Based on these findings, and provided that the recommendations outlined above are followed, the Commission determines the proposed work to be appropriate to the historic district. As a result Staff Report 96-0040 has been amended to incorporate the revisions discussed above, and the Commission has no objection to the work proceeding. Other work or amendments to this filing, such as the excavation of the balance of trench (5), must be reviewed and approved separately before such work is commenced.

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52 - 31 Chambers Street  
Mr. David Holowka, page 6.

Direct all inquiries and correspondence relating to this project to Daniel Pagano,  
Director of Archaeology, at (212) 487-6848.

Sincerely,

  
Jennifer J. Raab  
Chairman

JJR/dnp

cc: Ken Egan, Chief Engineer, City Hall Buildings  
Jim Zethraus, Capital Project Management, DGS  
Frank Addeo, Ass't to Chief of Staff, Commissioner's Office, NYC DOT  
Lynne Fealy, Manhattan Permit Supervisor/NYC DOT BOH  
Peggy King-Jorde, Mayor's Office, African Burial Ground Project  
Linda Stone, Archaeological Consulting  
City Record  
Anne Seel, Mark Silberman, Alex Herrera, Jeremy Woodoff, Gina Santucci, Daniel  
Pagano, Files

Appendix B

31 - 52 Chamber Street Utility Trench Project

Artifact Labelling Abbreviations

Human Bone Fragments Collected During Monitoring

Unidentifiable Bone Fragments Collected During Monitoring

Inventory of Artifacts Collected During the Monitoring Phase of the Project

HUMAN BONE FRAGMENTS  
COLLECTED DURING MONITORING OF  
THE 31 - 52 CHAMBERS STREET UTILITY TRENCH

RECOVERY DATE	LOCATION	COUNT	BONE
11/4/95	Park North Test	1	Tibial fragment of the Right side, showing the foramen nutritium: Adult.
11/05/95	Chambers Street South	1	Radial middle third of the diaphysis fragment of the Right side: Adult. Note: Post mortem mechanical stress, taphonomic impacts.
		1	Fibular proximal third fragment, involving a facies of the articular surface, and segment of the shaft: Adult.
		2	Human tubular diaphysis fragments: unidentifiable to the specific bone unit(s): Adult(s).
11/11/95	Sidewalk East	1	Metatarsal, the fifth, of the Left side: Adult.
11/12/95	Sidewalk West	1	Ulnar fragment of the Right side: proximal end and middle third only; Robust; Adult.
		1	Femoral neck fragment of the Left side, the region of the trochanter major/minor - but fragmented: Adult.
		1	Femoral diaphysis of the Left side, below the trochanteric fossa - but of the proximal third: Robust; Adult
		1	Femoral diaphysis of the Left side, upper segment of the distal third: Robust; Adult.
		13	Femoral diaphysis fragments: Robust, Adult individual(s).
		1	Tibial diaphysis of the Right side, missing segment of the upper third: Adult. Note: dry brushed only due to its condition.
		3	Tibial diaphysis fragments: Adult(s).
		8	Human tubular diaphysis fragments: Unidentifiable to the specific bone unit(s): Adult(s).
		1	Tibial proximal articular surface of the Left side: Adult.
11/15,16/95	11/12/95 Sidewalk West Backdirt	1	First Metatarsal of the median row of the Left side: Robust; Adult.
		1	A terminal distal third of a diaphyseal/epiphyseal end of a right humerus with articular surface.
11/18/95	Sidewalk to Park North	2	Parietal bone fragments of the same parietal of the Left side, showing <i>suturæ</i> , and ectocranial porosity: Young Adult.

continued

# Artifact Labelling Abbreviations

ABBREVIATION	LOCATION OF EXCAVATION
NS	North Sidewalk
CN	Chambers Street North lane
WME	Water Main trench East of center
WMW	Water Main trench West of center
CS	Chambers Street South lane
SS	South Sidewalk
SSE	South Sidewalk East
SSW	South Sidewalk West
SPN	Sidewalk to Park North
PNT	Park North Test
P1	Northern 14 - 28 foot Park segment
P2	Park segment 28 - 42 feet south of sidewalk
P3	Park segment 42 - 56 feet south of sidewalk
P4	Park segment 56 - 65 feet south of sidewalk (or Park south 16 - 25 feet"
P5	Park segment 65 - 81 feet south of sidewalk (or Park south 16 feet)
PSD	Park South Drive

RECOVERY DATE	LOCATION	COUNT	BONE
11/18/95	Sidewalk to Park North	1	Clavicular fragment of the Right side, segment of the <i>extremitas acromialis</i> with tubular fragment of the lateral third: Adult.
		1	Humeral fragment of the Right side, with complete proximal articular surface and segment of the upper third of the diaphysis: Robust; Adult.
		4	Femoral diaphysis fragments of the Right side of the same femur: Adult.
		4	Femoral or Tibial diaphysis fragment(s): Adult(s).
		1	phalange of the third row (distal).
		1	package with bone dust.
11/19/95	Park North 14' - 28'	1	Ulnar fragment involving the proximal segment of the middle third and the distal segment of the proximal third, past the foramen nutritium: Adult
		2	Rib fragments of the sternal end: Adult(s).
11/19/95	Park North 42' - 56'	1	Human cranial vault fragment, showing suturae ends: Young Adult.
		1	Femoral diaphysis fragment of the middle third: Adult.
11/19/95	Sidewalk North	1	Tibial diaphysis (epiphyses are missing post mortem) of the Right Side: Robust with emphasized interosseous crest; Adult. Note: Post mortem mechanical stress, and taphonomic impacts
12/3/95	Chambers Street North	1	Radius of the Left side, missing only the radial head: relatively Robust; Adult.
		1	Tibial diaphysis of the Left side, fragmented, incomplete, missing segments from each of the disto proximal ends with epiphyses.
12/10/95	Chambers Street North	1	Humeral distal half with fragment of the epiphysis: Adult.
1/24/96	Park South 16' - 25'	1	Human bone fragment, showing cortical and spongy component.
6/8/96	Water Main Trench	1	Osseous fragment is suspected to represent a proximal segment of an unsided femoral midshaft.
6/8/96	Water Main Trench	1	A distal third of an unsided human humeral midshaft.
6/21/96	Water Main Trench	1	A human osseous fragment was identified originating from the margo anterioris of an unsided tibial midshaft.
TOTAL BONE FRAGMENTS		64	

UNIDENTIFIABLE BONE FRAGMENTS  
COLLECTED DURING MONITORING OF  
THE 31 - 52 CHAMBERS STREET UTILITY TRENCH

RECOVERY DATE	LOCATION	COUNT	BONE
11/05/95	Chambers Street South	1	unidentified
11/11/95	Sidewalk East	1	frag, unidentified
11/12/95	Sidewalk West	1	Tubular diaphysis
11/12/95	Sidewalk West	1	diaphysis of a clavicle
11/19/95	From 11/18/95 Park North 14' - 28'	2	frags, unidentified
11/19/95	Park South Drive	1	tarsal frag
12/3/95	Chambers Street North	1	frag of iliac crest
01/23/96	Park South 16'	1	frag, zygomatico maxillary
		2	frags of ilium(a)
TOTAL UNIDENTIFIABLE BONE FRAGMENTS		11	

## INVENTORY OF COLLECTED ARTIFACTS FOR 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/04/95 Park North Test							
Ceramic							
	kaolin	smoking pipe stem	1		white	.	
	pearlware		1		white	light blue geometric transfer print interior	c.1795-1840
	pearlware	plate base	1		white	blue transfer print; willow pattern?	c.1795-1840
	refined earthenware		2		white	red stippled transfer print	1807-1850s
	stoneware		1		buff	Albany slip interior	c.1800-1820
	stoneware		1		buff	light blue banded exterior on white glaze	1790-c.1820
	yellowware		1		buff	.	1830-1900
Glass							
		bottle base	1		clear	flask; machine made	1881-present
		bottle base	1		dark green	wine type; hand blown; empointilled push up; heavy patina; 3 3/4" diameter	ca.1740-1820s
		bottle finish	1		aqua	machine made; wide mouth	1893-present
		bottle neck	1		dark green	string rim; hand finished	1790-1820
Total Collected Artifacts =			12 from 11/04/95 Park North Test				
11/05/95 Chambers Street South							
Ceramic							
	stoneware		1		gray	incised decoration filled blue	1790-c.1820
	stoneware		1		gray	partial blue circular decoration exterior; light brown interior	1790-c.1820
	stoneware	jug	2		gray	blue decoration at handle attachment; mends	1790-c.1820
	stoneware	kiln furniture	1			.	1720s-c.1820
	whiteware	rim	1		white	hand painted; chinoiserie?	early 19th C.-1900+
	yellowware	base	1			.	1830-1900
Glass							
		bottle base	1		clear	molded base with "Pat. 120,277 8/B 40"; 2 3/8" diameter	1850-present
		bottle base	1		green	wine type; empointilled base; heavy patina; 3 1/2" diameter	ca.1740-1820s
Total Collected Artifacts =			9 from 11/05/95 Chambers Street South				
11/11/95 Sidewalk East							
Bone							
		button blank	1			four cut-outs; 3/4" diameter buttons	
Ceramic							
		utility pipe	1		red	.	
	black basalt		1		black	.	mid 18th c.-c.1820
	creamware	base	2		white	.	1762-1820
	earthenware	rim	1		buff	Rockingham type	1830-1900+
	kaolin	smoking pipe pipe stem	1		white	.	
	kaolin	smoking pipe stem & bowl	1		white	fluting stem up to bowl	19th C.
	pearlware		1		white	clunky	1779-1820+
	pearlware	lid	1		white	blue floral transfer print; hexagonal	c.1795-1840

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/11/95 Sidewalk East							
Ceramic							
	porcelain		2		white	blue floral print with red floral overglaze; mends	
	porcelain		1		white	blue transfer print exterior	
	porcelain	base	2		white	blue transfer print exterior; chinese style; mends	c.1660-1880
	redware		3			manganese glaze	c.1775-1900
	redware		1			manganese glaze exterior; unglazed interior	c.1775-1900
	redware		1			mixed manganese glaze	c.1775-1900
	refined earthenware		1		white	blue floral print	1783-c.1900
	refined earthenware		1		white	blue shell edge	1770s-early 20th C.
	refined earthenware		1		white	blue transfer print	1783-c.1900
	refined earthenware		1		white	green embossed ridged decoration	1850s-late 19th c.
	refined earthenware		1		white	hand painted polychrome floral; blue, brown, & mustard	1795-c.1870
	refined earthenware		1		white	molded; blue banded	1850s-late 19th c.
	refined earthenware		1		white	red stippled transfer print exterior	1807-1850s
	refined earthenware	rim	1		white	blue transfer print	1783-c.1900
	refined earthenware	rim	1		white	brown edge line	1790s-c.1812
	salt glaze stoneware	rim	1		white	dot, diaper & bakket pattern	1740-1770s
	stoneware		1		buff/gray	stamp decorated in brown and blue exterior	1790-c.1820
	stoneware		1		gray	blue decoration exterior	1790-c.1820
	stoneware		1		gray	blue exterior floral? with brown stippling; brown slip interior	1790-c.1820
	stoneware		1		gray	brown exterior; Albany slip interior	c.1800-1820
	stoneware		1		gray	partial blue exterior decoration; waster	1790-c.1820
	stoneware	base	2		gray	brown; incised banding decoration; waster; mends	1790-c.1820
	stoneware	rim	1		buff	blue exterior decoration at break	1790-c.1820
	stoneware	rim	2		gray	mends	1720s-c.1820
	white granite	plate rim	1		white	heavy	1840s-c.1900
	yellowware		4				1830-1900
Glass							
		bottle finish	1		clear	medicine type; molded body; flanged lip	18th & 19th century
		bottle finish	1		green	partial; heavy patina	
Total Collected Artifacts = 47 from 11/11/95 Sidewalk East							
11/12/95 South Sidewalk West							
Bone							
		button	1			5-hole round; 3/4" diameter	
Carbon							
		arc lighting rod	2		black	solid	1876-1914+
Ceramic							
	bisque	dolls head	1		pink		1860-1925
	creamware	saucer	1		white	partial footring; beading around center	1762-1820

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/12/95	South Sidewalk West						
Ceramic							
delft	tile		1		white	blue hand painted	late 17th-mid 18th C
delftware			1		white	hand painted floral	1625-1800+
delftware	rim		1		white	blue hand painted	1750-1800+
earthenware			1		buff	.	
earthenware			2		buff	brown trailed slip decoration exterior	c.1670-1795
earthenware			2		buff	brown trailed slip exterior: mends	c.1670-1795
earthenware	base		2		buff	Rockingham type	1830-1900+
earthenware	rim		1		buff	manganese splotted edge	
earthenware	rim ?		1		buff	Rockingham type, hexagonal?	1830-1900+
kaolin	pipe bowl		1		white	.	1860-c.1900
kaolin	smoking pipe stem		4		white	.	
pearlware			1		white	banded molding	1779-1820+
pearlware			1		white	blue floral transfer print	c.1795-1840
pearlware	base		1		white	.	1779-1820+
pearlware	base		1		white	blue geometric transfer print	c.1795-1840
pearlware	finial		1		white	blue transfer print	c.1795-1840
pearlware	rim		2		white	blue transfer print: mends	c.1795-1840
porcelain			1		white	blue decoration	
porcelain			1		white	brown & red hand painted overglaze	
porcelain	tea bowl rim		3		white	blue geometric rim	
redware			1			manganese glaze	c.1775-1900
redware			1			manganese splotted interior; unglazed exterior	c.1775-1900
redware			1			manganese striped interior	c.1775-1900
redware	base		1			manganese splotted glaze	c.1775-1900
redware	plate		1			white & brown combed slip interior; pie rim; mends with 11/19/95 collection from same area	c.1670-1770s
redware	rim		1			brown & white combed slip interior; unglazed exterior; pie rim	c.1670-1770s
redware	rim		2			brown & white slip interior; molded: pie rim	c.1670-1770s
redware	rim		1			brown interior; unglazed exterior; pie rim	1850-1900
refined earthenware			2		white	blue transfer print one side	1783-c.1900
refined earthenware			1		white	blue transfer print; chinese pattern	1783-c.1812
refined earthenware			1		white	brown leaf overglaze decorated exterior	1750s-1850s
refined earthenware			1		white	red floral stippled transfer print	1807-1850s
refined earthenware	rim		1		white	blue floral transfer print; burned	1783-c.1900
refined earthenware	rim		1		white	blue shell edge	1770s-early 20th C.
refined earthenware	rim		1		white	blue transfer print	1783-c.1900
refined earthenware	rim		1		white	brown leaf underglaze decorated exterior	1820s-early 20th C.
refined earthenware	rim		1		white	light blue floral transfer print	1783-c.1900
refined earthenware	rim		1		white	red floral stippled transfer print	1807-1850s

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/12/95 South Sidewalk West							
Ceramic							
	refined earthenware	rim	1		white	scalloped blue shell edge	1780s-1840s
	soft paste porcelain		1		white	blue banded incising	
	stoneware		2		buff	blue decorated exterior; brown interior	1790-c.1820
	stoneware		4		gray	blue decoration exterior	1790-c.1820
	stoneware		1		gray	blue incising	1790-c.1820
	stoneware		1		gray	brown glaze	1720s-c.1820
	stoneware		2		gray	waster	1720s-c.1820
	stoneware		1		red	waster; manganese glaze exterior	1760s-c.1800
	stoneware	base	1		gray	waster	1720s-c.1820
	stoneware	bottle base	1		gray	brown/gray exterior; greenish glaze interior	1820-1890
	stoneware	kiln furniture	3				1720s-c.1820
	stoneware	rim	1		gray		1720s-c.1820
	stoneware	rim	1		gray	blue decoration; waster	1790-c.1820
	stoneware	rim	1		gray	partial blue decoration exterior	1790-c.1820
	stoneware	tankard	2		gray	banding incised exterior; Rheinisch style	1790-c.1820
	stoneware R		1		gray	brown glaze exterior	1720s-1870
	stoneware R		1		red	manganese decoration exterior	1820-1870
	stoneware R	rim	1		gray	brown interior; waster	1720s-1870
	yellowware		1				1830-1900
	yellowware	rim	1				1830-1900
Feather							
		pen quill	1				
Glass							
		bottle base	1		green	emponilled push-up; heavy patina; 4" diameter	ca.1740-1820s
		bottle finish	2		green	English type wine bottle; applied string rim; patina	1770-1785
		bottle finish	1		green	applied string rim; heavy patina	1770-1785
		curved	1		red	molded	
		stopper shank	1		clear	bottom part	
Metal							
	copper alloy	hardware	1			nail with wood fiber	
Shell							
	abalone	button	1			4-hole round; 1" diameter	
Stone							
	flint	gun flint	1		gray	prismatic; musket flint	
Total Collected Artifacts = 92 from 11/12/95 South Sidewalk West							
11/15/95 From 11/4/95 Park North Test							
Ceramic							
	earthenware	rim	1		buff	Rockingham type	1830-1900+
	refined earthenware		1		white	blue transfer print shoulder	1783-c.1900

