

# James Bland Development Property (Block 2)

City of Alexandria, Virginia

WSSI #21548.05

Addendum to the November 2009 (Revised  
February 2010) *Archeological Evaluation Report  
(Phase I Archeological Investigation) and Research  
Management Plan*

November 2011 (Revised May 2012)

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## ABSTRACT

Archeological monitoring and trench excavations were conducted within a portion of the City of Alexandria block bounded by Montgomery, N. Columbus, Madison and N. Alfred Streets. The work followed the demolition of the circa 1954 James Bland Homes public housing units as part of the redevelopment of the city block. The archeological work was required under stipulations of a 2009 Programmatic Agreement between the City of Alexandria, GPB Associates LLC, ARHA and the Virginia State Historic Preservation Office. The work was conducted by Thunderbird Archeology, a division of Wetland Studies and Solutions, Inc.

The architectural remnants of several early 20<sup>th</sup> century dwellings and one privy feature were located during archeological monitoring and were recorded as site 44AX0212. The historic cultural features were identified within four locations of the block. The foundation remnants at site 44AX0212 were related to mapped structures and associated with slag and architectural artifacts with little interpretive value. No buried surfaces or significant contexts were located in association with the foundations. Thunderbird Archeology determined, and Alexandria Archaeology concurred, that the foundations were not significant, and Alexandria Archaeology indicated that no additional archeological work was required beyond the documentation completed during the monitoring phase.

The privy feature was located in the rear lot of the dwelling at 806 Madison Street. The feature measured 3.0 by 2.0 feet and was 2.5 feet deep. It was surrounded by five shallow post holes, which may be related to an outbuilding- or to post-1954 activities. Based on the archeological and documentary evidence, the privy may have been used as early as 1900, when the first occupants at this address are listed in the city directory. The privy may have been cleaned out regularly and was possibly in use through the 1940s. While the feature does have interpretive value, it is isolated in context. The surrounding area had been disturbed and no other features associated with this dwelling lot were identified.

The contexts at site 44AX0212 were limited. Although buried ground surfaces were identified, they were isolated remnants containing few artifacts, and the foundation remnants were associated with artifacts of little interpretive value. With the exception of the one privy, no backyard strata, middens or wells were encountered and few artifacts were recovered. Therefore, the definition of activity areas and comparative research data into the use of space, and lifeways of the occupants of this city block were limited. As a result, Thunderbird concluded that the site had no remaining potential to yield additional significant archeological resources. Alexandria Archaeology indicated that no additional archeological work was required beyond the documentation completed during the monitoring phase.

Site 44AX0212 is not considered eligible to the National Register of Historic Places under Criteria A or B, as there is no known association with significant events or individuals, or under Criterion C, in our opinion, as the architectural remains do not embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master. Because of the extensive disturbance surrounding site 44AX0212, there is no remaining potential to yield additional significant archeological information and in our opinion, it is not considered potentially eligible to the NRHP under Criterion D. No additional archeological work is recommended and Alexandria Archaeology has concurred with these recommendations.



## TABLE OF CONTENTS

<b>ABSTRACT</b> .....	i
<b>TABLE OF CONTENTS</b> .....	iii
<b>LIST OF EXHIBITS</b> .....	v
<b>LIST OF PLATES</b> .....	v
<b>LIST OF TABLES</b> .....	vi
<b>INTRODUCTION</b> .....	1
<b>PREVIOUS INVESTIGATIONS</b> .....	6
<b>Documentary Study</b> .....	6
<b>Phase I Archeological Investigation</b> .....	8
<b>FIELD AND LABORATORY METHODS</b> .....	8
<b>Fieldwork</b> .....	8
<b>Laboratory</b> .....	11
<b>RESULTS OF ARCHEOLOGICAL MONITORING</b> .....	12
<b>Foundation Demolition and Trench Excavation</b> .....	14
Trenches 2 and 3 .....	16
<i>Trench 4</i> .....	17
<b>Site 44AX0214</b> .....	19
Feature 2-1 Complex.....	19
Test Unit 1.....	27
Test Unit 2.....	29
Brick Piers.....	31
Feature 2-2 Complex.....	34
Trench 5 .....	34
Feature 2-3 Complex.....	39
Trenches 1 and 6.....	39
Feature 2-4 complex .....	43
Ceramics .....	46
Glass.....	46
Architectural Artifacts .....	46
Other Artifacts .....	46
Faunal Remains.....	50
<b>Site 44AX0212 Discussion</b> .....	54
Feature 2-1 Complex.....	54
Feature 2-2 Complex.....	54
Feature 2-4 Complex.....	55
Artifacts and Period of Use.....	55
Documentary and Map Evidence.....	56
Occupants/Owners of 806 Montgomery Street.....	56
<b>SUMMARY AND RECOMMENDATIONS</b> .....	58

<b>REFERENCES CITED</b> .....	61
<b>APPENDIX I</b> .....	63
<b>Resource Management Plan and Scope of Work, Block 2</b> .....	63
<b>APPENDIX II</b> .....	77
<b>Artifact Inventory</b> .....	77
<b>APPENDIX III</b> .....	91
<b>Faunal Analysis of Feature 2-4, Site 44AX0212</b> .....	91
<b>APPENDIX IV</b> .....	137
<b>Cultural Resource Form</b> .....	137

## LIST OF EXHIBITS

Exhibit 1:	2005 ADC Northern Virginia Regional Map Showing Block 2.....	2
Exhibit 2:	USGS 1994 Alexandria, VA-DC-MD 7.5' Quadrangle Showing Block 2 ..	3
Exhibit 3:	April 2011 Natural Color Imagery Showing Block 2.....	4
Exhibit 4:	Present and Former Buildings within Block 2.....	5
Exhibit 5:	1912 Sanborn Fire Insurance Map Showing Block 2.....	7
Exhibit 6:	Location of 2009 Phase I Shovel Test Pits in Block 2.....	9
Exhibit 7:	Location of Machine Trenches and Demolished James Bland Buildings ..	15
Exhibit 8:	Limits of Site 44AX0212 and General Location of Features .....	20
Exhibit 9:	Map Showing Feature 2-1 Complex with 1912 Sanborn Map Overlay .....	21
Exhibit 10:	East Profile of Test Unit 1 Showing Feature 2-1P.....	28
Exhibit 11:	West Bisection Profile of Feature 21-F.....	33
Exhibit 12:	Location of Feature 2-2 and 1912 Sanborn Overlay.....	35
Exhibit 13:	Plan of Feature 2-2A.....	36
Exhibit 14:	Map Showing Feature 2-3 with 1912 Sanborn Map Overlay .....	41
Exhibit 15:	Plan Map of Feature 2-4.....	44
Exhibit 16:	Bisection Profiles of Features 2-4C and 2-4D .....	52
Exhibit 17:	Map of Feature 2-4 and 1912 Sanborn Map Overlay .....	57
Exhibit 18:	USGS Quadrangle Map Showing Site 44AX0212 .....	59

## LIST OF PLATES

Plate 1:	General Location of Feature 2-1; View to East .....	10
Plate 2:	Plan of Feature 2-1 in Block 2, STP 3 .....	10
Plate 3:	Representative View of Building Demolition.....	12
Plate 4:	Representative View of Footer Demolition .....	13
Plate 5:	Representative View of General Excavation Monitoring Looking West .....	13
Plate 6:	Representative View of General Excavation Monitoring Looking North.....	14
Plate 7:	Stratigraphy Along North Alfred Street Block Excavation .....	17
Plate 8:	Feature 2-1Q Facing West .....	23
Plate 9:	Feature 2-1P Looking North .....	23
Plate 10:	Portion of Feature 2-1P With Vertical Brick Placement .....	23
Plate 11:	Representative Type 1 Brick Pier .....	25
Plate 12:	Representative Type 2 Brick Pier .....	25
Plate 13:	Feature 2-1E (Type 3 Brick Pier).....	25
Plate 14:	Feature 2-1S Facing South.....	26
Plate 15:	Feature 2-1A .....	26
Plate 16:	East Profile of Test Unit 1 Showing Feature 2-1P.....	27
Plate 17:	South Profile of Test Unit 1 Showing Builder's Trench .....	29
Plate 18:	North Profile of Test Unit 2 Showing Feature 2-1Q.....	30
Plate 19:	North Bisection Profile Feature 2-1B .....	30
Plate 20:	West Bisection Profile of Feature 2-1F .....	32

**LIST OF PLATES (continued)**

Plate 21: Overview of Feature 2-2A Looking South ..... 37  
Plate 22: Plan of Feature 2-2A Facing North..... 37  
Plate 23: Feature 2-2B Facing South Toward Madison Street..... 38  
Plate 24: Feature 2-2C Looking North..... 38  
Plate 25: Feature 2-2D Facing South ..... 39  
Plate 26: Trench 6 Overview Showing North Profile ..... 40  
Plate 27: Feature 2-3A Facing North ..... 40  
Plate 28: Feature 2-3B..... 40  
Plate 29: Feature 2-3A ..... 42  
Plate 30: Feature 2-3C Facing South ..... 42  
Plate 31: Plan of Feature 2-4 Complex ..... 43  
Plate 32: Plan of Feature 2-4A Showing North Bisection ..... 45  
Plate 33: Plan of Feature 2-4A Excavated ..... 45

**LIST OF TABLES**

Table 1: Selected Block 2 Building Permits ..... 6  
Table 2: Feature 2-1 Complex ..... 22  
Table 3: Artifacts Recovered from Feature 2-1B, South Bisection ..... 31  
Table 4: Artifacts Recovered from Feature 2-4A ..... 47  
Table 5: Glass Type and Technology Comparisons from Feature 2-4A ..... 49  
Table 6: Artifacts Recovered from Feature 2-4C, East Bisection ..... 51  
Table 7: Artifacts Recovered from Feature 2-4D, East Bisection ..... 53

## INTRODUCTION

The following constitutes an addendum to the November 2009 (revised February 2010) report entitled, *Archeological Evaluation Report (Phase I Archeological Investigation) and Research Management Plan for the James Bland Development Property, City of Alexandria, Virginia (DHR File 2008-0695)*, which was prepared for GPB Associates, LLC by Thunderbird Archeology, a division of Wetland Studies and Solutions, Inc.

The addendum presents the results of archeological monitoring and trench excavations within Block 2 of the James Bland Development property, which is bounded by Montgomery, N. Columbus, Madison and N. Alfred Streets, (Exhibits 1-3). As the redevelopment of the James Bland property was subject to the U.S. Department of Housing and Urban Development environmental review process, compliance with the National Historic Preservation Act was required and a programmatic agreement (PA) was prepared and executed for the property.

The project area is also situated within the Parker-Gray Historic District, which has been determined eligible to the National Register of Historic Places. The circa 1954 James Bland public housing units slated for demolition during redevelopment of Block 2 were considered to be contributing elements of this district (Exhibit 4). As part of the mitigation for the adverse effects to the historic district caused by the demolition of the Bland buildings, they were fully documented.

The current work, conducted between February and June of 2011, was required under the stipulations of the 2010 PA agreement and followed a Scope of Work (SOW) approved by Alexandria Archaeology (Appendix I). John P. Mullen, M.A., RPA served as Principal Investigator and supervised the archeological monitoring, with the assistance of archeologists Edward Johnson, Andrés E. Garzón-Oechsle, Benjamin Pollack, Daniel Osborne, Cameron Riopelle and Boyd Sipe M.A., RPA. The goal of the monitoring was to locate and identify any potentially significant archeological resources that were not identified during the archeological site evaluation (Phase I investigation).

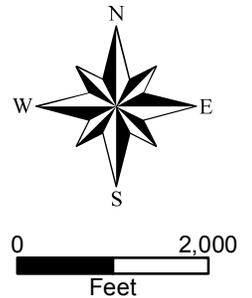
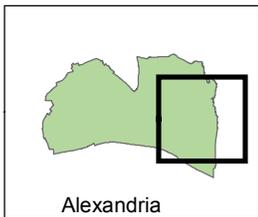
Fieldwork and report contents conformed to the guidelines set forth by the Virginia Department of Historic Resources (DHR) for a Phase I identification level survey as outlined in their 2011 *Guidelines for Conducting Historic Resources Survey in Virginia* (DHR 2011) as well as the 2007 *City of Alexandria Archeological Standards and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*.

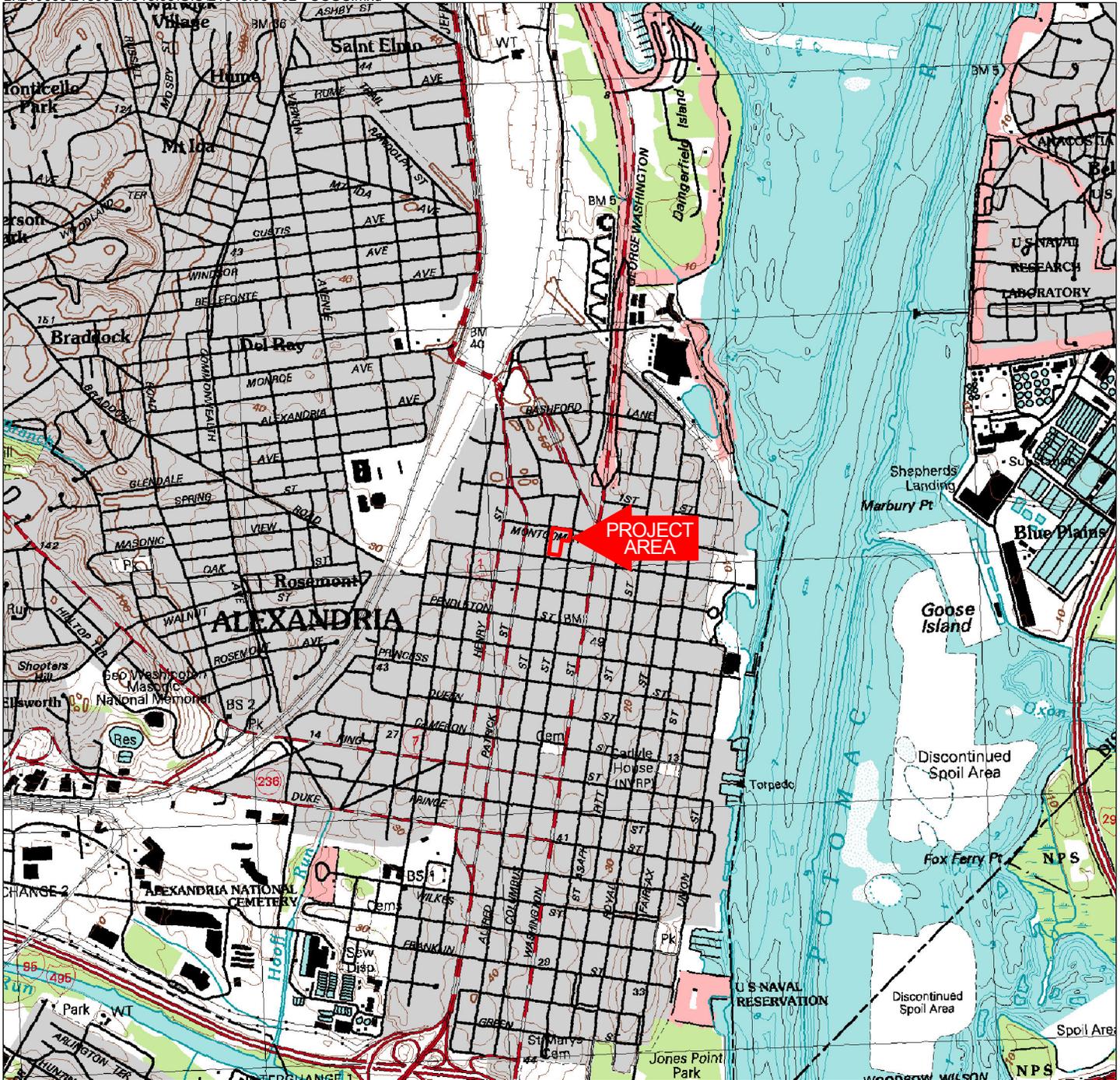
One new archeological site, 44AX0212, was recorded within this city block and is described below in detail.



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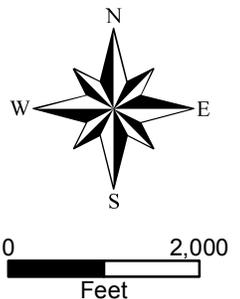
**Vicinity Map**  
**James Bland Block 2**  
**WSSI #21548.05**  
**Scale: 1" = 2000'**





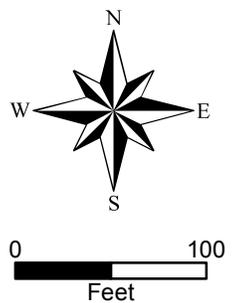
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**USGS Quad Map**  
**Alexandria, VA-DC-MD 1994**  
**James Bland Block 2**  
**WSSI #21548.05**  
**Scale: 1" = 2000'**





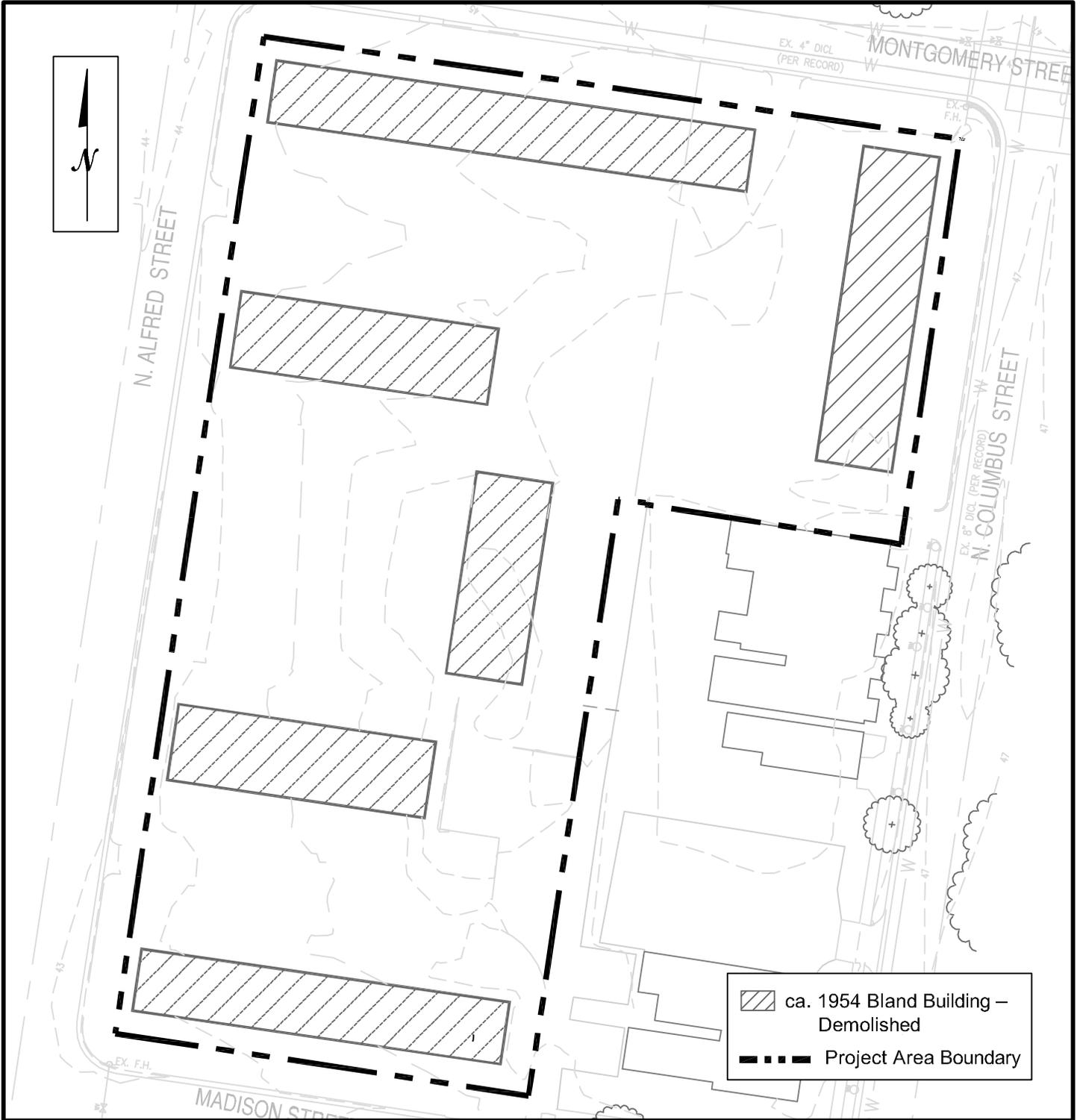
**April 2011 Natural Color Imagery**  
**James Bland Block 2**  
**WSSI #21548.05**  
**Scale: 1" = 100'**



Aerial Source: Wetland Studies and Solutions, Inc.

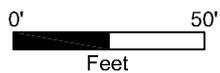
**Thunderbird Archeology**  
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**Exhibit 3**



**Location of Demolished James Bland Buildings  
James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 50'**



All artifacts, research data and field data resulting from this project are currently on repository at the Thunderbird offices in Gainesville, Virginia; the permanent repository will be with Alexandria Archaeology.

## PREVIOUS INVESTIGATIONS

A Documentary Study (Sipe and Snyder 2010) and Phase I archeological investigation (Sipe 2010) had previously been conducted on the entire James Bland property; therefore, only the results of the study pertaining to this block are summarized below.

### Documentary Study

According to the archival and map research, the earliest structures within this city block were likely constructed between 1894 and 1912, when this portion of this city was subdivided and sold to investors, landlords and homeowners. The lots between Madison and Montgomery Streets fronting North Alfred Street, for example, were purchased by George F. Klipstein in 1894 (Alexandria Deed Book 32:288). Building permits for this city block show that by 1908, Klipstein was investing in new home construction (Table 1). According to Alexandria deeds, Klipstein sold three lots or parcels, including one lot with three eight frame dwellings, to Thomas Groves on 22 April 1912 (Alexandria Deed Book 62:31). A later deed identifies the eight frame dwellings as 808-822 Montgomery Street (Alexandria Deed Book 70:266-7). These row houses, and other dwellings on the city block, first appear on the 1912 Sanborn map<sup>1</sup> (Exhibit 5).

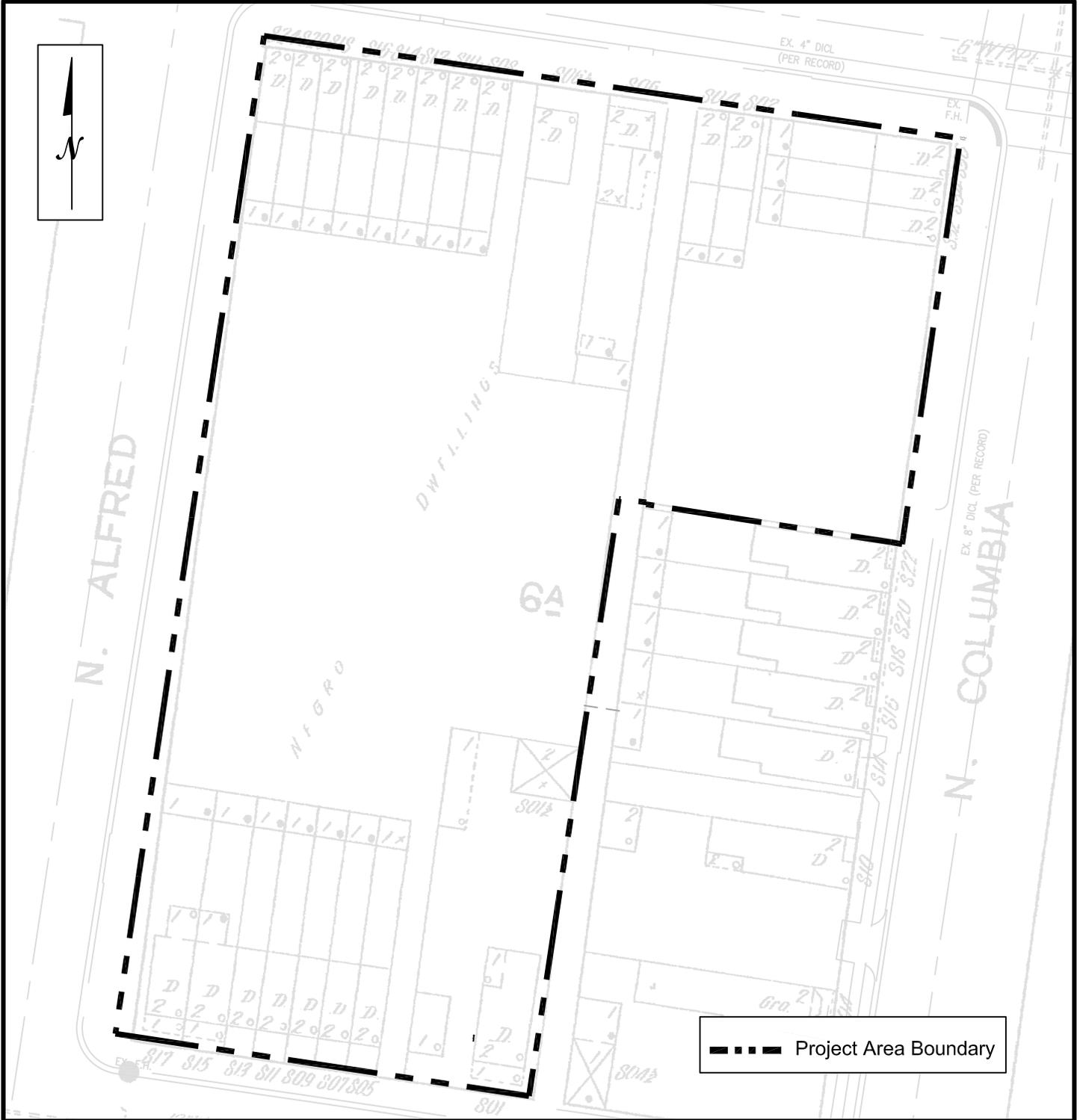
**Table 1: Selected Block 2 Building Permits**

Property Address	Owner	Permit Date
Montgomery betw. Alfred & Columbus	Klipstein, G.T.	4/14/1908
Montgomery & Alfred, S.E. cor.	Klipstein, G.T.	4/03/1908

At the turn of the 20<sup>th</sup> century, approximately 70% of the neighborhood occupants were African American (based on Richmond's Directory of Alexandria, Virginia 1899-1900). Most of the individuals were engaged as laborers although some tradesmen and other occupations appear. A comparison of occupation by race, however, indicates that most of the African American occupants appear to be laborers. The tradesmen or skilled workers or individuals engaged in commerce do not appear as African American in the directory.

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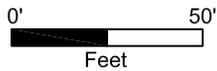
<sup>1</sup> This end of the City of Alexandria is not included on Sanborn map coverage prior to 1912, but this does not preclude the possibility of an earlier occupation of Block 2.



Map Source: The Sanborn® Map Company  
Original Scale: 1" = 50'

**1912 Sanborn Map**  
**James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 50'**



## Phase I Archeological Investigation

The Phase I investigation of the city block was conducted prior to the demolition of the James Bland Housing buildings. Shovel testing revealed that the urban fills were present throughout the project area (Exhibit 6). Artifacts from these disturbed filled contexts were temporally mixed (i.e. modern refuse and historic artifacts in the same context) and the origin of the fills was unclear. Although it was possible that some of the finds originated from residences in the vicinity, it was equally possible that secondarily deposited fills had been brought into the project area from elsewhere in the city. Therefore, the cultural artifacts recovered from the shovel testing within Block 2 were considered secondarily deposited refuse and were not recorded as an archeological site in accordance with DHR guidelines (DHR 2011). No additional work was recommended for these finds.

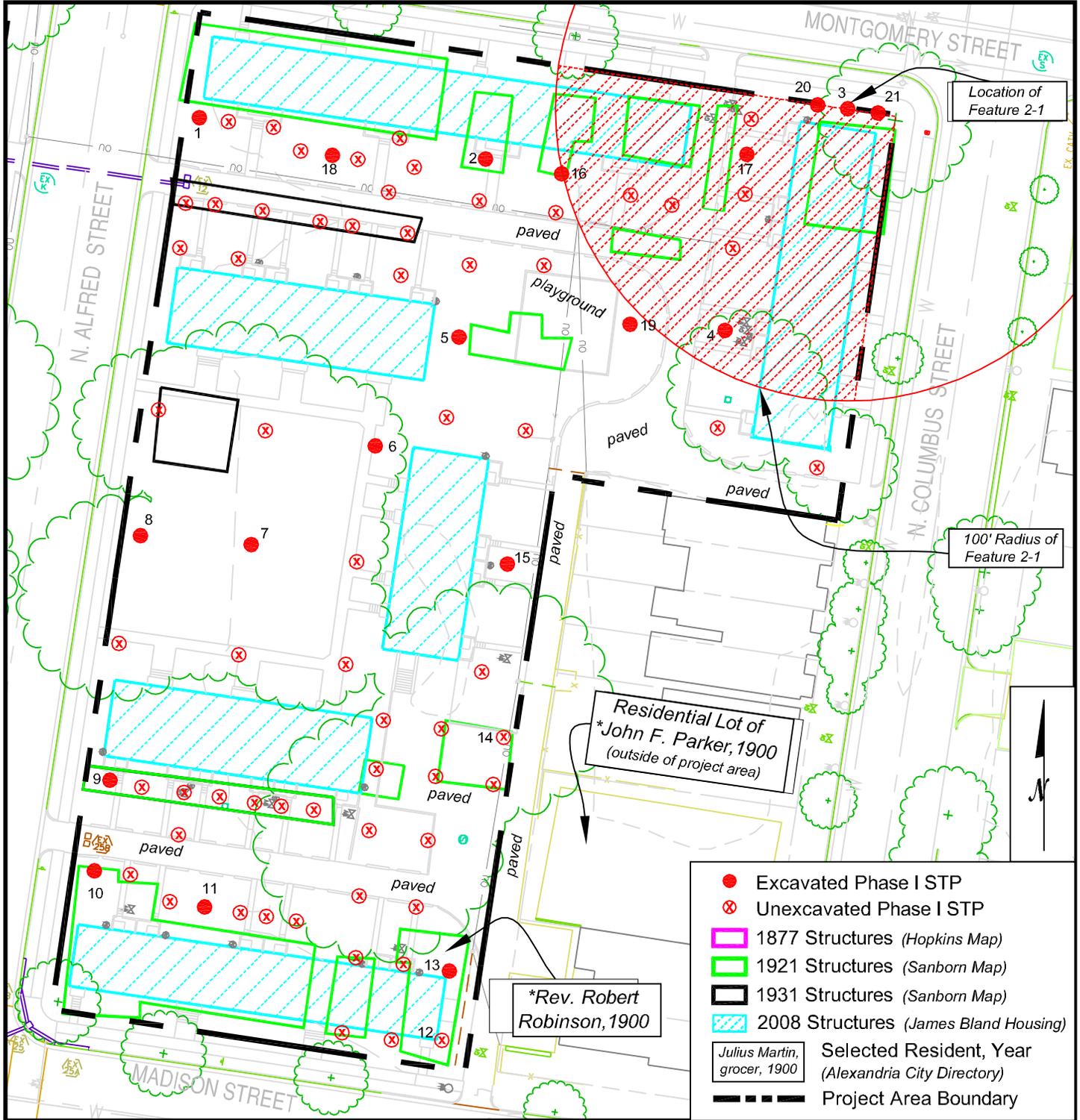
However, one *in situ* brick feature was located in the northeastern portion of Block 2 (see Exhibit 6). The brick feature was found within STP 3, which was excavated in the narrow grassy strip between the sidewalk and the northern side of the existing building on the corner of Montgomery and N. Columbus Streets (Plates 1 and 2). The brick feature was not located in shovel test pits excavated 12.5 feet on either side of the feature. Although the horizontal limits of the feature were unknown, it appeared to be spatially confined to a 25 square foot area. The feature was interpreted as a brick foundation or walkway and was designated Feature 2-1 (the first feature identified within Block 2 of the project area during the Phase I testing). Recommendations for additional investigation of the brick feature and for archeological monitoring of the demolition/construction within Block 2 were specified in the Resource Management Plan and Scope of Work (SOW), found in Appendix I and described below.