## INVENTORY OF COLLECTED ARTIFACTS FOR 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/15/95	From 11/4/95 Park North Test						
Ceramic							
	stoneware		1		gray	blue inside incised band exterior	1790-c.1820
Total Collected Artifacts =			3	from 11/15/95	From 11/4/95 Park North Test		
/ /	From 11/11-12/95 Sidewalk Backdirt						
		brick	1		yellow	.	17th century
creamware		plate base	1		white	.	1762-1820
creamware		teacup rim	1		white	.	1762-1820
pearlware			1		white	.	1779-1820+
redware			2			waster?; white slip interior; brown unfired exterior	1760s-c.1800
redware			1			waster?; glazed exterior unfired	1760s-c.1800
salt glaze stoneware	base		1		white	.	c.1720-1805
stoneware	base		1		gray	gray exterior; brown interior	1720s-c.1820
stoneware	rim		1		gray	partial blue decoration exterior	1790-c.1820
Glass							
		bottle	1		green	patina	
Total Collected Artifacts =			11	from / /	From 11/11-12/95 Sidewalk Backdirt		
11/16/95	From 11/12/95 Sidewalk West Backdirt						
Ceramic							
		stopper	1		white	metal fitting stuck inside hole	
creamware		plate rim	1		white	beaded & scalloped edge	1762-1820
delftware			1		white	brown & blue overglaze	1625-1800+
delftware			1		white	brown & blue underglaze	1625-1800+
earthenware			1		buff	Rockingham type; molded scroll pattern one side	1830-1900+
earthenware			1		buff	brown trailed slipware	c.1670-1795
earthenware	plate		2		buff	Rockingham type; mends	1830-1900+
earthenware	rim		1		buff	brown dotted slip interior	c.1670-1795
kaolin	smoking pipe bowl		1		white	partial mark; encircled "...D"	late 18th C.-present
kaolin	smoking pipe stem		4		white	.	
kaolin	smoking pipe stem & bowl		1		white	.	
kaolin	smoking pipe stem & bowl		1		white	lettering on spur: "G" on one side, "W" on other	late 18th C.
pearlware			1		white	brown transfer print overglaze	1809-1850
pearlware	base		1		white	stippled red transfer print interior	1807-c.1840
pearlware	rim		2		white	blue geometric hand painted underglaze	c.1780-1820
porcelain			1		white	blue underglaze	
porcelain	plate rim		1		white	blue hand painted; scalloped edge	
redware			1			manganese glaze	c.1775-1900
redware	rim		1			manganese glaze	c.1775-1900
redware	rim		1			splotched mineral glaze	1775-1900
redware	rim		1			white slip glaze	1750-1875

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/16/95 From 11/12/95 Sidewalk West Backdirt							
Ceramic							
	redware	spittoon? rim	1			mineral glaze; hexagonal	c.1775-1900
	refined earthenware		1		white	blue banding	1840s-20th Cent.
	refined earthenware		1		white	blue spatter decorated interior	1850-early 20th C.
	refined earthenware		1		white	brown & blue exterior	late19th-early20th C
	refined earthenware		1		white	brown banding and floral underglaze exterior	late19th-early20th C
	refined earthenware		3		white	light blue transfer print one side; possible chinese pattern with floral border	1783-c.1900
	refined earthenware	rim	1		white	blue decoration with brown overglaze edge line	1790s-c.1812
	refined earthenware	rim	1		white	blue shell edge; scalloped	1780s-1840s
	salt glaze stoneware	plate rim	1		white	barley & basket weave pattern	1740-1770s
	salt glaze stoneware	rim	1		white	banded	mid-late 18th C.
	soft paste porcelain		1		white	banded	c. 1790-present
	stoneware		2		gray	blue decorated exterior	1790-c.1820
	stoneware		2		gray	blue decorated exterior; light brown interior; mends	1790-c.1820
	stoneware		1		gray	blue decorated exterior; light brown interior; waster	1790-c.1820
	stoneware	handle	1		buff	manganese glaze	1720s-c.1820
	stoneware	kiln furniture	1				1720s-c.1820
	stoneware	rim	1		gray		1720s-c.1820
	stoneware	rim	1		gray	blue decorated interior; unglazed exterior	1790-c.1820
	stoneware	rim	1		gray	blue decorated interior; waster	1790-c.1820
	stoneware	rim	1		gray	brown interior	c.1800-1820
	stoneware	rim	1		red/buff	brown exterior glaze; waster	1760s-1820
	yellowware		1		buff	blue filled banded exterior	1830-1900
	yellowware	rim	1		buff		1830-1900
	yellowware	tea cup handle	1				1830-1900
Glass							
		bottle base	2		green	wine type; heavy patina; 3 1/2" diameter	ca.1740-1820s
		bottle base	1		green	wine type; heavy patina; 3" diameter	ca.1740-1820s
		bottle finish	1		aqua	soda type; down tooled lip; seamless	1820s-1920s
		bottle finish	1		blue	fragment	
		bottle finish	1		clear	folded in lip; ribbed shoulder	ca.1810-ca.1875
		bottle neck	1		green	English wine type; blown; heavy patina	1740-late 19th c.
Stone							
	flint	gun flint	1		gray & black		
Total Collected Artifacts = 62 from 11/16/95 From 11/12/95 Sidewalk West Backdirt							
11/18/95 From 11/11-12/95 Sidewalk Backdirt							
Ceramic							
	stoneware		1		gray	blue decoration	1790-c.1820
	stoneware	rim	1		gray	blue decoration exterior	1790-c.1820

## INVENTORY OF COLLECTED ARTIFACTS FOR 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95	From 11/11-12/95 Sidewalk Backdirt						
Ceramic							
	stoneware	rim	2		gray	waster	1720s-c.1820
Glass							
		wine stem	1		clear	hollow bubble stem	
Total Collected Artifacts =			5	from 11/18/95	From 11/11-12/95 Sidewalk Backdirt		
11/18/95	From 11/12/95 Sidewalk West Backdirt						
Ceramic							
	brick		1	2415	red	2 1/4" x 4 1/8" x 8 1/2"; with mortar attached	
	brick		2	>5000	red	2 3/8" x 3 3/8" x 7 5/8"; mortared together	
	brick		2	3820	red	2 3/8" x 3 3/8" x 7 7/8"; with mortar attached	
Total Collected Artifacts =			5	from 11/18/95	From 11/12/95 Sidewalk West Backdirt		
11/18/95	Park North 14' - 28' (P1)						
Bone							
		toothbrush	1				
Ceramic							
		marble	1		blue	1/2 inch diameter	
creamware			1		white	blue hand painted exterior	1762-1820
earthenware			1		buff		
earthenware		spittoon ? rim	1		buff	Rockingham type; manganese interior; floral relief exterior	1830-1900+
ironstone		base	1		white	makers mark - lion crest; "IRONSTO"/ "JAMES E"	post 1837
kaolin		smoking pipe bowl	1		white		late 18-early 19th C
kaolin		smoking pipe stem	1		white		
kaolin		smoking pipe stem	1		white	spur area; fluting coming from bowl toward stem	19th C.
pearlware			1		white		1779-1820+
pearlware			1		white	blue stippled transfer print	1807-c.1840
pearlware		rim	1		white	blue transfer print interior	c.1795-1840
pearlware		tea cup base	1		white		1779-1820+
pearlware		tea cup base	1		white	blue and brown hand painted floral interior	c.1820-1840
porcelain			1		white	blue & black glazed chunk	
porcelain		lid	1		white	red floral overglaze; chinese style transfer print with red rim	1750s-1850s
redware		rim	1			white and brown comb slip; pie edge	c.1670-1770s
redware		rim	1			white slip interior; pie edge	1750-1875
refined earthenware			1		white	flow blue exterior	1840s-c.1900
refined earthenware			1		white	hand painted polychrome floral; blue, black & green	1830s-c.1870
refined earthenware		base	1		white	light blue transfer print interior	1783-c.1900
refined earthenware		rim	1		white	blue transfer print underglaze with brown banded rim	1790s-c.1812
salt glaze stoneware		plate	1		white	barley pattern	1740-1770s
salt glaze stoneware		rim	1		white	dot, diaper & basket pattern	1740-1770s
salt glaze stoneware		teacup	1		white		c.1720-1805

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95 Park North 14' - 28' (P1)							
Ceramic							
	stoneware		1		gray	manganese exterior glaze	c.1800-1820
	stoneware	plate base	2		gray	mends	1720s-c.1820
	stoneware	rim	1		gray	waster	1720s-c.1820
	white granite	jar base	1		white	molded	1850s-c.1900
	whiteware		3		white	.	early 19th C.-1900+
	whiteware		1		white	hand painted red overglaze with green	early 19th C.-1900+
Glass							
		bottle base	1		clear	machine made	1881-present
		bottle base	1		green	empointilled; mamelon; 3" diameter	1870s
		bottle finish	1		clear	machine made	1881-present
Metal							
	lead	hardware	1			about 1" x 2" rectangular; wafer like	
Total Collected Artifacts =			38 from 11/18/95 Park North 14' - 28' (P1)				
11/18/95 Park South Drive							
Ceramic							
	earthenware	rim	1		buff	Rockingham type; hexagonal	1830-1900+
	earthenware	rim	1		buff	brown trailed slip interior; pie rim	c.1670-1795
	pearlware	base	1		white	brown banded exterior at base	c.1795-1820s
	stoneware	base	1		gray	3 3/4" diameter	1720s-c.1820
	white granite	base	1		white	clunky	1840s-c.1900
Glass							
	milk glass	curved	1		white	curved	1890s-1960s+
Total Collected Artifacts =			6 from 11/18/95 Park South Drive				
11/18/95 Sidewalk to Park North							
Bone							
		handle	1			pistol grip	early 18th century
Carbon							
		arc lighting rod	1		black	solid	1876-1914+
Ceramic							
	brick		1		yellow	1 1/2" x ?	17th century
	creamware		1		white	.	1762-1820
	creamware	base	1		white	.	1762-1820
	creamware	rim	1		white	.	1762-1820
	creamware	rim	1		white	.	1762-1820
	creamware	rim	2		white	beaded edge; mends	1762-1820
	creamware	rim	1		white	beaded edge; teacup	1762-1820
	creamware	rim	1		white	feather edge	1760s-1790s
	creamware	teacup	1		white	.	1762-1820
	creamware	teapot spout	1		white	.	1762-1820

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95 Sidewalk to Park North							
Ceramic							
	delft		1		white	spall; blue decoration	late 17th-mid 18th C
	delft	tile	3		white	blue & white hand painted; double concentric circles around sea scene; mends	late 17th-mid 18th C
	delft	tile	1		white	blue & white hand painted; oxhead variant corner	late 17th-mid 18th C
	delft	tile	1		white	purple decoration	late 17th-mid 18th C
	delftware		1		white	apothecary type?; bluish tint; blue banded decorated exterior	1650-1780
	delftware	plate rim	1		white	blue underglaze; gold overglaze	1625-1800+
	delftware	rim	2		white	apothecary type?; bluish tint	1640-1830
	earthenware		1		buff		
	earthenware		4		buff	Rockingham type	1830-1900+
	earthenware		1		buff	Rockingham type molded interior	1830-1900+
	earthenware		2		buff	brown trailed slip exterior	c.1670-1795
	earthenware		1		buff	burned exterior; brown interior	
	earthenware		1		buff	manganese glaze	
	earthenware		1		buff	thin brown slip exterior	1800-1900
	earthenware		2		yellow	hint of brown slip exterior decoration	c.1670-1795
	earthenware	base	1		buff	Rockingham type; unglazed exterior	1830-1900+
	earthenware	base	1		buff	brownish yellow glaze	1860-1900
	earthenware	cup rim	2		buff	brown dotted slip decoration exterior; mends	c.1670-1795
	earthenware	rim	1		buff	Rockingham type	1830-1900+
	earthenware	rim	1		buff	Rockingham type exterior; molded	1830-1900+
	earthenware	rim	2		buff	Rockingham type; mends	1830-1900+
	earthenware	rim	1		buff	brown & black hand painted floral	1860-1900
	earthenware	rim	2		buff	brown dotted slip exterior	c.1670-1795
	earthenware	rim	1		buff	brown trailed slip interior; pie rim	c.1670-1795
	ironstone		5		white		early 19thC.-present
	ironstone	base	1		white		early 19thC.-present
	ironstone	rim	1		white	polychrome floral; blue, green, yellow & brown with brown rim line; concretion	1820s-1860
	jackfield		1		red		1740-1780
	kaolin	smoking pipe bowl	1		white	unused; "TD" encircled in stars on back of bowl; tobacco leaves along seam on front of bowl	1800+-20th C.
	kaolin	smoking pipe stem	16		white		
	kaolin	smoking pipe stem	1		white	from bowl end; fluted at bowl	19th C.
	kaolin	smoking pipe stem	1		white	from bowl end; two concentric circles on spur	19th C.
	kaolin	smoking pipe stem	1		white	used; from bowl end; two concentric circles on spur; partial bowl	19th C.
	pearlware		2		white	blue transfer print; floral exterior	c.1795-1840
	pearlware		1		white	hint of blue decoration	1779-1820+

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95	Sidewalk to Park North						
Ceramic							
pearlware		rim	1		white	blue transfer print interior	c.1795-1840
porcelain			1		white		
porcelain			1		white	blue geometric rim	
porcelain		base	1		white	red & black overglaze interior; worn	
porcelain		base	1		white	red overglaze exterior; worn	
porcelain		bowl base	2		white	blue underglazed bridge over water; mends	
porcelain		rim	2		white	blue rim geometric interior	
porcelain		rim	1		white	blue rim geometric interior; blue decoration exterior	
redware			1				1725-1900
redware			1			manganese mixed interior; unglazed exterior	c.1775-1900
redware			2			white slip decorated interior; unglazed exterior; mends	1750-1875
redware			1			white slip decorated with green splotched interior; clear exterior	c.1860-1900
redware			2			white slip decorated with green splotched interior; clear exterior; mends	c.1860-1900
redware			1			white slip decorated with green splotched interior; painted exterior	c.1860-1900
redware			2			white slip decorated with green splotched interior; unglazed exterior	c.1860-1900
redware		plate rim	1			brown & white comb slip decorated interior; unglazed exterior; pie rim	c.1670-1770s
redware		rim	2			clear glaze	1750-1900
redware		rim	1			white slip decorated interior; pie rim	1750-1875
redware		rim	2			white slip decorated with green splotched interior; clear exterior; pie rim	c.1860-1900
redware		spittoon?	1			molded manganese glaze; circular opening	1800-1900
refined earthenware			1		white	blue & gray banded exterior	1840s-1950s
refined earthenware			1		white	blue banded interior	1840s-20th century
refined earthenware			1		white	blue floral transfer print interior	1783-c.1900
refined earthenware			2		white	blue spatter decorated interior	1850-early 20th C.
refined earthenware			2		white	blue transfer print	1783-c.1900
refined earthenware			1		white	blue transfer print interior with green hand painted overglaze	1840-c.1860
refined earthenware			1		white	brown transfer print interior	1828-late 19th C.
refined earthenware			1		white	flow blue	1840s-c.1900
refined earthenware			1		white	green leaf; brown stem interior hand painted overglaze	1830s-1870s
refined earthenware			1		white	polychrome floral hand painted interior; blue, black & green	1830s-c.1870
refined earthenware			1		white	stippled brown floral transfer print interior	1807-1820s
refined earthenware			1		white	thin brown banded decoration interior	1790s-c.1812
refined earthenware		base	1		white	black lettering "NT" with holly tied by bow transfer print	1830-1860

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95	Sidewalk to Park North						
Ceramic							
refined earthenware	base to rim		1		white	dark green transfer print interior	1820s-late 19th C.
refined earthenware	base to rim		1		white	polychrome hand painted floral; red, black, blue & green	1830s-c.1870
refined earthenware	rim		1		white	black transfer print interior with handpainted detail	1840-c.1860
refined earthenware	rim		1		white	blue shell edge	1770s-early 20th C.
refined earthenware	rim		3		white	blue shell edge	1770s-early 20th C.
refined earthenware	rim		1		white	blue spatter decoration interior	1850-early 20th C.
refined earthenware	rim		2		white	blue transfer print interior	1783-c.1900
refined earthenware	rim		1		white	light blue transfer print interior	1783-c.1900
refined earthenware	teacup		1		white	light blue transfer print floral	1783-c.1900
salt glaze stoneware			1		white	molded	1740-1770s
salt glaze stoneware			1		white	scratch blue	mid-late 18th C.
salt glaze stoneware	plate base		2		white	.	c.1720-1805
salt glaze stoneware	rim		1		white	.	c.1720-1805
salt glaze stoneware	rim		1		white	barley pattern	1740-1770s
salt glaze stoneware	rim		2		white	dot, diaper, & basket pattern	1740-1770s
salt glaze stoneware	rim		1		white	wheat pattern	1740-1770s
soft paste porcelain	rim		1		white	brown overglaze interior; red overglaze exterior rim	c.1660-1825
soft paste porcelain	rim		1		white	red & brown overglaze exterior; beaded rim exterior; red overglaze interior rim	c.1660-1825
stoneware			1		buff	blue decoration exterior; unglazed interior	1790-c.1820
stoneware			1		buff/gray	.	1720s-c.1820
stoneware			1		buff/red	waster	1760s-c.1800
stoneware			1		gray	.	1720s-c.1820
stoneware			1		gray	Albany slip exterior; brown unfired interior	c.1800-1820
stoneware			1		gray	blue banding and blue decoration exterior; unglazed interior	1790-c.1820
stoneware			3		gray	blue decoration exterior	1790-c.1820
stoneware			1		gray	blue decoration exterior; unglazed interior	1790-c.1820
stoneware			1		gray	blue filled and incised leaf exterior; brown interior	1790-c.1820
stoneware			2		gray	blue inside incised banded exterior; light brown interior	1790-c.1820
stoneware			1		gray	brown interior	1720s-c.1820
stoneware			1		gray	brown interior; blue decoration exterior	1790-c.1820
stoneware			2		gray	brown unfired interior	1720s-c.1820
stoneware			1		gray	brown unfired interior; partial blue watch spring exterior	1790-c.1820
stoneware			2		gray	light brown glaze interior	1720s-c.1820
stoneware			4		gray	light brown interior	1720s-c.1820
stoneware			1		gray	light brown interior	1720s-c.1820
stoneware			1		gray	waster, partial blue watch spring interior	1790-c.1820
stoneware			1		gray	waster; brown	1720s-c.1820
stoneware			2		gray	waster; light brown interior; mends	1720s-c.1820

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95 Sidewalk to Park North							
Ceramic							
stoneware			1		gray/buff		1720s-c.1820
stoneware		base	2		buff	waster	1720s-c.1820
stoneware		base	1		gray	blue decoration near handle attachment; pitcher?	1790-c.1820
stoneware		base	1		gray	gray exterior; brownish interior	1720s-c.1820
stoneware		base	2		gray	mends	1720s-c.1820
stoneware		base	1		gray	unglazed interior and base	1720s-c.1820
stoneware		base	1		gray	waster	1720s-c.1820
stoneware		bottle lip	1		gray	waster	1720s-c.1820
stoneware		bottle shoulder	1		gray	Albany slip exterior; unglazed interior	c.1800-1820
stoneware		handle	1		buff	blue decoration	1790-c.1820
stoneware		handle	1		buff	waster; gray glaze	1720s-c.1820
stoneware		handle	1		gray	waster	1720s-c.1820
stoneware		handle & rim	1		gray	blue decoration exterior; 2 vertical incisions on handle exterior; pitcher?	1790-c.1820
stoneware		handle & rim	1		gray	blue decoration exterior; mug?	1790-c.1820
stoneware		rim	1		buff	blue decoration exterior; unfired; waster	1790-c.1820
stoneware		rim	2		gray	blue floral? decoration exterior	1790-c.1820
stoneware		rim	1		gray	brown interior	1720s-c.1820
stoneware		rim	2		gray	gray	1720s-c.1820
white granite			3		white		1840s-c.1900
white granite			4		white		1840s-c.1900
white granite		base	1		white		1840s-c.1900
white granite		handle	1		white	molded	1850s-c.1900
white granite		rim	1		white	panel molded exterior	1850s-c.1900
whiteware		rim	1		white	blue rim decoration underglaze both sides	early 19th C.-1900+
yellowware			2				1830-1900
yellowware		base	1			burned exterior	1830-1900
yellowware		rim	1			blue banding	1830-1900
yellowware		rim	1		buff		1830-1900
Glass							
		bottle base	1		green	wine type; 2 1/4" pontil mark; heavy patina; 4 1/2" outer diameter	ca.1740-1820s
		bottle base	2		green	wine type; empontilled; heavy patina	ca.1740-1820s
		bottle base	1		green	wine type; empontilled; heavy patina; 4 1/2" diameter	ca.1740-1820s
		bottle base	2		green	wine type; empontilled; heavy patina; 4" diameter; mends	early 18th c.-1870s
		bottle base	1		green	wine type; partial; empontilled; heavy patina	ca.1740-1820s
		bottle finish	1		aqua	soda type; down-tooled lip	1820s-1920s
		bottle finish	1		clear	double ring finish; deep cap seat	1875-1924
		bottle finish	2		green	hand-blown wine bottle; V-shaped lip; uptooled string rim;	1770-1785

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/18/95	Sidewalk to Park North						
Glass						heavy patina	
		curved	1		blue		
		curved	1		green	patina	
Metal		flat	1		green	edge with corner; heavy patina	
	copper alloy	handle	1			floral handle flatware	
	copper alloy	hardware ring	1			1" diameter; broken	
	lead	musket ball	1			3/4" diameter	
	steel	hardware	1			solid cylindrical; 2 3/8" x 3/8"	
Plastic		bottle	1		clear	Christian Brothers Brandy; 50 ml. (nip size); Surgeon General's warning to pregnant women; UPC code	1950s-present
		curved	1		red		1927-present
		handle	1		off-white		
Stone							
	flint	gun flint	3		white	heavy white patina; mends	
Total Collected Artifacts = .235 from 11/18/95 Sidewalk to Park North							
11/19/95	From 11/11-12/95 Sidewalk Backdirt						
Ceramic							
	creamware	rim	1		white	molded; dotted rim	1762-1820
	porcelain	handle attachment	1		white		
	redware	plate	1			brown and white combed slip interior; pie rim; mends with 11/12/95 South Sidewalk West piece	c.1670-1770s
	stoneware	shoulder	1		buff	waster; olive tint interior; tan exterior	1820-1890
Total Collected Artifacts = 4 from 11/19/95 From 11/11-12/95 Sidewalk Backdirt							
11/19/95	Park North 14' - 28' (P1)						
	creamware		1		white		1762-1820
	creamware	bowl	1		white	foot ring; beaded	1762-1820
	creamware	flatware	1		white		1762-1820
	earthenware		1		buff	Rockingham type	1830-1900+
	pearlware		1		white	blue floral transfer print interior	c.1795-1840
	pearlware	base	1		white		1779-1820+
	porcelain	bowl	1		white	blue hand painted underglaze	
	redware		2			manganese glaze interior	c.1775-1900
	refined earthenware		1		white	hand painted polychrome exterior; green & brown	1795-c.1870
	refined earthenware		1		white	light blue spatter print exterior	1850-early 20th C.
	refined earthenware	flatware	1		white	stippled red transfer print; molded edge	1807-1850s
	refined earthenware	rim	1		white	blue shell edge; impressed straight lines	1805-1830

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/19/95 Park North 14' - 28' (P1)							
Ceramic							
	refined earthenware	rim	1		white	thick blue transfer print interior	1783-c.1900
	stoneware		1		buff	blue decorated exterior	1790-c.1820
	stoneware	rim	1		buff/red	gray exterior	1760s-c.1800
	white granite		4		white	.	1840s-c.1900
Glass							
		bottle	1		green	embossed triangular trade mark; partial	
		bottle	1		green	patina	
		bottle base	1		green	.	
		bottle base	1		green	wine type; empontiled; 4" diameter	ca.1740-1820s
Total Collected Artifacts =			24 from 11/19/95 Park North 14' - 28' (P1)				
11/19/95 Park North 28' - 42' (P2)							
Ceramic							
	creamware		3		white	.	1762-1820
	creamware	rim	1		white	.	1762-1820
	earthenware		1		buff	manganese glaze	1850-1900
	earthenware	rim	1		buff	Rockingham type; brown, yellow & blue	1830-1900+
	ironstone	rim	2		white	.	early 19thC.-present
	kaolin	smoking pipe bowl	1		white	.	
	kaolin	smoking pipe bowl & stem	1		white	wheat pattern; no spur	1850-c.1900
	kaolin	smoking pipe stem	4		white	.	
	pearlware		1		white	hand painted blue and yellow floral underglaze	c.1820-1840
	pearlware	base	1		white	.	1779-1820+
	pearlware	rim	1		white	molded	1779-1820+
	porcelain		1		white	molded decoration exterior	
	porcelain		1		white	tile?	
	porcelain	rim	1		white	.	
	refined earthenware		1		white	blue spatter	1850-early 20th C.
	refined earthenware		2		white	blue transfer print	1783-c.1900
	refined earthenware		1		white	blue transfer print with stippling	1807-c.1900
	refined earthenware		1		white	light blue banding at shoulder	1840s-20th century
	refined earthenware	rim	1		white	brown transfer print interior	1828-late 19th C.
	refined earthenware	rim	1		white	green shell edge; impressed straight lines; scalloped	1805-1830
	stoneware		1		buff	gray exterior; Albany slip interior	c.1800-1820
	stoneware		1		buff	waster; tan exterior; clear interior	1720s-c.1820
	stoneware	base	1		buff/gray	gray exterior; Albany slip interior	c.1800-1820
	stoneware	shoulder	1		gray	brown slip exterior	c.1800-1820
	white granite		1		white	.	1840s-c.1900
	yellowware	rim	1			clear glaze	1830-1900

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/19/95	Park North 28' - 42' (P2)						
Glass							
		bottle base	2		clear	2-piece molded; octagonal	ca. 1750- ca.1880
		bottle finish	1		blue	soda type; down-tooled lip	1890s-1920s
		bottle neck	1		clear	machine made; threaded lip	1889-present
		flat	1		clear	refrigeration type; ribbed one side	
Metal							
	copper	hardware	1			2-hole eyelet, 2 1/4 x 1/2"	
	copper alloy	button back	1			4-hole: 7/8" diameter	
Shell							
		button	1			shank missing: 7/8" diameter	
Total Collected Artifacts =			41	from 11/19/95 Park North 28' - 42' (P2)			
11/19/95	Park North 42' - 56' (P3)						
Ceramic							
	earthenware		1		buff		
	earthenware		11		buff	Rockingham type	1830-1900+
	earthenware		2		buff	Rockingham type; molded decoration one side; muddy coloring	1830-1900+
	earthenware		3		buff	Rockingham type; pale coloring	1830-1900+
	earthenware		4		buff	Rockingham type; unglazed one side	1830-1900+
	earthenware		5		buff	Rockingham type; with blue/green	1830-1900+
	earthenware		1		buff	light blue banded with impressed exterior	1790-early 20th cent
	earthenware		1		buff	pressed; Rockingham type	1830-1900+
	earthenware	base	1		buff	Rockingham type	1830-1900+
	earthenware	rim	1		buff	Rockingham type	1830-1900+
	earthenware	rim	2		buff	Rockingham type; with blue/green	1830-1900+
	kaolin	smoking pipe stem	2		white		
	pearlware		1		white	transfer print interior; chinese style	1783-c.1812
	pearlware	handle	1		white		1779-1820+
	porcelain	cup rim	1		white	blue geometric underglazed interior	
	porcelain	tile	1		white	corner building tile; off white glaze	
	refined earthenware		1		white	blue transfer print	1783-c.1900
	refined earthenware		1		white	burned	
	refined earthenware	rim	1		white	blue geometric	1783-c.1900
	refined earthenware	rim	1		white	blue shell edge; scalloped	1780s-1840s
	refined earthenware	rim	1		white	light blue transfer print interior	1783-c.1900
	stoneware		1		buff	waster	1720s-c.1820
	stoneware		1		gray	light brown exterior; dark brown interior	c.1800-1820
	stoneware		2		gray	light brown exterior; unglazed interior	1720s-c.1820
	white granite		3		white		1840s-c.1900
	white granite		1		white	molded relief	1850s-c.1900
	white granite		1		white	partial molded mark encircled ... "RIC" ...	1850s-c.1900

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/19/95 Park North 42' - 56' (P3)							
Ceramic	whiteware	hollow ware	2		white	.	early 19th C.-1900+
Glass		bottle finish	1		green	case like; rudimentary	
		bottle neck	1		clear	patent lip	late 19th-early 20th
Metal		lipstick tube	1			.	
Total Collected Artifacts =			57	from 11/19/95 Park North 42' - 56' (P3)			
11/19/95 Park South Drive							
Bone		button blank	1			3 cut outs; 7/8" diameter buttons	
Carbon		arc lighting rod	1		black	solid	1876-1914+
Ceramic		utility pipe	1		buff	ribbed; brown glaze	
creamware		rim	2		white	.	1762-1820
delftware		rim	1		white	blue tinted glaze	1625-1800+
earthenware			2		buff	Rockingham type; molded decoration	1830-1900+
earthenware		rim	4		buff	Rockingham type	1830-1900+
ironstone			1			burned; blue decoration interior	early 19th C-present
ironstone			3		white	blue decoration interior	early 19thC.-present
ironstone			2		white	blue decoration interior; mends	early 19th C-present
ironstone		rim	1		white	blue gray tinted glaze	early 19th C-present
kaolin		smoking pipe bowl	1		white	"LE"	c.1770-1800
kaolin		smoking pipe stem	2		white	.	
pearlware			1		white	blue transfer print interior	c.1795-1840
pearlware			1		white	geometric blue transfer print interior	c.1795-1840
pearlware		base	1		white	brown band near base	C.1790-1820
porcelain			1		white	pale blue glaze	
porcelain		rim	1		white	hexagonal; molded decoration; blue grape sprig exterior	
redware		rim	1			glazed & impressed	1800-1900
refined earthenware			1		white	blue floral transfer print one side	1783-c.1900
refined earthenware			2		white	blue transfer print both sides	1783-c.1900
refined earthenware			1		white	blue transfer print underglaze both sides	1783-c.1900
refined earthenware			1		white	flow blue both sides	1840s-c.1900
refined earthenware			2		white	flow blue one side	1840s-c.1900
refined earthenware			4		white	flow blue one side; scroll design	1840s-c.1900
refined earthenware		rim	1		white	flow blue	1840s-c.1900
salt glaze stoneware		base	1		white	.	c.1720-1805
salt glaze stoneware		base	1		white	scratch blue exterior	mid-late 18th C.

## INVENTORY OF COLLECTED ARTIFACTS FOR 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
11/19/95 Park South Drive							
Ceramic							
	stoneware		1		buff	waster; gray exterior; unglazed interior	1720s-c.1820
	stoneware		1		gray	waster; blue decorated exterior	1790-c.1820
	stoneware	shoulder; neck	1		gray	gray exterior; Albany slip interior	1800-c.1820
	white granite		3		white	.	1840s-c.1900
	white granite	plate base	1		white	.	1840s-c.1900
Glass							
		bottle	1		amber	whole warranted flask; machine made; applied lip; "193" embossed on base	1850-mid 1920s
		bottle	1		clear	whole flask; machine made; "FULL 1/2 PINT" on side; circled "A" and "2" on base	1889-1926
		bottle base	1		clear	flask; machine made	1881-present
Shell ?							
		button	1			2-hole	
Total Collected Artifacts = 53 from 11/19/95 Park South Drive							
/ / Chambers Street North							
Asphalt							
	mix		1	110	black	light weight	
Ceramic							
	brick		1	1090	red	panel molded ... "D. F. & S"; 2 3/16" x 3 3/8" x ?	post 1865
	brick		1	2025	red	whole; possible fire brick; 2 1/8" x 3 1/2" x 7 1/2"	
	brick		1	1115	red	with concrete and asphalt attached; 2 5/16" x 3 7/16" x ?	
	brick		1	370	red	with mortar attached	
Stone							
	brownstone		1	520		.	
Ceramic							
		utility pipe	2		buff	.	
	creamware		2		white	.	1762-1820
	earthenware		1		buff	molded; Rockingham type	1830-1900+
	earthenware	utility pipe	2		buff	yellowish	
	kaolin	smoking pipe stem	2		white	.	
	pearlware		1		white	hand painted blue underglaze interior	c.1780-1820
	pearlware	base	1		white	blue transfer print interior	c.1795-1840
	porcelain		1		white	blue floral underglazed interior	
	porcelain	cup base	1		white	.	
	porcelain	plate base	1		white	unglazed bottom	
	redware		1			manganese glaze; Jackfield like	1750-1900
	redware		1			white slip decoration interior, unglazed exterior	1750-1875
	redware	rim	1			dark gray glaze; waster	1760s-c.1800
	refined earthenware		1		white	blue transfer print exterior; hexagonal; chinese style	1783-c.1812

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
12/03/95 Chambers Street North							
Ceramic							
	stoneware		1		buff	Albany slip glaze	c.1800-1820
	stoneware		1		buff	Albany slip interior	c.1800-1820
	stoneware		1		buff	waster; light gray exterior; unglazed interior	1720s-c.1820
	stoneware		1		gray	light brown exterior; clear glazed interior	1720s-c.1820
	white granite	rim	2		white	mends	1840s-c.1900
	whiteware	rim	1		white	.	early 19th C. -1900+
	yellowware	handle	1			.	1830-1900
Glass							
		bottle base	1		green	wine type; partial; hand blown; empontilled; heavy patina	ca.1740-1820s
		curved	1		clear	.	
		light bulb?	1		clear	.	
Shell							
	clam		1			.	
Total Collected Artifacts =			36	from 12/03/95 Chambers Street North			
12/03/95 From 11/18-19/95 Backdirt							
Ceramic							
	refined earthenware	rim	1		white	flow blue	1840s-c.1900
	white granite	rim	1		white	blue decoration one side	1840s-c.1900
Total Collected Artifacts =			2	from 12/03/95 From 11/18-19/95 Backdirt			
12/09/95 Chambers Street North Sidewalk							
Carbon							
		arc lighting rod	3		black	solid	1876-1914+
Ceramic							
		utility pipe?	1		buff	.	
		utility pipe?	1		red	partially glazed	
	brick		1		yellow	3 1/4" x 1 3/8" x ?	17th century
	creamware		6		white	.	1762-1820
	creamware	base	2		white	.	1762-1820
	creamware	rim	2		white	.	1762-1820
	earthenware		1		white	Rockingham type	1830-1900+
	ironstone	chamber pot rim	1		white	.	early19th-early20thC
	kaolin	smoking pipe stem	2		white	.	
	pearlware		1		white	.	1779-1820+
	porcelain		1		white	blue decoration interior	
	porcelain		1		white	clunky	
	redware		1			spall	
	refined earthenware		1		white	incised blue band exterior	1790-early 20th Cent
	refined earthenware		1		white	purple floral transfer print interior	c.1830-late 19th C.
	refined earthenware	finial	1		white	blue transfer print	1783-c.1900