## FIELD AND LABORATORY METHODS

### Fieldwork

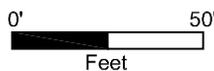
The field methodology for the archeological investigation was specifically defined in the SOW for Block 2 (see Appendix I). All ground-disturbing activities within the project area was monitored or directed by an archeologist. Generally, the soils across the project area were mechanically removed to subsoil and the interface of the overlying fills with the underlying subsoil was carefully examined for the presence of features. The monitoring work was documented with digital photographs and field notes. Additionally, a project map showing the extent of monitored areas was updated on a daily or weekly basis.

Trench Excavations: Backhoe trenches were excavated beneath three of the circa 1954 building concrete slab foundations, following the demolition of the superstructure.



**Location of 2009 Phase I Shovel Test Pits in Block 2  
James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 50'**





**Plate 1: General Location of Feature 2-1, View to East**



**Plate 2: Plan of Feature 2-1 in Block 2, STP 3**

The trench excavation was conducted with a backhoe equipped with a flat-lipped (smooth) bucket. At least one representative soil strata column profile was sketched from each trench excavation.

Feature 2-1: The feature was exposed using a backhoe equipped with a flat-lipped (smooth) bucket. The full vertical and horizontal extents of the feature were determined and the work was documented with field notes, sketch plans, profiles and digital photographs. Features were bisected and portions of the feature soils screened; or test units were hand excavated to investigate potentially significant archeological features and/or buried ground surfaces that were identified (as described below). The archeological evaluation of Feature 2-1 was conducted in concert with other demolition activities; however, no demolition activity within a one hundred (100) foot radius of Feature 2-1 was conducted during the evaluation. The significance of Feature 2-1 was determined in consultation with Alexandria Archaeology.

Feature and Test Unit Excavations: Features were bisected and portions of the feature soils screened; or test units were hand excavated to investigate potentially significant archeological features and/or buried ground surfaces that were identified during the archeological monitoring. Vertical excavation was by natural soil levels or by arbitrary sublevels if determined necessary by the staff archeologist. Soil colors were described using the Munsell Soil Color Chart designations. Soils were screened through 1/4-inch mesh hardware cloth screens, in areas where full artifact recovery was deemed necessary. Artifacts were bagged and labeled by unit number and by soil horizon. The work was documented with field notes, sketch plans, and photographs.

## **Laboratory**

All recovered artifacts were cleaned, inventoried, and curated in accordance with the guidelines set forth in the City of Alexandria Archaeological Standards. Historic artifacts were separated into four basic categories: glass, metal, ceramics, and miscellaneous. The ceramics were identified by ware type, method of decoration, and separated into established types following South (1977), Miller (1992) and Magid (1990). All glass was examined for color, method of manufacture, function, etc., and dated primarily on the basis of method of manufacture when the method could be determined (Hurst 1990). Metal and miscellaneous artifacts were generally described; the determination of a beginning date for these artifacts is sometimes possible, as in the case of nails.

The prehistoric artifacts were classified by cultural historical and functional types and lithic material. In addition, the debitage was studied for the presence of striking platforms and cortex, wholeness, quantity of flaking scars, signs of thermal alteration, size, and presence or absence of use. Chunks are fragments of lithic debitage which, although they appear to be culturally modified, do not exhibit clear flake or core morphology.

## RESULTS OF ARCHEOLOGICAL MONITORING

The archeological work included the monitoring of concrete footer demolition and removal, trench excavation within the footprint of three of the former James Bland buildings and general excavation monitoring across the entire project area. Representative views of the general archeological work are depicted in Plates 3-6.

In addition, the brick foundation identified during the 2009 Phase I testing was further explored during the current archeological work. The foundation was included within the limits of one new archeological site, 44AX0212, which included architectural remnants from several additional early 20<sup>th</sup> century dwellings and one privy. The results of foundation demolition monitoring and trench excavation are presented below, followed by the archaeological site discussion.



**Plate 3: Representative View of Building Demolition at Corner of North Columbus and Madison Streets, Looking Southwest**



**Plate 4: Representative View of Footer Demolition**



**Plate 5: Representative View of General Excavation Monitoring Looking West**



**Plate 6: Representative View of General Excavation Monitoring Looking North**

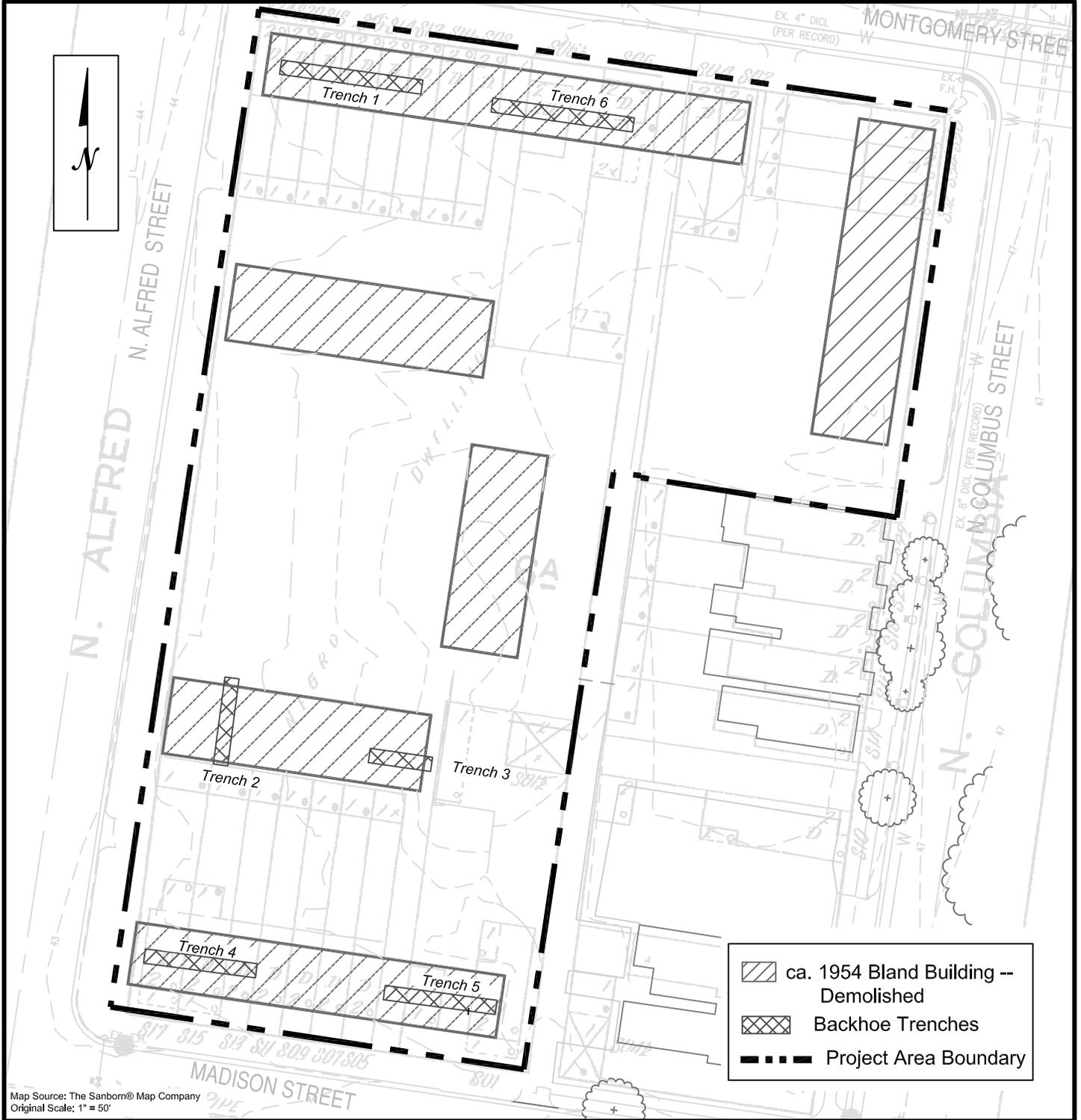
### **Foundation Demolition and Trench Excavation**

Although the Phase I archeological testing conducted in 2009 revealed disturbed fills across the property (see Exhibit 5), it was theorized that undisturbed historic deposits existed beneath the concrete slab foundations of the 1954 James Bland Housing buildings. This hypothesis was confirmed during the 2010 archeological monitoring at the first block to be redeveloped,<sup>2</sup> where remnants of late 19<sup>th</sup> century brick foundations and an associated buried ground surface were identified beneath the buildings during exploratory trench excavations (Mullen 2011). In addition, excavation monitoring within Block 1 revealed that the buried ground surface (Apb horizon) appears to have been at least partially preserved around the perimeter of the city block, within the narrow strip between the former James Bland buildings and the street faces.

Therefore, a series of informal trenches were mechanically excavated beneath the footprint of three of the Bland buildings (Exhibit 7). The trench locations were chosen in consultation with Alexandria Archaeology and were designed to locate evidence of the row houses along Montgomery Street and the row houses and outbuildings associated with the lots along Madison Street. No former dwellings or buildings appear

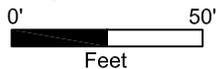
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<sup>2</sup> Block 1 of the James Bland Redevelopment property is adjacent to Block 2 and is bounded by Madison, N. Columbus, Wythe, and N. Alfred Streets.



**Location of Machine Trenches and Demolished James Bland Buildings  
James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 50'**



on historic maps beneath the other two James Bland buildings along N. Alfred Street and the footprint of the Bland building along N. Columbus Street was fully investigated during the evaluation of Feature 2-1.

Trenches 1 and 6 were excavated beneath the building located at 806-820 Montgomery Street; Trenches 2 and 3 were excavated beneath 807-817 N. Alfred Street; and Trenches 4 and 5 were excavated beneath the former building at 811-821 Madison Street (see Exhibit 7). The results of testing within Trenches 1, 5 and 6 are presented under the site 44AX0212 discussion; Trenches 2, 3 and 4 are discussed immediately below.

Following the demolition of the buildings and in conjunction with monitoring the removal of the concrete footers, Trenches 2, 3 and 4 were excavated within the footprint of two of the demolished James Bland buildings. All three trenches contained deep profiles consisting of mixed urban fill soils overlying subsoil. No buried, undisturbed ground surfaces were identified within the trench profiles; however, a probable buried plow zone was located along a small portion of the city block excavation limits near Trench 4.

### *Trenches 2 and 3*

Trench 2 measured approximately 25 feet in length and was excavated across the western end of the N. Alfred Street building, while Trench 3 (of similar length) was opened across the eastern end of this building (see Exhibit 7). The depth of the trenches prohibited safe examination of the soil profiles; however the observed stratigraphy consisted of multiple fill horizons overlying subsoil, as described below.

#### **Trench 2**

Various fill horizons: 0-4.0 feet below surface – loose, sandy soil

Dark fill horizon: 4.0-5.0 feet below surface – dark fill horizon with thin possible burn layer at approximately 4.5 feet below surface

B horizon: 5+ feet below surface

#### **Trench 3**

Fill 1 horizon: 0-1.5 feet below surface – [10YR 4/6] dark yellowish brown sand, pebbles and stones mottled with [10YR 5/6] yellowish brown

Fill 2 horizon: 1.5-3.5 feet below surface – extremely mottled mixed fill soil

Fill 3 horizon: 3.5-4.5 feet below surface – [10YR 5/6] yellowish brown fill with brick and concrete construction debris mottled with [10YR4/3] brown

B horizon: 4.5-7 feet below surface – [2.5Y 5/2] grayish brown marine clay mottled with [10YR 5/3] brown

#### *Trench 4*

Trench 4 measured approximately 40 feet in length and was excavated east-west across the center of the James Bland building at the corner of N. Alfred and Madison Streets (see Exhibit 7). No buried ground surfaces or features were located within Trench 4.

However, a possible buried plow zone was later identified in the perimeter excavation wall of the city block along N. Alfred Street during the removal of the building footer (Plate 7). As mentioned previously, these surfaces appear to have been at least partially preserved around the perimeter of the city block, within the narrow strip between the former James Bland buildings and the street faces. No artifacts were observed within the buried horizon, and no further exploration could be conducted along the edge of the street without undermining the construction fencing.



**Plate 7: Stratigraphy Along North Alfred Street Block Excavation**

Only one artifact was recovered by staff archeologists during the general excavation monitoring: a brass tag stamped “ARMOUR/CAR ...INES/238,” which is likely related to goods shipped through nearby Potomac Yards. By the early 20<sup>th</sup> century, “Armour and Company was the leading private car line owner... [and] its subsidiary, Armour Car Lines...shipped perishable food products throughout the United States using icing stations it owned and operated or leased to ice operating companies like the Mutual Ice Company” (Sipe and Rotenstein 2011:76). According to the Sipe and Snyder’s research (2010), occupants of this neighborhood in the early 20<sup>th</sup> century worked for both Potomac Yards and for the Mutual Ice Company, which may explain the origin of the tag on this city block.

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## Site 44AX0214

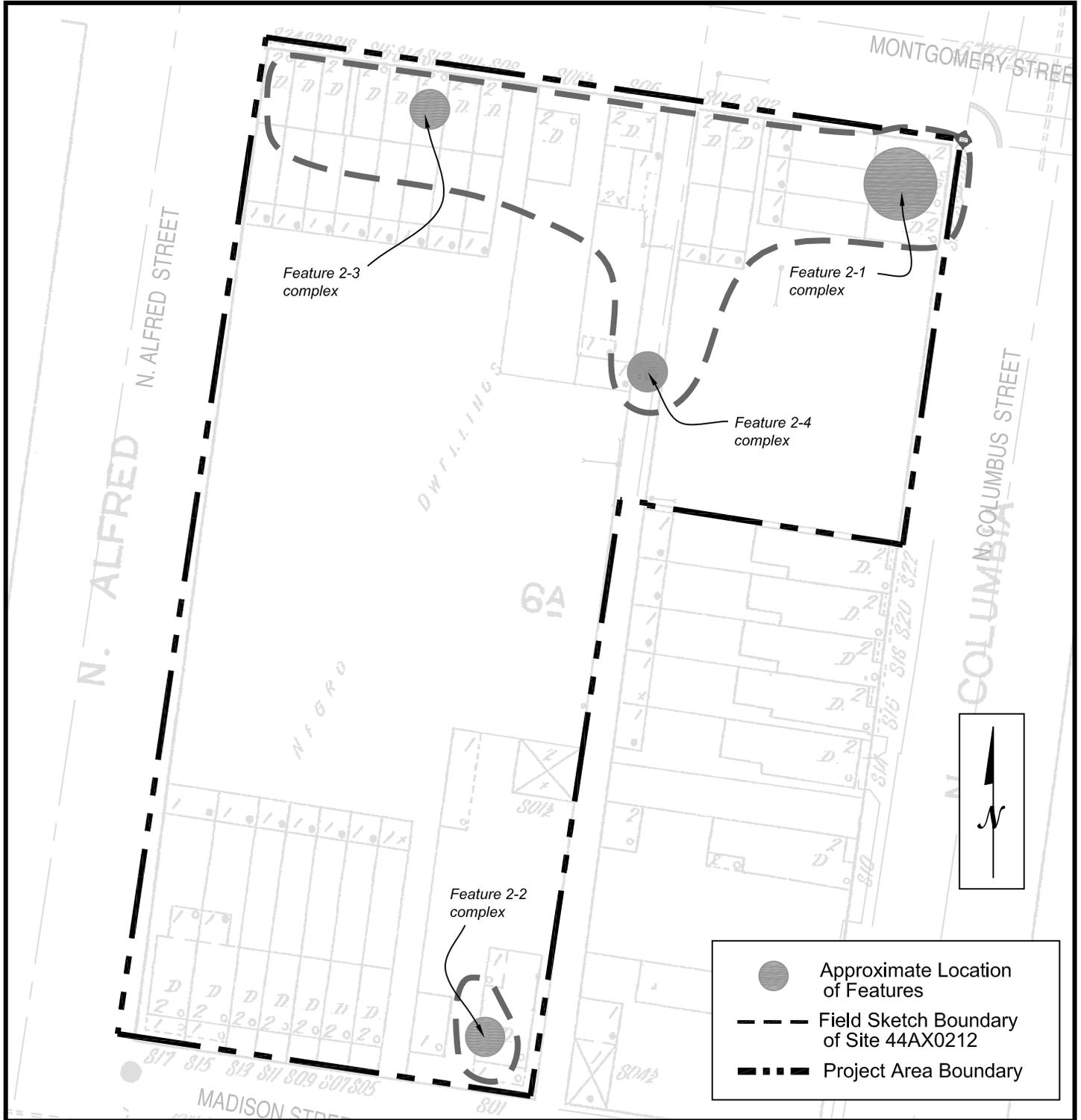
Site 44AX0214 represents tangible evidence of the occupation of this city block prior to the 1954 construction of the James Bland Homes public housing development. The site limits include two non-contiguous portions of the block and encompasses architectural features, associated with at least seven former dwellings and/or outbuildings (Exhibit 8). The northern portion of site measures 105 by 250 feet and includes Feature complexes 2-1, 2-3 and 2-4. Approximately 200 feet to the south, the southern locus of site 44AX0212 includes the foundation remnants designated as Feature 2-2. This non-contiguous portion of the site measures 35 by 20 feet.

### *Feature 2-1 Complex*

During the current monitoring fieldwork and in accordance with the 2010 SOW (see Appendix I), the soils in the northeastern corner of the project area were machine stripped (with a backhoe equipped with a smooth bladed bucket) to expose the full extent of the brick feature found during the Phase I shovel testing, and to document any additional features or buried ground surface encountered.

A combination of hand excavation and machine stripping revealed the remains of brick foundations and piers associated with three former row houses on this corner of the city block (Exhibit 9). For ease of recordation and discussion, each individual wall, brick pier or soil feature within the row house footprints was further assigned a sub-letter to the Feature 2-1 designation (Table 2).

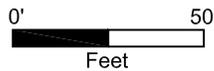
The archeological testing revealed that the former dwellings located at 832, 834 and 836 North Columbus Street were supported by brick piers, with only continuous brick foundation walls on the street sides facing Montgomery and N. Columbus Streets. No basements were evident. A large tree situated on the corner of N. Columbus and Montgomery Streets obscured the northeast corner of the foundations (see Plate 3 and Exhibit 9).

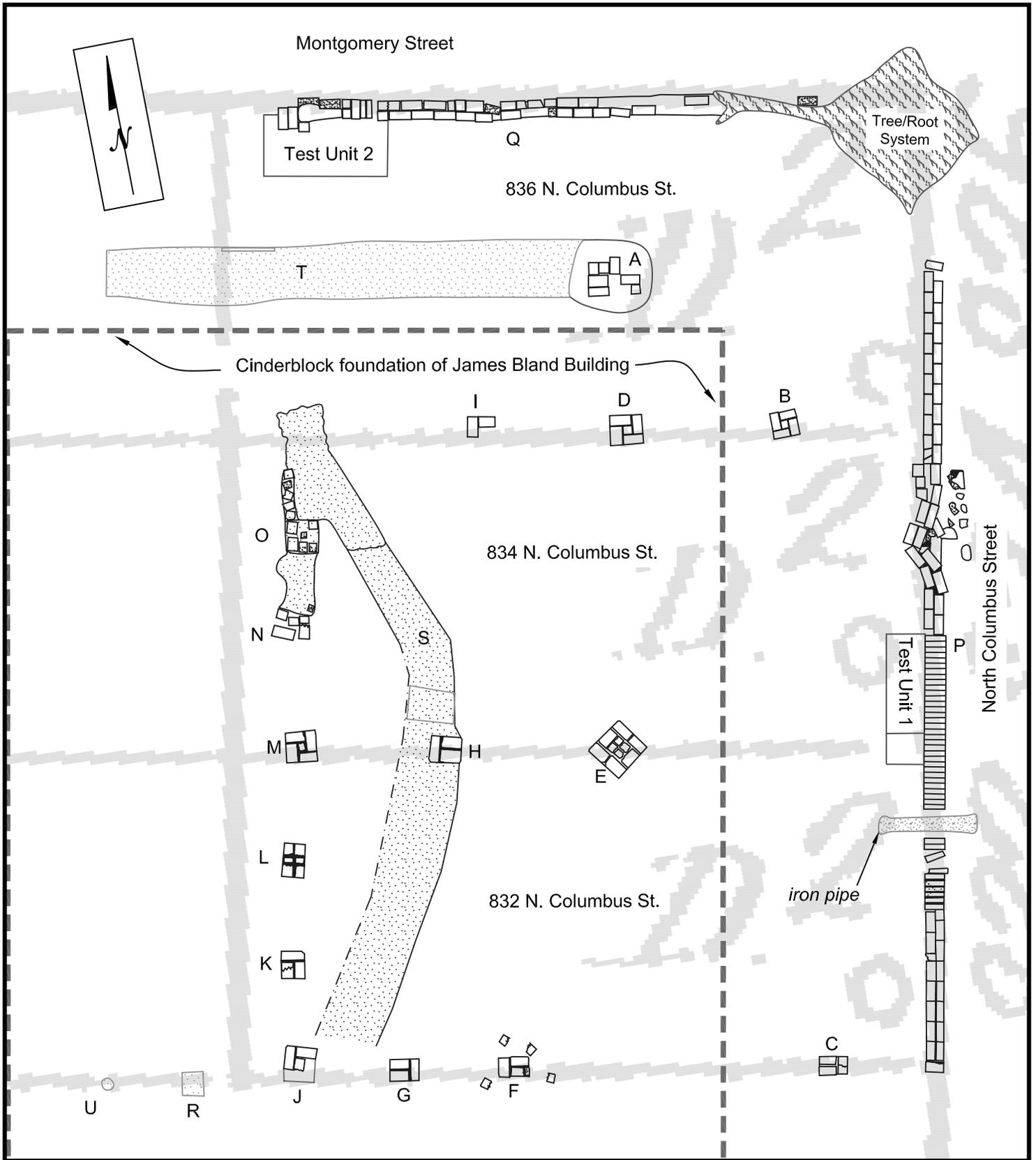


Map Source: The Sanborn® Map Company  
Original Scale: 1" = 50'

### Limits of Site 44AX0212 and General Location of Features James Bland Block 2 - WSSI #21548.05

Scale: 1" = 50'

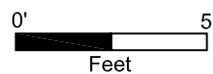




Map Source: The Sanborn® Map Company  
Original Scale: 1" = 50'

**Detail of Feature 2-1 Complex With 1912 Sanborn Overlay**  
**James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 5'**



**Table 2: Feature 2-1 Complex**

Feature 2-1	Description	Dimensions (feet)	Association
A	Brick Pier	1.2 x 2.0	836 N. Columbus
B	Brick Pier	1.1 x 1.1	834/836 N. Columbus
C	Brick Pier	1.0 x 0.7	832 N. Columbus
D	Brick Pier	1.1 x 1.2	834/836 N. Columbus
E	Brick Pier	1.5 x 1.6	832/834 N. Columbus
F	Brick Pier	0.7 x 1.1	832 N. Columbus
G	Brick Pier	0.7 x 1.1	832 N. Columbus
H	Brick Pier	1.0 x 1.6	832/834 N. Columbus
I	Brick Pier	0.7 x 1.1	834/836 N. Columbus
J	Brick Pier	1.2 x 1.1	832 N. Columbus
K	Brick Pier	1.0 x 0.9	832 N. Columbus
L	Brick Pier	1.4 x 0.8	832 N. Columbus
M	Brick Pier	1.2 x 1.1	832/834 N. Columbus
N	Brick Pier	Disturbed	836 N. Columbus
O	Brick Pier	1.2 x 1.2	836 N. Columbus
P	Brick Foundation	~30.0	832/834/836 N. Columbus
Q	Brick Foundation	~20.0	836 N. Columbus
R	Soil Stain	1.8 x 1.8	832 N. Columbus
S	Drainage trench	1.4 x ~24.0	834/ 836 N. Columbus
T	Utility Trench	2.0 x 17.0	836 N. Columbus
U	Post Hole	0.9 x 0.9	836 N. Columbus

The eastern foundation of the row houses (Feature 2-1Q) was approximately 20 feet in length (Plate 8); the northern foundation (Feature 2-1P) measured roughly 30 feet in length (Plate 9). Both foundations were 0.7 feet wide and were constructed primarily of two visible rows of brick stretchers. However, a ten-foot section of the eastern foundation consisted of a row of headers laid on their vertical axis in comparison to the remainder of the foundation which consisted of stretchers (Plate 10). This function/purpose of the construction technique is unknown, but may be related to later repairs to the foundation. A small section of a ferrous metal pipe was located across the foundation, but may have been associated with the later construction and occupation of the James Bland housing complex.



**Plate 8: Feature 2-1Q Facing West**



**Plate 9: Feature 2-1P Looking North**



**Plate 10: Portion of Feature 2-1P With Vertical Brick Placement**

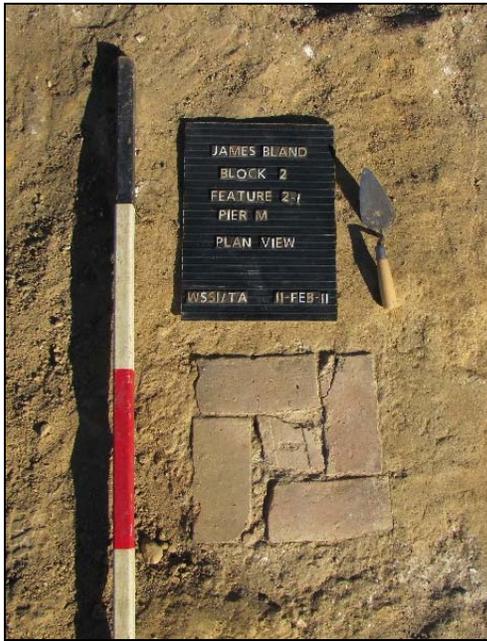
The brick piers revealed the outline of the three individual row houses, and were configured roughly in four rows (see Exhibit 9). However, several piers appeared to be missing and were presumably destroyed by the construction of the later James Bland building.

Three types of pier construction were observed. Type 1 consisted of a square configuration of four bricks enclosing a central half-brick, and generally measured 1.2 by 1.2 feet (Plate 11). At least six piers were representative of this type: Features 2-1B, D, J, M, N, and O (see Exhibit 9). Type 2 consisted of two adjacent stretchers with a third brick stretcher positioned at the end of the other two bricks (Plate 12). This rectangular pier measured 0.7 by 1.1 feet. At least six piers were representative of this type: Features 2-1C, F, G, K, L, and H (see Exhibit 9). The pier designated Feature 2-1 I was only partial and may have been either Type 1 or 2. Only Feature 2-1E was constructed of six bricks surrounding four central half bricks (Type 3). It was the largest pier, measuring 1.5-foot square, and was the only one aligned at a 45 degree angle to the others (Plate 13).

Five other features were exposed in addition to the brick piers and foundations. Feature 2-1R was a shallow soil stain that measured 1.8 feet square and Feature 2-1U was a circular post hole almost half that size (see Exhibit 9). The two features were in alignment with the southern wall of the 832 N. Columbus Street row house and may represent a later addition or back porch to the dwelling. It is also possible that they represent the location of a fence along the property line. The two features were not further investigated.

Feature 2-1S was located beneath the footprint of 832 and 834 N. Columbus Street and measured approximately 24 feet in length (see Exhibit 9). The width of the feature varied between 1.4 feet and 2.4 feet. The linear stain originated in the northwest corner of 834 N. Columbus Street and headed in a southeasterly direction toward a small square depression near Pier H (Plate 14). The northern end of the feature consisted of a thin layer of poured concrete, while the remainder consisted of a shallow soil discoloration. It is possible that the more of the feature was demarcated by poured concrete, but had been disturbed during the backhoe excavation. The feature dropped slightly in elevation from both ends toward the center depression and likely served as a drainage feature under a portion of the houses. The center depression was bisected and was found to be extremely shallow. No artifacts were recovered from Feature 2-1S.

Finally, Feature 2-1T appeared to be a utility trench, which paralleled the cinderblock foundation of the James Bland building and terminated at Feature 2-1A, a possible brick pier (see Exhibit 9 and Plate 15). Feature 2-1A consisted of a single layer of whole bricks and half bricks and measured 1.2 by 2.0 feet. It was not constructed in a similar fashion as the other three pier types, and may have functioned as a central pier for the dwelling at 836 N. Columbus Street. Its relationship with Feature 2-1T is unknown.