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
12/09/95 Chambers Street North Sidewalk							
Ceramic							
	refined earthenware	plate base	1		white	blue transfer print interior; willow pattern	1790-19th century
	refined earthenware	rim	1		white	blue floral transfer print interior	1783-c.1900
	refined earthenware	rim	1		white	blue transfer print both sides	1783-c.1900
	refined earthenware	rim	1		white	green shell edge; even scallop	c.1800-1840s
	stoneware		2		buff	unglazed interior	1720s-c.1820
	stoneware		1		buff	waster	1720s-c.1820
	stoneware		1		buff	white glaze	late 19th century
	stoneware		1		gray	gray exterior; Albany slip interior	c.1800-1820
	stoneware		1		gray	waster	1720s-c.1820
	stoneware		1		red	waster; unglazed interior	1720s-c.1820
	stoneware	kiln furniture	2				1720s-c.1820
	terra cotta?	tile?	1		buff	three sides of octagonal exterior cross section; three incised lines along two sides	
	white granite	pitcher handle	1		white		1840s-c.1900
	white granite	plate base	1		white		1840s-c.1900
Glass							
		bottle base	1		green	wine type; hand blown; straight sides; bare iron pontil mark; heavy patina; 3" exterior diameter	ca.1740-1820s
		curved	1		blue		
	milk glass		4		white		1890s-1960s+
Marble							
			1		white	semi circular fragment; triangular cross section; broken at notch	
Shell							
		button	1		white	South's Type 22	1800-1830
Total Collected Artifacts = 51 from 12/09/95 Chambers Street North Sidewalk							
12/10/95 Chambers Street North							
Bone							
		handle	1			tapered ends; hollow	
Carbon							
		arc lighting rod	1		black	soft center; embossed "& Co CHARLOTTE N"	1876-1914+
		arc lighting rod	1		black	solid	1876-1914+
Ceramic							
		utility pipe	2		buff/red	glazed interior on one piece	
	creamware		1		white		1762-1820
	creamware		1		white		1762-1820
	creamware	rim	2		white		1762-1820
	ironstone	plate rim	1		white	blue underglaze; overglaze worn off; gilded overlay including rim band	1860-late 19th cent

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
12/10/95 Chambers Street North							
Ceramic							
	pearlware		1		white		1779-1820+
	refined earthenware		1		white	blue transfer print interior	1783-c.1900
	refined earthenware	rim	1		white	hand painted brown with brown band underglaze	1790s-1830s
	stoneware		1		gray		1720s-c.1820
	stoneware		1		buff/gray	blue decoration exterior; interior unglazed	1790-c.1820
	stoneware		1		red	gray glaze; waster	1720s-c.1820
	stoneware		1		buff	light brown interior	1720s-c.1820
	stoneware		1		red/buff	light gray exterior; unglazed interior	1720s-c.1820
	stoneware		1		gray	waster; gray exterior; brown interior	1720s-c.1820
	white granite		2		white		1840s-c.1900
	yellowware		1				1830-1900
Glass							
		bottle base	1		green	mamelon/valve mark? : patina; 2 3/4" diameter	1870s-1920s
	milk glass	curved	1		white		1890s-1960s+
	milk glass	flat	2		white		1890s-1960s+
	milk glass	flat	1		white	Tiffany style; one bumpy side; hint of color	1890s-1960s+
Shell							
	clam		1				
	oyster		1				
Total Collected Artifacts = 29 from 12/10/95 Chambers Street North							
01/23/96 Park South 16' (P5)							
Carbon							
		arc lighting rod	1		black	filled	1876-1914+
Ceramic							
	creamware		7		white		1762-1820
	earthenware		5		buff	Rockingham type; molded	1830-1900+
	earthenware		1		buff	Rockingham type	1830-1900+
	earthenware	base	1		buff	Rockingham type	1830-1900+
	earthenware	rim	2		buff	Rockingham type	1830-1900+
	ironstone		1		white		early 19th C-present
	ironstone	plate base	1		white	cream colored glaze	early 19th C-present
	ironstone	plate base	1		white	partial makers mark looks like left side of crest with unidentifiable animal (lion or dog on hind legs)	early 19th C-present
	ironstone	rim	1		white		early 19th C-present
	kaolin	smoking pipe stem	3		white		
	kaolin	smoking pipe stem	1		white	from near base; fluted	19th C.
	porcelain	base	1		white		
	porcelain	base	1		white	blue underglaze; red overglaze; add'l worn hand painted overglaze interior	

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
01/23/96	Park South 16' (P5)						
Ceramic							
	redware		2			clear glaze	1750-1900
	redware		1			brown & white combed slip interior; unglazed exterior	c.1670-1770s
	refined earthenware		3		white	blue transfer print one side	1783-c.1900
	refined earthenware		1		white	flow blue	1840s-c.1900
	refined earthenware	rim	1		white	blue shell edge	1770s-early 20th C.
	refined earthenware	rim	1		white	blue transfer print interior	1783-c.1900
	refined earthenware	rim	1		white	blue transfer print; floral interior	1783-c.1900
	soft paste porcelain		1		white	.	.
	stoneware		1		gray	brown exterior; unglazed interior	1720s-c.1820
	stoneware		1		buff/gray	brown exterior; unglazed interior; stamped "VITREO"...	1720s-1870
	stoneware		1		buff	waster	1720s-c.1820
	stoneware	base	1		gray	bead molded with blue filled band exterior	1790-c.1820
	stoneware	rim	2		gray	speckled brown	1720-c.1820
	white granite		8		white	.	1840s-c.1900
	white granite		3		white	mends	1840s-c.1900
	white granite		1		white	floral molded exterior	1850s-c.1900
	white granite	rim	3		white	mends	1840s-c.1900
	whiteware		1			pale brown underglaze exterior	early 19th C.-1900+
	whiteware	plate base	1		white	.	early 19th C.-1900+
	yellowware		3			.	1830-1900
Glass							
			1		blue	.	.
	bottle		1		green	patina	.
	bottle		1		amber	whole; prescription type; 3" tall; 1" square; hand finished lip; base lettering "WYETH"/"ETH"	1860-1920s
	bottle base		1		green	machine made	late 19th c.-present
Plastic							
	rope spool end		2		black	Inscription molded on larger piece "WARNING/DO NOT USE THIS ROPE WHERE LIFE, LIMB, OR/PERSONAL SAFETY ARE INVOLVED. WORKING LOADS ARE/FOR ROPE IN GOOD CONDITION WITH APPROPRIATE SPLICES IN NON/CRITICAL APPLICATIONS AND UNDER NORMAL SERVICE CONDITIONS./WORKING LOADS ARE NOT APPLICABLE WHEN ROPE IS SUBJECT TO SHOCK OR DYNAMIC/LOADING. THESE CAN CAUSE FAILURE TO A ROPE THAT IS NORMALLY STRONG ENOUGH TO/HANDLE THE JOB. DO NOT STAND IN POSSIBLE RECOIL PATH IN CASE A FAILURE OCCURS. IF YOU/ARE IN DOUBT OF PROPER ROPE TO USE, CONSULT THE MANUFACTURER OR CORDAGE INSTITUTE."; mends	c.1930-present
	rope spool end		0		black		
	rope spool end		0		black		
Plastic & Metal							
	hollow rod		1		tan & blue	stripes at lend; corroded metal ends with hollow center	

## RECOVERY DATE &amp; LOCATION

## MATERIAL

IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
01/23/96 Park South 16' (P5)						
Plastic & Metal						
Total Collected Artifacts = 71 from 01/23/96 Park South 16' (P5)						
01/24/96 Park 56' - 65' (P4)						
Bone						
	button blank	1			one- one inch button cut	
Ceramic						
	utility pipe	3		red	.	
creamware		5		white	.	1762-1820
creamware	base	1		white	.	1762-1820
creamware	rim	3		white	.	1762-1820
delftware		1		white	blue tint and decoration exterior	1625-1800+
delftware		1		white	purple spatter with blue decoration exterior	1625-1800+
earthenware		5		buff	Rockingham type	1830-1900+
earthenware		3		buff	Rockingham type; molded	1830-1900+
earthenware		2		buff	Rockingham type; unglazed exterior	1830-1900+
earthenware		1		pink	Rockingham type	1830-1900+
earthenware		1		pink	molded; Rockingham type	1830-1900+
earthenware		1		buff	olive glaze exterior	
earthenware	rim	2		buff	Rockingham type	1830-1900+
ironstone		3		white	.	early 19thC.-present
ironstone	base	1		white	.	early 19thC.-present
ironstone	rim	2		white	.	early 19thC.-present
kaolin	smoking pipe stem	8		white	.	
kaolin	smoking pipe stem	1		white	"mbier"/"Paris"/asterisk and logo	late 18th-19th C.
mocha		1		white	.	1790s-1930s
pearlware		3		white	.	1779-1820+
pearlware	handle	1		white	.	1779-1820+
porcelain		4		white	blue underglaze interior	
porcelain	base	1		white	.	
porcelain	base	1		white	blue underglaze interior	
porcelain	rim	1		white	molded exterior	
porcelain	tile	1		white	.	
redware		4			unglazed	1725-1900
redware		1			manganese glaze	c.1775-1900
refined earthenware		4		white	blue transfer print	1783-c.1900
refined earthenware		2		white	flow blue	1840s-c.1900
refined earthenware		2		white	hand painted polychrome exterior; brown, orange, green & blue	1795-c.1870
refined earthenware		1		white	blue decoration exterior; burned	1783-c.1900
refined earthenware		1		white	light brown geometric and blue hand painted dotted interior underglaze	1840-c.1860

## RECOVERY DATE &amp; LOCATION

MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
01/24/96 Park 56' - 65' (P4)							
Ceramic							
refined earthenware	rim		2		white	blue transfer print geometric interior	1783-c.1900
refined earthenware	rim		1		white	blue shell edge; scalloped	1780s-1840s
refined earthenware	rim		1		white	blue transfer print floral	1783-c.1900
refined earthenware	rim		1		white	blue transfer print; floral exterior; leaf and geometric interior	1783-c.1900
refined earthenware	rim		1		white	flow blue	1840s-c.1900
refined earthenware	rim		1		white	green shell edge	1770s-1840s
salt glaze stoneware			1		white	scratch blue	mid-late 18th C.
stoneware			1		gray	light brown exterior; clear glaze interior	1720s-c.1820
stoneware			1		buff	waster	1720s-c.1820
stoneware	base		1		gray	light brown slip exterior; unglazed interior; 3.5" exterior diameter	1720s-c.1820
stoneware	base		1		buff	unglazed interior	1720s-c.1820
stoneware	kiln furniture		2				1720s-c.1820
white granite	base		2		white		1840s-c.1900
white granite	rim		2		white		1840s-c.1900
whiteware			9		white		early 19th C.-1900+
whiteware			2		white	brown exterior spalled off	early 19th C.-1900+
whiteware			1		white	brown decoration one side	early 19th C.-1900+
yellowware			2				1830-1900
Glass							
	bottle		1		amber	whole; round; "30/PHENOLAX/WAFERS/UPJOHN" on side; 2 9/16" x 1 1/8"	1910-1948
	bottle base		1		amber	machine made; push-up; 2" diameter interior	late 19th c.-present
	bottle base		1		green	wine type; empontilled; partial; patina	early 18th c.-1870s
	bottle neck/finish		1		green	champagne neck finish; no seam; applied flattened string rim	
	curved		5		clear		
	curved		1		amber		
	curved		1		orange		
	curved		1		clear	frosted exterior with unfrosted band	
	curved		1		green	patina	
	flat		1		amber	disk shaped frag; possible sunglass; patina	
milk glass	curved		3				1890s-1960s+

Total Collected Artifacts = 122 from 01/24/96 Park 56' - 65' (P4)

TOTAL ARTIFACTS RECOVERED 1015

Appendix C

31 - 52 Chamber Street Utility Trench Project  
Stratigraphy of Archaeological Excavation Units and Shallow Units

EU	FT	STR	LEV	EXCAVATION DATE	ELEVATION(ft)		MUNSELL	COLOR	TEXTURE	COMMENTS
					OPEN	CLOSE				
1	1	1	1	12/05/95	38.55	38.55	7.5YR4/3	brown	loamy coarse sand	
1	1	1	2	12/05/95	38.55	38.10	10YR3/2	very dark gray brown	loamy sand	removal of decaying marble and soil at SW
1	1	2	1	12/06/95	37.65	37.60	10YR5/6	yellowish brown	sand	sand underlaid with more marble then by decaying schist
1	2	1	1	12/06/95	38.35	37.85	10YR3/3	dark brown	coarse sand	brick footing feature
1		1	1	12/05/95	39.50	39.50	10YR3/3	dark brown	silty sand	redeposited soil from Park Drive south trench
1		2	1	12/05/95	39.50	39.00	10YR3/1	very dark gray	sandy loam	mottled top soil
1		2	2	12/05/95	38.90	37.70	7.5YR4/4	brown	sand/loamy sand	feature of brick and decaying rock in western part of EU
1		2	3	12/06/95	37.50	36.70	7.5YR3/4	dark brown	silty sand	contains some pieces of marble, soil appears slightly mottled in part
1		2	4	12/06/95	36.70	35.30	10YR4/3	brown/dark brown	slightly silty sand	larger rocks toward bottom
1		2	5	12/07/95	35.15	34.45	7.5YR3/4	dark brown	slightly silty sand	some large rocks & brick frags
1		2	6	12/11/95	34.45	32.80			sand	large pieces of stone and frags of brick
1		3	1	12/06/95	37.70	36.70	10YR4/3	brown	sand/decaying mortar	
1		3	2	12/06/95	36.70	36.50	10YR3/3	dark brown	loamy sand	
1		4	1	12/06/95	36.50	35.20	7.5YR3/4	dark brown	moist coarse sand	
1		4	2	12/07/95	35.10	34.70	10YR4/4	dark yellowish brown	sand subsoil	

EU	FT	STR	LEV	EXCAVATION DATE	ELEVATION(ft)		MUNSELL	COLOR	TEXTURE	COMMENTS
					OPEN	CLOSE				
2		0	0	12/22/95	39.80	38.60				topsoil corridor north and south of EU1. elevations NE & N are from north of EU
2		1	1	12/07/95	39.50	38.50				topsoil shoveled off to find brick, no screening
2		2	1	12/28/95	38.50	37.40	10YR3/3	dark brown	silty sand	top 0.05' frozen, marble in profile appears split
2		2	2	12/29/95	37.40	37.00	7.5YR3/2	dark brown	slight sand silt clay	
2		3	1	12/28/95	38.50	38.50		marble		cut marble, this level has the most concentration of marble underlaid with decaying schist, may be part of marble
2		3	2	12/28/95	38.50	38.10		marble		
2		3	3	12/28/95	38.10	37.75		marble		
2		3	4	12/28/95	37.75	37.60		decaying schist		
2		4	1	12/28/95	38.50	37.60	10YR3/2	very dark gray brown	silty loam	fill from sidewalk, piece of footing extends N as show on plan at base of this level
2		5	1	12/28/95	38.35	37.80	10YR3/2	very dark gray brown	loamy sand	underlain with wider coarse of brick coming up with decaying marble near east of footing. footing builders trench
2		5	2	12/28/95	37.80	37.30	10YR3/1	black	loamy sand	
2		5	3	12/29/95	37.50	37.30	10YR3/2	very dark gray brown	sandy silty loam	
2		6	1	12/28/95	37.65	37.30	10YR4/3	brown/dark brown	marbly sand	
2		7	1	12/28/95	37.70	37.35	10YR3/2	very dark gray brown	burned silty sand	underlain by pinkish deposit, burned frags of bldg material, colonial brick
2		8	1	12/29/95	37.30	36.90	7.5YR5/3	brown	sandy mortary lens	pinkish color, underlaid by a stone, brick and mortar feature in south
2		8	2	12/29/95	36.90	36.40	7.5YR5/3	brown	mortary sand	
2		9	1	12/29/95	36.40	35.20	10YR3/4	dark yellowish brown	slightly silty sand	under strat 8 level 2
2		10	1	12/29/95	35.20	34.80	7.5YR4/4	brown	coarse sand	sterile subsoil

EU	FT	STR	LEV	EXCAVATION DATE	ELEVATION(ft)		MUNSELL	COLOR	TEXTURE	COMMENTS
					OPEN	CLOSE				
3	1	1		01/02/96	38.80	37.50				marble and schist are above
3	2	1		01/02/96	37.50	37.45	10YR3/2	very dark gray brown	ashy sand	filled with small brick frags and decomposed schist under decaying schist
3	3	1		01/02/96	37.50	36.70				pipe trench
3	4	1		01/02/96	37.45	37.20	7.5YR3/2	dark brown	ashy sand	burned stratum
3	5	1		01/04/96	37.20	37.10	10YR4/3	brown/dark brown	loamy sand	under burned stratum, underlain by brick rubble in N and mortar in S
3	5	2		01/04/95	37.10	36.60	7.5YR3/4	dark brown	coarse sand	building debris
3	5	3		01/04/96	37.10	36.60	7.5YR3/4	dark brown	coarse sand	opens at level of brown stone feature building rubble
3	6	1		01/04/96	36.60	35.70	7.5YR3/4	dark brown	sand	base of rock at NE corner has el. 4.15
3	6	2		01/04/96	35.70	34.90	7.5YR4/4	brown	slightly silty sand	texturally different from strat.7 level 1
3	7	1		01/04/96	35.70	34.90	7.5YR4/4	brown	coarse sand	brick moved? N of architectural feature, included with rubble in str 5

EU	FT	STR	LEV	EXCAVATION DATE	ELEVATION(ft)		MUNSELL	COLOR	TEXTURE	COMMENTS
					OPEN	CLOSE				
4		1	1	06/01/96	34.38	32.58	10YR3/3	dark brown	rocky silty sand fill	dug small ST in SW cor to top of concrete. TD to Street NW+0.6, NE+0.6, SE+0.65, SW+0.8
4		2	1	06/01/96	32.58	32.37	10YR3/4	dark yellowish brown	silty sand	removed loose soil etc. to level
4		2	2	06/01/96	32.23	31.93	10YR3/4	dark yellowish brown	silty sand fill	
4		2	3	06/01/96	31.93	31.68	10YR3/4	dark yellowish brown	silty sand fill	underlain by silty clay in NW
4		2	4	06/02/96	31.68	30.53	10YR3/4	dark yellowish brown	silty sand fill	became trench fill in N of EU. pipe is in N wall
4		2	5	06/02/96	30.58	29.93	10YR4/4	dark yellowish brown	very stony silty sand	from gas main pipe trench in N part of unit
4		2	6	06/02/96	29.93	30.03	10YR3/3	dark brown	silty sand	
4		3	1	06/02/96	31.98	31.43	10YR3/3	dark brown	silty sand	underlain by silt
4		4	1	06/02/96	31.98	31.53	7.5YR4/4	brown	pebbly sand	artifacts may have fallen in
4		4	2	06/02/96	31.53	30.52	7.5YR4/4	brown	very stony sand	
4		5	1	06/02/96	31.78	31.33	7.5YR4/3	brown	clayey silt	
4		6	1	06/02/96	31.35	30.53	10YR3/4	dark yellowish brown	stony sand	
4		7	1	06/02/96	32.88	29.83		mixed		under elect conduit. WM base at 4.9 BTD. see profile

			EXCAVATION ELEVATION(ft)		MUNSELL	COLOR	TEXTURE	COMMENTS	
SU	STR	LEV	DATE	OPEN					CLOSE
1	1	1	12/18/95	32.86	32.31	7.5YR4/4	brown	wet silty coarse sand	disturbed stratum, EU located 7' E of vent from building
1	2	1	12/18/95	32.31	31.86	7.5YR3/4	dark brown	silty coarse sand	pipe trench fill
1	3	1	12/18/95	32.41	32.26	7.5YR4/4	brown	coarse sand	this level contains some contamination from pipe trench
1	3	2	12/18/95	32.26	31.86	7.5YR4/4	brown	silty coarse sand	subsoil
3	1	1	12/18/95	31.35	31.25	7.5YR3/4	dark brown	coarse pebbly sand	
3	1	2	12/18/95	31.25	30.95	7.5YR3/4	dark brown	coarse pebbly sand	silty reddish deposit W of pipe and within pipe trench fill
3	1	3	12/18/95	30.95	30.70	10YR4/3	brown/dark brown	coarse sand	underlaid by silty deposit
3	2	1	12/10/95	31.15	30.95				
3	2	2	12/18/95	30.95	30.70	7.5YR4/4	brown	coarse sand	soft silt underlays sand, cement rod found
3	3	1	01/04/96	31.10	30.70	7.5YR3/3	dark brown	coarse sand	pipe trench, sand underlaid by soft silt
3	4	1	01/04/96	31.00	30.95	7.5YR4/3	brown	coarse sand	in NW unit, soft silt underlays sand
3	5	1	01/04/96	30.95	30.45	7.5YR4/3	brown	silt	
4	1	1	12/26/95	31.07	30.77	10YR4/3	brown/dark brown	silty sand	located 17' E of inside sidewalk shoring, 17-2", top 3/4" frozen
4	2	1	12/27/95	30.77	30.27	10YR4/3	brown/dark brown	silty sand	underlain by darker fill (str 3), pipe trench
4	3	1	12/27/95	29.97	30.47	10YR3/2	very dark gray brown	loamy sand	
4	4	1	12/27/95	30.97	30.77	7.5YR4/4	brown	clayey silt	underlaid with silty sand, same color
5	1	1	12/27/95	31.37	30.87	10YR4/3	brown/dark brown	gravelly silty sand	contains some asbestos pipe coating
5	1	2	12/27/95	30.87	30.77	10YR4/3	brown/dark brown	gravelly silty sand	pipe trench
5	2	1	12/27/95	30.97	30.77	7.5YR3/3	dark brown	coarse gravelly sand	
6	1	1	01/20/96	26.55	26.50				started by removing wet stuff that fell in
6	1	2	01/20/96	26.50	26.35	10YR4/3	brown/dark brown	wet gravel silty sand	underlain by 4 pipes
6	2	1	01/20/96	26.25	26.05			sandy gravel, clay pk	
6	3	1	01/20/96	26.30	26.15				
8	1	1	01/26/96	27.70	27.70				S edge of Su 0.5' S of N end of beam overlap, TD 3.2 below N sidewalk, not screened
8	1	2	01/26/96	27.70	26.95	10YR4/2	dark gray brown	wet silty sand	part screened because it contained a lot of wash in, pockets of reddish soil on W
8	2	1	01/26/96	27.00	26.05	7.5YR4/4	brown	sand	western part of SU, shoveled down to pipe in center and moved west

Appendix D

31 - 52 Chamber Street Utility Trench Project  
Human Bone Fragments Recovered From Hand Excavations  
Unidentifiable Bone Fragments Recovered From Hand Excavations  
Faunal Remains Recovered From Excavation Units  
Faunal Remains Recovered From Shallow Units  
Inventory of Artifacts from Archaeological Hand Excavation

HUMAN BONE FRAGMENTS RECOVERED FROM HAND EXCAVATIONS  
31 - 52 CHAMBERS STREET UTILITY TRENCH

CONTEXT DESIGNATIONS	COUNT	IDENTIFICATION
EU 1, STR 2, LEV 1	1	Osseous fragment suspected to represent an unsided femoral midshaft.
EU 4, STR 1, LEV 1	1	An unsided clavicular middle third of the midshaft.
	1	An unsided radial middle third of the midshaft.
EU 4, STR 1, LEV 1	1	Osseous fragment suspected to represent an unsided femoral midshaft.
SU 6, STR 2, LEV 1	1	Osseous fragment suspected to represent a proximal third of an unsided ulnar midshaft
TOTAL BONE FRAGMENTS	5	

UNIDENTIFIABLE BONE FRAGMENTS RECOVERED FROM HAND EXCAVATIONS  
31 - 52 CHAMBERS STREET UTILITY TRENCH

CONTEXT DESIGNATION	COUNT	IDENTIFICATION
EU 2, STR 8, LEV 2	9	Fragments which could be (probability of <49%) of human origin; the innominates of the pelvic bones. (these fragments are also included in with the faunal bone count).
TOTAL BONE FRAGMENTS	9	

# FAUNAL REMAINS RECOVERED FROM EXCAVATION UNITS

CONTEXT			ANIMAL																
UNIT	STRAT	LEVEL	Cow	Sheep	Pig	Chicken	Turkey	Cat	Rat	Waterfowl	Bird	Fish	Crab	Turtle	Large Mammal	Medium Mammal	Small Mammal	Scrap	Total
1	1	1																4	4
	2	2	4		1				2		1				4	15	1		28
	2	3	3	1		1	1		1		3				2	2	2	4	20
	2	4	2	1					1						2	5			11
	2	5	1													5			6
	2	6	1	1											2	3			7
	3	1	4	1	1										3	7			16
	3	2							1							1			2
	4	1							3						1	12			16
SUBTOTAL			15	4	2	1	1	0	8	0	4	0	0	0	14	50	3	8	110
Feat 1	1	1													1				1
	2	1														1			1
SUBTOTAL			0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
2	0	0		1	2							1		1		2			7
	2	1	2													7			9
	2	2	1																1
	4	1		1												2			3
	5	1									1					2			3
	8	1		2	3					1	2					4			12
	8	2													10				10
	9	1	5					1											6
SUBTOTAL			8	4	5	0	0	1	0	1	3	1	0	1	10	17	0	0	51
3	0	0														1			1
	2	2								1									1
	4	1		1							2					3			6
	5	1		2	1			1	3		2				2	11	1		23
	5	2		1		1									3	7			12
	5	3	1		1						1		1			4			8
	6	1				1					2	2				6			11
SUBTOTAL			1	4	2	2	0	1	3	1	7	2	1	0	5	32	1	0	62
4	1	1													1		2		3
	2	2													1				1
	2	4														1			1
SUBTOTAL			0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	5
GRAND TOTAL			24	12	9	3	1	2	11	2	14	3	1	1	32	101	6	8	230

# FAUNAL REMAINS RECOVERED FROM SHALLOW UNITS

CONTEXT			ANIMAL									
SHALLOW UNIT	STRATUM	LEVEL	Cow	Sheep	Pig	Bird	Fish	Large Mammal	Medium Mammal	Small Mammal	Scrap	Total
1	1	1	4	1		1			1			7
	2	1	1				1					2
SUBTOTAL			5	1	0	1	1	0	1	0	0	9
3	1	2		1								1
	2	2							1			1
SUBTOTAL			0	1	0	0	0	0	1	0	0	2
4	1	1		1					1			2
	2	1	4		2						3	9
	3	1	2									2
SUBTOTAL			6	1	2	0	0	0	1	0	3	13
5	1	1	1									1
	1	2		1								1
SUBTOTAL			1	1	0	0	0	0	0	0	0	2
GRAND TOTAL			12	4	2	1	1	0	3	0	3	26

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA STR LEV LOCATION								
0	1	1	Ceramic	whiteware		1		white		early 19th C. -1900+
0	1	1	Stone	marble		1	185	white		
0	3	brick vaulted feature	Ceramic/Stone		brick	1	4370	red	slate on top and bottom of brick	
0	3	exterior of feature	Ceramic		kiln furniture	1				1720s-c.1820
0	3	exterior of feature	Ceramic	earthenware		1		buff	Rockingham type	1830-1900+
0	3	exterior of feature	Ceramic	pearlware	base	1		white		1779-1820+
0	3	exterior of feature	Ceramic	stoneware		1		gray	brown interior; waster	1720s-c.1820
0	3	exterior of feature	Metal	iron		5			badly corroded; unidentifiable	
0	3	exterior of feature	Metal	iron	hardware?	1			badly corroded	
0	3	exterior of feature	Metal	iron	nail	1			badly corroded	
0	3	exterior of feature	Shell	clam		1	5			
0	3	exterior of feature	Shell	oyster		1	<5			
0	3	exterior of feature	Stone?	marble?		1	35	white	1 1/4" diameter; flattened slightly on one side	
0	3	sample from top of feature	Mortar			12	95			
0	3	sample from top of feature	Stone	brownstone		1	10			
0	3	1 1 feature fill from near top	Carbon		arc light rod	1		black	light center	1876-1914+
0	3	1 1 feature fill from near top	Carbon		arc lighting rod	2		black	solid	1876-1914+
0	3	1 1 feature fill from near top	Carbon		arc lighting rod	1		black	with tip	1876-1914+
0	3	1 1 feature fill from near top	Ceramic		tile	1	170	yellow		
0	3	1 1 feature fill from near top	Glass		curved	1		clear		
0	3	1 1 feature fill from near top	Glass		flat	2		aqua		
0	3	1 1 feature fill from near top	Glass		rim	1		clear		
0	3	1 1 feature fill from near top	Glass	milk		1		white		1890s-1960s+
0	3	1 1 feature fill from near top	Metal	iron	nail	1			badly corroded	
0	3	3 1 feature fill at c.13 brick	Ceramic	kaolin	smoking pipe stem	1		white		
0	3	3 1 feature fill at c.13 brick	Ceramic	stoneware		1		buff	brown glaze exterior	1720s-present
0	3	3 1 feature fill at c.13 brick	Coal			1	<5			
0	3	3 1 feature fill at c.13 brick	Glass		flat	1		white/amb	Tiffany type; one color each side	
0	3	3 1 feature fill at c.13 brick	Glass		flat	1		clear	slight patina	
0	3	3 1 feature fill at c.13 brick	Metal	iron		1			badly corroded; unidentifiable	
0	3	3 1 feature fill at c.13 brick	Metal	iron	nail	1			badly corroded	
0	3	3 1 feature fill at c.13 brick	Shell	clam		1	<5			
0	3	3 1 feature fill at c.13 brick	Shell	oyster		2	5			

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR'LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
1	from footing	Ceramic	brick	1	1765	red	hand made; 3 1/2" x 2 3/8" x 7 1/4"	
1	from footing	Mortar		1	265		micaceous	
1	1 1	Ceramic	ironstone	1		white		early 19thC. -presen
1	1 1	Ceramic	kaolin	1		white		
1	1 1	Ceramic	pearlware	1		white		1779-1820+
1	1 1	Ceramic	porcelain	1		white	cream color glaze	
1	1 1	Ceramic	redware	1			brown exterior glaze	
1	1 1	Glass	curved	1		amber		
1	1 1	Glass	flat	2		clear		
1	1 1	Metal	iron	1			badly corroded	
1	2 1	Ceramic	sewer pipe	1			brown exterior glaze	
1	2 1	Ceramic	creamware	7		white		1762-1820
1	2 1	Ceramic	creamware	1		white	blue and orange exterior glaze	1762-1820
1	2 1	Ceramic	ironstone	1		white		early 19thC. -presen
1	2 1	Ceramic	pearlware	3		white		1779-1820+
1	2 1	Ceramic	pearlware?	1		white	flow blue exterior	1840s-c.1900
1	2 1	Ceramic	porcelain	1		white		
1	2 1	Ceramic	redware	1			flower pot	1725-present
1	2 1	Ceramic	redware	1			flower pot rim	1725-present
1	2 1	Ceramic	refined earthenware	1		white	light blue floral transfer	1783-c.1900
							print exterior	
1	2 1	Ceramic	refined earthenware	1		white	flow blue exterior	1840s-c.1900
1	2 1	Ceramic	stoneware	1		gray	white glaze one side	1720s-present
1	2 1	Ceramic	whiteware	2		white		early 19th C. -1900+
1	2 1	Coal		3	10			
1	2 1	Glass	bottle base	1		clear	embossed "00".."3"; Owens scar	1904-1950s
1	2 1	Glass	bottle finish	1		aqua	separate base part mold	c.1850-present
1	2 1	Glass	curved	22		clear		
1	2 1	Glass	flat	34		clear		
1	2 1	Glass	flat	1		green	heavy patina	
1	2 1	Glass	milk	1		white		1890s-1960s+
1	2 1	Metal	jewelry	1	10		ornamental pin with fastener	
							on back	
1	2 1	Metal	aluminum?	2			thin leaves	
1	2 1	Metal	copper alloy	1			1970	1970
1	2 1	Metal	iron	2			badly corroded; unidentifiable	

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
1 2 1	Metal	iron	bolt	1			badly corroded	
1 2 1	Metal	iron	latch?	1			badly corroded	
1 2 1	Metal	iron	nail	3			badly corroded	
1 2 1	Plastic		bag	1		black	1" bottom	1927-present
1 2 1	Plastic		cellophane	1		clear	lollipop wrapper	1927-present
1 2 1	Plastic		rim	1		white	embossed on one side	c.1940-present
1 2 1	Shell	clam		6	5			
1 2 1	Shell	oyster		8	25			
1 2 1	Stone			1	690		cut; cylindrical/ovoid - about 4" x 3"; conglomerate of sandstone and more solid stone sliver	
1 2 1	Stone	slate		1				
1 2 2	Bone		button blank	1			one 15/16" cut out	
1 2 2	Bone		button blank	1			two cut outs	
1 2 2	Carbon		arc light rod	2		black		1876-1914+
1 2 2	Ceramic	creamware		7		white		1762-1820
1 2 2	Ceramic	delftware		1		white	white glaze	1640-1800+
1 2 2	Ceramic	earthenware		4		buff	Rockingham type	1830-1900+
1 2 2	Ceramic	earthenware		1		brown	dark glaze exterior	c.1830-1900
1 2 2	Ceramic	earthenware		1		brown	mustard color glaze	c.1830-1900
1 2 2	Ceramic	earthenware		1		buff	unglazed; waster?	
1 2 2	Ceramic	kaolin	smoking pipe stem	3		white		
1 2 2	Ceramic	kaolin	smoking pipe stem	1		white	yellow glazed	19th C.
1 2 2	Ceramic	pearlware		10		white		1779-1820+
1 2 2	Ceramic	pearlware		1		white		1779-1820+
1 2 2	Ceramic	pearlware		1		white	blue hand painted floral	1779-1820+
1 2 2	Ceramic	pearlware		3		white	blue transfer print	1795-1840
1 2 2	Ceramic	pearlware	bowl base	1		white	irregular footring; waster?	1779-1820+
1 2 2	Ceramic	porcelain	rim	1		white	remnant of gilding	
1 2 2	Ceramic	redware		1			dark brown glaze	1775-1900
1 2 2	Ceramic	redware		1			glazed	1750-1900
1 2 2	Ceramic	redware	kiln furniture	2				1760s-c.1800
1 2 2	Ceramic	refined earthenware		1		white	blue floral landscape transfer print; maker's mark?	c.1810-1860s
1 2 2	Ceramic	refined earthenware		1		white	flow blue	c.1840-c.1900
1 2 2	Ceramic	refined earthenware		1		white	green glaze	
1 2 2	Ceramic	refined earthenware		1		white	hand painted brown & green	
1 2 2	Ceramic	refined earthenware		1		white	light blue glaze: spall	
1 2 2	Ceramic	salt glaze stoneware		1		white		1720-1805
1 2 2	Ceramic	stoneware		1		gray	tan glaze	1720s-1870
1 2 2	Ceramic	terra cotta		3	10	red	architectural?	
1 2 2	Ceramic	whiteware		2		white		early 19th C.-1900+