**Plate 11: Representative Type 1 Brick Pier**



**Plate 12: Representative Type 2 Brick Pier**



**Plate 13: Feature 2-1E (Type 3 Brick Pier)**



**Plate 14: Feature 2-1S Facing South.**  
**(Central square depression visible on left side of photo)**



**Plate 15: Feature 2-1A**  
**(Note: James Bland Building foundation along top of photo)**

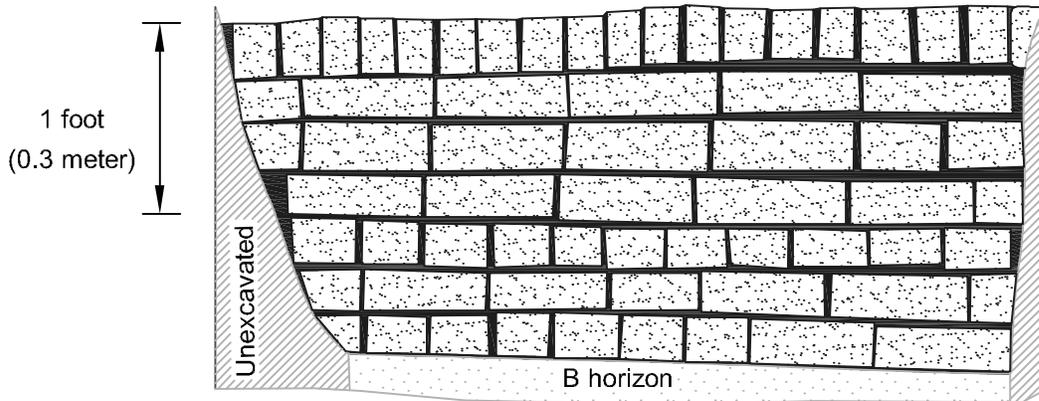
In consultation with Alexandria Archaeology, two test units were opened adjacent to the two wall foundations. Additionally, the builder's trenches for two piers were bisected and screened for artifacts.

### Test Unit 1

Test Unit 1 (2.5 by 4.5 feet) was excavated adjacent to Feature 2-1 P, the foundation wall that was shared by all three row houses facing N. Columbus Street (see Exhibit 9). No builder's trench was apparent at the surface of the test unit; however, a narrow trench was observed in profile adjacent to the foundation. The excavation revealed that the foundation was constructed of seven courses of bricks that extended 1.85 feet below surface and was resting within subsoil (Exhibit 10). The foundation was wider at the base; the lowest three courses of brick extended 0.3 feet into the test unit (Plate 16 and Plate 17).



**Plate 16: East Profile of Test Unit 1 Showing Feature 2-1P**



B horizon: 10YR 5/6 yellowish brown mottled with 10YR 6/6 brownish yellow silty clay loam

**Feature 2-1P within Test Unit 1 East Profile  
James Bland Block 2 - WSSI #21548.05  
Scale: 1" = 1'**



**Plate 17: South Profile of Test Unit 1 Showing Builder's Trench**

In addition to brick, mortar, and slag fragments, the narrow builder's trench produced one post-1910 automatic bottle machine bottle sherd, one unidentified green glass sherd, five unidentified nail fragments, one unidentified ferrous metal fragment, and one bone fragment. Although only one artifact could be dated, the manufacturing date of the automatic bottle machine bottle sherd is consistent with the estimated construction date for this row house, which is based on other row house construction on the block.

### Test Unit 2

The brick foundation wall paralleling Montgomery Street was designated Feature 2-1Q. Test Unit 2 measured 2.5 by 4.5 feet and was excavated adjacent to the foundation (see Exhibit 9 and Plate 18). The foundation was approximately 0.7 feet deep and was resting in subsoil. A break in the foundation was observed in the eastern end of the test unit profile where a ferrous utility pipe was located (see Plate 10). It appears that the utility was added after the foundation was constructed, and only the uppermost course of bricks was replaced following the utility work. As with Feature 2-1P, only a narrow builder's trench was apparent. Two post-1890 wire nail fragments were recovered from the builder's trench.



**Plate 18: North Profile of Test Unit 2 Showing Feature 2-1Q**



**Plate 19: North Bisection Profile Feature 2-1B**

## Brick Piers

Features 2-1B and 2-1F were representative of the piers observed within the row houses in the northeast corner of site 44AX0212 (see Exhibit 9). Pier B measured roughly one-foot square and was situated within a circular builder's trench that measured roughly two-feet in diameter. The north profile of the bisection revealed five courses of dry-laid bricks, extending roughly 1.2 feet below surface and resting within the builder's trench (see Plate 19 on preceding page). The bricks were arranged in a square pattern, with the top three courses being one and a half bricks wide, while the bottom two courses were two bricks wide. The builder's trench was filled with a [2.5Y 5/6] light olive brown compact silt loam, although one large mottle of ashy fill was observed and screened separately. The surrounding subsoil was a [10YR 5/6] yellowish brown silty clay loam.

A total of 170 artifacts were recovered from the bisection (Table 3 and see Appendix II). Seventy percent (n= 120) of the artifacts were slag, coal, brick, and mortar/plaster fragments. Although one pearlware (1780-1830) and four whiteware sherds (1820-1900+) were recovered, the construction date for the pier is likely based on the recovery on the single post-1910 automatic bottle machine bottle sherd.

**Table 3: Artifacts Recovered from Feature 2-1B, South Bisection**

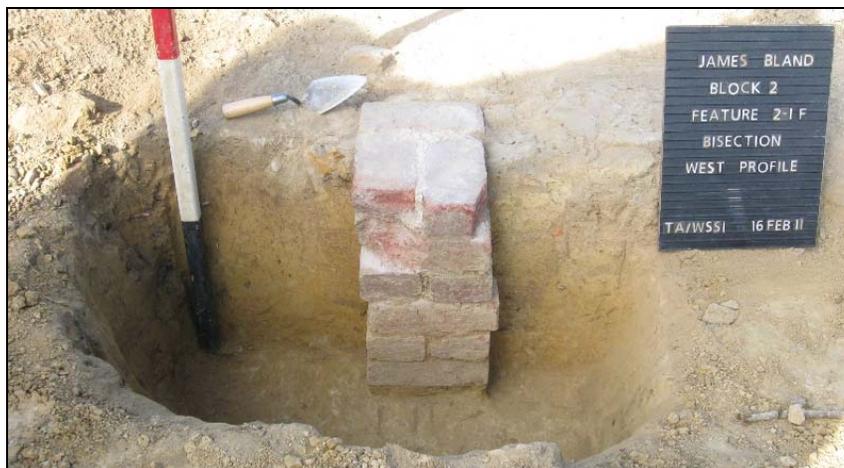
<b>Artifact Type</b>	<b>Builder's Trench Fill horizon</b>	<b>Burnt/Ashy Pocket horizon</b>
<b>Ceramics</b>		
pearlware (1780-1830)	1	
whiteware (1820-1900+)	4	
<b>Glass</b>		
bottle	1	
bottle/jar		1
bottle/jar , (ABM)* (post-1910)	1	
Unidentified glass	1	1
<b>Metal</b>		
nail, cut (post-1830)		1
nail, unidentified	1	
unidentified ferrous metal	10	
unidentified lead	1	

**Table 3: Artifacts Recovered from Feature 2-1B, South Bisection (continued)**

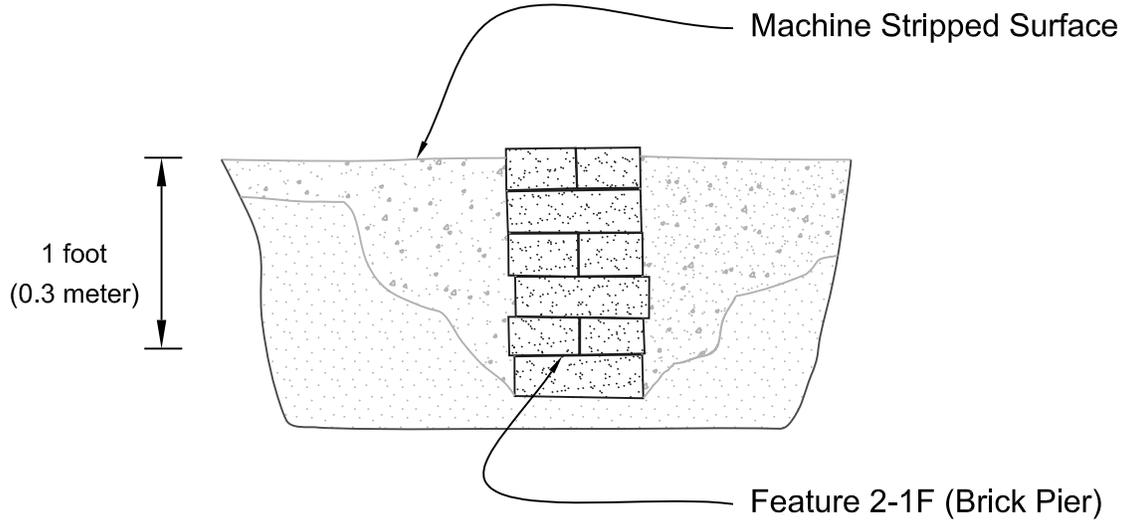
Artifact Type	Builder's Trench Fill horizon	Burnt/Ashy Pocket horizon
<b>Miscellaneous</b>		
bone	12	7
brick	16	
coal	4	
mortar	12	
mortar with plaster attached		10
oyster shell	2	
oyster shell button	1	
plastic	5	
slag	72	6
<b>Total Feature 2-1B, South Bisection</b>	<b>144</b>	<b>26</b>

\*automatic bottle machine (ABM)

Feature 2-1F was representative of pier Type 2 and measured 0.7 x 1.1 feet (see Exhibit 9). The pier was 1.3 feet deep and consisted of six courses of dry-laid bricks arranged in alternating rows of two brick headers and one brick stretcher (Plate 20). The builder's trench was approximately 3-feet wide with sloping sides and was filled a mixture of [10YR 6/6] brownish yellow compact silt loam with charcoal flecking, [10YR 5/6] yellowish brown compact silt loam, and [10YR 5/6] yellowish brown / [10YR4/2] dark grayish brown / [2.5Y 5/3] light olive brown compact silt loam with charcoal and manganese flecking (Exhibit 11). The base of the pier rested directly on natural subsoil. No artifacts were recovered from the builder's trench bisection.



**Plate 20: West Bisection Profile of Feature 2-1F**



-  Feature 2-1F Fill: 10YR 6/6 brownish yellow mottled with 10YR 5/2 grayish brown silt loam with light charcoal flecking, manganese concretions and discrete pockets of 10YR 5/6 yellowish brown silty clay loam
-  B horizon: 10YR 5/6 yellowish brown mottled with 10YR 6/6 brownish yellow silty clay loam

**Feature 2-1F Bisection West Profile**  
**James Bland Block 2 - WSSI #21548.05**  
**Scale: 1" = 1'**

### *Feature 2-2 Complex*

Feature 2-2 consists of four brick foundation remnants (2-2A, B, C and D) located in the southeastern corner of the project area and included within the southern limits of site 44AX0212 (see Exhibit 8). The architectural elements appear to be associated with the early 20<sup>th</sup> century dwelling previously located at 801 Madison Street (Exhibit 12).

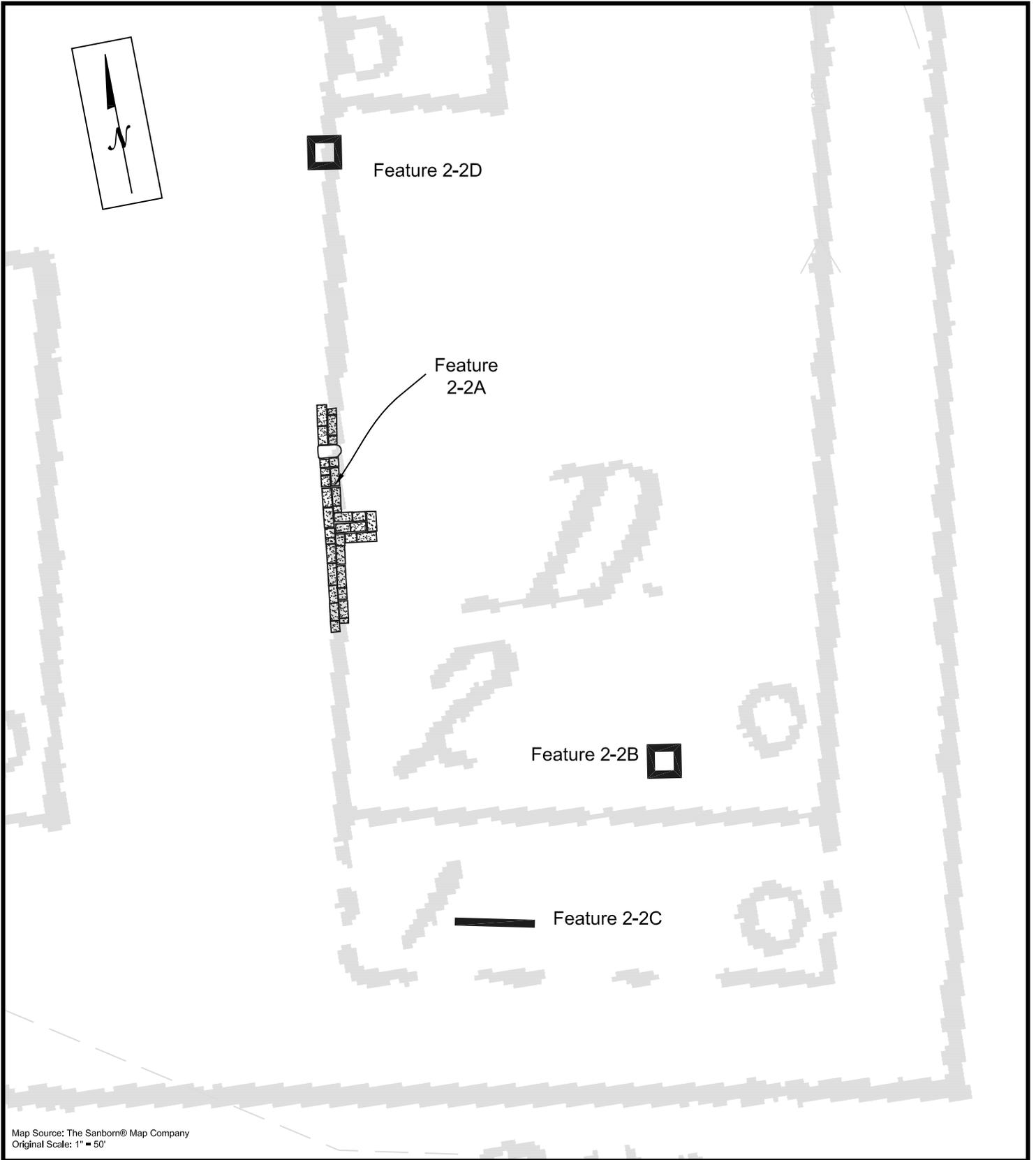
During the archeological monitoring, a partial brick foundation (Feature 2-2A) was identified approximately 20 feet north of the existing Madison Street sidewalk and 20 feet west of the alley which ran along the eastern edge of the project area (see Exhibit 12). The foundation measured roughly eight-feet in length and was oriented north-south (Exhibit 13, Plate 21 and Plate 22). The foundation consisted of five courses of dry-laid brick and was two bricks (1.2-feet) wide. A rectangular brick pier, or a possible damaged section of an interior wall, was also identified contiguous to the eastern side of the foundation. No builder's trenches were evident along either side of the foundation and the surrounding soils were heavily disturbed. The northern and southern extents of the foundation appeared to have been demolished, likely during the circa 1954 construction of the James Bland buildings.

### Trench 5

A brick foundation remnant (Feature 2-2B) was exposed during the James Bland building footer demolition in this area and was located approximately 10-feet southeast of Feature 2-2A (Plate 22 and see Exhibit 12). The remnant is heavily disturbed but measured one brick course wide and one and a half courses long (0.7 by 1.2 feet) and extended one-foot (four courses) into the subsoil. No builder's trench was evident. Another foundation or pier, Feature 2-2C, was located approximately 10 feet northwest of Feature 2-2A (Plate 24 and see Exhibit 12). The brick feature may be a continuation of the Feature 2-2A foundation.

Finally, a roughly three-foot long brick walkway or possibly the base of a truncated portion of foundation was located 13 feet southwest of Feature 2-2A (Plate 25 and see Exhibit 12). This feature, Feature 2-2D consisted of one course of dry-laid brick which appeared to be somewhat displaced and was sitting within subsoil.

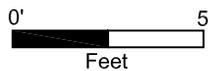
No artifacts were observed directly in the soils around the brick features; however, one General Services military button (post- 1902) was found on the surface in the vicinity of Feature 2-2A.

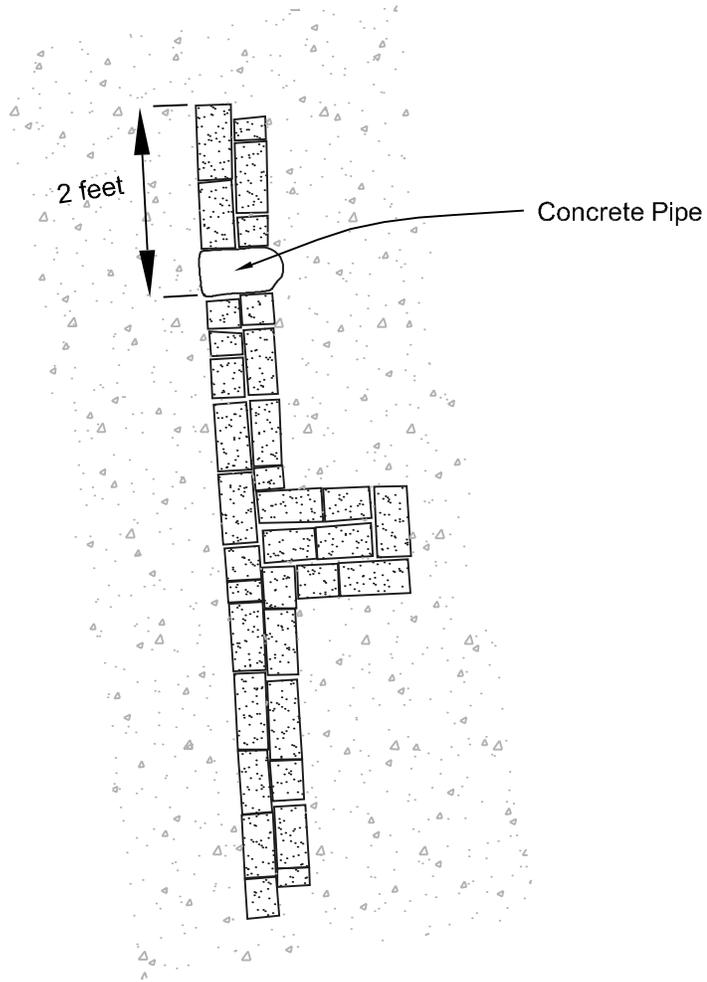


Map Source: The Sanborn® Map Company  
Original Scale: 1" = 50'

**Detail of Feature 2-2 Complex and 1912 Sanborn Overlay  
James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 5'**





	Fill surrounding Feature 2-2A: 2.5Y 4/4 olive brown mottled with 10YR 5/6 yellowish brown silty clay loam
	Brick ( <i>in situ</i> )

**Feature 2-2A Plan View**  
**James Bland Block 2 - WSSI #21548.05**  
**Scale: 1" = 2'**



**Plate 21: Overview of Feature 2-2A Looking South**



**Plate 22: Plan of Feature 2-2A Facing North**



**Plate 23: Feature 2-2B Facing South Toward Madison Street**



**Plate 24: Feature 2-2C Looking North**



**Plate 25: Feature 2-2D Facing South**

### *Feature 2-3 Complex*

Four brick features were located in the northwestern portion of site 44AX0212 and the project area (see Exhibits 7 and 8). Two test trenches were excavated in this area (see Exhibit 7). Two features were located during this trenching; and two were located during the footer demolition monitoring and subsequent general block excavation monitoring.

### Trenches 1 and 6

Trench 1 and 6 each measured approximately 50 feet in length and were excavated beneath the Montgomery Street building (see Exhibit 7). The trench profiles showed various fills overlying subsoil; however a remnant buried surface (A<sub>pb</sub> horizon) was observed in portions of the profile that were less disturbed (Plate 26).

#### **Trench 6**

Fill 1: 0-3.2 feet below surface - Various fills

Remnant A<sub>pb</sub> horizon: 3.2-3.7 feet below surface - [10YR4/3] brown silty clay loam

B horizon: 3.7-4.5 feet below surface - [10YR 5/8] yellowish brown silty clay



**Plate 26: Trench 6 Overview Showing North Profile**

Features 2-3A (Plate 23) and 2-3B (Plate 24) were brick foundation or pier remnants that were located in the north profile wall of Test Trench 6 and appear to be associated with the dwelling at 806 Montgomery Street (Exhibit 14). These brick features were resting within subsoil and no builder's trenches were observed. These features appeared to be wider at their base (1.5 courses wide) and more narrow at the top (one course wide). They extended three courses into the subsoil, were moderately disturbed and appeared to be truncated by an overlying modern fill horizon.



**Plate 27: Feature 2-3A, Facing North**



**Plate 28: Feature 2-3B**



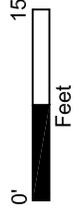
Montgomery Street



Map Source: The Sanborn® Map Company  
Original Scale: 1" = 50'

**Detail of Feature 2-3 Complex with 1912 Sanborn Overlay  
James Bland Block 2 - WSSI #21548.05**

Scale: 1" = 15'



Feature 2-3C was a brick pier that appeared to be one brick wide and two courses deep (Plate 29). This pier was found during removal of the James Bland building footers just south of Montgomery Street. It appeared to be set into the subsoil and was overlaid and likely truncated by modern fill.



**Plate 29: Feature 2-3C**

Feature 2-3D consisted of a single layer of dry-laid brick which appeared to be heavily disturbed (Plate 30). This feature was located approximately six inches above the subsoil within what appeared to be a potentially modern fill horizon; therefore, Feature 2-3B could be part of a relatively modern dumping episode rather than an historic foundation. Both features are likely associated with a block of eight frame row houses that stood along Montgomery Street in 1912 (see Exhibit 14).



**Plate 30: Feature 2-3D, Facing South**

### *Feature 2-4 complex*

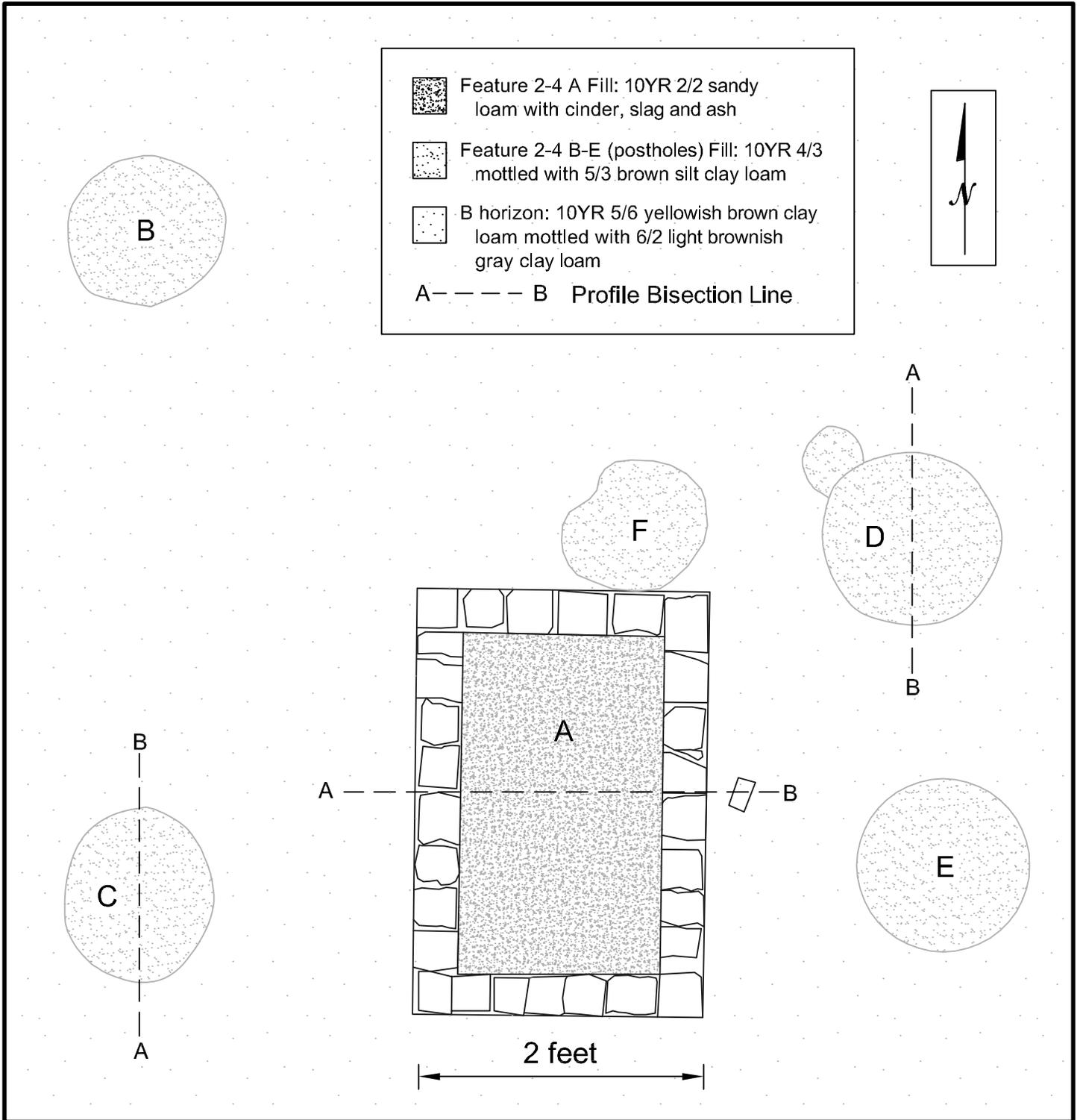
Finally, a rectangular brick-lined pit and five possible post hole features were identified during the general archeological monitoring in the northern-central portion of the block (see Exhibit 8). The feature complex was designated Feature 2-4 (being the fourth area in the city block to contain features), and each individual component was assigned a feature sub-letter (Exhibit 15 and Plate 31). The feature was roughly located 160 feet south of Montgomery Street and 100 feet west of N. Columbus Street.



**Plate 31: Plan of Feature 2-4 Complex**

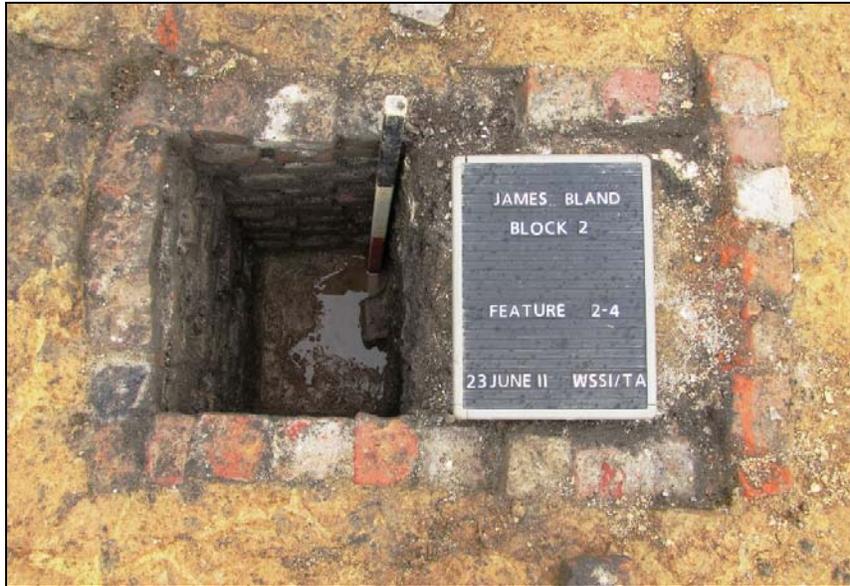
Decisions regarding excavation methodology and possible significance of the feature were made in consultation with Alexandria Archaeology. Rather than sampling the feature, which appeared to be a possible privy, Alexandria Archaeology required 100% recovery with all soils screened. In addition, two one-gallon soil flotation samples were obtained to recover small finds, and all faunal and floral materials were identified.

Feature 2-4A was a rectangular brick feature that measured 3 by 2 feet (Plate 32). The feature was filled with a [10YR2/2] very dark brown soil mixed with ash, lime, slag, cinder fragments and historic artifacts. The feature extended approximately 2.5 feet below surface (Plate 33). The north half of the feature was bisected and screened in arbitrary levels for vertical control, as no natural stratigraphic layers were evident in the feature fill. After determining that the feature represented one fill episode, the southern half was excavated and screened for artifacts.



Plan View of Feature 2-4 Complex  
James Bland Block 2 - WSSI #21548.05  
Scale: 1" = 1'

The four sides of the rectangular pit were lined with bricks and half-bricks that were roughly mortared together with decomposing sandy mortar. The floor of the pit was sterile subsoil, a [10YR 5/6] yellowish brown mottled with [10YR 6/2] brownish gray loam. The high clay content in the subsoil explains why the feature was poorly drained.



**Plate 32: Plan of Feature 2-4A Showing North Bisection**



**Plate 33: Plan of Feature 2-4A Excavated**

The artifact assemblage from Feature 2-4A is presented in Table 4 and a complete inventory is found in Appendix II. The feature produced a grand total of 6,330 artifacts. Faunal elements (bone, egg shell and fish scales) represented 27% of the assemblage (n=1682), while floral materials (grape and blackberry/raspberry seeds) represented 47 % (n=2975). The remaining 26% of the cultural materials recovered included ceramic, glass, metal, faunal and miscellaneous artifact types (such as slag, coal, slate, etc.). Six prehistoric flake or flake fragments were also recovered. Generally, the entire artifact assemblage supports an interpretation of use of this feature at site 44AX0212 from the last quarter of the 19<sup>th</sup> century into the early-mid 20<sup>th</sup> century.

### Ceramics

Ceramic artifacts recovered from the feature included hard paste porcelain, buff bodied earthenware, stoneware, whiteware (1820-1900+), and a single sherd of Rockingham/Bennington (1800-1900+). The porcelain artifacts included a doll head, post 1840 Prosser buttons and tableware sherds.