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA STR	LEV	LOCATION						
1	2	2		Ceramic	whiteware	2		white	glaze spalled off	
1	2	2		Chalk		2	<5	white	putty or mortar?	
1	2	2		Coal		1	10			
1	2	2		Glass	bottle	1		clear	milk bottle? embossed with	
1	2	2		Glass	curved	1		amber		
1	2	2		Glass	curved	7		clear		
1	2	2		Glass	curved	3		green	bottle type	
1	2	2		Glass	curved	1		clear	bottle type; partial embossed lettering	1867-present
1	2	2		Glass	flat	57		clear		
1	2	2		Glass	flat	62		pale aqua	thick window glass?	
1	2	2		Glass	lamp chimney	11		clear	frosted	
1	2	2		Glass	lamp chimney	13		clear	frosted and etched;	
1	2	2		Glass	lamp chimney	7		clear	frosted and etched; checkerboard pattern	
1	2	2		Glass	lamp chimney base	4		clear	frosted	
1	2	2		Glass	milk	1		white	light blue painted interior	1890s-1960s+
1	2	2		Graphite	pencil lead	1		black		
1	2	2		Metal		2			badly corroded; unidentifiable	
1	2	2		Metal	brass	1			hardware; watch part?	
1	2	2		Metal	brass	1			stamped and soldered; bell clapper?	
1	2	2		Metal	iron	3			badly corroded	
1	2	2		Metal	iron	3			badly corroded	
1	2	2		Metal	iron	28			badly corroded	
1	2	2		Metal	iron	2			round shaft; badly corroded	
1	2	2		Metal	iron	2			square shaft; badly corroded	
1	2	2		Metal	iron	14			badly corroded	
1	2	2		Shell	clam	22	350			
1	2	2		Shell	oyster	29	280			
1	2	3		Bone	button blank	2			mends; four 1/2" cut outs	
1	2	3		Bone	button blank	1			three 3/8" cut outs	
1	2	3		Ceramic	sewer pipe	2		buff	brown glaze exterior	
1	2	3		Ceramic	creamware	1		white		1762-1820
1	2	3		Ceramic	creamware	1		white		1762-1820
1	2	3		Ceramic	creamware	1		white		1762-1820
1	2	3		Ceramic	earthenware	1		buff	Rockingham type; green tint; unglazed exterior	1830-1900+
1	2	3		Ceramic	earthenware	1		white	manganese glazed	
1	2	3		Ceramic	ironstone	4		white		early 19thC.-presen
1	2	3		Ceramic	ironstone	1		white	blue decoration both sides	early 19th C-presen
1	2	3		Ceramic	kaolin	3		white		

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA STR LEV LOCATION								
1	2	3	Ceramic	pearlware		1		white		1779-1820+
1	2	3	Ceramic	pearlware		1		white	blue decorated one side	1779-1820+
1	2	3	Ceramic	pearlware		3		white	blue transfer print one side	1795-1840
1	2	3	Ceramic	porcelain		1		white	red overglaze circles interior	
1	2	3	Ceramic	redware		1			glazed both sides	1750-1900
1	2	3	Ceramic	redware		1			white slip decorated interior	1825-1875
1	2	3	Ceramic	redware	flower pot?	1				1725-present
1	2	3	Ceramic	redware	spall	1				
1	2	3	Ceramic	refined earthenware		1		white	flow blue? one side; light blue other side	
1	2	3	Ceramic	refined earthenware		1		white	mocha?; blue, brown and black exterior	
1	2	3	Ceramic	whiteware		2		white		early 19th C.-1900+
1	2	3	Glass		bottle	1		clear	paneled and embossed exterior "QT."	1867-present
1	2	3	Glass		curved	2		clear		
1	2	3	Glass		curved	1		green	bottle type	
1	2	3	Glass		flat	19		clear		
1	2	3	Glass		flat	6		aqua		
1	2	3	Glass		lamp chimney	2		clear	frosted exterior decorations	
1	2	3	Glass		lamp chimney?	2		clear	frosted exterior	
1	2	3	Glass		vase?	2		clear	circular pressed decoration	
1	2	3	Glass	milk	curved	1		white		1890s-1960s+
1	2	3	Metal	aluminum	foil	2				
1	2	3	Metal	copper	hardware lip	1			slightly corroded	
1	2	3	Metal	iron		4			badly corroded; unidentifiable	
1	2	3	Metal	iron	hardware?	1				
1	2	3	Metal	iron	nail	8			badly corroded	
1	2	3	Metal	iron	nail shaft	8			badly corroded	
1	2	3	Metal	iron	spike	1			square shaft; badly corroded	
1	2	3	Metal	lead		1				
1	2	3	Mortar			1	160			
1	2	3	Shell	clam		14	135			
1	2	3	Shell	oyster		35	235			
1	2	4	Ceramic		brick	1	2090		3 5/8" x 2 5/16" x 8 1/4"	
1	2	4	Ceramic		sewer pipe	1				
1	2	4	Ceramic	earthenware		2		buff	Rockingham type	1830-1900+
1	2	4	Ceramic	earthenware	marble	1			manganese specked	1830-1900+
1	2	4	Ceramic	ironstone		3		white		early 19thC.-presen
1	2	4	Ceramic	pearlware		4		white		1779-1820+
1	2	4	Ceramic	pearlware		1		white	flow blue exterior	1835-c.1900
1	2	4	Ceramic	porcelain		1		white	gray stripe overglaze	

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FE# STR LEV LOCATION			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
1	2	4	Ceramic	redware		1			glazed exterior	1830-1900+
1	2	4	Ceramic	redware		1			spall	1750-1900
1	2	4	Ceramic	refined earthenware		1		white	blue stippled decoration	1783-c.1900
1	2	4	Ceramic	stoneware		1		gray	gray exterior; matte brown interior	1720s-present
1	2	4	Ceramic	stoneware		1		white	yellow glaze exterior	1720s-1770s
1	2	4	Ceramic	stoneware	rim	1		gray	yellowish glaze one side; Albany slip glaze other side	1820-1900
1	2	4	Ceramic	whiteware		2		white		early 19th C.-1900+
1	2	4	Ceramic	whiteware	rim	1		white		early 19th C.-1900+
1	2	4	Concrete			1	2515		asphalt and cement	
1	2	4	Glass		curved	8		clear		
1	2	4	Glass		curved	2		clear	frosted exterior with incised banding	
1	2	4	Glass		curved	2		clear	molded	
1	2	4	Glass		flat	20		clear		
1	2	4	Glass		lamp chimney?	4		clear	exterior frosted and etched	
1	2	4	Glass		light bulb?	3		clear		
1	2	4	Glass		rim	1		clear	frosted exterior	
1	2	4	Metal	alloy	cog?	1				
1	2	4	Metal	aluminum	foil	2				
1	2	4	Metal	copper alloy	hardware	1			square shape with corner removed; 1 1/2" x 1 1/4"	
1	2	4	Metal	iron	hardware?	5			badly corroded	
1	2	4	Metal	iron	nail	1			badly corroded	
1	2	4	Metal	iron	nail	2			square shank; badly corroded	
1	2	4	Metal	iron	nail ?	15			badly corroded	
1	2	4	Mortar			2	<5			
1	2	4	Paper			1			calendar fragment; 1/2" square	
1	2	4	Shell	clam		12	135			
1	2	4	Shell	oyster		18	100			
1	2	4	Stone	brownstone		3	2200		5/8" - 1 1/5\4" thick	
1	2	4	Stone	slate	pencil	1				
1	2	5	Carbon		arc light rod	1		black	solid core	1876-1914+
1	2	5	Ceramic	creamware		1		white		1762-1820
1	2	5	Ceramic	kaolin	smoking pipe stem	1		white	oak leaves	post 1850
1	2	5	Ceramic	kaolin	smoking pipe stem	1		white	stamped "T MOR"	
1	2	5	Ceramic	pearlware	base?	1		white		1779-1820+
1	2	5	Ceramic	refined earthenware		1		white	blue transfer print decoration exterior	1783-c.1900
1	2	5	Ceramic	refined earthenware	rim	1		white	blue shell edge; impressed straight lines	1805-1830

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA STR	LEV	LOCATION						
1	2	5	Ceramic	stoneware		1		gray		1720s-present
1	2	5	Glass		bottle foot	1		clear		
1	2	5	Glass		curved	2		clear		
1	2	5	Glass		curved	1		clear	frosted exterior	
1	2	5	Glass		curved	1		clear	imbossed exterior	
1	2	5	Glass		flat	4		clear		
1	2	5	Metal	aluminum	foil	3				
1	2	5	Metal	iron	nail	2			badly corroded	
1	2	5	Metal	iron	nail?	6			badly corroded	
1	2	5	Shell	clam		6	25			
1	2	5	Shell	mother of pearl	button	1			shirt type; four hole; scallop edge; 3/8" diameter	1890s-1960s
1	2	5	Shell	oyster		6	20			
1	2	6	Bone		button blank	1			four 7/16" cut outs	
1	2	6	Bone		button blank	2			mends; six 7/16" cut outs	
1	2	6	Ceramic		brick	2	10	red		
1	2	6	Ceramic	creamware		2		white		1762-1820
1	2	6	Ceramic	earthenware		1		buff	Albany slip glaze	c.1800-early 20th C
1	2	6	Ceramic	earthenware		2		buff	Rockingham type	1830-1900+
1	2	6	Ceramic	earthenware		1		buff	manganese specks	1830-1900+
1	2	6	Ceramic	pearlware		1		white	blue crosshatch exterior	1779-1820+
1	2	6	Ceramic	pearlware		1		white	olive exterior	1779-1820+
1	2	6	Ceramic	pearlware	foot	1		white	blue transfer print top	1795-1840
1	2	6	Ceramic	porcelain	foot	1		white		
1	2	6	Ceramic	refined earthenware		1		white	light blue transfer print	1830-c.1900
1	2	6	Ceramic	refined earthenware	rim	1		white	red overglaze stripe interior	
1	2	6	Ceramic	stoneware		1		buff	waster?; visible finger prints? on exterior	1720s-c.1820
1	2	6	Ceramic	whiteware		4		white		early 19th C.-1900+
1	2	6	Clay ?			3	5	brown	ribbed interior impressions; mends	
1	2	6	Glass		curved	1		clear		
1	2	6	Glass		curved	2		aqua		
1	2	6	Glass		curved	3		green	bottle type	
1	2	6	Glass		curved	1		amber	slight patina	
1	2	6	Glass		flat	9		clear		
1	2	6	Glass		flat	3		aqua		
1	2	6	Glass	milk		1		white		1890s-1960s+
1	2	6	Metal	iron		5			badly corroded; unidentifiable	
1	2	6	Metal	iron	nail	6			badly corroded	
1	2	6	Shell	clam		13	55			
1	2	6	Shell	oyster		6	5			

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
1 3 1	Ceramic		brick	1	630	red	2 1/4" x ? x ?	
1 3 1	Ceramic	creamware		1		white		1762-1820
1 3 1	Ceramic	earthenware	spittoon?	3		buff	Rockingham type	1830-1900+
1 3 1	Ceramic	kaolin	smoking pipe bowl	1		white		
1 3 1	Ceramic	pearlware		1		white		1779-1820+
1 3 1	Ceramic	pearlware		1		white	brown band and partial lettering on exterior	1809-1840
1 3 1	Ceramic	pearlware	rim	1		white	brown checkered rim; olive exterior	1828-1850
1 3 1	Ceramic	redware		1			manganese decorationn exterior	1775-1900
1 3 1	Ceramic	redware		1			manganese glaze	1750-1900
1 3 1	Ceramic	refined earthenware		1		white	blue spatter exterior	1850-early 20th C.
1 3 1	Ceramic	stoneware		1		gray	blue decoration exterior	1790-1900
1 3 1	Ceramic	stoneware		1		gray	brown glaze	1720s-present
1 3 1	Ceramic	whiteware		1		white		early 19th C.-1900+
1 3 1	Glass			7		clear	slight patina	
1 3 1	Glass		button	1			four hole; rouletted on one side; 7/16" diameter	1835-1880
1 3 1	Metal	iron		5			badly corroded; unidentifiable	
1 3 1	Metal	iron	nail	4			badly corroded	
1 3 1	Metal	iron	nail	1			square shank; badly corroded	
1 3 1	Mortar			3	320			
1 3 1	Shell	clam		11	35			
1 3 1	Shell	oyster		9	50			
1 3 2	Ceramic	earthenware		1		buff	Rockingham type	1830-1900+
1 3 2	Ceramic	kaolin	smoking pipe mouthpiece	1		white		
1 3 2	Ceramic	kaolin	smoking pipe stem	1		white		
1 3 2	Ceramic	porcelain		1		white		
1 3 2	Glass		bottle base	1		green	wine type; patina	
1 3 2	Glass		curved	2		clear		
1 3 2	Glass		flat	2		aqua		
1 3 2	Glass		flat	1		clear		
1 3 2	Metal	iron		3			badly corroded; unidentifiable	
1 3 2	Metal	iron	nail	7			badly corroded	
1 3 2	Metal	iron	nail	1			square shank; badly corroded	
1 3 2	Rubber	ball		7	10	white	decaying	
1 3 2	Shell	clam		2	10			
1 3 2	Shell	oyster		11	100			
1 4 1	Bone		button blank	1			three 1/2" cut outs	
1 4 1	Ceramic	earthenware		1		white	tan/brown glaze; exterior	

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION				MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
1	4	1		Ceramic	kaolin	smoking pipe stem	1		white	glaze spalled off	
1	4	1		Ceramic	pearlware		1		white	brown leaf decoration interior	1809-1840
1	4	1		Ceramic	stoneware		1		red	gray exterior; brown interior	1720s-present
1	4	1		Ceramic	whiteware		1		white		early 19th C.-1900+
1	4	1		Ceramic	whiteware	rim	1		white		early 19th C.-1900+
1	4	1		Glass		rim	1		clear	medicine bottle?	
1	4	1		Metal	iron	nail	1			badly corroded	
1	4	1		Shell	clam		15	100			
1	4	1		Shell	oyster		18	30			
1	1	1	2	Ceramic	creamware		1		white		1762-1820
1	1	1	2	Ceramic	refined earthenware		1		white	blue transfer print both sides	1783-c.1900
1	1	1	2	Concretion			1	90	white		
1	1	1	2	Metal	copper	tack	1			square shank, corroded	
1	1	1	2	Shell	oyster		1	<5			
1	1	2	1	Ceramic	creamware		1		white	spall	1762-1820
1	1	2	1	Ceramic	redware		1			glazed	1750-1900
1	1	2	1	Metal	lead		2	50		looks like lumps made from molten strands	
1	1	2	1	Shell	clam		1	<5			
1	1	2	1	Shell	oyster		1	10			
1	2	1	1	Ceramic		brick	1	1745	red	handmade; whole with mortar; 7 3/8" x 3 5/8" x 2 1/4"	
1	2	1	1	Ceramic	ironstone		1		white		early 19thC.-presen
1	2	1	1	Ceramic	kaolin	smoking pipe stem	1		white		
1	2	1	1	Ceramic	pearlware		1		white	blue transfer print exterior	1795-1840
1	2	1	1	Ceramic	refined earthenware	rim	1		white	green shell edge; scalloped edge; impressed straight lines	1805-1830
1	2	1	1	Coal			1	5			
1	2	1	1	Concretion			1	15			
1	2	1	1	Glass		flat	5		clear		
1	2	1	1	Metal	iron	nail	2			badly corroded	
1	2	1	1	Metal	iron	nail?	2			badly corroded	
1	2	1	1	Mortar			1	45			
1	2	1	1	Shell	oyster		7	45			

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
2	EU2&3 topsoil corridor	Ceramic	earthenware	rim	2	buff	glazed	
2	EU2&3 topsoil corridor	Ceramic	ironstone	rim	1	white	blue stippled transfer print interior	early 19th C.-presen
2	EU2&3 topsoil corridor	Ceramic	refined earthenware	rim	1	white	hotel ware type	1880s-mid 20th C.
2	EU2&3 topsoil corridor	Ceramic	stoneware	base	1	gray	gray exterior; olive interior	1720s-present
2	EU2&3 topsoil corridor	Ceramic	whiteware		1	white		early 19th C.-1900+
2	EU2&3 topsoil corridor	Ceramic	whiteware	rim?	1	white		early 19th C.-1900+
2	EU2&3 topsoil corridor	Glass	bottle		1	green		
2	mix: cleaning from adj EU3	Ceramic	kaolin	smoking pipe bowl	1	white		
2	mix: cleaning from adj EU3	Ceramic	pearlware		1	white	brown stripe interior	1790s-c.1815
2	mix: cleaning from adj EU3	Ceramic	redware		1		manganese glaze exterior; clear interior	1750-1900
2	mix: cleaning from adj EU3	Ceramic	stoneware	base	1	gray	brown glaze one side	1720s-present
2	mix: cleaning from adj EU3	Ceramic	whiteware		1	white		early 19th C.-1900+
2	mix: cleaning from adj EU3	Glass		flat	1	clear		
2	mix: cleaning from adj EU3	Shell	clam		8	25		
2	mix: cleaning from adj EU3	Stone	brownstone		1	330		
2	2 1	Carbon		arc light rod	1	black	solid core	1876-1914+
2	2 1	Ceramic	creamware		1	white		1762-1820
2	2 1	Ceramic	earthenware		1	buff	manganese specked exterior	1830-1900+
2	2 1	Ceramic	ironstone		2	white		early 19thC.-presen
2	2 1	Ceramic	pearlware	base	1	white	light blue exterior	1779-1820+
2	2 1	Ceramic	porcelain		1	white		
2	2 1	Ceramic	porcelain	rim	1	white		
2	2 1	Ceramic	redware	base	1		manganese glaze; pressed exterior	1800-1900
2	2 1	Ceramic	redware	flower pot	1			1725-present
2	2 1	Ceramic	refined earthenware		1	white	blue floral transfer print one side	1783-c.1900
2	2 1	Ceramic	whiteware		1	white		early 19th C.-1900+
2	2 1	Glass		curved	1	clear	slight patina	
2	2 1	Glass		cylinder	1	clear	1/4" diameter; hollow; slight patina	
2	2 1	Glass		flat	23	clear		
2	2 1	Metal	aluminum	foil	2			
2	2 1	Metal	iron		1		badly corroded; unidentifiable	
2	2 1	Metal	iron	nail	4		badly corroded	

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
2	2	1	Mortar	1	<5			
2	2	1	Shell	7	70			
2	2	1	Shell	6	40			
2	2	1	Stone	1	<5			
2	2	2	Ceramic	1	235	red	4" x ? x ?	
2	2	2	Ceramic	1		buff	Rockingham type	1830-1900+
2	2	2	Metal	1			badly corroded	
2	2	2	Shell	1	<5			
2	2	2	Shell	3	45			
2	3	1	Stone	3	275	white	decaying	
2	3	2	Ceramic	1	5	red		
2	3	2	Metal	1			badly corroded	
2	3	2	Shell?	1	<5			
2	3	2	Stone	5	2225	white	decaying	
2	3	3	Stone	1	515			
2	3	4	Ceramic	1		white		
2	3	4	Ceramic	1				1750-1900
2	3	4	Glass	1		green	bottle type	
2	3	4	Metal	1			badly corroded	
2	3	4	Stone	2	770			
2	4	1	Ceramic	1	1050	red	"ROSE": 3 1/4" x 2 1/8" x ?	
2	4	1	Ceramic	2		white		1762-1820
2	4	1	Ceramic	1		buff	brown glaze one side	1830-1900+
2	4	1	Ceramic	1		white	burned interior	
2	4	1	Ceramic	1			glazed	1750-1900
2	4	1	Ceramic	1		white	hint of blue transfer print	1783-c.1900
							decoration at edge	
2	4	1	Ceramic	1		buff	glazed	1720s-present
2	4	1	Concrete	1	45			
2	4	1	Glass	12		clear		
2	4	1	Glass	42		green		
2	4	1	Glass	12		clear		
2	4	1	Metal	1			badly corroded; unidentifiable	
2	4	1	Metal	2			badly corroded	
2	4	1	Plastic	1		black	1 1/4" long with a hole in one end	1927-present
2	4	1	Plastic	1		black	1/2" diameter doughnut shape with 8 nubs on one side	1927-present
2	4	1	Plastic	1		amber	3/8" diameter; hollow; hole through axis	1927-present

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA STR	LEV	LOCATION						
2	4	1	Shell	clam		3	10			
2	4	1	Shell	oyster		6	15			
2	4	1	Stone	schist		3	30			
2	5	1	Bone		button blank	1			three 1/2" diameter cut outs	
2	5	1	Ceramic		brick	1	40	red		
2	5	1	Ceramic	creamware	rim	1		white		1762-1820
2	5	1	Ceramic	earthenware		1		buff	Rockingham type	1830-1900+
2	5	1	Ceramic	pearlware		1		white		1779-1820+
2	5	1	Ceramic	refined earthenware	rim	1		white	remnant of cream colored glaze	
2	5	1	Ceramic	stoneware		1		gray		1720s-present
2	5	1	Ceramic	stoneware		1		gray	brown glaze exterior; water bottle?	1720s-present
2	5	1	Ceramic	stoneware		1		gray	glazed; exterior ridges; hint of blue decoration at one end	1790-1900
2	5	1	Ceramic	stoneware		1		gray	glazed; partial blue decoration	1790-1900
2	5	1	Glass		curved	1		amber	beer bottle type	
2	5	1	Glass		flat	5		clear		
2	5	1	Metal	brass/copper	hardware?	1				
2	5	1	Metal	copper alloy		2				
2	5	1	Metal	copper alloy	tube	2				
2	5	1	Metal	iron	nail	3			badly corroded	
2	5	1	Metal	iron	nail?	2			badly corroded	
2	5	1	Shell	clam		4	10			
2	5	1	Shell	oyster		9	35			
2	5	3	Metal	iron	nail	1			badly corroded	
2	5	3	Shell	clam		1	<5			
2	5	3	Shell	oyster		2	10			
2	6	1	Glass		curved	1		clear	bottle type	
2	6	1	Metal	iron	nail	1			badly corroded	
2	6	1	Shell	oyster		1	<5			
2	7	1	Ceramic		brick	3	1070	red	2 1/4" x 3 7/8" x ?; 2" x ? x ?	
2	7	1	Ceramic		brick	2	720	red	some mortar attached; 2" x ? x ?; 3 3/4" x 1 13/16" x ?	
2	7	1	Ceramic	earthenware		1		buff		
2	7	1	Ceramic	earthenware		2		buff	Rockingham type	1830-1900+
2	7	1	Ceramic	ironstone	rim	1		white		early 19thC. -presen
2	7	1	Ceramic	pearlware		2		white	mends	1779-1820+

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
2 7 1	Ceramic	stoneware	base?	1		gray	Albany slip one side; gray other side	1800-present
2 7 1	Ceramic	white granite		2		white		1840s-c.1900
2 7 1	Charcoal			2	<5			
2 7 1	Metal	iron		4			badly corroded; unidentifiable	
2 7 1	Metal	iron	nail	6			badly corroded	
2 7 1	Metal	iron	nail	1			square shank; badly corroded	
2 7 1	Metal	iron	nail?	7			shanks; badly corroded	
2 7 1	Mortar			6	75	white		
2 7 1	Stone	slate		2	5		mends	
2 8 1	Ceramic		brick	1	355	red		
2 8 1	Ceramic	creamware		1		white		1762-1820
2 8 1	Ceramic	kaolin	smoking pipe stem	2		white		
2 8 1	Ceramic	stoneware		1		gray	brown glaze interior; clear exterior; waster	1720s-c.1820
2 8 1	Metal	iron		4			badly corroded; unidentifiable	
2 8 1	Metal	iron	nail	14			badly corroded	
2 8 1	Mortar			1	25	white		
2 8 1	Shell	oyster		2	5			
2 8 1	Stone	marble		2	40	white		
2 8 2	Ceramic		brick	1	225	red	3 5/8" x 1 15/16" x ?	
2 8 2	Ceramic		brick	1	1050	red	burned; mortar in cracks; 3 5/5 " x 2" x ?	
2 8 2	Metal	iron	nail	1			badly corroded	
2 8 2	Mortar			1	85	white		
2 8 2	Shell	clam		3	25			
2 8 2	Shell	oyster		1	<5			
2 9 1	Ceramic	creamware	rim	2		white	mends	1762-1820
2 9 1	Ceramic	earthenware		1		buff	Rockingham type	1830-1900+
2 9 1	Ceramic	ironstone	rim	1		white		early 19thC.-presen
2 9 1	Shell	clam		3	20			
2 9 1	Shell	oyster		1	<5			
2 1		sample from top of brownsto	Mortar	1	135			
2 1		sample from top of brownsto	Stone	1	180			

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA STR LEV LOCATION								
3			fill above STR 1	Ceramic	kaolin	smoking pipe stem	1	white		
3			fill above STR 1	Ceramic	refined earthenware		1	white	blue transfer print	1783-c.1900
3			fill above STR 1	Ceramic	stoneware	bottle?	2	gray	olive interior; mends	1720s-present
3			fill above STR 1	Metal	copper	penny	1		1980	1980
3	2	1		Ceramic		brick	1	25 red	mortar on one side	
3	2	1		Ceramic	creamware		1	white		1762-1820
3	2	1		Ceramic	earthenware		1	buff	glazed	
3	2	1		Ceramic	porcelain		1	white		
3	2	1		Ceramic	stoneware	rim	1	gray	waster	1720s-c.1820
3	2	1		Glass		flat	1	clear		
3	2	1		Metal	iron		4		badly corroded; unidentifiable	
3	2	1		Metal	iron	nail	1		badly corroded	
3	3	1		Glass		flat	2	aqua		
3	4	1 burned		Ceramic		brick	1	820 red	3 11/16" x 2 1/8" x ?	
3	4	1 burned		Ceramic		brick	1	155 red	burned; 1 3/4" x ? x ?	
3	4	1 burned		Ceramic		brick	1	340 red	burned; with mortar attached; 3 3/4" x 1 3/4" x ?	
3	4	1 burned		Ceramic	pearlware		1	white		1779-1820+
3	4	1 burned		Ceramic	redware		1		manganese glaze	1775-1900
3	4	1 burned		Ceramic	refined earthenware		1	white	blue transfer print underglaze one side	1783-c.1900
3	4	1 burned		Ceramic	whiteware		1	white		early 19th C.-1900+
3	4	1 burned		Charcoal			1	5	sample	
3	4	1 burned		Glass		curved	1	clear		
3	4	1 burned		Glass		flat	1	clear		
3	4	1 burned		Metal	iron		13		badly corroded; unidentifiable	
3	4	1 burned		Metal	iron	nail	6		badly corroded	
3	4	1 burned		Metal	iron	nail?	5		badly corroded	
3	4	1 burned		Shell	oyster		2	45		
3	4	1 burned		Stone	slate		1	15		
3	5	1		Ceramic		brick	1	485 red	3 11/16" x 2" x ?	
3	5	1		Ceramic	ironstone		2	white		early 19thC.-presen
3	5	1		Ceramic	ironstone	rim	1	white		early 19thC.-presen
3	5	1		Ceramic	kaolin	smoking pipe bowl	1	white		
3	5	1		Ceramic	kaolin	smoking pipe stem	2	white		
3	5	1		Ceramic	pearlware		2	white		1779-1820+
3	5	1		Ceramic	porcelain		3	white		

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
3 5 1	Ceramic	redware		1			manganese glaze	1775-1900
3 5 1	Ceramic	redware		2			molded edge exterior; brown glaze	1750-1900
3 5 1	Ceramic	refined earthenware	rim	1		white	green shell edge; scalloped rim; impressed lines	1770s-1840
3 5 1	Ceramic	whiteware		3		white		early 19th C.-1900+
3 5 1	Ceramic	whiteware	rim	2		white		early 19th C.-1900+
3 5 1	Ceramic	yellowware		1				1830-1900
3 5 1	Charcoal			1	<5		sample	
3 5 1	Glass		bottle base & body	4		clear	medicine type; glass pontil mark; embossed ... "DIN"/... "RES"; 1 3/8" diameter; mends	mid-19th C.-1870+
3 5 1	Glass		bottle finish	1		clear	medicine bottle type	
3 5 1	Glass		curved	1		clear	etched floral exterior	
3 5 1	Glass		flat	2		clear	slight patina	
3 5 1	Metal	copper	straight pin	1			round head; 1 1/4" long	
3 5 1	Metal	iron		5			badly corroded; unidentifiable	
3 5 1	Metal	iron	nail	6			badly corroded	
3 5 1	Metal	iron	nail?	14			shafts?; badly corroded	
3 5 1	Mortar			2	30	white		
3 5 1	Shell	clam		5	15		hard shell	
3 5 1	Shell	clam		6	<5		soft shell	
3 5 1	Shell	oyster		13	40			
3 5 1	Shell	scallop		1	<5			
3 5 1	Stone	schist		1	5	black		
3 5 2	Ceramic		brick	2	985	red	mortar on exterior; 3 7/8" x 1 7/8" x ?; mends	
3 5 2	Ceramic	kaolin	smoking pipe stem	2		white		
3 5 2	Ceramic	redware		1			glazed; thin body	1750-1900
3 5 2	Ceramic	refined earthenware	rim	1		white	green shell edge; even scallop, shallow impressed lines	1805-1840s
3 5 2	Ceramic	refined earthenware	rim	1		white	molded vertical ridges exterior	
3 5 2	Metal	brass/iron	button back	1			brass front; corroded iron back and eye; South's type 25	1837-1865
3 5 2	Metal	iron	nail	1			badly corroded	
3 5 2	Metal	iron	tack	1			badly corroded	
3 5 2	Mortar			3	440			
3 5 2	Shell	clam		7	40			
3 5 2	Shell	oyster		7	40			

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU SU FEA STR LEV LOCATION								
3 5 3	Ceramic		brick	1	5	red		
3 5 3	Ceramic		brick	1	385	red	3 1/2" x 1 7/8" x ?	
3 5 3	Ceramic	kaolin	smoking pipe stem	1		white		
3 5 3	Ceramic	pearlware	rim	1		white	blue transfer print interior	1795-1840
3 5 3	Ceramic	redware		1			white slip decorated interior	1825-1875
3 5 3	Glass		curved	1		clear		
3 5 3	Glass		flat	1		clear		
3 5 3	Metal	copper	straight pin	1			round head; tip broken off	
3 5 3	Metal	iron	nail?	1			badly corroded	
3 5 3	Mortar			2	115			
3 5 3	Shell	clam		7	20			
3 5 3	Shell	oyster		3	5			
3 5 3	Shell	scallop		1	<5			
3 5 3	Stone	brownstone		1	10		sample	
3 6 1	Metal	iron	flat	5			badly corroded	
3 6 1	Metal	iron	nail	1			badly corroded	
3 6 1	Shell?	clam		6	60			
3 6 1	Shell	oyster		9	30			
3 6 1	Stone	brownstone		1	120			
4 1 1	Asphalt/Tar		shingle?	1		black		
4 1 1	Bone		button blank	1			two cut outs; 1" diameter?	
4 1 1	Ceramic		architectural	1	125	red	T-shaped profile	
4 1 1	Ceramic		brick	10	155	red		
4 1 1	Ceramic		brick	8	255	red		
4 1 1	Ceramic		brick	1	730	red	"K": 3 5/8" x 3 3/8" x ?	
4 1 1	Ceramic		brick	1	115	red	2 3/16" x ? x ?	
4 1 1	Ceramic		brick	1	630	red	3 5/8" x 1 3/4" x ?	
4 1 1	Ceramic		brick	1	205	red	4 3/8" x ? x ?	
4 1 1	Ceramic		brick	1	1450	red	burned; mortar attached	
4 1 1	Ceramic		brick	1	>5000	yellow	with mortar attached; modern building block	
4 1 1	Ceramic		brick	2	1770	red	with mortar: "RICHMOND": 3 3/8" x 2 1/4" x 7 1/4"; mends cylindrical	
4 1 1	Ceramic	creamware	pipe	1	135	yellow		1762-1820
4 1 1	Ceramic	earthenware	rim	1		brown	brown exterior	1860-1900
4 1 1	Ceramic	ironstone	rim	1		white	relief molded decoration;	early 19th C-present

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
							scroll?	
4 1 1	Ceramic	kaolin	smoking pipe stem	1		white		
4 1 1	Ceramic	kaolin	smoking pipe stem	1		white		
4 1 1	Ceramic	pearlware		1		white		1779-1820+
4 1 1	Ceramic	porcelain		2		white		
4 1 1	Ceramic	porcelain	plate base	1		white		
4 1 1	Ceramic	porcelain	tile?	1		white		
4 1 1	Ceramic	redware	flower pot ?	1			unglazed	1725-present
4 1 1	Ceramic	refined earthenware		1		white	red transfer print exterior	1828-early 20th C.
4 1 1	Ceramic	refined earthenware	rim	1		white	blue shell edge	mid 1770s-1890s
4 1 1	Ceramic	refined earthenware	rim	1		white	blue transfer print interior	1783-c.1900
4 1 1	Ceramic	refined earthenware	tile	1		white	pale green bath type tile	
4 1 1	Ceramic	stoneware		1		gray	brown glaze; waster	1720s-c.1820
4 1 1	Ceramic	stoneware		1		gray	brown/gray glaze interior	1720s-c.1820
4 1 1	Ceramic	stoneware		1		buff	gray and brown exterior; brown glaze interior	1720s-c.1820
4 1 1	Ceramic	stoneware		1		buff	unglazed interior	1720s-c.1820
4 1 1	Ceramic	stoneware		1		buff	waster	1720s-c.1820
4 1 1	Ceramic	stoneware		1		buff	waster; blue decoration exterior	1790-c.1820
4 1 1	Ceramic	stoneware		2		buff	waster; unglazed	1720s-c.1820
4 1 1	Ceramic	stoneware	bottle finish	1		gray	brown glaze; waster	1720s-c.1820
4 1 1	Ceramic	white granite		1		white		1840s-c.1900
4 1 1	Ceramic	whiteware		1		white	spall	
4 1 1	Ceramic	whiteware	base?	1		white		early 19th C.-1900+
4 1 1	Charcoal			1				
4 1 1	Clay			1	20	gray	sample	
4 1 1	Coal			2	15			
4 1 1	Coal			1	<5			
4 1 1	Concrete			4	5	white		
4 1 1	Glass		base?	1		clear		
4 1 1	Glass		bottle finish	1		clear	Davis type	late 19-early 20th
4 1 1	Glass		curved	2		clear		
4 1 1	Glass		curved	1		green		
4 1 1	Glass		curved	1		amber		post 1860
4 1 1	Glass		curved	4		clear		
4 1 1	Glass		curved	2		green	bottle type	
4 1 1	Glass		curved	1		amber	heavy patina	
4 1 1	Glass		flat	13		clear		
4 1 1	Glass		flat	5		clear		
4 1 1	Glass		flat	1		clear	slight patina	
4 1 1	Metal	alloy		1			corroded; flat and thin	

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
4 1 1	Metal	iron		3			badly corroded; unidentifiable	
4 1 1	Metal	iron		1			with coal attached; badly corroded; unidentifiable	
4 1 1	Metal	iron		1			with rock attached; badly corroded; unidentifiable	
4 1 1	Metal	iron	bolt	1			badly corroded	
4 1 1	Metal	iron	flat	9			badly corroded	
4 1 1	Metal	iron	flat	6			badly corroded	
4 1 1	Metal	iron	hardware?	8			badly corroded	
4 1 1	Metal	iron	nail	8			badly corroded	
4 1 1	Metal	iron	nail?	6			badly corroded	
4 1 1	Metal	iron	nail?	5			badly corroded	
4 1 1	Paint			1		gray		
4 1 1	Plaster			1		gray		
4 1 1	Plastic			2		brown	fan?: circular hole one end; mends	1927-present
4 1 1	Plastic			3		white	paper thin	1927-present
4 1 1	Plastic		coffee stirrer	1		white		c.1940-present
4 1 1	Plastic	celophane		2		clear	wrap	1927-present
4 1 1	Shell	clam		4	15			
4 1 1	Shell	clam		4	25			
4 1 1	Shell	oyster		21	135			
4 1 1	Shell	oyster		4	55			
4 1 1	Stone			1	30		with concrete attached	
4 1 1	Stone/Metal	iron		1	10		corroded	
4 2 1	Ceramic		brick	4	80	red		
4 2 1	Ceramic		brick	1	645	red	2 1/4" x 3 5/16" x ?	
4 2 1	Ceramic		brick	1	1170	red	3 1/2" x 2 1/4" x ?; with mortar attached	
4 2 1	Ceramic	redware	tile	1			1" square	
4 2 1	Ceramic	refined earthenware		1		white	light blue exterior; banded ware?	
4 2 1	Ceramic	yellowware	base?	1				1830-1900
4 2 1	Glass		curved	2		clear		
4 2 1	Metal	iron	hardware?	2			badly corroded	
4 2 1	Plastic		fork	1		red		c.1930-present
4 2 1	Shell	clam		2	10			
4 2 2	Ceramic		brick	1	10	red		
4 2 2	Ceramic		brick	1	855	red	3 1/2" x 2 1/4" x ?	
4 2 2	Ceramic	creamware		1		white		1762-1820
4 2 2	Glass		curved	1		green	bottle type	