### Glass

Types of glass vessels recovered from the feature include primarily lamp chimney sherds, bottles and tablewares. Very few windowpane sherds were recovered. Glass technology (Table 5) dates range from clear manganese (1880-1915), chilled iron mold (1880-1930), and automatic bottle machine (1907/1910-present). Nearly 75% of the glass assemblage was comprised of undated fragments from lamp chimney and bottles/jars.

### Architectural Artifacts

Diagnostic architectural artifacts included six post-1790 and eight post-1830 cut nails and nail fragments, 31 wire nails and nail fragments (post-1890). All window pane fragments recovered from the feature postdate 1864 based on manufacturing methods.

### Other Artifacts

Other artifacts recovered included brick, cinder, coal, slag, mortar, slate (including a pencil fragment), one clay marble and a vinyl record fragment. Two bone collar studs were also recovered.

**Table 4: Artifacts Recovered from Feature 2-4A**

<b>Artifact Type</b>	<b>Feature Fill</b>	<b>Feature Fill, Heavy Fraction</b>	<b>Feature Fill, Light Fraction</b>
<b>Ceramics</b>			
buff bodied earthenware	3		
porcelain doll head	1		
hard paste porcelain	18		
hard paste porcelain button	1		
hard paste porcelain button (Prosser) (post-1840)	11		
whiteware (1820-1900+)	8	1	
refined white earthenware	2	1	
stoneware	2		
Rockingham/Bennington (1800-1900+)	1		
<b>Glass</b>			
bead	1		
button	3		
bottle, bottle/jar, tableware	105		
lamp chimney	374	10	
stopper	4		
tableware, pressed (post-1827)	16		
bottle (1850s-1920s)	1		
bottle (1865-1890)	2		
bottle (1875-1880)	3		
bottle (1881-1900)	1		
bottle (1885-1890)	9		
bottle/jar, clear manganese (1880-1915)	1		
bottle, clear manganese, chilled iron mold (1880-1915)	2		
bottle, bottle/jar, chilled iron mold (1880-1930)	13		
flask, chilled iron mold (1890-1920s)	1		
flask, chilled iron mold (1890s-1910s)	1		
bottle, bottle/jar, flask, tableware, (ABM)* (1907-present)	32		
bottle, duraglas (post-1940)	1		
unidentified glass	30	28	
windowpane, lime soda (post-1864)	23		

**Table 4: Artifacts Recovered from Feature 2-4A (continued)**

<b>Artifact Type</b>	<b>Feature Fill</b>	<b>Feature Fill, Heavy Fraction</b>	<b>Feature Fill, Light Fraction</b>
<b>Metal</b>			
brass clasp	2		
ferrous metal button	2		
hook	1		
nail, cut (post-1790)	6		
nail, cut, machine headed (post-1830)	8		
nail, wire (post-1890)	31		
nail, unidentified	51		
spike	1		
unidentified ferrous metal	166	3	
<b>Miscellaneous</b>			
blackberry/raspberry (Rubus) seed		443	2315
bone	560	534+	10
bone collar stud	2		
brick	108	2	
calcium carbonate concretion	27	192	
clay marble	1		
coal		15	
egg shell	43	280	
fish scale	138	117	
grape vine (Vitis) seed		92	124
mortar	73	6	
peach pit	1		
rubber bulb and tubing	9		
slag	186	56	
slate	2		
slate pencil	2		
vinyl record fragment	1		
wood	3	1	
<b>Prehistoric</b>			
quartz decortication flake	1		
quartz flake fragment		5	
<b>Total Feature 2-4</b>	<b>2095</b>	<b>1786</b>	<b>2449</b>

\*automatic bottle machine (ABM)

**Table 5: Glass Type and Technology Comparisons from Feature 2-4A**

<b>Glass Type</b>	<b>Technology</b>	<b>Quantity</b>	<b>Percent</b>
bead		1	0.15%
bottle		26	3.93%
bottle/jar		77	11.65%
button		3	0.45%
lamp chimney		384	58.09%
stopper		4	0.61%
tableware		18	2.72%
tableware	pressed (1827-present)	16	2.42%
bottle/jar	clear manganese (1810-1880)	1	0.15%
bottle	clear manganese, chilled iron mold (1880-1915)	2	0.30%
bottle	chilled iron mold (1880-1930)	11	1.66%
bottle/jar	chilled iron mold (1880-1930)	2	0.30%
flask	chilled iron mold (1890-1920s)	1	0.15%
flask	chilled iron mold (1890-1910s)	1	0.15%
bottle, bottle/jar	automatic bottle machine (ABM) (1907-present)	5	0.76%
bottle, bottle/jar	automatic bottle machine (ABM) (1910-present)	17	2.57%
flask	automatic bottle machine (ABM) (1910-present)	2	0.30%
tableware	automatic bottle machine (ABM) (1910-present)	2	0.30%
bottle	automatic bottle machine (ABM) (post-1934)	6	0.91%
bottle	duraglas (1940-present)	1	0.15%
unidentified glass		58	8.77%
windowpane	lime soda (1864-present)	23	3.48%
<b>Total</b>		<b>661</b>	<b>100.00%</b>

## Faunal Remains

Faunal materials including bone fragments, teeth or tooth fragments, fish scales, and egg shell fragments were recovered from Feature 2-4A. A total of 1,964 bones and bone fragments were submitted for analysis. A formal analysis of the faunal remains from Feature 2-4A of site 44AX0212, is presented in Appendix III. A summary of the results of this analysis follows.

The techniques used to analyze the faunal assemblage include determining the Number of Identified Species (NISP), the Minimum Number of Individuals (MNI), Usable Meat Weight and Biomass. The assemblage was also examined for evidence of butchering, and to determine if possible the choices of types and cuts of meat, and the “kill off” pattern or when the animal was slaughtered.

Only 24.9 % of the faunal assemblage could be identified. At least 13 different species - one crustacean, six fish, one reptile, one bird, and four mammals- were included. The crustacean and fish species included blue crab (three pincers), shark (one vertebra), catfish, yellow perch, sunfish, red drum and Atlantic croaker. Of the reptile/amphibian species, sixteen bones were from a snapping turtle (most from a skull). Commensal species are defined as those which live with another species and share its food; they are not considered food remains. Eight bones from mice and a single rat bone represent the commensal assemblage. Finally the domestic species included pig, cattle, and chicken, with chicken bone being the most identified species in the assemblage.

Unfortunately the data from this feature, and the rest of site 44AX0212, brings up more questions than answers, however, some conclusions can be drawn. For example, only the pig bones from the assemblage could be analyzed for age (i.e. the kill off pattern). The three bones showed the pigs were under one-year of age when killed, which is typical of subsistence farming, although the number of bones recovered is not a large enough sample for reliable statistical analysis. This raises the question of whether the occupants of this lot were raising their own pigs.

The bones from the cattle indicate access or preference for meat bearing long bones and ribs. Finally, an examination of butchering techniques indicates that the cattle were cut with a hand saw, while the swine were hacked with a chopping tool. By the 20<sup>th</sup> century, butchering techniques in large cities had transformed almost entirely to saws for cutting meat, and the mixture of techniques may be the reflection of an individual butcher in this area.

The features surrounding Feature 2-4A were sub-designated as B through F (see Exhibit 15). They were generally circular and approximately one foot in diameter. In consultation with Alexandria Archaeology, Features 2-4C and 2-4D were bisected to determine their nature and to recover diagnostic artifacts. These bisections revealed shallow profiles, with roughly straight sides and bases (Exhibit 16). Artifacts recovered from the features are presented in Tables 6 and 7.

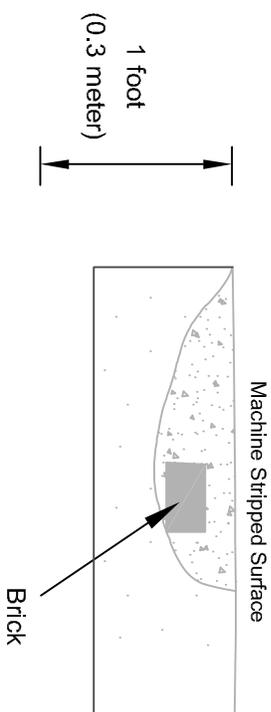
**Table 6: Artifacts Recovered from Feature 2-4C, East Bisection**

<b>Artifact Type</b>	<b>Feature Fill horizon</b>
<b>Ceramics</b>	
hard paste porcelain	1
stoneware	2
<b>Glass</b>	
bottle, bottle/jar	16
bottle/jar/tableware	1
bottle, automatic bottle machine (ABM) (post-1907)	13
bottle/jar , automatic bottle machine (ABM) (post-1910)	20
safety glass (post-1915)	1
bottle, automatic bottle machine (ABM) (post-1934)	4
bottle, bottle/jar, duraglas (post-1940)	3
unidentified glass	1
<b>Metal</b>	
unidentified ferrous metal	2
<b>Miscellaneous</b>	
coal	2
slag	1
<b>Prehistoric</b>	
quartz primary reduction flake	4
quartz flake fragment	4
<b>Total Feature 2-4C, East Bisection</b>	<b>75</b>

Feature 2-4 East Wall Profile



Feature 2-4D West Wall Profile



-  Feature 2-4C Fill: 2.5Y 3/3 dark olive brown compact silt loam
-  Feature 2-4D Fill: 10YR 4/3 mottled with 10YR 5/3 brown silty clay loam
-  B horizon associated with Feature 2-4C: 10YR 5/6 yellowish brown mottled with 10YR 6/4 light yellowish brown compact clay loam
-  B horizon associated with Feature 2-4D: 10YR 5/8 yellowish brown mottled with 10YR 6/3 pale brown silty clay loam

**Bisection Profiles of Features 2-4C and 2-4D**

**James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 1'**

**Table 7: Artifacts Recovered from Feature 2-4D, East Bisection**

<b>Artifact Type</b>	<b>Feature Fill horizon</b>
<b>Ceramics</b>	
whiteware (1820-1900+)	2
<b>Glass</b>	
lamp chimney	1
bottle, automatic bottle machine (ABM) (post-1907)	5
bottle/jar , automatic bottle machine (ABM) (post-1910)	6
tableware, automatic bottle machine (ABM) (post-1910)	1
bottle, automatic bottle machine (ABM) (post-1934)	5
unidentified glass	1
<b>Metal</b>	
aluminum cap	1
<b>Miscellaneous</b>	
bone	1
coal	1
plastic	1
<b>Total Feature 2-4D, East Bisection</b>	<b>25</b>

Both features contained similar artifacts, including a majority of post 1907/1910 automatic bottle machine (ABM) glass sherds. Feature 2-4C also contained four post-1934 ABM glass sherds and three duraglas (post-1940) bottle/jar fragments. Similarly, Feature 2-4-D produced post-1934 ABM glass sherds. Unlike Feature 2-4A, no clear manganese or chilled iron mold glass fragments were recovered.

Based on the artifacts, the post holes appear to be contemporaneous with Feature 2-4A, although the relationship is not clear. They are arranged in a somewhat irregular pattern around Feature 2-4A and one post hole (Feature 2-4F) overlapped the brick feature (see Exhibit 15). It is possible that the shallow post holes are related to the construction of, and post-1954 maintenance of, the James Bland public housing units.

## Site 44AX0212 Discussion

Three contexts typically encountered in the urban archeology of historic Alexandria are backyard strata, middens, and privy-wells (Cressey and Stephens 1982: 57). The foundation remnants (Features 2-1, 2-2 and 2-3) at site 44AX0212 were related to mapped structures and associated with slag and architectural artifacts with little interpretive value and no backyard strata or middens were located. However, one privy feature, Feature 2-4A was located, and is discussed below in greater detail.

### *Feature 2-1 Complex*

This feature complex consisted of two continuous brick foundation walls and fourteen brick piers associated with three former row houses (832, 834 and 836 North Columbus Street) on this corner of the city block (see Exhibit 9). No basements or crawlspaces were evident. A utility trench, drainage feature and several post holes were identified in association with the dwellings. The rear of the lots had been disturbed and no other features were identified.

The builder's trenches for both foundations were sampled. The artifact assemblage included mostly brick, mortar and slag fragments, unidentified glass sherds and unidentified nail fragments. One post-1910 automatic bottle machine bottle and two post-1890 wire nail fragments roughly date the construction of the row houses to the time they appear on historic maps.

The builder's trenches for two representative brick piers were also excavated. No artifacts were recovered from the one pier, while the other bisection yielded a total of 170 artifacts. The majority of the assemblage included slag, coal, brick, and mortar/plaster fragments; however, the recovery of a post-1910 automatic bottle machine bottle sherd again dates the construction of the dwellings to the first quarter of the 20<sup>th</sup> century.

Although the specific building permits were not located at this time for the three dwellings, documentary evidence (permits and deeds) for the construction dates of other dwellings on the block support the archeological evidence of an early 20<sup>th</sup> century construction date.

### *Feature 2-2 Complex*

Four brick foundation remnants associated with the early 20<sup>th</sup> century dwelling located at 801 Madison Street were located in the southern end of site 44AX0212 (see Exhibit 12). No builder's trenches, buried ground surfaces, or additional features were found in association with the isolated foundation remnants.

### *Feature 2-3 Complex*

Four brick foundation or brick pier remnants were identified along the northern end of the site; two are likely associated with a block of eight frame row houses that stood along Montgomery Street in 1912, and two appear to align with the mapped location of 806 Montgomery Street (see Exhibit 14). Again, no builder's trenches, buried ground surfaces, or additional features were found in association with the isolated foundation remnants.

### *Feature 2-4 Complex*

Based on the results of the archeological data, faunal and floral analysis and the physical location within the lot at 806 Montgomery Street, Feature 2-4A was interpreted as a privy (see Exhibit 15). This rectangular brick feature measured 3 by 2 feet and was approximately 2.5 feet deep. The four sides of the rectangular feature were constructed with bricks and half-bricks, and the floor of the pit was sterile subsoil.

The feature complex also included five post holes arranged in a somewhat irregular pattern around the privy; one post hole overlapped the brick feature. The privy was fully excavated and documented, while the post holes were bisected and sampled. Based on the artifacts, the post holes appear to be contemporaneous with Feature 2-4A.

### Artifacts and Period of Use

The artifacts from the privy (Feature 2-4A) date from the late 19<sup>th</sup> century, into the first and possible second quarter of the 20<sup>th</sup> century. No stratigraphic distinction could be determined based on the soils or recovered artifacts. Because of the small size and shallow depth of the privy, it may have been cleaned out on a regular basis, which may explain the lack of stratigraphic separation. This deposition may possibly represent the final episode of filling/use.

The artifact assemblage was predominated by faunal and floral materials, but included ceramics, glass, metal and other miscellaneous artifacts. Of the bottle/jar and tableware glass fragments recovered at the site, the type of glass manufacturing technology and, thus, dates of production were identified for only a small percentage (less than 15%) of the glass assemblage. These artifacts include chilled iron mold and automatic bottle machine bottles and fragments, which date from the 1880s through the early 20<sup>th</sup> century. The majority of the bottles recovered from the feature were automatic bottle machine bottles that postdate 1907/1910. Smaller percentages of earlier manufactured bottle sherds (between 1875 and 1890) and later glass bottle sherds (post-1934 and post-1940) were also recovered. It is possible that that final discard within the privy included bottles that had not been discarded earlier, and may have been located within the outbuilding.

## Documentary and Map Evidence

Although it is shown in the alley on the 1912 Sanborn map, the privy feature appears in the approximate location of an outbuilding associated with 806 Montgomery Street (Exhibit 17). As most of the other features within site 44AX0212 corresponded well with historic maps, there appears to be a slight discrepancy in the location mapped in the field or perhaps in the historic map overlay for this location. The rear lot of 806 Montgomery Street contained two one-story outbuildings in 1912, and an outbuilding was added to the rear lot of the adjoining property at 806 ½ Montgomery Street in 1921. It is very likely that the brick feature was within one of these structures and not in an alley.

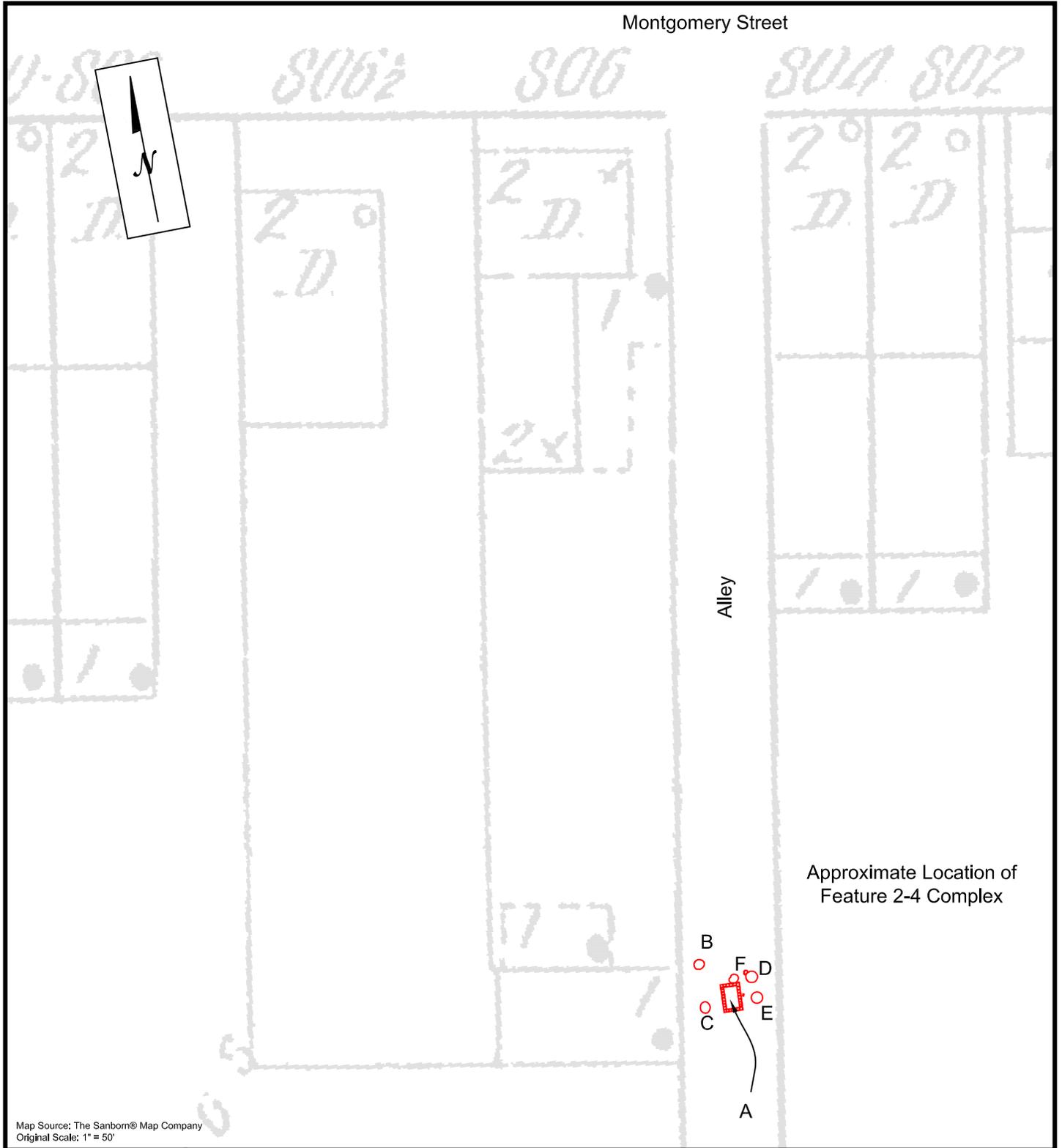
According to an interview with Henry Johnson, a resident of the 900 block of North Columbus Street in the early 1900s, privies or outhouses were located at the very end of each lot in this part of the city. This could be the function of many of the outbuildings shown within the back yards on the Sanborn maps where Feature 2-4A was located. In this interview, Johnson also claimed that it was common for residents of that neighborhood to keep and raise chickens in their back yards, and occasionally hogs. As discussed in the faunal analysis section of this report, the recovery of pig bones in the privy feature at least supports the idea that the site occupants were raising their own pigs.

## Occupants/Owners of 806 Montgomery Street

No building permits were located at this time for the outbuildings, but the dwelling may have been constructed circa 1900 along with the other nearby row houses. The earliest city building permit located for this address (dated May 22, 1920) was issued to Lucy Kellum, whom based on federal census data, was an African American resident and property owner on the block. She is described as a widow in the 1900 census and was likely living in the neighborhood at that time.

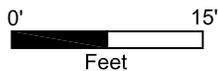
The 1899/1900 Alexandria Directory lists Moses Rowe, an African American laborer, as the occupant of 806 Montgomery Street and Edward Rowe is listed at 802 Montgomery Street (Sipe 2010: 104-106). By 1909, tax records indicate that Edward Rowe was now the occupant of Kellum's property at 806 Montgomery Street. He is also listed at that address in the 1915 city directory but by 1920, Edward purchased the adjacent lot (806 ½ Montgomery), which was valued at \$250 (Sipe 2010: 110). Lucy Kellum is still identified as the owner of the lot at 806 Montgomery Street in 1920 (valued at \$100).

The 1930 and 1940 federal census data for the City of Alexandria show that the house continued to be leased to African American occupants. Linwood and Indiana Jackson were renting the house at 806 Montgomery Street in 1930, while Nanny Lomax and her sister Hattie Bivens were renting the house for \$12 a month in 1940. The sisters had two boarders, Allen Boyd and John Thomas, who were both employed as laborers at a fertilizer mill.



**Detail of Feature 2-4 Complex with 1912 Sanborn Overlay  
James Bland Block 2 - WSSI #21548.05**

**Scale: 1" = 15'**



Based on the archeological and documentary evidence, the privy may have been used as early as 1900, when the first occupants at this address are listed in the city directory and may have been in use through 1940, based on federal census data. The artifacts recovered also seem to span this time period.

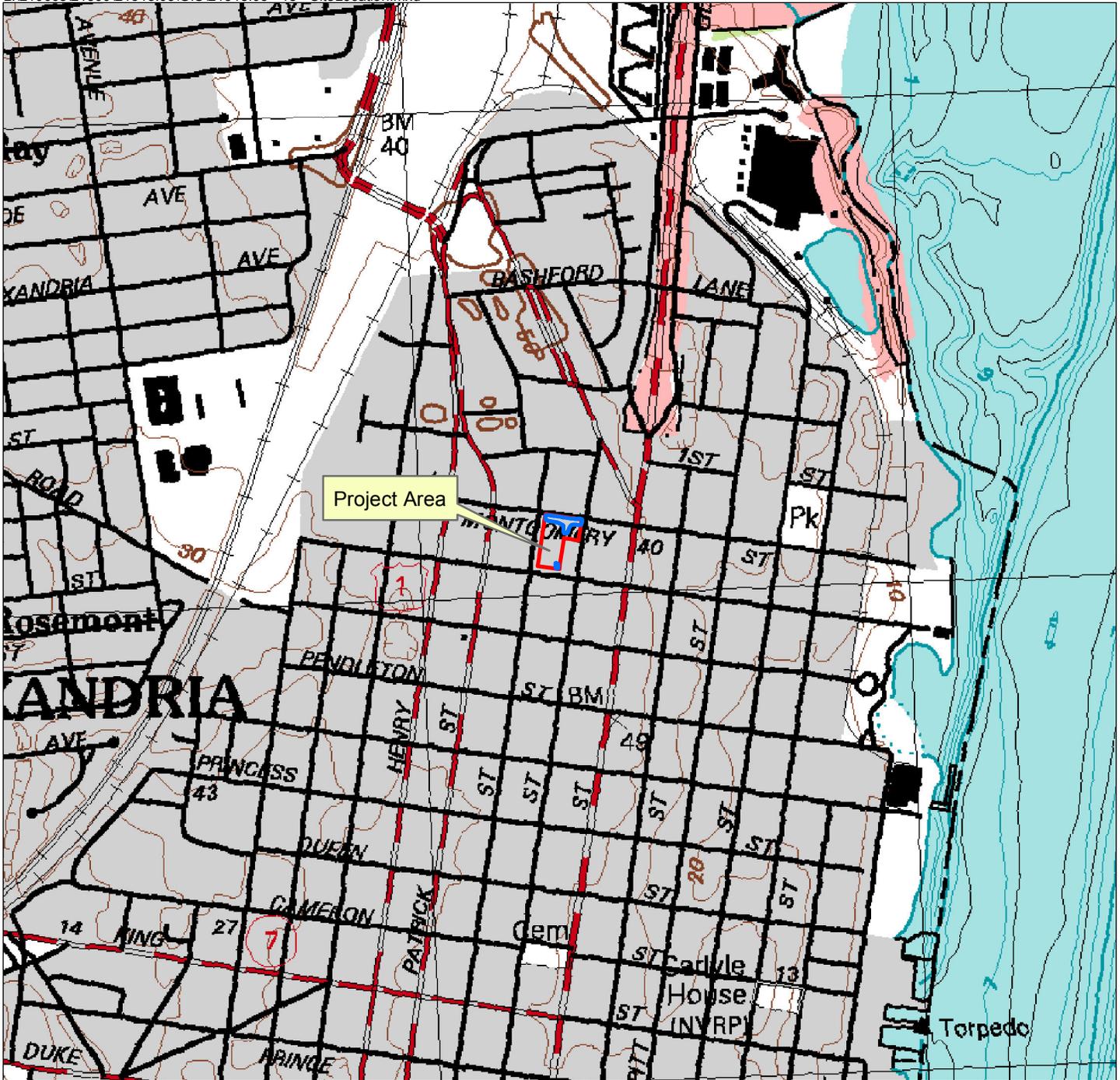
## **SUMMARY AND RECOMMENDATIONS**

The architectural remnants of several dwellings and one privy feature were located during archeological monitoring of the block bounded by Montgomery, N. Columbus, Madison and N. Alfred Streets, within the City of Alexandria. Based on documentary and map evidence, the dwellings within the site appear to have been constructed in the early 20<sup>th</sup> century. Previous documentary research showed residential development in the area was rapid after 1902 until circa 1921. The neighborhood within the project area appears to have remained partially racially integrated from the mid 19<sup>th</sup> century into the early 20<sup>th</sup> century, and the working class character of the neighborhood is well illustrated by the occupations noted in city directories, voter rolls and census records. The neighborhood including the project area and its immediate surroundings appears to have been organized primarily along lines of class and secondarily by race (Sipe and Snyder 2010: 121).

The historic cultural features were identified within four locations of the block and were recorded as site 44AX0212 (Exhibit 18). Feature 2-1 consists of the brick foundations and piers of three row houses located at 832, 834 and 836 North Columbus Street. No buried surfaces or significant contexts were located in association with the foundations. The rear yard area of these buildings was thoroughly disturbed.

Several partial foundation walls were recorded as Feature 2-2 and were located along Madison Street near the alley that currently divided the city block. The brick remnants appear to match the location of the dwelling shown on the 1912 Sanborn map at 801 Madison Street. Feature 2-3 consists of at least three brick foundation remnants located in the northwestern corner of the site and are likely associated with the circa 1908 dwellings at 808-822 Montgomery Street. Again, no buried surfaces or intact contexts were located in association with the foundations recorded as Features 2-2 and 2-3.

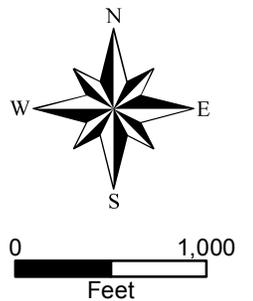
Finally, a probable brick lined privy feature (Feature 2-4) was located in the vicinity of the rear end of the lot at 806 Montgomery Street. Five post holes were found in association with the feature, but were not evenly spaced to suggest a building pattern. 100% of the artifacts were recovered from this feature and faunal/floral analysis was conducted. The feature was isolated in context in and therefore statements regarding the use of space and the occupants of the feature were limited. Based on the archeological data, the feature may have been in use between 1900 and the 1940s.



Latitude: 38°48'49" N  
 Longitude: 77°02'48" W

**USGS Quad Map**  
**Alexandria, VA-DC-MD 1994**  
**James Bland Block 2**  
**WSSI #21548.05**  
**Scale: 1" = 1000'**

- Project Area
- Site 44AX0212



The foundation remnants at site 44AX0212 were related to mapped structures and associated with slag and architectural artifacts with little interpretive value. The foundation remnants were not considered to be significant and Alexandria Archaeology concurred. Alexandria Archaeology indicated that no additional archeological work was required beyond the documentation completed during the monitoring phase.

The privy feature measured 3 by 2 feet and was surrounded by five post holes. The privy was fully excavated and documented, while the post holes were sampled. While the privy feature had interpretive value, the surrounding area had been disturbed and no other features were identified. As a result, Thunderbird concluded that the site had no remaining potential to yield additional significant archaeological resources.

Site 44AX0212 is not considered eligible to the NRHP under Criteria A or B, as there is no known association with significant events or individuals or under Criterion C, in our opinion, as the architectural remains do not embody distinctive characteristics of a type, period, or method of construction, or represents the work of a master. Because of the extensive disturbance surrounding site 44AX0212, there is no remaining potential to yield additional significant archaeological information and in our opinion, is not considered potentially eligible to the NRHP under Criterion D. No additional archeological work is recommended.

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**APPENDIX I**  
**Resource Management Plan and Scope of Work, Block 2**





## **RESOURCE MANAGEMENT PLAN and SCOPE OF WORK for**

**BLOCK 2 (Alexandria City Map 2054.04-01-01; Account No. 11715100);  
Bounded by Madison, N. Columbus, Montgomery, and N. Alfred Streets**

**JAMES BLAND DEVELOPMENT PROPERTY,  
CITY OF ALEXANDRIA, VIRGINIA**

### **INTRODUCTION**

The James Bland Development property; comprises two entire city blocks and three partial city blocks bounded by First, N. Patrick, Madison, N. Alfred, Wythe and N. Columbus Streets in Alexandria, Virginia (Exhibit A). The project area is the site of the historic James Bland Homes (100-5033), a public housing project built by ARHA in two phases, with a four-block area constructed in 1954 and a final block (known as the James Bland Addition) constructed in 1959. The James Bland Homes project was preceded on the site by a World War II era trailer camp. The project area is also included within the Parker-Gray Historic District (100-0133), which has been determined to be eligible for the National Register of Historic Places.

### **PREVIOUS ARCHEOLOGICAL RESEARCH**

#### **Documentary Study**

Thunderbird Archeology, a division of Wetland Studies and Solutions, Inc. of Gainesville completed a Documentary Study for this property in November of 2009.<sup>a</sup> Documentary research indicated that members of the Alexander family owned the James Bland Development property from the late 17th century until the late 18th century. Various prominent citizens of the city, including Richard Conway, John Gadsby, Orlando Fairfax, and Thomas Veitch owned portions of the study area between the late 18th and mid 19th century, although they most certainly did not reside on these lands. Most of these individuals were documented slave owners and it is more likely that enslaved laborers or tenants used their lands during this period; Veitch was known to have engaged free African Americans as tenants on his lands to the west of the project area during the second quarter of the 19th century.

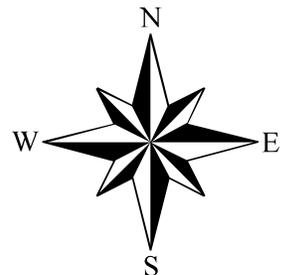
During the Civil War, Union troops occupying the city established various facilities to the south and east of the project area; these included the Washington Street Corral, barracks and other structures. No archival evidence for Civil War era activity within the project area was found, however, it is possible that refugee slaves may have settled in temporary shanty towns in the project area vicinity during this time period. Several buildings appear in the vicinity of the project area on Civil War era maps.



 Project Area

**Vicinity Map**  
**Resource Management Plan**  
**WSSI #21548.03**  
**Scale: 1" = 2000'**

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By the third quarter of 19th century, residential development in the project area was certainly occurring. City directories and other archival sources from this period show that most residents of the project area were African American laborers; however Euro-American laborers and a few skilled workers, tradesmen and professionals were also present. In the early 20th century, the project area vicinity was the site of continued residential and industrial development in Alexandria. The project area developed primarily as an African American neighborhood throughout this period.

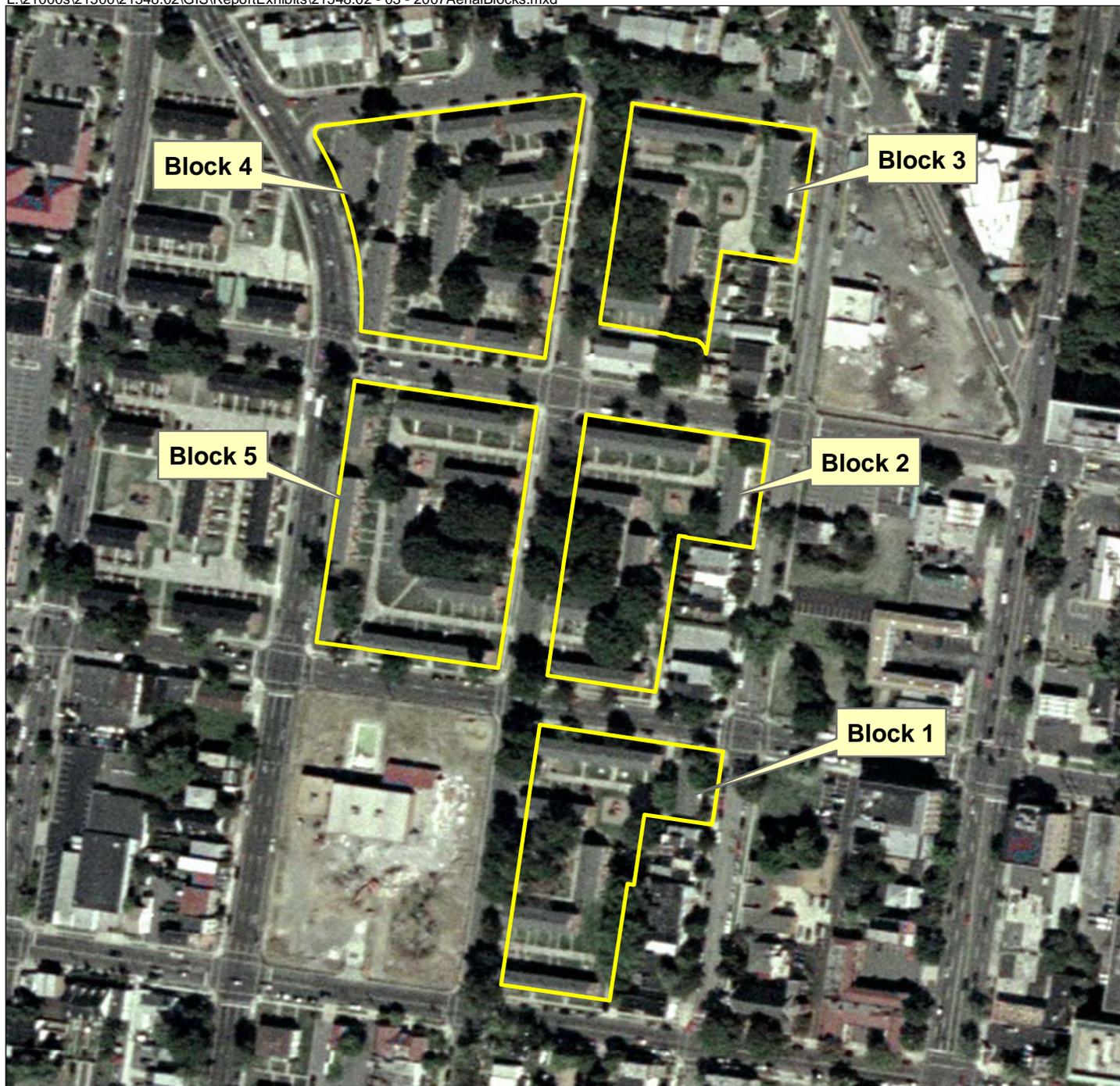
Based upon the results of the documentary study, the James Bland Development property was assessed with a moderate probability for the presence of prehistoric sites and a moderate to high probability for significant historic period archeological sites. A Phase I archeological survey of the property was recommended because 1) the project area has a moderate to high probability for the presence of archeological sites; 2) no clear evidence was found that the property has been significantly disturbed; and 3) demolition of the existing structures and planned redevelopment would impact the entirety of the project area to a depth that would likely disturb any present or potential archeological deposits or features.

### **Phase I Archeological Investigation**

Thunderbird Archeology conducted a Phase I archeological investigation of the James Bland Development property for Eakin & Youngintob Associates of Bethesda, Maryland. The work was conducted in October and November of 2009 and was in compliance with all federal, state and local guidelines. The fieldwork and report contents were also in compliance with the City of Alexandria Archaeological Protection Code and followed a Scope of Work approved by Alexandria Archaeology. The Phase I fieldwork was organized by city block for ease of discussion (Exhibit B).

A total of 58 shovel test pits (STPs), designed to sample both the individual house lot and the block as a whole, were planned within Block 2 (Exhibit C). However field conditions, such as the presence of marked and unmarked utilities, tree obstructions, and the predicted presence of fill impasses, dictated the actual number of STPs that were completed. The typical soil profile seen within the 19 STPs that were excavated within Block 2 revealed multiple fill horizons. A total of one prehistoric artifact and 354 historic artifacts, modern artifacts, and faunal bone fragments were recovered from these fill soils. Additional finds including shell, asbestos, brick, coal, concrete, mortar, plastic, polystyrene, rubber and slag were noted but not collected or curated. No intact historic or prehistoric surfaces were identified.

The soils within Block 2 contained temporally mixed artifacts and were interpreted as disturbed urban fill contexts likely associated with grading and filling activities that occurred in the mid-20th century when the extant James Bland Public Housing buildings were constructed and with subsequent excavation for the installation and maintenance of subsurface utility lines.



 Project Area

**Blocks 1 - 5 Key Map**  
**October 2007 Natural Color Imagery**  
**Resource Management Plan**  
**WSSI #21548.03**  
**Scale: 1" = 200'**

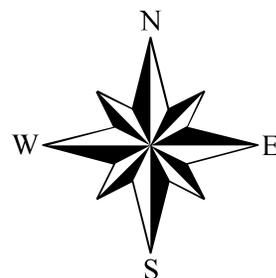
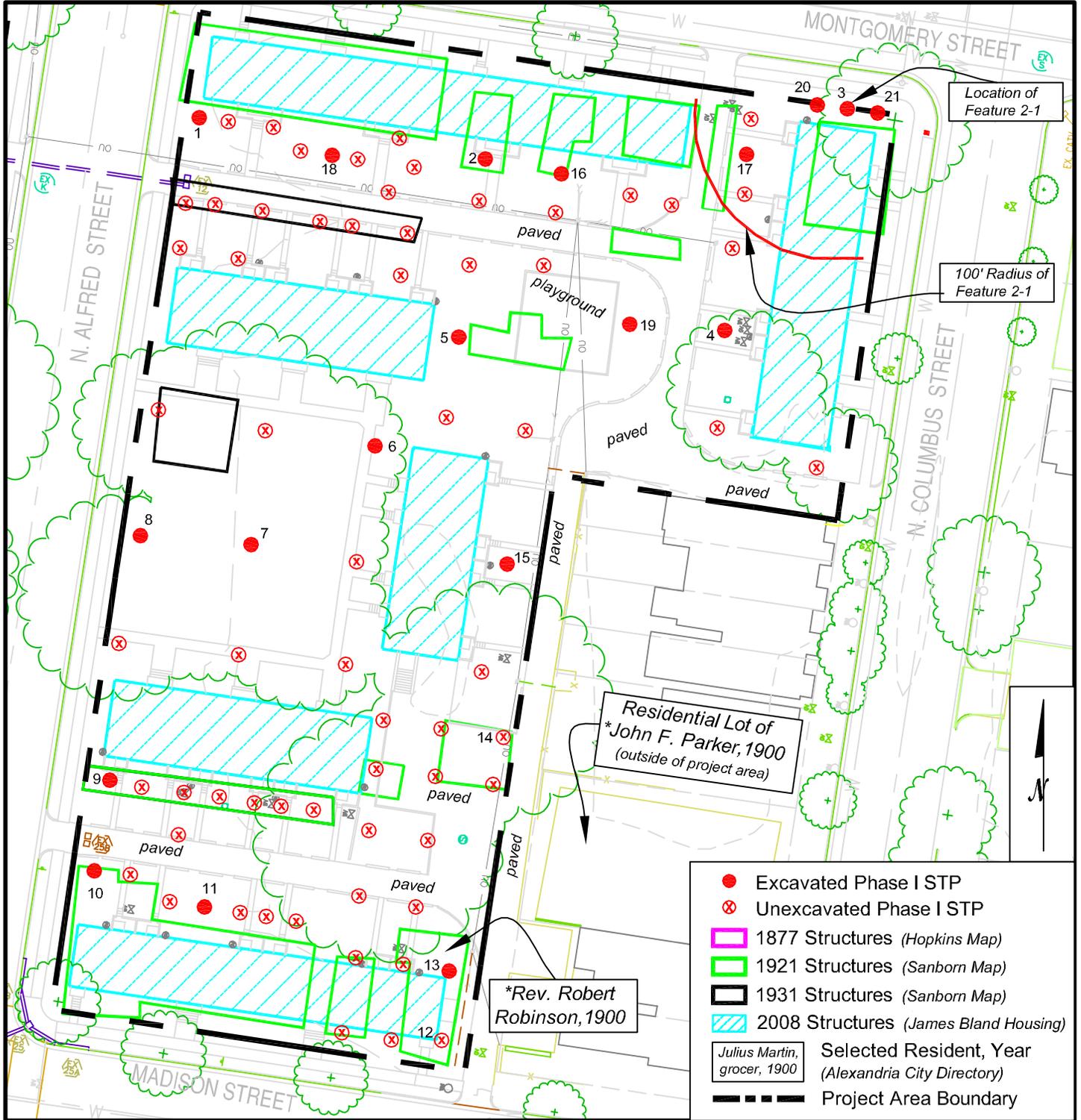


Photo Source: Aerials Express

**Thunderbird Archeology**  
by Wetland Studies and Solutions, Inc.

**Exhibit B**



**Portion of Project Map Showing Details of Block 2**  
**James Bland Resource Management Plan- WSSI #21548.03**  
**Scale: 1" = 50'**

Therefore, the artifacts within Block 1 were considered secondarily deposited refuse and following DHR guidelines, were not recorded as archeological sites.<sup>b</sup> No additional work was recommended for these finds.

However, one historic or modern feature was identified that required additional work. An *in situ* feature consisting of at least three courses of brick was found underlying the Ao/Fill 1 horizon in STP 3, approximately 8.4 inches below ground surface (see Exhibit C). The feature, designated Feature 2-1, may be associated with a no longer extant dwelling shown on historic maps in the vicinity of the intersection of Montgomery and N. Columbus Streets. This building would have been occupied at some time prior to 1921. There is also a possibility that the feature caps a historic buried surface. As the feature could not be reliably dated or fully investigated during the Phase I survey, additional work was recommended.

In addition, due to the presence of extant buildings, impervious surfaces and impervious subsurface fills, the program of shovel testing was not adequate to identify all possibly significant archeological resources that may be present within the project area and archeological monitoring of all ground-disturbing activities within Block 2 was recommended.

## **SCOPE OF WORK FOR ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS**

Archeological evaluation was recommended for a brick feature located within the Block 2 during the Phase I investigations. The brick feature may be an architectural feature associated with a building in this vicinity shown on historic maps, which was occupied prior to 1921.

In addition, the documentary research and the Phase I archeological work indicated the possibility that other features, such as wells or privies, may have been preserved beneath the urban fills. Archeological monitoring was recommended. The goal of the monitoring will be to locate and identify any potentially significant archaeological resources that were not identified during the archeological site evaluation (Phase I investigation).

This scope of work will be implemented in coordination with demolition/construction activities on the property; therefore an Archaeological Preservation Certificate from Alexandria Archaeology will not be needed. **The client will be responsible for submitting Erosion & Sediment control plans and Health & Safety Plans for the work, the rental of safety equipment and fences, and will provide a backhoe outfitted with a smooth-bladed bucket for the archeological investigations. If necessary, rental of the backhoe will be a direct reimbursable to the client.** All aspects of these investigations will adhere to OSHA regulations and will comply with the City of Alexandria Archaeological Protection Code, as well as all appropriate state and federal guidelines.<sup>c</sup>

### **Archeological Evaluation Of Feature 2-1**

A possible brick foundation (Feature 2-1) was located within the narrow grassy strip between the sidewalk and the northern side of the existing building on the corner of Montgomery and N.

Columbus Streets (see Exhibit C). The brick feature was not located in STPs 20 and 21, which were excavated 12.5 feet on either side of STP 3. Although the horizontal limits of the feature are unknown, it appears to be spatially limited to a 25 square foot area.

Fieldwork: An archeologist shall direct the efforts to expose and document the remains of Feature 2-1. Excavation should be conducted using a backhoe equipped with a flat-lipped (smooth) bucket. The full vertical and horizontal extents of the feature will be determined if at all feasible and the work will be documented with field notes, sketch plans, profiles and digital photographs. If warranted, test units (3 x 3 feet square) will be manually excavated over the feature in order to determine if additional features or a buried surface is present. The excavation of test units and the treatment of any cultural materials recovered is described below.

To maintain the development construction schedule, the archeological evaluation of Feature 2-1 can be conducted in concert with other demolition activities on the block, however no activity within a one hundred (100) foot radius of Feature 2-1 (see Exhibit C) shall be conducted during the evaluation. The significance of Feature 2-1 shall be made in consultation with Alexandria Archaeology.

### **Archeological Monitoring**

An archeologist shall monitor all ground-disturbing activities within the project area that are necessary to prepare the site for planned redevelopment and new construction. This includes the removal of building foundations, asphalt parking areas, concrete alleys and sidewalks, and underground utilities. Particular attention will be made to the removal of the concrete slab building foundations and the removal of any subsurface architectural elements of the buildings (see explanation below). The archeological monitoring will be conducted in concert with the development construction schedule.

The depth of the proposed monitoring will be limited to the shallower of: the interface of the overlying fills with the underlying subsoil or the depth of the proposed construction impacts. The excavation of the soils shall be conducted in such a manner to allow the archeologist to examine the soils for features. Excavation will be temporarily halted if intact features are identified and their potential significance will be evaluated; however demolition may continue in other areas of the property during the feature evaluation. **Evaluation of the features may involve additional mechanical trenching or hand-excavation, as described below.**

If a feature is found to be potentially significant by the project archeologist, all construction activity within a one hundred (100) foot radius of the discovery will be halted, and the developer and Alexandria Archaeology will be notified of the discovery. The project archeologist will determine and clearly mark the extent of the discovery and implement measures to protect the discovery from looting and vandalism. Determinations of significance and initial recommendations regarding treatment will be made in consultation with Alexandria Archaeology. The project archeologist will notify the SHPO and other consulting parties of the discovery describing the measures that have been implemented.

The monitoring work will be documented with digital photographs and field notes maintained in a daily logbook. Additionally, the archeologist will regularly update a project map showing the extent of monitored areas.

Building Foundation Demolition: Although Phase I archeological testing revealed disturbed fill contexts across the property; there is a possibility of undisturbed deposits beneath the concrete slab foundations of the buildings. If warranted based on the results of archeological monitoring and excavations within Block 1, a representative number of concrete slab building foundations (not to exceed three) will be carefully removed during demolition, affording the project archeologist the opportunity to examine the soils through the informal excavation of mechanical trenches. At least one representative soil strata column profile will be sketched of the walls of each trench excavation. Once disturbance has been confirmed beneath the representative foundation slabs, additional test trenches will not be necessary within Block 2 or across the remainder of the project area.

Mechanical Trench Excavations: If warranted, mechanically excavated trenches will be used as part of this plan to test potentially significant archeological features. Excavation should be conducted using a backhoe equipped with a flat-lipped (smooth) bucket and the soils should be excavated in 1-2 foot increments, affording the archeologist the opportunity to examine stratigraphy and potential features.

Feature Excavations: If warranted, manually excavated test units (3 x 3 feet) will be used as part of this plan to test potentially significant archeological features and/or buried ground surfaces found during monitoring. The test units will be excavated stratigraphically by natural or cultural levels or by arbitrary sublevels if determined necessary by the project archeologist. Representative soil profiles will be drawn using the Munsell Soil Color Chart designation.

The soil will be screened through 1/4-inch mesh hardware cloth screens if full artifact recovery is deemed necessary for evaluative purposes; recovery of artifacts may not be essential in the evaluation of certain features; this will be determined by the project archeologist in consultation with Alexandria Archaeology. Artifacts will be bagged and labeled by unit number and by soil horizon. The work will be documented with field notes, sketch plans, and photographs. *Since it is not known if the test units will be necessary, they will be budgeted on a per-square basis and are not included in the overall budget at this time.*

**This Scope of Work does not include data recovery at or mitigation of any deep shaft features, such as wells or privies. Treatment of these significant archeological resources is discussed below.**

### **Laboratory Work and Curation**

Archeological artifacts recovered from the project area will be cleaned, stabilized (if necessary), cataloged, labeled and packaged in accordance with the guidelines set forth in the City of

Alexandria Archaeological Standards. Organic materials that may require conservation may be recovered; however, this treatment plan does not include conservation services. Conservation may be added as an additional service.

At the conclusion of the project, all original photographs, negatives, slides, digital images, cassette tapes, videotapes, copies of historical documents, field notes and forms, other field records, as well as the artifacts if they are to be donated to the City, will be delivered to Alexandria Archaeology. Archeological collections recovered as a result of the Alexandria Archaeology Resource Protection Code must be curated at a facility that meets Federal standards for archeological curation and collections management as described by 36CFR Part 79. The Alexandria Archaeology Storage Facility meets these standards, and the property owner is encouraged to donate the artifact collection to the City for curation. The archeological consultant is responsible for arranging for the donation of the artifacts with the owner and will deliver the artifacts and signed forms to the appropriate storage facility.

### **Additional Documentary Research**

Previously completed archival research should allow for the association of any significant archeological deposits found with particular historic occupants of the project area. If significant historic period archeological resources are found and previous completed documentary research is insufficient to establish a historic context for such resources, additional documentary research will be conducted for the lot or lots where such resources occur.

The archival research shall include, but will not be limited to, a search of deeds, plats, title documents, probate and other court records; tax and census records; business directories; published and unpublished manuscripts of first-hand accounts (such as letters, diaries, and county histories); newspaper articles; and photographs that might assist in identifying the historic occupants of the property, illuminating historic land use, and providing context for the archeological discoveries. Details of this research will be utilized in the analysis of the resource and will be included in the final report. *Since it is not known if additional documentary research will be necessary, it is not included in the overall budget at this time.*

### **Results of Archeological Monitoring**

Reports documenting the progress of archeological monitoring within the project area will be submitted to Alexandria Archaeology at the conclusion of work on each block. Each report will be in the form of a memorandum or letter report and will contain a brief description of the monitoring results and digital photographs documenting the work. Interim reports (management summaries) following the discovery of any significant cultural features during the monitoring work may also be submitted.

If the archeological monitoring results in the discovery of significant features that will require additional archaeological work, the letter report will include a Resource Management Plan. The Resource Management Plan will present a strategy, scope of work (including a map indicating

locations of proposed work in relation to completed tests). All archeological sites discovered will be evaluated for National Register eligibility and will be registered with the Virginia Department of Historic Resources. Copies of the registration forms will be submitted to Alexandria Archaeology.

### **Data Recovery and Mitigation of Significant Archeological Resources**

This Scope of Work does not include data recovery at or mitigation of any significant archeological resources that might be found within the project area. If data recovery is the selected treatment option, a specific data recovery plan must be prepared in consultation with DHR, Alexandria Archaeology, and other consulting parties. The plan shall specify, at a minimum, the following:

- the property, properties, or portions of properties where site-specific data recovery plans will be carried out;
- the portion(s) of the site to be preserved in place, if any, as well as the measures to be taken to ensure continued preservation;
- any property, properties, or portions of properties that will be destroyed or altered without data recovery;
- the research questions to be addressed through data recovery, with an explanation of their relevance and importance;
- the methods to be used in analysis, data management, and dissemination of data, including a schedule;
- the proposed disposition of recovered materials and records;
- a site protection plan detailing steps to be taken to ensure the protection of the resource during data recovery efforts (e.g. security, fencing, patrols, etc.); and
- proposed methods of disseminating the results of the work to the interested public and/or organizations who have expressed an interest in the data recovery.

Data recovery plan(s), shall be consistent with the *Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 4434-37)* and the DHR's *Guidelines for Conducting Cultural Resource Survey in Virginia: Additional Guidance for the Implementation of the Federal Standards Entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44742, September 29, 1983) 1999, rev. 2003* and shall take into account the ACHP's publications, *Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites* (1999; revised 2002) and *Section*

*106 Archaeology Guidance* (June 2007), or subsequent revisions to or replacements of these documents.

**Since it is not known if the preparation of treatment plans will be necessary, these are not included in the overall budget at this time.**

## **Human Burials**

This Resource Management Plan and SOW does not include excavation within any burial shafts that might be located on the project area. Treatment of all human remains and associated funerary objects encountered during the course of archeological work described herein shall be consistent with the ACHP "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (<http://www.achp.gov/docs/hrpolicy0207.pdf>). If excavation in burial shafts is required a permit must be obtained from the SHPO for the archaeological removal of human remains in accordance with the provisions of the Virginia Antiquities Act, Section 10.1-2305 of the Code of Virginia and with the final regulations adopted by the Virginia Board of Historic Resources and published in the Virginia Register of July 15, 1991.

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<sup>a</sup> Sipe, Boyd and Kimberly Snyder 2009 *Draft Documentary Study and Archeological Resource Assessment for the James Bland Homes, City of Alexandria, Virginia*. Report prepared for EYA of Bethesda, Maryland by Thunderbird Archeology, a Division of Wetland Studies and Solutions, Inc. in Consultation and with Contributions from History Matters, L.C. of Washington, D.C.

<sup>b</sup> Department of Historic Resources (DHR) 2009 *Guidelines for Archeological Investigations in Virginia*. Virginia State Department of Historic Resources, Richmond, Virginia.

<sup>c</sup> Department of Historic Resources (DHR) 2009 *Guidelines for Archeological Investigations in Virginia*. Virginia State Department of Historic Resources, Richmond, Virginia.

Department of Historic Resources (DHR) 2003 *Guidelines for Conducting Cultural Resource Surveys in Virginia. Additional Guidance for the Implementation of the Federal Standards Entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Virginia State Department of Historic Resources, Richmond, Virginia.

United States Department of Interior (DOI) 1983 *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Federal Register 48 (190): 44716-44742.



**APPENDIX II**  
**Artifact Inventory**



**JAMES BLAND MONITORING, BLOCK 2, SITE 44AX212  
ARTIFACT INVENTORY**

**General Collection, Lot 1**

Metal

- 1 brass tag, circular, hole in top, "ARMOUR/CAR ...INES/238", made by Armour and Company from Chicago, probably from goods shipped via railroad/refrigerated car (1883-1919)

**SITE 44AX0214**

**Feature 2-1B, South Bisection, Builder's Trench Fill horizon, Lot 2**

Ceramics

- 1 pearlware sherd, undecorated (1780-1830, South 1977; Miller 1992)
- 4 whiteware sherds, undecorated (1820-1900+, South 1977; Miller 1992)

Glass

- 1 clear cylindrical bottle/jar sherd, automatic bottle machine (ABM) (1910-present)
- 1 light green cylindrical bottle sherd, patinated
- 1 unidentified clear sherd, curved, very thin, patinated

Metal

- 1 unidentified ferrous metal fragment, curved
- 9 unidentified ferrous metal fragments, flat, thin
- 1 unidentified lead fragment, cylindrical with post attached at top, possible gear/part
- 1 unidentified nail fragment

Miscellaneous

- 12 bone fragments
- 16 brick fragments, 184.1 grams
- 4 coal fragments
- 12 mortar fragments, 51.0 grams
- 1 oyster shell 2-hole sew through button fragment
- 2 oyster shell fragments, 0.2 grams
- 1 plastic doll hand fragment, small
- 2 plastic fragments, curved, red (discarded in lab)
- 2 plastic wrap fragments (discarded in lab)
- 72 slag fragments, 134.7 grams

**Feature 2-1B, South Bisection, Burnt/Ashy Pocket horizon, Lot 3**

Glass

- 1 light aqua cylindrical bottle/jar sherd, patinated
- 1 unidentified clear sherd, curved, thin

Metal

- 1 cut nail fragment, machine headed (post-1830)

Miscellaneous

- 7 bone fragments
- 10 mortar with plaster attached (sample), 38.2 grams
- 6 slag fragment, 16.6 grams

**Feature 2-1P, Test Unit 1, Builder's Trench Fill horizon, Lot 4**

Glass

- 1 clear cylindrical bottle/jar sherd, automatic bottle machine (ABM) (1910-present)
- 1 unidentified light green sherd, flat, patinated

Metal

- 1 unidentified ferrous metal fragment
- 5 unidentified nail fragments

Miscellaneous

- 1 bone fragment
- 9 brick fragments, 111.6 grams
- 4 mortar fragments, 19.3 grams
- 11 slag fragments, 70.5 grams

**Feature 2-1Q, Test Unit 2, Builder's Trench Fill horizon, Lot 5**

Metal

- 2 wire nail fragments, one pulled (1890-present)

**Feature 2-1R, East Bisection, Lot 6**

Ceramics

- 1 hard paste porcelain sherd, molded decoration

Glass

- 1 clear cylindrical bottle/jar sherd, automatic bottle machine (ABM) (1910-present)
- 1 honey amber cylindrical bottle sherd
- 2 light green cylindrical bottle sherds, patinated
- 1 unidentified clear sherd, curved, thin
- 1 unidentified pale yellow sherd, flat, thin, patinated
- 1 unidentified red sherd, curved, scratched

Metal

- 1 unidentified ferrous metal fragment, hollow inside
- 2 unidentified nail fragments

Miscellaneous

- 1 brick fragments, 1.9 grams
- 1 cinder fragment
- 1 mother of pearl 4-hole sew through button - 1.0 cm diameter

## **Feature 2-2, General Collection, Lot 7**

### Metal

- 1 brass military General Service button, 2-piece, Great Seal of the US device on plain field on the front, wire eyelet attachment (1902-present)

## **General Collection, 20 feet Northeast of Feature 2-4, Lot 8**

### Glass

- 1 emerald green cylindrical bottle, whole, champagne lip finish, chilled iron mold (1885-1920)

## **Feature 2-4, Feature Fill horizon, Lot 9**

### Ceramics

- 1 American Rockingham/Bennington sherd (1800-1912, Miller 1992; 1845-1900+, Magid 1990)
- 3 buff bodied earthenware sherds, one rim fragment, thick collar, possibly burned
- 1 gray bodied coarse stoneware sherd, heavily burned
- 1 gray bodied coarse stoneware sherd, lid fragment, unglazed interior and exterior, heavily burned
- 1 hard paste porcelain (Prosser) 4-hole sew through button - 1.2 cm diameter (post-1840, Sprague 2002)
- 2 hard paste porcelain (Prosser) 4-hole sew through buttons - 0.8 cm diameter (post-1840, Sprague 2002)
- 2 hard paste porcelain (Prosser) 4-hole sew through buttons - 1.1 cm diameter (post-1840, Sprague 2002)
- 6 hard paste porcelain (Prosser) 4-hole sew through buttons - 1.7 cm diameter (post-1840, Sprague 2002)
- 1 hard paste porcelain domed button, unidentified attachment - 0.9 cm diameter
- 1 hard paste porcelain sherd, shadow floral decal decoration, overglaze brown hand painted decoration (1890-present, Miller 1992)
- 1 hard paste porcelain sherd, undecorated
- 1 hard paste porcelain sherd, undecorated, base fragment, cup fragment
- 6 hard paste porcelain sherds (mend), candy dish-type fragment with handle, overglaze polychrome hand painted floral decoration, rim, base, and handle fragments
- 2 hard paste porcelain sherds (mend), gilt edge rim band decoration, molded decoration, rim fragments, tea cup fragment
- 2 hard paste porcelain sherds (mend), gilt edge rim band decoration, rim and base fragments, saucer fragment
- 2 hard paste porcelain sherds, gilt edge rim band decoration, rim fragments, tea cup fragment
- 3 hard paste porcelain sherds, undecorated, rim fragments
- 1 porcelain doll head fragment