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
4 2 2	Glass		flat	4		clear		
4 2 2	Metal	iron		1			badly corroded; unidentifiable	
4 2 2	Metal	iron	nail	1			badly corroded	
4 2 2	Shell	oyster		2	5			
4 2 3	Ceramic		brick	1	245	red	2 1/4" x ? x ?	
4 2 3	Ceramic	creamware		1		white		1762-1820
4 2 3	Ceramic	porcelain	fixture?	1		white		
4 2 3	Ceramic	stoneware	rim	1		gray		1720s-present
4 2 3	Coal			1	<5			
4 2 3	Glass		bottle base	1		green	soda type; separate base part; mold seam	c.1850-present
4 2 3	Glass		flat	1		clear		
4 2 3	Glass		flat	1		green		
4 2 3	Metal	alloy		1			loop; jewelry?	
4 2 3	Metal	iron		2			badly corroded; unidentifiable	
4 2 3	Metal	iron	nail	2			badly corroded; mends	
4 2 3	Metal	iron	nail?	1			badly corroded	
4 2 3	Shell	clam		3				
4 2 3	Shell	clam		3	5			
4 2 3	Shell	oyster		7	15			
4 2 4	Ceramic		brick	1	1235	red	marked .."ND"; 2 1/4" x 3 3/8" x ?	
4 2 4	Ceramic	creamware		1		white		1762-1820
4 2 4	Ceramic	kaolin	smoking pipe stem	1		white		
4 2 4	Glass		bottle base	1		green	case bottle; 2 1/4" wide at base; push up; heavy patina	early 18th-mid-19th
4 2 4	Glass		bottle finish	1		green	wine type; down tooled rim	1770-1785
4 2 4	Glass		flat	3		clear		
4 2 4	Glass		whole bottle	1		clear	machine made; embossed "10 FL. OZ./10 FL. OZ./NO DEPOSIT NO RETURN/NOT TO BE REFILLED/3/21,111"	1917-present
4 2 4	Metal	iron		2			badly corroded; unidentifiable	
4 2 4	Metal	iron	nail	4			badly corroded	
4 2 4	Plastic			1				
4 2 4	Shell	clam		3	5			
4 2 4	Shell	oyster		6	35			
4 2 4	Unident			1	<5			
4 2 5	Ceramic	black basalt	spout	1		black		mid 18th C-c.1840s
4 2 6	Ceramic	ironstone		1		white	cream colored glaze	early 19th C-presen
4 2 6	Ceramic	pearlware		1		white	blue transfer print; chinese motif	1795-1840

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION			MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
4	2	6	Fabric			1		plaid		
4	2	6	Metal	iron		1			badly corroded; unidentifiable	
4	2	6	Metal	iron	nail	2			badly corroded	
4	2	6	Shell	oyster		2	<5			
4	3	1	Ceramic		brick	8	320	red		
4	3	1	Concretion			1	235			
4	3	1	Glass		flat	1		clear		
4	3	1	Metal		hardware	1			badly corroded	
4	3	1	Paper			1			numbers written on one side	
4	4	1	Ceramic		brick	3	125	red		
4	5	1	Asphalt			1	5	black		
4	5	1	Ceramic	black basalt		1		black		mid 18th C. -c.1840s
4	5	1	Concrete			2	265		ghost of brick	
4	5	1	Glass		flat	1		clear		
4	5	1	Plastic	celophane		2		clear		1927-present
4	6	1	Ceramic	redware	flower pot	1				1725-present
4	6	1	Metal	iron	bolt	1			badly corroded	
4	6	1	Metal	iron	hardware	2			badly corroded; mends	
4	7	1	Ceramic	creamware		1		white		1762-1820
4	7	1	Ceramic	whiteware		1		white	spall	
M			EU1-3 building materials	Ceramic	brick	1	2645	red	with mortar or concrete; 2 1/4" x 3 3/8" x ?	
M			EU1-3 building materials	Stone	brownstone	1	3570		with mortar attached	
0	1	1	1	Ceramic	earthenware	1		buff	Rockingham type	1830-1900+
0	1	1	1	Ceramic	earthenware	1		buff	glazed	1750-1900
0	1	1	1	Ceramic	kaolin	1		white		
0	1	1	1	Ceramic	pearlware	2		white		1779-1820+
0	1	1	1	Ceramic	refined earthenware	1		white	hand painted polychrome overglaze: red, light green &	1830s-late 19th C.

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
0 1 1 1	Ceramic	salt glaze stoneware		1		white	brown dot, diaper & basket pattern	1740-1770s
0 1 1 1	Ceramic	stoneware	rim	1		gray		1720s-present
0 1 1 1	Glass		curved	1		clear		
0 1 1 1	Glass		curved	1		green	bottle type	
0 1 1 1	Glass		flat	5		clear		
0 1 1 1	Metal	iron		3			badly corroded; unidentifiable	
0 1 1 1	Metal	iron	nail	3			badly corroded	
0 1 1 1	Metal	iron	nail?	5			shanks; badly corroded	
0 1 1 1	Metal	lead		1				
0 1 1 1	Shell	clam		5	20			
0 1 1 1	Shell	oyster		15	90			
0 1 1 1	Stone	schist		1	5	black		
0 1 2 1	Bone		smoking pipe mouthpiece	1				19th C.
0 1 2 1	Ceramic		sewer pipe	2			brown glazed exterior; mends	
0 1 2 1	Ceramic	creamware		1		white		1762-1820
0 1 2 1	Ceramic	creamware	base	1		white		1762-1820
0 1 2 1	Ceramic	pearlware		1		white		1779-1820+
0 1 2 1	Ceramic	pearlware		1		white	blue transfer print exterior	1795-1840
0 1 2 1	Glass		bottle shoulder	1		clear	flask?: side seam	late 19thC.-present
0 1 2 1	Metal	aluminum	foil	2			discarded	
0 1 2 1	Metal	iron	nail?	2			badly corroded	
0 1 2 1	Mortar			2	<5			
0 1 2 1	Shell	oyster		2	20			
0 1 3 1	Ceramic	earthenware		1		buff	Albany slip interior	c.1800-c.1900
0 3 1 1	Ceramic	redware	flower pot?	1				1725-present
0 3 1 1	Ceramic	stoneware		1		gray	light brown/gray exterior; Albany slip interior	1800-1900
0 3 1 1	Metal	iron	nail?	1			badly corroded	
0 3 1 1	Shell	clam		1	<5			
0 3 1 1	Shell	oyster		1	35			
0 3 1 2	Ceramic		brick?	1		red		
0 3 1 2	Ceramic	earthenware	spittoon rim?	1		buff	Rockingham type	1830-1900+
0 3 1 2	Ceramic	ironstone		1		white		early 19thC.-presen
0 3 1 2	Ceramic	kaolin	smoking pipe stem	1		white		
0 3 1 2	Ceramic	pearlware		1		white	blue transfer print one side	1795-1840
0 3 1 2	Ceramic	redware	flower pot	1				1725-present
0 3 1 2	Glass		bottle	1		clear	molded "RST"; embossed	1867-present

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PROVENIENCE EU SU FEA STR LEV LOCATION				MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
0	3	1	2	Glass		bottle	1		clear	decoration molded: .../"Q"...	1867-present
0	3	1	2	Glass		flat	3		clear		
0	3	1	2	Metal	iron	nail	1			round shank: badly corroded	
0	3	1	2	Metal	iron	nail?	1			shank: badly corroded	
0	3	1	2	Shell	clam		2	<5			
0	3	1	2	Shell	oyster		2	<5			
0	3	1	3	Ceramic		kiln furniture	4			mends	1720s-c.1820
0	3	1	3	Ceramic	redware		3			wasters?	1720s-1870
0	3	1	3	Ceramic	redware	flower pot?	1				1725-present
0	3	1	3	Metal	iron	nail	1			badly corroded	
0	3	1	3	Mortar			2	160			
0	3	1	3	Shell	clam		1	5			
0	3	2	1	Ceramic	redware	flower pot?	1				1725-present
0	3	2	1	Ceramic	stoneware		1		buff	Albany slip interior; unglazed exterior	1720s-c.1820
0	3	2	1	Ceramic	stoneware		1		buff	gray glaze: spall	1720s-c.1820
0	3	2	1	Ceramic	stoneware		1		red	waster: glazed and unfired	1720s-c.1820
0	3	2	1	Glass		flat	1		clear	slight patina	
0	3	2	2	Ceramic	pearlware	rim	1		white		1779-1820+
0	3	2	2	Ceramic	redware	flower pot	2				1725-present
0	3	2	2	Glass		flat	2		clear		
0	3	2	2	Glass		flat	1		clear	ribbed one side: refrigerator type?	
0	3	2	2	Marble/Concre		spike	1	180	white	concrete covered marble; 1" diameter; 6 1/2"+ long	
0	3	2	2	Metal	iron	nail?	1			badly corroded	
0	3	2	2	Shell	oyster		1	<5			
0	3	2	2	Wood		pencil shaving	1			discarded	
0	3	3	1	Shell	oyster		1	<5			
0	3	4	1	Ceramic		brick	1	150	red		
0	3	4	1	Glass		curved	1		clear		
0	3	4	1	Glass		flat	1		clear	slight patina	
0	4	1	1	Ceramic	creamware		1		white		1762-1820
0	4	1	1	Ceramic	kaolin	smoking pipe heel	1		white	with part of the bowl and stem	
0	4	1	1	Ceramic	kaolin	smoking pipe stem	1		white		
0	4	1	1	Ceramic	pearlware		2		white		1779-1820+

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
0 4 1 1	Ceramic	redware		1			white (burned?) interior	1750-1900
0 4 1 1	Ceramic	redware	flower pot	1				1725-present
0 4 1 1	Ceramic	redware	rim	1			glazed	1750-1900
0 4 1 1	Ceramic	redware	utility pipe	2	110		large diameter; mends	
0 4 1 1	Ceramic	refined earthenware		1		white	amber, white & brown banding; mocha	1790s-1930s
0 4 1 1	Ceramic	refined earthenware		1		white	brown hand painted underglaze	
0 4 1 1	Ceramic	refined earthenware	rim	1		white	brown floral stippled transfer print underglaze with brown hand painted rim	1840-c.1860
0 4 1 1	Ceramic	stoneware		1		buff	brown glaze exterior; waster	1720s-c.1820
0 4 1 1	Ceramic	stoneware		1		gray	glazed	1720s-c.1820
0 4 1 1	Cinder			1	<5			
0 4 1 1	Glass		bottle base	1		clear		
0 4 1 1	Glass		curved	3		green	heavy patina	
0 4 1 1	Glass		flat	6		clear		
0 4 1 1	Glass		tube	2		clear	3/8" diameter; clogged with concrete?	
0 4 1 1	Metal	iron		2			badly corroded; unidentifiable	
0 4 1 1	Metal	iron	mesh	1			found inside the 3/8" diameter glass tube	
0 4 1 1	Metal	iron/copper	nail	1			badly corroded iron concreted with copper disk (washer?)	
0 4 1 1	Shell	clam		2	5			
0 4 1 1	Shell	oyster		12	70			
0 4 2 1	Ceramic		hardware pipe?	1	85	red		
0 4 2 1	Ceramic		hardware pipe?	1	50	red	burned	
0 4 2 1	Ceramic	delft	tile	1		white	light blue lines	late 17th-mid 18th
0 4 2 1	Ceramic	earthenware		1		buff	glazed one side	
0 4 2 1	Ceramic	kaolin	smoking pipe stem	1		white		
0 4 2 1	Ceramic	pearlware		1		white		1779-1820+
0 4 2 1	Ceramic	pearlware		1		white	blue transfer print interior	1795-1840
0 4 2 1	Ceramic	salt glaze stoneware	rim	1		white		1720-1805
0 4 2 1	Glass		flat	3		clear		
0 4 2 1	Metal	iron	nail?	3			badly corroded	
0 4 2 1	Shell	clam		1	5			
0 4 2 1	Shell	oyster		7	60			
0 4 2 1	Slag			1	10			
0 4 3 1	Ceramic		brick	1	20	red		

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PROVENIENCE				MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
EU	SU	FEA	STR	LEV	LOCATION						
0	4	3	1		Ceramic	creamware	1		white		1762-1820
0	4	3	1		Mortar		1	10			
0	4	3	1		Shell	oyster	1	2			
0	5	1	1		Bone	button blank	1			4 cut outs; 1/2" diameter	
0	5	1	1		Ceramic	sewer pipe	1	10	buff	brown glaze exterior	
0	5	1	1		Ceramic	kaolin	1		pink	molded banding from stem partially up bowl	19th C.
0	5	1	1		Ceramic	kaolin	1		white		
0	5	1	1		Ceramic	redware	2			mends	1750-1900
0	5	1	1		Glass	bottle	1		clear	partial embossed lettering	1867-present
0	5	1	1		Glass	curved	2		clear		
0	5	1	1		Glass	flat	2		clear		
0	5	1	1		Glass	flat	3		aqua		
0	5	1	1		Glass	rim	1		red	container?	
0	5	1	1		Metal	iron	1			square shank; badly corroded	
0	5	1	1		Metal	iron alloy	1			corroded	
0	5	1	1		Mortar		3	20			
0	5	1	1		Shell	oyster	3	55			
0	5	1	2		Ceramic	brick	1	40	red	hexagonal tile? with mortar attached	
0	5	1	2		Ceramic	brick	1	1970	red	whole; mortar attached; hand made; 2 1/8" x 3 3/8" x 7 7/8"	
0	5	1	2		Ceramic	creamware	1		white		1762-1820
0	5	1	2		Ceramic	earthenware	1		buff	Rockingham type	1830-1900+
0	5	1	2		Ceramic	kaolin	1		white		
0	5	1	2		Ceramic	pearlware	1		white		1779-1820+
0	5	1	2		Ceramic	redware?	1			spall	1750-1900
0	5	1	2		Glass	curved	1		clear	molded; exterior textured; modern	
0	5	1	2		Glass	flat	3		clear		
0	5	1	2		Glass	rim	1		clear	frosted interior; from lamp chimney?	
0	5	1	2		Metal	iron	2			badly corroded	
0	5	1	2		Shell	clam	1	10			
0	5	1	2		Shell	oyster	1	10			
0	6	1	2		Asphalt/Tar		1	<5			
0	6	1	2		Ceramic	brick?	1	<5	red		
0	6	1	2		Ceramic	creamware	2		white		1762-1820

## ARTIFACT INVENTORY FROM HAND EXCAVATIONS - 31 - 52 CHAMBERS STREET UTILITY TRENCH PROJECT

PROVENIENCE EU SU FEA STR LEV LOCATION	MATERIAL	IDENTITY	FORM	COUNT	WT(g)	COLOR	DESCRIPTION	DATE RANGE
0 6 1 2	Ceramic	creamware	base	1		white		1762-1820
0 6 2 1	Ceramic	creamware		2		white		1762-1820
0 6 2 1	Ceramic	whiteware		1		white		early 19th C.-1900+
0 6 2 1	Coal			1				
0 6 2 1	Metal	copper	wire	1				
0 6 2 1	Metal	iron		0			badly corroded; unidentifiable	
0 6 2 1	Metal	iron	nail	2			badly corroded	
0 8 1 2	Ceramic	earthenware?		1		buff		
0 8 1 2	Ceramic	ironstone		1		white		early 19thC.-presen
0 8 1 2	Ceramic	jackfield		1		red		1740-1780
0 8 1 2	Ceramic	pearlware		1		white		1779-1820+
0 8 1 2	Ceramic	redware		1			brown glaze both sides	1750-1900
0 8 1 2	Ceramic	redware		1			glazed one side	1750-1900
0 8 1 2	Ceramic	stoneware		2		buff	gray exterior	1720s-c.1820
0 8 1 2	Ceramic	stoneware		1		buff	waster; gray exterior; brown interior	1720s-c.1820
0 8 1 2	Ceramic	whiteware		1		white		early 19th C.-1900+
0 8 1 2	Coal			1	5			
0 8 1 2	Glass		flat	2		clear		
0 8 1 2	Metal	alloy	hardware	1				
0 8 1 2	Metal	iron		2			badly corroded; unidentifiable	
0 8 1 2	Metal	iron	nail	1			badly corroded	
0 8 1 2	Mortar			1		white		
0 8 1 2	Plastic			1		gray		1927-present
0 8 1 2	Shell	clam		2	10			
0 8 1 2	Shell	oyster		1	60			
0 8 2 1	Ceramic	kaolin	smoking pipe stem	1		white		
0 8 2 1	Ceramic	stoneware		1		gray	brown interior	1720s-present
0 8 2 1	Metal	iron	nail?	1			badly corroded	
0 8 2 1	Mortar			3	5			
0 8 2 1	Shell	oyster		1	5			
0 8 2 1	Slag			1	<5			

TOTAL ARTIFACTS 2207.00