- 1 refined white earthenware sherd, blue transfer printed, unidentified maker's mark printed "...DGE.../...N...", burned
- 1 refined white earthenware sherd, heavily heat melted
- 1 whiteware sherd, undecorated (1820-1900+, South 1977; Miller 1992)
- 1 whiteware sherd, unidentified pink decoration, stained (1820-1900+, South 1977; Miller 1992)
- 6 whiteware sherds (mend), whole tea cup except handle, blue transfer printed, Willow pattern, rim/base fragment, stained/burned (1820-1900+, South 1977; 1830-1865+, Miller 1992)

Glass

- 6 7-up green cylindrical bottle sherds automatic bottle machine (ABM) (post-1934)
- 1 amber cylindrical bottle sherd, duraglas stippling (1940-present)
- 2 amber cylindrical bottle sherds, automatic bottle machine (ABM), scratched, stained (1907-present)
- 1 aqua cylindrical bottle sherd, base fragment, heavily stained
- 1 aqua cylindrical bottle sherd, base fragment, possible post mold, heavily patinated
- 1 aqua cylindrical bottle sherd, embossed "...THE...WING CO./B&E/B CO. (in circle with embossed bird surrounding it)/H.L. DAUTERICH/MANAGER/WASHINGTON, D.C./REGISTERED/THIS BOTTLE/NOT TO BE SOLD", plate mold, base fragment, part of a Bergner & Engle Brewing Company bottle, stained, patinated (1881-1900)
- 1 aqua cylindrical bottle sherd, tooled tapered collar or packer lip finish, heavily patinated (1850s-1920s)
- 2 aqua cylindrical bottle sherds, neck fragments, heavily stained
- 1 aqua cylindrical bottle/jar sherd, embossed "...ENGEL BRE...", automatic bottle machine (ABM), most likely part of a Bergner & Engle Brewing Company bottle (1907-present)
- 1 aqua cylindrical bottle/jar sherd, unidentified embossing
- 1 aqua cylindrical bottle/jar sherd, unidentified embossing, heavily patinated
- 23 aqua cylindrical bottle/jar sherds, heavily stained
- 1 black glass button fragment, small bead decoration in center, unidentified attachment - 1.6 cm diameter
- 1 clear cylindrical bottle sherd, thin, hand painted cursive "...L..." in white, base fragment, possible small valve mark on base, heavily patinated
- 2 clear cylindrical bottle sherds, small, embossed "LUBIN/PARFUMEUR/PARIS/HP", neck broken, glass stopper, cylindrical shank, ground, flat, rounded finial, flat bottom, notched neck, patinated (1865-1890)

- 1 clear cylindrical bottle/jar sherd, chilled iron mold, slightly stained, (1880-1930)
- 1 clear cylindrical bottle/jar sherd, embossed "...OZ...", automatic bottle machine (ABM), scratched (1910-present)
- 1 clear cylindrical bottle/jar sherd, embossing "...ASK...", plate mold, chilled iron mold (1880-1930)
- 1 clear cylindrical bottle/jar sherd, external threading, rim fragment, automatic bottle machine (ABM) (1910-present)
- 1 clear cylindrical bottle/jar sherd, stained, patinated
- 1 clear cylindrical bottle/jar sherd, unidentified embossing, stained
- 13 clear cylindrical bottle/jar sherds, automatic bottle machine (ABM) (1910-present)
- 2 clear cylindrical bottle/jar sherds, plate mold, patinated
- 32 clear cylindrical bottle/jar sherds, stained and patinated
- 3 clear cylindrical bottle/jar sherds, unidentified textured patterns, scratched
- 21 clear cylindrical lamp chimney sherds, base fragments, stained
- 4 clear cylindrical lamp chimney sherds, ribbed, stained
- 10 clear cylindrical lamp chimney sherds, scalloped rims, stained
- 360 clear cylindrical lamp chimney sherds, thin, stained
- 3 clear cylindrical stopper fragments (mend to whole), flat finial, cylindrical shank, no neck, possible club sauce type, not embossed so possible medicine or liquor bottle
- 1 clear cylindrical stopper, whole, cylindrical shank, ground, rectangular finial with notched neck, neck embossed "5", possibly for perfume bottle
- 1 clear cylindrical tableware cylindrical sherd, base fragment, stained
- 2 clear cylindrical tableware cylindrical sherds, rim fragments, stained
- 1 clear cylindrical tableware sherd, starburst and octagonal geometric shapes, shallow serving or candy dish, pressed (1827-present)
- 5 clear cylindrical tableware sherds (mend), single geometric star pattern on sides, geometric starburst on base, short sides, shallow serving or candy dish, straight rim, pressed (1827-present)
- 4 clear cylindrical tableware sherds (mend), starburst and octagonal geometric shapes, shallow serving or candy dish, pressed (1827-present)
- 2 clear cylindrical tableware sherds, goblet fragments, stem, base and rim fragments, automatic bottle machine (ABM), stained (1910-present)
- 11 clear cylindrical tableware sherds, machine etched annular and geometric pattern with stars, one base fragment, tumbler fragments, stained
- 4 clear cylindrical tableware sherds, machine etched annular and geometric pattern, rim fragments, tumbler fragments, stained
- 5 clear cylindrical tableware sherds, ribbed geometric pattern on sides, starburst pattern on base, short sides, shallow serving or candy dish, pressed (1827-present)

- 1 clear glass button fragment, circle in center, flat ring around outside, embossed lines around the outside, embossed beads on center, unidentified attachment - 1.7 cm diameter
- 1 clear manganese cylindrical bottle/jar sherd, stained (1880-1915)
- 2 clear manganese strap side union oval flask fragments (mend), base embossed "...D. ...", partial embossed circle for label, chilled iron mold, stained (1880-1915)
- 1 clear multi-sided bead, hexagonal, patinated - 0.5 cm diameter
- 5 clear multi-sided bottle sherds, chilled iron mold, slightly patinated (1880-1930)
- 10 clear multi-sided bottle/jar sherds, heavily stained
- 1 clear oval bottle sherd, base fragment, chilled iron mold, patinated, (1880-1930)
- 1 clear oval bottle/jar sherd, base with embossed number "6 or 9", automatic bottle machine (ABM), stained (1910-present)
- 1 clear shoo-fly flask, almost whole, base embossed "E.G. CO.", improved tooled straight brandy lip finish, beveled sides, chilled iron mold, cup mold, stained, patinated (1890s-1910s)
- 1 clear square/rectangular bottle sherd, heavily stained
- 1 clear strap side union oval flask, whole, embossed "HONEST MEASURE/FULL 1/2 PINT/CANNON'S BUFFET/ 1004 PA. AVE.N.W./WASHINGTON, D.C.", plate mold, embossed "SCR" on base, tooled double ring lip finish, automatic bottle machine (ABM), stained, patinated (1910-present)
- 1 clear strap side union oval flask, whole, embossed "HONEST MEASURE/FULL 1/2 PINT/JOHN RICKLES/ 6TH&C.STS.N.W./WASHINGTON, D.C.", plate mold, double ring lip finish, automatic bottle machine (ABM), stained, patinated (1910-present)
- 1 clear strap side union oval flask, whole, embossed "WARRANTED FLASK", plate mold, embossed circle on front for label, tooled double ring lip finish, whiskey flask, automatic bottle machine (ABM), stained, patinated (1910-present)
- 1 clear tableware sherd, starburst and stippling geometric pattern, stained, pressed (1827-present)
- 1 cobalt blue cylindrical bottle/jar sherd, ribbed, stained
- 1 dark amber cylindrical bottle sherd, automatic bottle machine (ABM), scratched (1907-present)
- 5 dark green cylindrical bottle sherds (mend), embossed "THIS BOTTLE/NOT TO/BE SOLD/...ALEXANDRIA...", plate mold, base fragments, chilled iron mold (1880-1930)
- 1 green cylindrical bottle sherd, stained
- 1 greenish-aqua cylindrical bottle/jar sherd, scratched

- 1 honey amber cylindrical bottle sherd, automatic bottle machine (ABM) (1907-present)
- 1 honey amber strap side union oval flask, whole, tooled double ring lip finish, post mold, embossed circle on front for label, chilled iron mold, stained, patinated (1890-1920s)
- 6 light aqua cylindrical bottle sherds (mend), embossed "ROBERT PORTNER/BREW COMP/TRADE TIVOLI MARK (in embossed diamond in center of bottle)/ALEXANDRIA, VA/THIS BOTTLE/NOT TO BE SOLD", plate mold, base fragments, post mold, very heavily patinated (1885-1890)
- 2 light aqua cylindrical bottle sherds (mend), base fragment, embossed "ROBERT PORTNER/BREWING CO./TRADE TIVOLI MARK (in embossed diamond in center of bottle)/ALEXANDRIA, VA/THIS BOTTLE/NOT TO BE SOLD", "A" embossed on base, post mold, heavily patinated (1885-1890)
- 4 light aqua cylindrical bottle sherds (mend), embossed "S.C. PALMER/GEORGET...WN.D.C./...TTLE.../...S NEVER SOLD...", plate mold, base fragments, post mold, stained, heavily patinated (1875-1880)
- 1 light aqua cylindrical bottle, whole, rounded collar or blob lip finish, embossed "ROBERT PORTNER/BREWING CO./TRADE TIVOLI MARK (in embossed diamond in center of bottle)/ALEXANDRIA, VA/THIS BOTTLE/NOT TO BE SOLD", plate mold, "37" embossed on base, post mold, heavily patinated (1885-1890)
- 1 light aqua cylindrical bottle/jar sherd, embossed "...BERGN...", and unidentified embossing, most likely part of a Bergner & Engle Brewing Company bottle, patinated
- 1 light aqua cylindrical bottle/jar sherd, embossed "...BREW ASN...", and unidentified embossing, patinated
- 1 olive amber cylindrical bottle sherd, heavily patinated
- 1 orange amber cylindrical bottle sherd, patinated
- 1 unidentified amber spall, stained
- 3 unidentified clear spalls
- 23 unidentified light aqua sherds, flat, stained
- 1 unidentified olive green spall
- 1 white glass collar stud, concentric circle pattern on face, patinated - 1.0 cm diameter
- 1 white milk glass sherd, curved
- 23 windowpane sherds, lime soda (1864-present)
- 1 yellow-amber cylindrical bottle sherd, flared lip or wide prescription fragment, grinding on inside of lip, probably had a stopper or cork

## Metal

- 2 brass clasp fragments, sharp teeth
- 1 brass hook from hook and eye set
- 6 cut nail fragments (post-1790)
- 8 cut nail fragments, machine headed, three pulled (post-1830)
- 1 ferrous metal button fragment, unidentified attachment, corroded -- 1.6 cm diameter
- 1 ferrous metal button fragment, unidentified attachment, corroded -- 1.7 cm diameter
- 1 ferrous metal spike fragment
- 1 unidentified ferrous metal fragment, thin, curved
- 1 unidentified ferrous metal fragment, thin, flat pieces attached to thin rod
- 164 unidentified ferrous metal fragments, flat, thin
- 51 unidentified nail fragments
- 1 wire 12d nail, pulled (1890-present)
- 1 wire 4d nail, pulled (1890-present)
- 1 wire 5d nail, pulled (1890-present)
- 28 wire nail fragments, five pulled (1890-present)

## Miscellaneous

- 1 bone collar stud - 0.9 cm diameter
- 1 bone collar stud - 1.0 cm diameter
- 527 bone fragments
- 32 bone fragments, calcined
- 108 brick fragments, 785 grams
- 27 calcium carbonate concretions
- 1 clay marble - 14.0 mm diameter
- 43 egg shell fragments
- 138 fish scale fragments
- 73 mortar fragments, 230.5 grams
- 1 peach pit
- 9 rubber bulb and tubing fragments, probably from a blood pressure cuff
- 186 slag fragments, 1,455 grams
- 1 slate fragment
- 1 slate fragment, flat, rounded one end, thin
- 2 slate pencil fragments, burned
- 1 tooth fragment
- 1 vinyl record fragment
- 3 wood fragments

## Prehistoric

- 1 quartz decortication flake, whole, 30.7 mm x 18.7 mm

**Feature 2-4, Feature Fill horizon, Heavy Fraction, Lot 10**

Ceramics

- 1 refined white earthenware spall
- 1 whiteware sherd, unidentified blue decoration (1820-1900+, South 1977; Miller 1992)

Glass

- 10 clear cylindrical lamp chimney sherds, patinated
- 1 unidentified aqua spall
- 20 unidentified clear spalls
- 1 unidentified light aqua, heavily heat melted
- 3 unidentified pale aqua spalls
- 3 unidentified pale green spalls

Metal

- 3 unidentified ferrous metal fragments

Miscellaneous

- 443 blackberry/raspberry (Rubus) seeds, 0.3 grams
- 500 bone fragments
- 34 bone fragments, calcined
- 2 brick fragments, 15.5 grams
- 192 calcium carbonate concretions
- 15 coal fragments
- 280 egg shell fragments
- 117 fish scale fragments
- 92 grape vines (Vitis), 1.3 grams
- 6 mortar fragments, 39.6 grams
- 56 slag fragments, 168.8 grams
- 1 wood fragment

Prehistoric

- 5 quartz flake fragments

**Feature 2-4, Feature Fill horizon, Light Fraction, Lot 11**

Miscellaneous

- 23 blackberry/raspberry (Rubus) seeds, 1.7 grams
- 10 bone fragments
- 124 grape vine (Vitis) seeds, 0.8 grams

**Feature 2-4C, East Bisection, Feature Fill horizon, Lot 12**

Ceramics

- 2 buff bodied coarse stoneware sherds, brown glazed
- 1 hard paste porcelain sherd, undecorated, base fragment, burned

## Glass

- 1 7-up green cylindrical bottle sherd, duraglas stippling, automatic bottle machine (ABM) (post-1940)
- 4 7-up green cylindrical bottle sherds, automatic bottle machine (ABM) (post-1934)
- 8 amber cylindrical bottle sherds, automatic bottle machine (ABM), scratched (1907-present)
- 1 clear cylindrical bottle/jar sherd, base fragment, automatic bottle machine (ABM) (1910-present)
- 1 clear cylindrical bottle/jar sherd, duraglas stippling (1940-present)
- 1 clear cylindrical bottle/jar sherd, embossed "...3...". scratched
- 1 clear cylindrical bottle/jar sherd, embossed "...6...", duraglas stippling (1940-present)
- 1 clear cylindrical bottle/jar sherd, embossed "...A...", patinated
- 1 clear cylindrical bottle/jar sherd, embossed "...A...". scratched
- 1 clear cylindrical bottle/jar sherd, external thread lip finish fragment, automatic bottle machine (ABM) (1910-present)
- 1 clear cylindrical bottle/jar sherd, molded, patinated
- 18 clear cylindrical bottle/jar sherds, automatic bottle machine (ABM) (1910-present)
- 8 clear cylindrical bottle/jar sherds, heavily scratched, stained
- 2 clear cylindrical bottle/jar sherds, textured pattern
- 2 dark green cylindrical bottle/jar sherds (mend), scratched, patinated
- 2 green cylindrical bottle sherds, automatic bottle machine (ABM) (1907-present)
- 1 light green cylindrical bottle sherd, embossed "...S SA.../...BOT...", automatic bottle machine (ABM) (1907-present)
- 2 light green cylindrical bottle/jar sherds, automatic bottle machine (ABM) (1907-present)
- 1 safety glass sherd (post-1915)
- 1 unidentified light aqua sherd, flat, scratched
- 1 white milk glass cylindrical bottle/jar/tableware sherd

## Metal

- 2 unidentified ferrous metal fragments, flat

## Miscellaneous

- 2 coal fragments
- 1 slag fragment, 4.4 grams

Prehistoric

- 2 quartz flake fragment, cortex lateral margin
- 2 quartz flake fragments
- 1 quartz primary reduction flake, distal
- 1 quartz primary reduction flake, whole, cortex lateral margin, 21.5 mm x 11.3 mm
- 2 quartz primary reduction flakes, proximal

**Feature 2-4D, East Bisection, Feature Fill horizon, Lot 13**

Ceramics

- 2 whiteware sherds, undecorated, stained (1820-1900+, South 1977; Miller 1992)

Glass

- 1 7-up green cylindrical bottle sherd, unidentified collar lip finish fragment, automatic bottle machine (ABM), scratched (post-1934)
- 4 7-up green cylindrical bottle sherds, automatic bottle machine (ABM), scratched (post-1934)
- 5 clear bottle/jar sherds, automatic bottle machine (ABM) (1910-present)
- 1 clear cylindrical lamp chimney sherd, scalloped lip finish
- 1 clear cylindrical tableware, pressed, automatic bottle machine (ABM) (1910-present)
- 1 clear multi-sided bottle/jar, automatic bottle machine (ABM) (1910-present)
- 4 honey amber cylindrical bottle sherds, automatic bottle machine (ABM), scratched (1907-present)
- 1 light green cylindrical bottle sherd, automatic bottle machine (ABM) (1907-present)
- 1 unidentified aqua sherd, flat, stained, patinated

Metal

- 1 aluminum cap, painted black

Miscellaneous

- 1 bone fragment
- 1 coal fragment
- 1 plastic fragment, curved, red



**APPENDIX III**  
**Faunal Analysis of Feature 2-4, Site 44AX0212**



# **Faunal Analysis of Feature 2-4, Site 44AX0212**

**Report submitted to:**

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**October 2011**

# Table of Contents

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	Page
List of Tables .....	iii
Acknowledgments.....	1
Introduction.....	1
Description of the Site .....	1
Recovery Methods .....	2
Laboratory Techniques .....	2
Analytic Techniques .....	3
Relative Dietary Estimates .....	3
NISP .....	3
MNI .....	4
Usable Meat Weight.....	4
Biomass .....	4
Taphonomy and the Analysis of Butchering .....	5
Element Distributions.....	6
Kill-off Patterns .....	6
Identified Taxa and Dietary Estimates.....	6
Crustacean .....	7
Fish .....	7
Reptiles/Amphibians .....	9
Domestic Birds.....	9
Commensal Species.....	9
Domestic Livestock .....	10
Taphonomic Influences.....	11
Relative Dietary Importance .....	12
Butchering and Cuts of Meat .....	14
Element Distributions .....	15
Cattle Element Distribution.....	16
Pig Element Distribution .....	16
Kill-Off Patterns.....	17
History of Markets in the Chesapeake and the Development of a Provisioning System in the Washington Area .....	18
Summary .....	21
References.....	24
Appendices	
Appendix A. Age Distribution Table for Swine.....	29
Appendix B. Bone Measurements.....	31
Appendix C. List of Bones by Context .....	33

## List of Tables

---

	Page
1. Assemblages Analyzed .....	2
2. Taxa Identified .....	8
3. Taphonomic Influences on Feature 2-4 (Site 44AX0212) .....	11
4. Summary of Faunal Remains/Feature 2-4 (Site 44AX0212) .....	13
5. Element Distribution for Domestic Cattle.....	16
6. Element Distribution for Domestic Swine .....	17
7. Age Distribution, Domestic Swine.....	30
8. Bone Measurements .....	32
9. List of Bones by Context.....	34

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## Introduction

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This report describes the zooarchaeological analysis of some 1,964 animal bones recovered from a possible privy feature excavated from Site 44AX0212 located in Alexandria, Virginia. The author received these bones in October 2011 from Tammy Bryant, Principal Archaeologist/Laboratory Supervisor of Thunderbird Archaeology, a division of Wetland Studies and Solutions.

## Description of the Site

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Located within the City of Alexandria, Virginia, Site 44AX0212 includes a city block surrounded by Montgomery, N. Columbus, Madison and N. Alfred Streets. Excavations of the site have revealed brick foundations of at least seven buildings believed to be associated with row houses constructed on the site by 1912 (Mullen, personal communication, 2011).

The faunal remains analyzed for this report were recovered from a feature possibly associated to a dwelling originally located on Montgomery Street. The rectangular brick feature (Feature 2-4) measures approximately 2 x 3 feet and was filled with cinders, ash, and artifacts dating to the early 20<sup>th</sup> century. While the feature (a possible privy) appears to be associated with the back lot of a dwelling, the foundations for the main house were not found (Mullen, personal communication 2011).

On the 1912 Sanborn map, two outbuildings are shown on this lot. Research on the history of the property revealed that the Federal Census of 1900 shows the lot was owned by Lucy Kellum, an African American widow. She was likely living on the property when the feature was filled (Mullen, personal communication, 2011).

An initial inspection of the faunal material recovered from Feature 2-4 revealed the bones were extremely well preserved and exhibited very little evidence of weathering, which would have indicated that the bones had been exposed for some length of time to the sun, rain, or changing climatic conditions. Based on the excellent preservation, the lack of major recovery bias, and the large percentage of identifiable bones, it was agreed that all the bones would be analyzed. A total of 1,964 bones were sorted, numbered, identified, and analyzed to provide insight about the inhabitants who lived on the property during the early 20<sup>th</sup> century. Table 1 shows the number of identifiable and unidentifiable bones from each assemblage

**Table 1**  
**Assemblages Analyzed**

	Identifiable Bone <sup>1</sup>	Indeterminate Bone	Total Bone
Assemblage for Feature 2-4	489	1475	1964

<sup>1</sup> Identifiable bone is defined as bone identifiable to at least the taxonomic level of Order.

## Recovery Methods

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Quarter-inch screening is a standard technique used on prehistoric and historic period sites. As early as 1969, David Hurst Thomas demonstrated in his article on quantitative methods for faunal analysis that screening has an enormous positive influence on the recovery of bone, particularly the recovery of smaller or more fragile elements. The smaller the screen size, the better the recovery rate, but screening through very fine mesh is often cost-prohibitive. Flotation sampling and ¼-inch screening are a responsible compromise that allows comparison with a large number of sites that have been excavated similarly.

The bones from Feature 2-4 (Site 44AX0212) are primarily from soil that had been screened through ¼-inch steel wire mesh. In addition to screening, a quart sample from each cultural or arbitrary level within each feature was bagged and processed for flotation. While most of the faunal material was very fragmentary and not identifiable to species, the presence of turtle, fish, bird, small mammals, along with medium and large mammal remains, suggests that a fair sample of the original assemblage was recovered during excavation. Although the more durable elements, such as teeth and long bone shafts, make up the greatest percentage of the assemblages, there were few element types that were completely absent.

## Laboratory Techniques

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Analysis of the bones began with sorting the faunal fragments into “identifiable” and “indeterminate” categories. The indeterminate bone—that which could not be taken at least to the taxonomic level of Order—was further sorted into broad taxon groupings such as reptile, amphibian, bird, small mammal, medium mammal, and large mammal. Finally, within their taxon groupings, the bones were sorted into broad element categories such as long bones, teeth, ribs, and skull fragments. All of the indeterminate bones were then counted, weighed, and examined for evidence of burning, butchering, or other types of modification. This data was then entered into a custom-designed microcomputer program developed by Greg Brown and Dr. Joanne Bowen.

Each of the identifiable bones was assigned a “unique bone number.” By working with comparative skeletal collections maintained by Dr. Joanne Bowen and Susan Andrews, the

“identifiable” bone fragments were identified to the lowest taxonomic level possible. The taxon, bone element, symmetry (side), location, weight, fusion state, tooth type and wear, relative age, butchering marks, and evidence of burning, weathering, and gnawing were recorded and entered into the computer program. Once entered, the data were manipulated to provide the summary information described in this report.

Once these steps were completed, all bones identified to either genus or species were laid out to determine the minimum number of individuals (MNI). MNIs were calculated for each assemblage separately by pairing comparable rights and lefts, taking into account size, state of fusion, tooth eruption, and general morphology. Before the bones were returned to their original bags, evidence of butchery and carnivore gnaw marks was recorded.

## **Analytic Techniques**

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### **Relative Dietary Estimates**

Zooarchaeologists have devised several methods of quantification to estimate relative dietary importance. These quantification methods include determining the Number of Identified Specimens (NISP), Minimum Number of Individuals (MNI), Usable Meat Weight, and Biomass. The most common goal of these measures is to identify the relative dietary importance, but zooarchaeologists have long debated their relative strengths and weaknesses (Wing and Brown 1979; Reitz and Cordier 1983; Grayson 1984). In our view, each measure provides a different measure of relative importance, and therefore we regularly compute all four estimates, a step that allows us to take advantage of the strengths of each, as well as to make the broadest possible comparisons of our data with the work of others.

### **NISP**

At the simplest level, the Number of Identified Specimens (NISP) is used to calculate the relative abundance of any species within a faunal assemblage. After identification, all the bones within each species are added together to determine the frequency of fragments for each animal. Though still perhaps the most frequently used measure of abundance, this method has several shortcomings, most notably its assumption that the bones being counted are representative of the sampled population, and that each item is independent of every other item. There is no method, however, to demonstrate which bone fragments came from different individuals across an entire faunal sample. Other problems with this method include the unequal numbers of elements per individual in different classes, differential preservation rates, uneven fragmentation rates that occur with different classes and sizes of animals, and misrepresentation of complete skeletons that are often intermixed with fragmented pieces from an indeterminate number of individuals (Grayson 1984).

From an interpretive standpoint, NISP represents only the number of fragments identified to taxon. It does not directly consider the differences in size and meat weight between various classes of animals. For this reason, as well as the potential biases described above, many

zooarchaeologists have come to the conclusion that this technique alone cannot provide an accurate assessment of the relative dietary importance of various species.

## **MNI**

One popular method for estimating species abundance is the method called Minimum Number of Individuals (MNI). While NISP attempts to calculate the maximum number of individuals on a site, MNI most often establishes the minimum number of animals by examining the most common element for each taxon. Taking into consideration differences in age, sex, and size for each taxon, the rights and lefts of each of the main elements are carefully matched. Once comparisons are completed, the individual MNI for each element is considered, and by taking into consideration gross size and age differences, a figure representing the entire animal is derived.

The MNI effectively corrects for the differential number of bones found in bird, mammal, and fish skeletons, as it also corrects for the presence of complete skeletons. But the thoroughness of the analyst, the units of aggregation, and the sample size all affect the interpretation of an MNI figure. Accurate estimations of dietary importance based on MNI require a large number of bones, since in small assemblages infrequently occurring animals are over-represented. As Grayson (1984) pointed out, MNI values are intimately tied to units of aggregation, and therefore, in small samples the least common species on a site will be overemphasized. While this problem is greatly diminished in larger samples, the MNIs, no matter how well executed, do not provide a true dietary estimate. For example, one deer and one fish are presented as equally important in dietary terms, despite the differences in pounds of meat (Grayson 1984). Since large and small taxa are given equal weight, this method produces a skewed picture of the relative dietary importance.

## **Usable Meat Weight**

In the 1950s Theodore White introduced to the field a method that would translate MNIs into dietary estimates (White 1953). To obtain a rough estimate of the relative importance of different taxa, the MNI for a given taxon is multiplied by the average amount of usable meat derived from an estimate of meat yield. Average values are based on the average weight of modern wild birds, mammals, and turtles (only rough estimates are given for fish since their weight typically increases as they age). Also, modern domesticated species can be quite large in comparison to colonial animals, therefore we use colonial weights for domesticated species. Since this method relies on MNI directly, usable meat weight estimates suffer from the same problems inherent in the MNI method. In small assemblages, particularly those where even the more frequently occurring taxa are represented by only one or two MNI, the least frequently occurring taxa are grossly inflated.

## **Biomass**

The fourth technique that has become a standard procedure in zooarchaeological analysis is known as the “biomass” or “skeletal mass allometry” method. Developed for zooarchaeology by Elizabeth Reitz and others, this method is based on the biological premise that the weight of

bone is related to the amount of flesh it supports. Since two dimensions of an animal grow in a relatively predictable exponential curve, an equation relating the two has been derived. Body size and body weight can then be determined from the size of a bone element, since a specific quantity of bone represents a predictable amount of tissue, which is roughly translated into a ranked dietary importance (Reitz and Cordier 1983; Reitz and Scarry 1985). This estimate, therefore, provides a balance to the NISP and MNI methods. It helps to counter the problem of interdependence, since it accounts for the presence/absence of partial and complete skeletons. An additional advantage is that it does not rely on thoroughness or assemblage composition, and fragmentation is not a problem. It does, however, require that each bone (or group of bones) be weighed individually.

In a later section biomass estimates are used, despite the fact that all of the early analyses by many zooarchaeologists are based on usable meat weight. Recent research by Bowen and others have shown biomass estimates to be far more consistent than meat weight estimates, particularly when large numbers of fish are present in assemblages (Bowen in Walsh et al. 1997). In general, it allows the weight of the fragments identified only to class to become part of the dietary estimates, it avoids the idiosyncrasies of the MNI method, and it circumvents the “averaging” problem that plagues any assemblage containing a large proportion of fish.

## **Taphonomy and the Analysis of Butchering**

There are many physical, chemical, and biological processes that modify the appearance of bones and affect the interpretations of faunal assemblages from archaeological sites. The study of these mechanisms is known as “taphonomy,” or the study of environmental phenomena and processes that affect organic remains after death (Efremov 1940).

The determination of, for example, which cuts of meat are represented in a faunal assemblage cannot reasonably proceed without the careful analysis of taphonomic modifications. Identifying alterations resulting from natural processes such as temperature variation that can dry out, split, or otherwise degrade bone, carnivores and rodents that gnaw bone, and human feet that can further fragment bone, is the important first step to looking at purposeful modifications such as butchery and intentional burning (Gifford 1981; Lyman 1987a; Bonnicksen and Sorg 1989; Johnson 1985).

During the identification phase of this project, burn marks, evidence of gnawing by carnivores and rodents, weathered appearance, and butchering evidence were recorded. Bones were recorded as “burned” only if they exhibited distinctive charring or scorched marks. Experiments on cooking bones, by either roasting or boiling, has shown that it often takes extreme temperatures to produce burn marks on a bone. The size and density of the bone combined with the temperature and type of cooking, influences the appearance of burn marks on bones (Pearce and Luff 1994).

Evidence of the bones being gnawed can be gathered from puncture holes made by canine teeth or by specific gnawing patterns left on the surface of the bone. Carnivores such as dogs will typically gnaw on the soft ends of long bones to create channels that allow them to get at the marrow. Smaller bones belonging to fish, birds, and small mammals are easily broken and

digested by carnivores, so there is rarely any evidence of carnivore gnawing on these bones. Gnaw marks left by rodents are distinguished by a characteristic pattern made by incisor teeth and therefore are recorded separately from carnivore marks.

Bones were recorded as having a weathered appearance if the surface of the bone was cracked or flaking. A weathered appearance on the surface of a bone can occur if bones are left in the open, where they can be exposed to extreme temperatures and the changing elements. Usually if bones are left exposed for a period of time, they are also susceptible to gnawing by animals and fragmentation due to the trampling of feet. Weathering can also occur due to the actual chemistry of the soil, which has a direct influence on bone preservation. Generally speaking, the ideal pH for bone preservation is between 7.8 and 7.9 (Reitz and Wing 1999).

Finally, butchering leaves obvious taphonomic signs on the bone. Butchering marks were carefully recorded, and an analysis of the large domestic livestock is given later in this report.

## **Element Distributions**

Element distributions, particularly the relative proportion of head, body, and foot elements, can be used in conjunction with butchering studies to suggest how meat was acquired—that is, whether animals were butchered on- or near-site or whether they were acquired from commercial butchers, neighbors, or stores.

## **Kill-off Patterns**

So-called “kill-off patterns” can be inferred by looking at the percentages of “skeletally-mature” elements in the assemblage. This depends on the useful fact that the ends of long bones (the “epiphyses”) do not fuse to the shaft until skeletal growth for that element has stopped, and in general this age (which varies from element to element) has been studied and well-established for at least the major domestic animals (Silver 1969). Thus, by recording (for appropriate elements) whether the articular end is fused or unfused, it is possible to construct kill-off charts that suggest the age(s) when the animals were likely being slaughtered. This can allow for the study of local animal husbandry, and the market forces driving the production of domestic meat for urban and other commercial markets.

## **Identified Taxa and Dietary Estimates**

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From the 1,964 bones submitted for analysis, Feature 2-4 (Site 44AX0212) produced at least 13 different identified species including one crustacean, six fish, one reptile, one bird, and four mammals. A list of each taxon can be found in Table 2. To facilitate discussion of diet and environmental exploitation, a brief description of each taxon’s habitat is given below.

## Crustacean

**Blue Crab.** The Feature 2-4 (Site AX0212) assemblage produced at least three pincers from blue crabs (*Callinectes sapidus*). The blue crab can be found from Nova Scotia, down the east coast of North America, throughout the Gulf of Mexico and the Caribbean Sea, and down along the east coast of South America. They are generally classified as omnivorous scavengers eating both live and decaying plant and animal matter. During the summer months they can typically be found in shallow, tidal freshwaters. As temperatures drop they move out to deeper areas where they bury themselves and remain inactive throughout the winter (Zim and Ingle 1955).

## Fish

**Typical Sharks.** A single vertebra from the faunal assemblage was identified to the Order Lamniformes (typical sharks). Sharks are typically found in the Chesapeake area during the summer and fall. While some species prefer deep-water habitats, other species such as the sand tiger (*Odontaspis taurus*) inhabit shallow estuaries and coastal waters feeding on small fish, crustaceans and squid. Other sharks such as the bull shark (*Carcharhinus leucas*) are known to frequent brackish waters as well as low-salinity rivers and lakes. Bull sharks feed on bony fish, crustaceans, turtles, and mammals and have been recorded as far north as the Paxtuxent River (Murdy et al. 1997).

**Freshwater Catfish.** At least 118 elements were identified as freshwater catfish (Family Ictaluridae). Freshwater catfish are abundant in Virginia waters, where they can be found in lakes, rivers, ponds, streams, and estuarine waters where they feed on a variety of insects, fishes, and crustaceans. One of the most common species of freshwater catfish in Virginia is the white catfish (*Ictalurus catus*). The white catfish is usually found in tidal tributaries of rivers, but during the spring and early summer they move upstream to spawn. The white catfish were and still are praised as a fine fish for eating due to their lack of small bones (Lippson and Moran 1974).

**Yellow Perch.** Yellow perch (*Perca flavescens*) was identified from two elements recovered from Feature 2-4 (Site 44AX0212). Distributed from Canada to South Carolina, the yellow perch is abundant in most tributaries of the Chesapeake Bay. While they typically inhabit the upper portions of estuaries, they will migrate even further upstream to spawn in small shallow streams in late February. They are considered excellent eating quality and are commonly caught with baited hook during their spring spawning runs (Murdy et al. 1997).

**Freshwater Bass or Sunfish.** Two elements were identified only to the family of freshwater bass or sunfish (Family Centrarchidae). This family includes the sunfish (*Lepomis* spp.), bass (*Micropterus* spp.), and crappies (*Poxmoxis* spp.). All of these fish can be found in freshwater and typically build nests in which the eggs and young are carefully guarded (Hidlebrand and Schroeder 1972).

**Red Drum.** Two elements from Feature 2-4 (Site 44AX0212) were identified as belonging to red drum (*Sciaenops ocellatus*). Adult red drums are most commonly found near shore in marine

waters and can be found in the inlets of the Chesapeake Bay from May through November, during their spawning season. They are considered bottom feeders that thrive on small crabs, fish, and shrimp. When feeding in shallow water, the red drum can be seen “tailing” with their heads down in the grass and their tails exposed to the air. Red drums are primarily caught by surf casting from beaches along the Chesapeake Bay and occasionally by bait fishing (Murdy et al. 1997).

**Table 2**  
**Taxa Identified from Feature 2-4, Site 44AX0212**

<b>CRUSTACEAN</b>	<b>Taxonomic Name</b>	<b>Common Name</b>
	<i>Callinectes sapidus</i>	Blue Crab
<b>FISH</b>	<b>Taxonomic Name</b>	<b>Common Name</b>
	Class Osteichthyes	Fish, Indeterminate
	Order Lamniformes	Typical Sharks
	Family Ictaluridae	Freshwater Catfish
	Family Centrarchidae	Freshwater Bass or Sunfish
	<i>Perca flavescens</i>	Yellow Perch
	<i>Micropogon undulates</i>	Atlantic Croaker
	<i>Sciaenops ocellatus</i>	Red Drum
<b>REPTILES/ AMPHIBIANS</b>	<b>Taxonomic Name</b>	<b>Common Name</b>
	<i>Chelydra serpentina</i>	Snapping Turtle
<b>BIRDS</b>	<b>Taxonomic Name</b>	<b>Common Name</b>
	Class Aves	Bird, Indeterminate
	Class Aves/Mammalia III	Bird/Small Mammal, Indeterminate
	<i>Gallus gallus</i>	Chicken
<b>MAMMALS</b>	<b>Taxonomic Name</b>	<b>Common Name</b>
	Class Mammalia	Mammal, Indeterminate
	Class Mammalia II	Medium Mammal, Indeterminate
	Class Mammalia III	Small Mammal, Indeterminate
	Rat spp.	Rats
	Mouse spp.	Mouse
	<i>Sus scrofa</i>	Domestic Swine
	<i>Bos Taurus</i>	Domestic Cattle

**Atlantic Croaker.** At least 108 elements from Feature 2-4 (Site 44AX0212) were identified as Atlantic croaker (*Micropogon undulates*). Their common name comes from the large swim bladder that produces a croaking or drumming sound. Quite common in Chesapeake waters, croakers move into the Bay around April where they prefer to inhabit areas with sandy or muddy

bottoms. Considered a highly commercial fish, they can be taken with nets and bait fishing. Bay catches of croaker appear to have peaked during the 1930s and 1940s, but have since declined in numbers (Murdy et al. 1997).

## Reptiles/Amphibians

**Snapping Turtle.** A total of 16 bones, primarily from the skull, were identified as the remains of a snapping turtle (*Chelydra serpentina*). The snapping turtle inhabits areas of permanent freshwater, but may enter brackish waters at times. They often bury themselves in mud, exposing only their eyes and nostrils. More active at night during the warmer months, most enter hibernation by late October, burrowing into mud bottoms, beneath logs or vegetable debris, where they remain until spring. They feed on insects, crabs, shrimp, clams, earthworms, fish, frogs, toads, small turtles, snakes, as well as plant material (Ernst and Barbour 1972). Considered to be delicious, snapping turtle meat is eaten throughout its range.

## Domestic Birds

**Chicken.** As the most frequently identified species from Feature 2-4 (Site 44AX0212), chicken (*Gallus gallus*) was represented by at least 148 bones. During the eighteenth, nineteenth, and early twentieth century, chickens were raised on many rural farms and even on some urban properties. Chickens were easy to raise and though often kept in hen houses, they were also allowed to roam free. The chickens and their eggs could have been prepared in a number of ways including roasted, boiled, fried, broiled, and minced (Noël Hume 1978).

## Commensal Species

Commensal species are those that live with another species and share its food, both animals possibly benefiting from each other through this association (Davis 1987). Two commensal species, which live in close proximity to humans, were found in the Feature 2-4 (Site 44AX0212) assemblage and are therefore not considered food remains.

**Rats.** A single element from Feature 2-4 (Site 44AX0212) was identified as belonging to a rat (Rat spp.). These elements are probably from an Old World rat (*Rattus spp.*), which includes both the Norway rat (*Rattus norvegicus*) and the roof rat (*Rattus rattus*). Arriving on ships bound for the New World, both the Norway rat and roof rat quickly spread along the eastern coast of North America during the late eighteenth century. They feed on organic garbage, grains, plant material, and other animals including poultry, birds, rabbits, and even their young. Preferring to live close to humans where adequate food, water, and shelter are available to them, they are often found in homes, wood piles, compost heaps, farm dwellings, dumps, slaughterhouses, food-processing plants, animal stalls, and sewers (Webster et al. 1985). Regarded as vermin then as they are today, rats transmit plague and murine typhus, among other diseases, and consequently were at least part of the reason that cats were kept as pets in both urban and rural environments during the eighteenth and nineteenth century.

**Mouse.** A total of eight bones were identified as the remains of mice (Mouse spp.) There are several species of mouse that can be found throughout Virginia, including the eastern harvest mouse (*reithrontomys humulis*), the white-footed mouse (*Peromyscus leucopus*), and the golden mouse (*Ochrotomys nuttalli*). Considering these bones were found associated with a dwelling, the bones are probably the remains of a house mouse (*Mus musculus*), a species of mouse introduced from Europe during the American Revolution. This species is typically found in close proximity to humans and can be found in man-made structures where food and space are available. House mice consume anything edible and can be highly destructive to stored grains and food. Due to their highly reproductive rate, their adaptability, and their destructive habits, these small mammals are typically controlled with traps, poison, and cats (Webster et al. 1985).

## Domestic Livestock

**Swine.** There were a total of 70 swine (*Sus scrofa*) elements identified from Feature 2-4 (Site 44AX0212). Although the ranking of pork among early diets may be argued by some, it is clear that the domestic swine was an important food source from the initial years of settlement on through the twentieth century. A prolific breeder that thrived on mast, roots, and tubers in an open woodland setting, they were born in the spring and by the next winter had grown to a good slaughter weight. In comparison to cattle that provided only about 50-60% of dressed meat per individual after slaughter, swine provided 65-80% and its flesh when salted was perfect for use as a year-round source of preserved meat (Reitz, Gibbs, and Rathbun 1985; Bowen 1990a, 1990b).

Archaeologically swine are omnipresent, and in every faunal assemblage their remains account for a substantial proportion, either in terms of NISP, MNI, usable meat weight, or biomass. From the early years, pork contributed 10% of the biomass, by 1620-50 anywhere from 6 to 17%, by 1660-1700 an average of 11%, and throughout the eighteenth century on rural plantations anywhere from 12 to 17% (Walsh et. al. 1997:351).

**Cattle.** Domestic cattle (*Bos taurus*) were identified by 10 elements recovered from excavations of Feature 2-4 (Site 44AX0212). By 1608, and possibly earlier, cattle arrived on Jamestown Island. They flourished in the woodland environment, and as early as the 1620s, herds had become so large that beef became the mainstay of the colonists' diet, a pattern that stood firm throughout the colonial period (Miller 1984; Bowen 1990a). Throughout the colonial period cattle provided primarily meat, but also some milk and dairy products, and beginning in the late-seventeenth and early-eighteenth centuries they were used to plow fields (Miller 1984; Bowen 1994). In terms of their contribution to the meat diet, in c. 1610 cattle contributed 14% to the total biomass, by 1620-1650 anywhere from 37 to 57%, by 1660-1700 47%, and throughout the eighteenth century on rural plantations anywhere from 34 to 56% of the total biomass (Walsh et al. 1997:351). For a more complete discussion of cattle husbandry, see *Provisioning Early American Towns. The Chesapeake: A Multidisciplinary Case Study* (Walsh et al. 1997).

## Taphonomic Influences

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As mentioned earlier, all of the bones from Feature 2-4 (Site 44AX0212) were examined for taphonomic influences. For the purpose of this discussion, the domestic mammal and chicken bones will be discussed (see Table 3).

### Feature 2-4

As explained in the “Analytic Techniques” section of this report, it often takes extreme temperatures to produce burn marks on a bone so the count of “burned” remains is likely lower than the actual original count. In terms of burn marks, none of the domestic mammal or chicken bones display signs of having been burned (see Table 3). There were however at least three crab pincers, two indeterminate fish remains, sixty-seven indeterminate mammal bones, and three indeterminate bird bones that appear to have been burned. Many of these indeterminate bones have a calcined appearance, suggesting the bones may have been burned during a large-scale fire.

A close inspection of the domestic and chicken bones from Feature 2-4 revealed minimal evidence of gnawing, predominately by carnivores. Carnivores such as dogs will typically gnaw on the soft ends of long bones to create channels that allow them to get at the marrow. Smaller bones belonging to birds and small mammals are easily broken and digested by larger carnivores, so usually there is minimal evidence of carnivore gnawing on these bones. Based on the appearance of puncture marks and specific gnawing patterns, four swine bones appear to have been gnawed by a carnivore. There is also one swine bone that had the distinctive gnaw marks left by a rodent’s incisor teeth.

**Table 3**  
**Feature 2-4 (Site 44AX0212)**  
**Taphonomic Influences on Domestic Mammal and Bird Bones**

	<b>Total</b>					
	<b>Count</b>	<b>Gnawed</b>	<b>Weathered</b>	<b>Burned</b>	<b>Hacked</b>	<b>Sawed</b>
Cattle	10	0	0	0	1	8
Swine	70	5	0	0	3	0
Chicken	148	0	0	0	0	0

Only bones that were identified to species and element were examined and recorded for evidence of butchering, even though much of the “indeterminate” bone was broken in such a way as to suggest intentional butchering (but is too fragmentary to make its study useful). The recorded butchered bones include at least three swine bones hacked with either an ax or a cleaver. There was at least one cow bone that had been hacked and eight cattle bones that had been sawn.

## Relative Dietary Importance

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The following section discusses the relative dietary importance of each taxon based on each of the four main quantification methods mentioned earlier in the “Analytic Techniques” section of this report. It must be realized that these are relative measures and they do not reflect anything absolute about the amount of meat provided.

When all of the faunal remains from Feature 2-4 (Site 44AX0212) were combined together they produced a total of 1,964 bones, of which 24.9% are identifiable to at least 13 different species (see Table 4). As the NISP numbers reveal, indeterminate remains make up the largest percentage, totaling 75.1% of the assemblage. In terms of bones identified to a species, the remains of chickens account for 7.4% of the NISP figures, followed by freshwater catfish at 6.0%, Atlantic croaker at 5.5%, and domestic swine at 3.5%. The remaining identified species each contribute 1% or less to the total NISP numbers.

In terms of MNIs, the assemblage produced at least thirty adult and nine immature individuals. While most species are represented by one individual, a few species make a more significant contribution. Specifically, Atlantic croaker is represented by at least eight adult individuals, chicken is represented by six adult and one immature individual, freshwater catfish is represented by five adult individuals, and domestic swine is represented by two adult and one immature individual. Overall, domestic species make up 34.2% of the MNIs, while the high number of individual fish account for wild species making up 58.9% of the MNIs. The remaining 6.2% is attributed to commensal species.

In terms of usable meat weight, domestic species make up the greatest percentage at 76.2%, followed by wild species at 23.5%. The high percentage of usable meat weight from domestic species is due to the contribution of domestic cattle at 45.8%, domestic swine at 28.6%, and chicken at 1.8%. For the wild species, the largest contributor to the usable meat weight comes from the remains of a shark at 18.3%.

When biomass is taken into account, domestic cattle contribute the greatest amount accounting for 51.1% of the total diet, this is followed by domestic swine at 25.6%. Other significant contributors to the biomass include chicken at 4.6% and freshwater catfish at 4.3%. The remaining identified species contribute less than 2% to the biomass totals. It must also be kept in mind that the mammal figures can be somewhat masked by the “other mammal” category, composed of indeterminate bones that are too fragmented to identify to species. Indeterminate medium mammal remains make up 2.5%, while indeterminate mammal remains make up 4.5% of the biomass figures.

**Table 4**  
**Feature 2-4, Site 44AX0212**  
**Bone Summary**

	NISP		MNI		Meat Weight		Biomass	
	No.	Pct.	MNI	Pct.	Lbs.	Pct.	Kg	Pct.
<i>Callinectes sapidus</i> (Blue Crab)	3	0.1	1	3.1	0.2	0.0	0.00	0.0
Order Lamniformes (Typical Shark)	1	0.0	1	3.1	160.0	18.3	0.00	0.0
Class Osteichthyes (Bony Fish)	691	35.1	—	—	—	—	0.16	1.8
Family Ictaluridae (Freshwater Catfish)	116	5.9	5	15.6	10.0	1.1	0.37	4.3
cf. Family Ictaluridae (Freshwater Catfish)	2	0.1	—	—	—	—	0.01	0.0
<i>Perca flavescens</i> (Yellow Perch)	2	0.1	1	3.1	1.0	0.1	0.00	0.0
Family Centrarchidae (Freshwater Bass or Sunfish)	2	0.1	1	3.1	0.0	0.0	0.00	0.0
<i>Sciaenops ocellatus</i> (Red Drum)	2	0.1	1	3.1	18.0	2.0	0.01	0.1
<i>Micropogon undulates</i> (Atlantic Croaker)	108	5.5	8	25.0	8.0	0.9	0.14	1.6
Order Testudines (Turtle)	1	0.0	—	—	—	—	0.02	0.2
<i>Chelydra serpentine</i> (Snapping Turtle)	16	0.8	1	3.1	10.0	1.1	0.16	1.9
Class Aves (Bird)	329	16.7	—	—	—	—	0.07	0.8
Class Aves/Mammalia III (Bird/Small Mammal)	4	0.2	—	—	—	—	0.01	0.0
<i>Gallus gallus</i> (Chicken)	147	7.4	6/1	21.8	16.0	1.8	0.39	4.6
cf. <i>Gallus gallus</i> (Chicken)	1	0.0	—	—	—	—	0.00	0.0
Class Mammalia (Mammal)	424	21.5	—	—	—	—	0.39	4.5
Class Mammalia II (Medium Mammal)	26	1.3	—	—	—	—	0.22	2.5
Rat spp. (Rats)	1	0.0	1	3.1	0.0	0.0	0.00	0.0
Mouse spp. (Mouse)	8	0.4	1	3.1	0.0	0.0	0.00	0.0
<i>Sus scrofa</i> (Domestic Swine)	70	3.5	2/1	9.3	250.0	28.6	2.16	25.6
<i>Bos Taurus</i> (Domestic Cattle)	6	0.3	1	3.1	400.0	45.8	2.83	33.5
cf. <i>Bos Taurus</i> (Domestic Cattle) or Goat)	4	0.2	—	—	—	—	1.49	17.6
Shell	3	0.1	1	3.1	0.2	0.0	0.00	0.0
Fish	924	47.0	17	52.7	197.0	22.4	0.69	7.7
Reptiles/Amphibians	17	0.8	1	3.1	10.0	1.1	0.18	2.1
Domestic Birds	148	7.4	6/1	21.8	16.0	1.8	0.39	4.6
Domestic Mammals	80	4.0	3/1	12.4	650.0	74.4	6.48	76.7
Commensals	9	0.4	2	6.2	—	—	0.00	0.0
<b>Wild</b>	<b>944</b>	<b>47.9</b>	<b>19</b>	<b>58.9</b>	<b>207.2</b>	<b>23.5</b>	<b>0.87</b>	<b>9.8</b>
<b>Domestic</b>	<b>228</b>	<b>11.4</b>	<b>9/2</b>	<b>34.2</b>	<b>666.0</b>	<b>76.2</b>	<b>6.87</b>	<b>81.3</b>
<b>Identified</b>	<b>489</b>	<b>24.9</b>	<b>30/2</b>	<b>100.0</b>	<b>873.2</b>	<b>100.0</b>	<b>7.56</b>	<b>89.2</b>
<b>Indeterminate</b>	<b>1475</b>	<b>75.1</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>0.87</b>	<b>9.8</b>
<b>Totals</b>	<b>1964</b>	<b>100.0</b>	<b>30/2</b>	<b>100.0</b>	<b>873.2</b>	<b>100.0</b>	<b>8.43</b>	<b>100.0</b>

Note: NISP= Number of identified specimens; MNI=Minimum number of individuals. "2/2" under MNI means 2 adult, 2 immature; "1" means 1 adult.

## Butchering and Cuts of Meat

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Although every zooarchaeologist must deal with butchery on a daily basis when analyzing faunal remains, few working with historical sites have dealt with butchery-related problems in print. With notable exceptions such as Lyman (1987b, 1996) and Crader (1990), zooarchaeologists have tended to leave their observations as only a laboratory function. Yet butchering data holds fascinating information on the transformation in foodways that occurred during the eighteenth and nineteenth centuries, along with the commercialization and industrialization of food production, distribution, processing, and consumption of foods.

As faunal assemblages have been analyzed, it has become apparent that a fundamental change occurred in butchering techniques during the seventeenth, eighteenth, and early nineteenth centuries. By working closely with the archaeologists to create tightly dated assemblages, we have had the opportunity to observe when the butchering technique shifted from chopping to sawing and formulate ideas on how and why this change occurred.

In his illustrative encyclopedia, Diderot (1778) depicts butchers in the seventeenth century with cleavers, knives, and broad axes, but no saws. Drawings of markets and butcher shops from eighteenth-century London also show broad axes and cleavers, not saws. Saws begin to appear only during the late eighteenth century or early nineteenth century. In fact, the earliest evidence of a saw is a 1799 drawing of Philadelphia, where a butcher is holding a saw (Bowen and Manning 1993).

Assemblages that we have seen have indicated to us the earliest sawn food remains appear in urban sites. In an assemblage dating to the turn of the century, the Narbonne House in Salem, Massachusetts, there are several sawn veal bones (Bowen 1982). In every nineteenth century faunal assemblage there are sawn bones, mixed in varying proportions with chopped bone. It appears that in the nineteenth century saws were increasingly used to butcher meat, particularly cattle bones and occasional pig and sheep/goat bones. In the early nineteenth century, the bones appear to have been sawn into cuts that were much like the large cuts common during the previous century, but over the century meat cuts decreased into smaller pieces closely resembling the thin steaks and chops that we find in the grocery stores today (Bowen and Manning 1993).

During the nineteenth century, cuts of meat gradually became “sanitized,” losing any resemblance to the live animal it came from. Classically, chopping followed the internal structure of the mammalian skeleton, so that even stress breaks tended to follow the natural contours of the bone. The saw, on the other hand, allowed butchers to slice through joints, long bones, and other compact bones to produce “neat” individual portions, so much so that today only the most skeletally-aware urban consumer can distinguish the fragment of bone imbedded in a ham or a roast. This method of butchering also removed the last trace of the live animal from the dinner table—bone chips that had been the by-product of the chopping technique were gone. No longer did diners have to either consume bone chips or extract them from their mouths.

Characteristic of late nineteenth century and early twentieth century assemblages, the butchered bones from Feature 2-4 (Site 44AX0212) were a combination of both sawn and hacked bones.

Overall the bones from swine were chopped in similar forms to the butchering patterns recorded for cattle bones. One major difference, however, is that long bones tended to be slightly more complete in the swine since their bones are relatively smaller in size. Given the fundamental similarity in approach to butchering, the following butchering descriptions for Feature 2-4 (Site 44AX0212) have been generalized, with any exceptions noted.

**Cattle.** Adult cattle bones from Feature 2-4 (Site 44AX0212) include at least two thoracic vertebrae that had all been sawn by hand longitudinally along the axis, one thoracic vertebra hacked through the center, and three sawn ribs. Using Schulz and Gust's (1983) late nineteenth century ranking of cuts of beef, the ribs and thoracic vertebrae would have been considered part of the rib section, the second highest ranking for cuts of beef in the late nineteenth century.

Other butchered cattle elements include two sawn scapula fragments and one sawn femur. At the end of the nineteenth century the scapula cuts would have been considered chuck shoulder meat, a mid range cut of meat. The femur, however, would have ranked higher as part of the beef round cut of meat (Schulz and Gust 1983).

**Pig.** The butchered pig elements from Feature 2-4 (Site 44AX0212) include two hacked ulnas and one hacked scapula. Using twentieth century standards, these cuts would have been considered part of the shoulder butt and the hock cuts of meat. The ulnas had been hacked just below the proximal end of the bone, while the scapula had been hacked through the neck and blade. The goal of this cut may have been to sever the shoulder from the front leg, and secondly to bisect the shoulder itself. This may be the result of butchering for a shoulder/butt cut of pork

## Element Distributions

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Faunal research has demonstrated as urban areas grow in their size and complexity, households increasingly become dependent upon the provisioning system for their food supplies, and consequently the choice of the types and cuts of meat are constrained by that system (Maltby 1979, 1982, 1985). Melinda Zeder (1988, 1991), in particular, has demonstrated that the more removed a consumer is from the production of foods, the more the procurement system controls his or her subsistence. It has been assumed this intensive and regulated flow of produce from rural areas to urban kitchens should leave its distinctive mark on faunal remains in the form of the differential presence of skeletal parts (Maltby 1985; Zeder 1988, 1991). Elements from restricted portions should be consistently absent in urban assemblages, regardless of their association with different ethnic and status groups.

The analysis of the cuts of meat represented in an assemblage is based on NISP, and is performed by comparing the distribution of elements found in a normal skeleton with those present in the faunal assemblage. When the distributions are similar it is interpreted that the entire animal was consumed, while dissimilarities are interpreted to mean that certain parts of the

carcass were being selected over others. The following paragraphs will examine the element distribution figures for the domestic mammal remains from Feature 2-4 (Site 44AX0212).

## Cattle Element Distribution

Analysis of cattle element distributions from sites located in the Virginia has shown that from the early seventeenth century through the nineteenth century, rural households consumed all parts of the animal, even heads and feet. Urban assemblages dating from 1700 to 1800 have also shown that residents consumed all parts of cattle but in different percentages than their rural neighbors. Urban sites typically contain a greater than normal proportion of body cuts, a slightly less than normal proportion of head elements, and a far less than normal proportion of foot elements (Walsh et al. 1997).

Feature 2-4 (Site 44AX0212) only produced ten cattle bones to assess element distribution (see Table 5). Although this number is too small to get an accurate sense of what was available in the local markets, the assemblage does reveal that body elements from adult cattle were the only identified elements suggesting the meat-bearing long bones and ribs were the favored cuts of meat or what was most often available in the local market.

Besides being a reflection of what was available in the local markets, these urban assemblages might also be an indication of the growing regulations that were being enforced on urban residents and urban markets. In other cities, such as Boston and Philadelphia, laws were being passed that began to require butchers to dispose of feet and other waste parts from their stalls (Marten 1980). By the 1840s butchers in Boston were selling cattle feet for oil and glue production, and cattle heads were being boiled and fed to swine. Heads could also be sold to Poor Houses, from which they could get four to five pounds of clear meat from each head. Afterwards the heads were boiled for the extraction of tallow and then fed to swine. When the swine had picked the heads clean, the bones were gathered and sold to the sugar boilers for the purpose of making animal carbon for the refining of sugar (Colman 1839:73).

**Table 5**  
**Element Distribution for Domestic Cattle Remains**

	Head		Body		Feet		NISP
	No.	%	No.	%	No.	%	
Cattle Normal		29.7		42.2		28.1	
Feature 2-4	0	0.0	10	25.0	0	75.0	10

## Swine Element Distribution

The element distributions for swine has shown that urban and rural assemblages dating from the eighteenth and early nineteenth centuries are very similar to each other in the Virginia. Possible interpretations for these similarities include the idea that urban residents may have been obtaining swine from their own personal rural connections, or that they may have raised and

slaughtered their own swine within the city limits. Another possibility is that hogs were brought to town and sold to individuals in the fall and early winter, which the family could salt the meat themselves. Whatever the conditions were the element distributions for swine does suggest that urban residents were not only purchasing individual cuts of meat but also had access to larger portions of the animal. Rural occupants of the Chesapeake appear to have had access to the entire animal (Walsh et al. 1997).

The pig distribution percentages from Feature 2-4 (Site 44AX0212) indicate that this assemblage is no exception to what has already been seen in other urban Chesapeake sites (see Table 6). The assemblage indicates that body elements (10.0%) were found in less than normal numbers while foot bones (88.6%) were proportionately found in greater numbers than a normal skeletal distribution. This pattern suggests the resident of the property may have had access to all portions of the pig with a particular high number of foot elements.

**Table 6**  
**Element Distribution for Domestic Swine Remains**

	Head		Body		Feet		NISP
	No.	%	No.	%	No.	%	
Pig Normal		28.2		34.5		37.3	
Alexandria Assemblage	1	1.4	7	10.0	62	88.6	70

## Kill-Off Patterns

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Aging methods were employed to the Feature 2-4 assemblage (Site 44AX0212) to help understand the husbandry techniques that underlay the availability of food. There is a direct relationship between the agricultural economies and how livestock are bred, raised, and slaughtered. In subsistence farming, animal husbandry focuses on raising livestock to serve multiple purposes. For example, a farmer might raise cattle for milk, meat, and draft uses, or sheep for both their wool and their meat. The farmers typically raise the livestock to provide for their own household's needs, and only after their needs are met is any surplus sold. On the other hand, specialized farming focuses on raising livestock to produce a product directly for market, and the focus shifts to managing livestock to produce the greatest profit. Since this is best accomplished by focusing on a single product from an animal, commercially-oriented farming has developed very specialized farms with highly developed breeds that will most efficiently produce a product: dairy cows to produce milk, beef cattle to produce meat.

The transformation from a subsistence-oriented economy to a commercially oriented economy is influenced by the existence and the demands of urban areas and increasing populations. Incentives to raise greater numbers of animals more efficiently influenced farmers to intensify husbandry methods, improve the nutrition of livestock, introduce better stock, and usually kill off the younger animals for meat.

As urban centers emerged and grew during the early eighteenth century, some farmers responded by intensifying their traditional animal husbandry practices, while other simply produced sufficient surpluses to supply the growing market. Although in some regions smaller farms were still functioning in the traditional manner, it is believed by the first half of the nineteenth century, farmers near large urban centers had transformed their husbandry practices from a subsistence base to an ever-increasing commercially-oriented system (Baker and Izard 1991).

To accurately assess the kill-off patterns from an assemblage, large numbers of elements are needed in proportions that are roughly equal to that of a normal skeleton. Unfortunately, while the assemblage from Feature 2-4 (Site 44AX0212) did produce some “ageable” swine bones, the three elements are not enough bones to make any conclusive statements about the kill-off patterns. For the purpose of future comparative work, the epiphyseal fusion tables for swine are included in Appendix A (Table 7). There were no cattle bones suitable for age data.

## History of Markets in the Chesapeake and the Development of a Provisioning System in the Washington Area

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Markets were part of the Chesapeake scenery as early as 1649 when Jamestown was granted the right to hold a weekly market on Wednesday and Saturday. Unfortunately these first markets were not successful and the local burgesses were forced to look for another place to establish a market. It was not until the capital was moved from Jamestown to Williamsburg that an act, providing for twice-weekly market days in town, was passed in 1705. The market in Williamsburg was also slow to be established, despite the urging of government officials and the local population that swelled during public times. It would not be until 1757 that a market house was finally completed and a more regulated market system was entrenched (Walsh et al. 1997).

Although a market house was finally built, it did not ensure the market functioned smoothly and produced quality foodstuffs. As evidence of the problems that were occurring in the Williamsburg market, “Timothy Telltruth” wrote a revealing description of the market in the *Virginia Gazette* in 1768. He described of “meat for poverty not fit to eat, and sometimes almost spoiled” since it hung in the market for hours. Not only were the goods questionable but the vendors were known for charging what they liked, “which is generally exorbitant enough, especially on publick times, or when little meat is at market.” He also compared the Williamsburg market to the Norfolk market where the prices and the quality of goods were regulated by government officials. As an example, “Timothy Telltruth” wrote that butchers in the Norfolk market only charged a farthing to cut meat into smaller portions, while in Williamsburg they charged an extra penny (Walsh et al 1997).

Another comparison written by a James City County resident in 1770 suggests the Williamsburg market was not reliable as a consistent supply for provisions. She remarked in her diary that the Baltimore market was “very fine,” and was “surprised to see the number of People there & the variety of things for Sale.” She was told there was not “seven Gardens in the Whole Town” and for this reason, “nothing can be thought of which is not brought in plenty to market (Walsh et al. 1997).”

Like Williamsburg, Annapolis also had problems establishing and maintaining a quality market. When it became unlawful to sell goods door to door in 1716, Annapolis had their merchants meet weekly at the state house until a market house could be built. Although a market house was built before the mid-century, it was sold and moved to a more convenient location in 1752. That market house was destroyed in 1775 and a new building was not built until 1784 (Walsh et al. 1997).

As part of the District of Columbia, Washington and nearby towns, like Alexandria, make up a fairly new chapter in the overall history of markets and provisioning systems in the Chesapeake. When the government of the United States moved from Philadelphia to Washington in 1800, newcomers to the area found themselves living in a farming region. While the city developed, most of the newly transplanted residents found themselves either employed by government agencies or supplying the city with goods and services. The acquisition and preparation of food quickly became a necessity for the local inhabitants and several means of food procurement were developed. Some of the more wealthy inhabitants, for instance, utilized their outlying farms and nearby plantations to supply their foodstuffs. Other inhabitants may have been raising livestock within the urban setting for their own subsistence. However, as the nineteenth century progressed, laws and regulations that were being passed in other urban areas, such as Philadelphia and Boston, were probably also being passed in Washington to restrict the ability residents had on raising their own livestock. For instance, by 1833, Boston had passed an act that repealed all rights to pasturage on the common grounds, which signaled the end of livestock-rearing in the city. Although it is not known exactly how long or to what extent animals were being raised within the city limits of Washington, at least one restrictive covenant was imposed on a Washington neighborhood called Uniontown in 1854 forbidding boiling soap and raising pigs (Walsh et al.).

While nineteenth century Washington may have seen the decline of livestock rearing in the city, it also saw the development of market buildings, grocers, and the beginnings of a more specialized provisioning system. Washington directories from 1822 to 1830 show the growth of commercialism as grocers increased from eighty-eight to one hundred, bakers doubled from five to ten, and wine merchants from two to five (Carson 1990). Markets were also established beginning with the Central Market, which opened at 7<sup>th</sup> and Pennsylvania in 1801. Several other markets quickly followed as observed by a British traveler in 1818 who counted “three market-houses in Washington, and I believe, four market days per week.” (Fearon 1969). Markets became the center of commercial development in growing communities. Urban residents in the mid-nineteenth century, whether they were rich or poor, rarely had to travel very far to acquire the goods and the provisions they needed.

Although the markets in the Chesapeake region varied depending on the quality of goods and when and where they met to sell the goods, all markets depended upon three factors to ensure their success. Consumers were needed to buy the products, public regulations were needed to monitor the quality and price of the goods, and producers were needed to bring the items to market. Although farmers were the primary suppliers of the market, a number of petty entrepreneurs also provided goods to be sold. Most often these individuals were considered the fringes of society such as slaves, free blacks, impoverished people, and women of varying stations (Walsh et al. 1997).

Slaves were such common figures in the Chesapeake markets that a law was passed in Norfolk in 1773 prohibiting “Indians, mulattoes or negroes Bound or free from selling any kind of dressed meat, Bread, or bakes, or retailing any kind of Beer or spiritous Liquors.” The fact this law was repealed in 1783 suggests slaves and other marginal individuals were too important in the local market system to be prohibited (Walsh et al. 1997). Slaves also played a significant role in the Washington market system as one visitor noted “Negroes are the chief sellers” (Fearon 1969).

Market days were a chance for the slaves to travel freely, to bring items they or their owners had for sale, and to visit with other slaves from around the area. The overwhelming presence of slaves on market days also caused local authorities to become increasingly concerned about their movements in and out of town. In 1810, the constable of Alexandria began to demand that slaves would disperse from the Sunday market by 9 o’clock. Specifically, their task was to “see the negroes from Maryland go over the river, to prevent the riotous play of boys of every description, and of negroes on that day, and if country negroes, to cause them to leave town” (Walsh et al. 1997).

Since slaves and other marginal individuals played such a dominant force in the Washington market, it is not surprising men and trusted servants became the primary shoppers and buyers of merchandise in the early nineteenth century. The role of men as the main consumers in the market represents a change that occurred during the early nineteenth century. During the eighteenth century women of all classes were predominately the shoppers for the household and in 1770 a visitor to Baltimore commented “Ladys here all go to markt to supply their pantry.” By the 1820s, however, the male heads of household with servants mixed with some women could be seen shopping in the markets of Alexandria and Philadelphia. As one servant described in the 1820s, “Your employer will generally attend to going to market, to suit himself, but your experience, if you should be called upon to do this duty, is of the utmost consequence” (Carson 1990). Caroline Gilman also referred to men in the marketplace in *Recollections of a Housekeeper* where she commented that husbands could be seen “haggling with the butchers at their stalls, or balancing raw meat in the open streets” (Gilman 1843).

While the shift from women to men as the main shoppers in the market may be a reflection of cultural changes it may also be related to the shift that occurred in who was selling items in the market. In the early nineteenth century farmers were no longer the primary sellers but middlemen, such as slaves and other petty entrepreneurs, became the primary merchants in the market. As early as 1763, one woman described that the pushing and shoving in the New York market caused “all that are weak and peaceable like myself, to have been excluded from purchasing in the market, by rudeness and force” (Walsh et al. 1997). Markets may have become a less savory place and men were obliged to take over the responsibilities of the daily shopping.

No matter who did the shopping, accounts concerning the Washington market indicate that a wide array of items were available to the local consumer. As one writer commented in 1819, “We have good markets and high prices but not the culinary results” (Carson 1990). Although the Washington market presented a good selection of goods, it was similar to the early market of Williamsburg where prices would increase during public times. Detailed accounts written by

Thomas Jefferson's French maitre d'hotel Etienne Lemarie indicate prices in the Washington market also swelled when congress was in the session. Lemarie's accounts also provide a specific list of some of the wide range, high-end products that the Washington area markets carried for a population that entertained seasonally during the year. In 1806, Lemaire purchased speciality meats including a suckling pig, guinea fowls, partridges, squirrels, veal head and liver, guinea fowl, rabbits, pheasants, a pair of muscovy ducks , as well as numerous quantities of beef, mutton, lamb, and veal (Walsh et al. 1997).

Although the individuals who resided on the property during the early 20<sup>th</sup> century may not have been purchasing such high-end foodstuffs as Jefferson was, the local market provided a centralized provisioning system to sustain the urban inhabitants of Alexandria. As part of the urban cultural landscape, public markets were frequented by a broad cross-section of urban society and their influence can be seen in the faunal remains that are left behind. The following section will summarize the findings of the faunal assemblages from Feature 204 (Site 44AX0212) and draw conclusions about the local market system in the early 20th century.

## Summary

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The previous sections of this report discussed the element distributions of domestic animals, evidence of butchery on the bones, as well as, an overview of the development of markets in the Chesapeake region. By examining these important key pieces of evidence, the faunal assemblage from Feature 2-4 (Site 44AX0212) can provided insights into the provisioning system of early 20<sup>th</sup> century Alexandria and how it affected the availability of foods for its residents. Specifically, to what degree were the occupants of the site utilizing the local market system and how much control did the market have over the type of foods that were available to the consumer? The results from this analysis will also be added to the growing database of faunal assemblages from the Chesapeake in order that a better understanding can be gained on the role of provisioning systems of the region. Finally, the findings from Feature 2-4 (Site 44AX0212) will provide useful comparisons not only to the Chesapeake region, but also to assemblages from other urban centers along the East Coast, such as Philadelphia, Boston, and New York.

As previously mentioned, when the markets and grocers began to flourish in the Washington area in the nineteenth century, farmers began to simultaneously change their animal husbandry practices from a subsistence-oriented economy to a more commercially-oriented economy. Influenced by the existence and the demands of urban areas, such as Washington and Alexandria, farmers responded by managing their livestock to produce the greatest profit. Kill-off data from faunal assemblages can provide a glimpse into the changing patterns in animal husbandry practices. Unfortunately, Feature 2-4 (Site 44AX0212) did not produce any cattle bones and only three swine bones to analyze for age data.

Although the data is weak, the three swine bones indicate that the swine from Feature 2-4 (Site 44AX0212) were killed under the age of one year, the typical age for subsistence farming. If this kill-off pattern was accurate, it raises questions concerning swine husbandry techniques being practiced in Alexandria during the early 20<sup>th</sup> century. If the residents of the site were not raising their own animals were they purchasing the majority of their pig meat from the market and supplementing it with pigs they were acquiring from other sources? By analyzing additional swine bones from the site the practices of the local provisioning system might be better understood.

Evidence of the centralization of Alexandria's provisioning system can also be found in some of the element distributions. For example, the cattle element distributions indicate the occupants of the site preferred or had access to primarily body elements such as the meat-bearing long bones and ribs. While this might suggest personal preference of the individual consumer, it may also suggest new health laws were occurring in Alexandria and Washington, as they were in other urban areas such as Boston, where butchers were required to dispose of feet and other waste parts from their stalls (Marten 1980). During the early to mid-nineteenth century, butchers in Boston began to sell cattle feet for oil and glue production. They also sold cattle heads to Poor Houses and pig farmers as a meat source, and to sugar boilers for the purpose of making animal carbon for the refining of sugar (Colman 1839:73). Were the butchers in Alexandria doing similar things to increase the profitability of cattle waste?

The element distributions for pigs reveal all bones were available to the consumer but proportionately there were more foot bones than elements from the head or body. This lends support to the ideas that either residents were raising their own swine during the early 20<sup>th</sup> century or farmers were bringing the animals into town and having them slaughtered by butchers in the market, who then made the entire carcass available to the consumer.

While kill-off patterns and element distributions can provide insights into the animal husbandry patterns practiced by farmers and the choices that were available to the consumer in the market, evidence of butchering techniques can also be an indication of the growing commercialization of the Alexandria market. Butchers were an important component in the market place and by the nineteenth century most were licensed and charged fees to rent stalls in the market houses. Since they were typically considered lower-level craftsmen, not much has been recorded of the day-to-day workings of butchers. Instead, much of the information concerning the practices of individual butchers has come from accounts of their debts, crimes, and lack of wealth. Complaints about butchers have also revealed some of the problems that consumers faced. Specifically, some butchers would add fat to meat and kidneys in order to hide the poor quality or add weight to the portions including one market butcher in Richmond, Virginia who was put on probation for forestalling meat (Walsh et al. 1997).

Gathering information about specific butchers in Washington and Alexandria is also difficult, although there were a number of them scattered around the town. What is known is that butchering was not allowed directly in the city of Washington so most of the butchering probably took place somewhere on the edge of town. Clues as to how butchers went to market, how food was displayed, and the costs involved in being a seller in the local market can be found in an inventory taken in 1820. John Krause, a butcher, owned "Weights & Scales & Butchers Work

Tools” valued at \$15, “1 Cart & Gear” at \$20, and another “old Cart” at \$2. His appraisers also valued a lease on a “Stall in market House” at \$20 and “2 meat Stands & tops” at \$4” (Carson1990). Unfortunately though, inventories like these often do not specify exactly which tools butchers owned and what tools and methods they preferred to use on specific animals.

During the late eighteenth and early nineteenth century, a transformation of butchering techniques was occurring in large cities, including Alexandria and Washington, throughout the United States. Meals were no longer consisting of large cuts of meat that were roasted and shared in trenchers, instead, the increased use of saws allowed for bones to be cut into individual pieces. Exactly how and when butchering techniques transformed from chopping tools to the use of saws is an ongoing research question that faunal assemblages from urban 19<sup>th</sup> and 20<sup>th</sup> century sites are beginning to help shed some light on. What is known is although saw cuts begin to appear in assemblages dating from the late eighteenth and early nineteenth century, both instruments continued to be used by professional butchers throughout the nineteenth century. Catalogue’s that displayed butcher’s supplies show even in 1900 pork cleavers, beef splitters, market cleavers, and lamb cleavers were advertised along with various types of saws including the high flat steel back for use on heavy beef, the pork packers saws, and dehorning saws (Bowen and Manning 1993). Bulletins issued by the U.S. Department of Agricultural have also indicated home producers used saws, cleavers, and axes even until the early twentieth century. The archaeological record, however, suggests during the nineteenth century the saw became gradually more important and eventually replaced axes and cleavers as the professional tool of choice (Bowen and Manning 1993).

The butchering evidence from Feature 2-4 (Site 44AX0212) indicates in the early 20<sup>th</sup> century, the hand saw was the preferred instrument in butchering the cattle elements, while the swine remains were predominately butchered with a chopping tool. Although this mixture of butchering techniques may be an indication of primary and secondary butchering by the butchers and the consumers, it is more likely this is a reflection of the local provisioning system of the professional butcher. Other urban faunal assemblages from the nineteenth century show a similar pattern of both chopped and sawn bones. For example, analysis of faunal remains from nineteenth century sites from Harpers’s Ferry and Boston have typically exhibited pig and sheep/goat bones that had been chopped and cattle remains that were both chopped and sawn (Bowen and Manning 1993; Bowen and Brown 1994). Beef was one of the most important meats sold by grocers and professional butchers so it is not surprising a highly organized system of butchery was first adopted for adult cattle.

In conclusion, assemblages such as those analyzed from Feature 2-4 contain important information on the changes in foodway patterns that occurred in Alexandria during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. During this time provisioning systems all over the Chesapeake were evolving from a small face-to-face market system into one driven by middlemen and controlled by municipal regulations. By examining the kill-off patterns, the element distributions, and the butchering remains from nineteenth century sites a better understanding can be gained on how and when the development of the large-scale market took place.

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## **Appendix A.**

### **Age Distribution Tables for Domestic Mammals**

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**Table 7**  
**Age Distribution Based on Epiphyseal Fusion**  
**Feature 2-4, Site 44AX0212**  
***Sus scrofa* (Domestic Swine)**  
**N=3**

<b>Age of Fusion - 0 to 12 Months</b>		
Bone and Epiphysis	Fused	Not Fused
Scapula	1	0
Innominate	0	0
Humerus - distal	0	0
Radius - proximal	1	0
Second phalange - proximal	0	1
	2	1
Percent of Age Range	66.7%	33.3%

<b>Age of Fusion - 12 to 24 Months</b>		
Bone and Epiphysis	Fused	Not Fused
Metacarpal	0	0
First phalange - proximal	0	0
Tibia - distal	0	0
	0	0
Percent of Age Range	0.0%	0.0%

<b>Age of Fusion - 24 to 36 Months</b>		
Bone and Epiphysis	Fused	Not Fused
Calcaneus	0	0
Metatarsal	0	0
Fibula - distal	0	0
	0	0
Percent of Age Range	0.0%	0.0%

<b>Age of Fusion - 36 to 42 Months</b>		
Bone and Epiphysis	Fused	Not Fused
Humerus - proximal	0	0
Radius - distal	0	0
Ulna - proximal	0	0
Ulna - distal	0	0
Femur - proximal	0	0
Femur - distal	0	0
Tibia - proximal	0	0
Fibula - proximal	0	0
	0	0
Percent of Age Range	0.0%	0.0%

Source of Fusion Ages: Silver 1969; Chaplin 1970; Maltby 1979.

**Appendix B.**  
**Bone Measurements**

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**Key to Bone Measurements**  
**(from *A Guide to the Measurement of Animal Bones***  
***from Archaeological Sites*, by Angela Von Den Driesch)**

**Radius**

Bp — Greatest breadth of the proximal end

SD — Smallest breadth of the diaphysis

**Ulna**

DPA — Depth across the Processus anconaeus

BPC — Greatest breadth across the coronoid process

**Table 8**  
**Feature 2-4, Site 44AX0212**  
**Bone Measurements**

<b>UB No</b>	<b>Context</b>	<b>Taxon</b>	<b>Element</b>	<b>Description</b>	<b>Measurement (mm)</b>
192	Feature 2-4	<i>Sus scrofa</i>	Ulna	DPA	40.4
				BPC	30.5
193	Feature 2-4	<i>Sus scrofa</i>	Ulna	BPC	22.5
194	Feature 2-4	<i>Sus scrofa</i>	Radius	Bp	37.4
				SD	26.8
195	Feature 2-4	<i>Sus scrofa</i>	Radius	SD	21.5

**Appendix C.**  
**List of Bones by Context**

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**Table 9**  
**List of Faunal Remains by Context**

UBNo.	Taxon	Sym	Element	NISP	Wgt	
<b>Feature 2-4, Feature Fill</b>						
178	<i>Callinectes sapidus</i>		claw	3	.4	
168	Class Osteichthytes		cranium	59	2.2	
174	Class Osteichthytes		vertebra	2	.1	
181	Class Osteichthytes		vertebra	2	.1	Burned
167	Class Osteichthytes		rib	14	.3	
166	Class Osteichthytes		spine	18	.5	
179	Class Osteichthytes		scale	138	.8	
173	Class Osteichthytes		indeterminate	12	.4	
289	Class Osteichthytes		indeterminate	10	.4	
182	Class Chondrichthytes		vertebra	1	.1	
66	Family Ictaluridae	A	cranium	1	1.5	
70	Family Ictaluridae	A	ethmoid cornu	2	.4	
71	Family Ictaluridae	A	ethmoid cornu	1	.1	
69	Family Ictaluridae	R	frontal	1	.5	
77	Family Ictaluridae	R	frontal	1	.2	
84	Family Ictaluridae	L	frontal	1	.2	
94	Family Ictaluridae	L	frontal	1	.1	
67	Family Ictaluridae	A	epiotic	1	1.0	
68	Family Ictaluridae	A	epiotic	1	.4	
72	Family Ictaluridae	A	parasphenoid	1	.2	
158	Family Ictaluridae	A	parasphenoid	1	.2	
102	Family Ictaluridae	L	angular	1	.2	
105	Family Ictaluridae	L	angular	1	.1	
103	Family Ictaluridae	R	angular	1	.3	
104	Family Ictaluridae	R	angular	1	.1	
126	Family Ictaluridae	L	dentary	1	.1	
129	Family Ictaluridae	L	dentary	1	.3	
126	Family Ictaluridae	L	dentary	1	.1	
208	Family Ictaluridae	L	dentary	1	.2	
125	Family Ictaluridae	R	dentary	1	.3	
127	Family Ictaluridae	R	dentary	2	.2	
128	Family Ictaluridae	R	dentary	1	.3	
154	Family Ictaluridae	R	maxilla	1	.1	
159	Family Ictaluridae	I	palatine	1	.1	
119	Family Ictaluridae	L	quadrate	2	.1	
115	Family Ictaluridae	R	quadrate	1	.2	
117	Family Ictaluridae	R	quadrate	1	.2	
118	Family Ictaluridae	R	quadrate	1	.0	
121	Family Ictaluridae	L	ceratohyal	3	.6	
122	Family Ictaluridae	R	ceratohyal	4	.7	

123	Family Ictaluridae	L	epihyal	1	.1
124	Family Ictaluridae	R	epihyal	3	.2
78	Family Ictaluridae	L	hyomandibular	1	.6
82	Family Ictaluridae	L	hyomandibular	1	.2
79	Family Ictaluridae	R	hyomandibular	1	.3
80	Family Ictaluridae	R	hyomandibular	1	.2
81	Family Ictaluridae	R	hyomandibular	1	.1
83	Family Ictaluridae	I	hyomandibular	1	.1
85	Family Ictaluridae	I	hyomandibular	1	.1
114	Family Ictaluridae	L	operculum	4	.3
112	Family Ictaluridae	R	operculum	1	.2
113	Family Ictaluridae	R	operculum	3	.3
116	Family Ictaluridae	L	preoperculum	1	.2
130	Family Ictaluridae	L	preoperculum	1	.2
106	Family Ictaluridae	A	urohyal	4	.2
76	Family Ictaluridae	A	vertebra	3	1.1
73	Family Ictaluridae	A	complex vertebra	1	.4
74	Family Ictaluridae	A	complex vertebra	1	.3
75	Family Ictaluridae	A	complex vertebra	1	.1
93	Family Ictaluridae	A	complex vertebra	1	.1
107	Family Ictaluridae	L	supracleithrum	1	.2
109	Family Ictaluridae	L	supracleithrum	1	.1
111	Family Ictaluridae	L	supracleithrum	1	.2
108	Family Ictaluridae	R	supracleithrum	1	.1
110	Family Ictaluridae	R	supracleithrum	1	.1
86	Family Ictaluridae	L	cleithrum	1	.7
87	Family Ictaluridae	L	cleithrum	1	.2
88	Family Ictaluridae	L	cleithrum	1	.2
89	Family Ictaluridae	L	cleithrum	1	.2
90	Family Ictaluridae	R	cleithrum	1	.4
91	Family Ictaluridae	R	cleithrum	1	.2
92	Family Ictaluridae	R	cleithrum	1	.2
96	Family Ictaluridae	R	cleithrum	1	.2
95	Family Ictaluridae	R	coracoid	1	.2
97	Family Ictaluridae	R	coracoid	1	.1
98	Family Ictaluridae	R	coracoid	1	.1
120	Family Ictaluridae	I	coracoid	1	.0
153	Family Ictaluridae	I	spine	1	.1
99	Family Ictaluridae	R	pectoral spine	1	.7
100	Family Ictaluridae	L	pectoral spine	1	.2
101	Family Ictaluridae	L	pectoral spine	1	.1
287	Family Centrarchidae	R	operculum	1	.0
288	Family Centrarchidae	A	parasphenoid	1	.0
209	<i>Perca flavescens</i>	L	operculum	1	.0
210	<i>Perca flavescens</i>	L	quadrate	1	.0

141	<i>Sciaenops ocellatus</i>	L	maxilla	2	.4	
165	<i>Micropogon undulates</i>	I	frontal	3	.1	
163	<i>Micropogon undulates</i>	L	pteroitic		2	.3
164	<i>Micropogon undulates</i>	R	pteroitic		1	.1
156	<i>Micropogon undulates</i>	A	parasphenoid	1	.6	
137	<i>Micropogon undulates</i>	L	angular	4	.3	
138	<i>Micropogon undulates</i>	R	angular	3	.3	
157	<i>Micropogon undulates</i>	I	palatine	5	.2	
133	<i>Micropogon undulates</i>	L	premaxilla	3	.2	
134	<i>Micropogon undulates</i>	R	premaxilla	5	.3	
139	<i>Micropogon undulates</i>	L	maxilla	5	.5	
140	<i>Micropogon undulates</i>	R	maxilla	3	.1	
131	<i>Micropogon undulates</i>	L	dentary	7	.8	
132	<i>Micropogon undulates</i>	R	dentary	5	.6	
149	<i>Micropogon undulates</i>	L	quadrate	3	.1	
150	<i>Micropogon undulates</i>	R	quadrate	1	.0	
145	<i>Micropogon undulates</i>	L	ceratophyal	5	.5	
146	<i>Micropogon undulates</i>	R	ceratophyal	7	.7	
147	<i>Micropogon undulates</i>	L	epihyal	7	.2	
148	<i>Micropogon undulates</i>	R	epihyal	5	.1	
143	<i>Micropogon undulates</i>	L	hyomandibular	3	.1	
142	<i>Micropogon undulates</i>	R	hyomandibular	8	.3	
144	<i>Micropogon undulates</i>	I	hyomandibular	2	.1	
135	<i>Micropogon undulates</i>	L	preoperculum	5	.2	
136	<i>Micropogon undulates</i>	R	preoperculum	6	.3	
162	<i>Micropogon undulates</i>	I	interoperculum	3	.0	
151	<i>Micropogon undulates</i>	R	cleithrum	1	.0	
152	<i>Micropogon undulates</i>	L	posttemporal	1	.0	
153	<i>Micropogon undulates</i>	R	posttemporal	1	.0	
290	Order Testudines	I	indeterminate	2	.4	
284	<i>Chelydra serpentina</i>	I	cranium	11	2.5	
280	<i>Chelydra serpentina</i>	L	prefrontal	1	.1	
281	<i>Chelydra serpentina</i>	R	prefrontal	1	.1	
278	<i>Chelydra serpentina</i>	L	postfrontal	1	.5	
279	<i>Chelydra serpentina</i>	R	postfrontal	1	.5	
282	<i>Chelydra serpentina</i>	L	fronto-parietal	1	.4	
283	<i>Chelydra serpentina</i>	R	fronto-parietal	1	.4	
273	<i>Chelydra serpentina</i>	A	pterygoid	1	.6	
274	<i>Chelydra serpentina</i>	L	quadrate	1	1.0	
275	<i>Chelydra serpentina</i>	R	quadrate	1	1.3	
276	<i>Chelydra serpentina</i>	L	squamosal	1	.2	
277	<i>Chelydra serpentina</i>	R	squamosal	1	.2	
271	<i>Chelydra serpentina</i>	L	dentary	1	.9	
272	<i>Chelydra serpentina</i>	R	dentary	1	.9	
285	<i>Chelydra serpentina</i>	I	hyoid	3	1.4	

286	<i>Chelydra serpentina</i>	A	vertebra	2	.8
172	Class Aves		limb bones	6	.5
180	Class Aves		eggshell	43	1.5
53	<i>Gallus gallus</i>	A	nasal	1	.1
54	<i>Gallus gallus</i>	A	atlas	1	.1
65	<i>Gallus gallus</i>	A	vertebra	11	1.3
34	<i>Gallus gallus</i>	A	synsacrum	1	.5
55	<i>Gallus gallus</i>	A	caudal vertebra	1	.0
56	<i>Gallus gallus</i>	A	caudal vertebra	1	.0
64	<i>Gallus gallus</i>	I	rib	1	.1
160	<i>Gallus gallus</i>	I	rib	2	.1
31	<i>Gallus gallus</i>	A	sternum	1	.7
32	<i>Gallus gallus</i>	A	sternum	1	.1
33	<i>Gallus gallus</i>	A	sternum	1	.1
35	<i>Gallus gallus</i>	A	innominate	1	.2
36	<i>Gallus gallus</i>	A	innominate	1	.2
20	<i>Gallus gallus</i>	L	scapula	1	.2
18	<i>Gallus gallus</i>	R	coracoid	1	.1
16	<i>Gallus gallus</i>	R	coracoid	1	.4
15	<i>Gallus gallus</i>	L	coracoid	1	.4
17	<i>Gallus gallus</i>	L	coracoid	1	.1
1	<i>Gallus gallus</i>	L	humerus	1	.9
2	<i>Gallus gallus</i>	R	humerus	1	1.0
3	<i>Gallus gallus</i>	R	humerus	1	.1
4	<i>Gallus gallus</i>	R	humerus	1	.2
5	<i>Gallus gallus</i>	L	humerus	1	.2
6	<i>Gallus gallus</i>	L	humerus	1	.1
22	<i>Gallus gallus</i>	R	ulna	1	.1
23	<i>Gallus gallus</i>	R	ulna	1	.1
21	<i>Gallus gallus</i>	L	ulna	1	.6
19	<i>Gallus gallus</i>	R	radius	1	.2
7	<i>Gallus gallus</i>	R	femur	1	1.3
8	<i>Gallus gallus</i>	R	femur	1	.2
10	<i>Gallus gallus</i>	R	femur	1	.1
9	<i>Gallus gallus</i>	L	femur	1	.2
24	<i>Gallus gallus</i>	L	femur	1	.1
29	<i>Gallus gallus</i>	L	femur	1	.2
60	<i>Gallus gallus</i>	I	carpal	1	.1
59	<i>Gallus gallus</i>	R	scapholunar	2	.2
57	<i>Gallus gallus</i>	L	cuneiform	1	.2
58	<i>Gallus gallus</i>	R	cuneiform	1	.1
42	<i>Gallus gallus</i>	R	phalanx 1, digit II	1	.2
43	<i>Gallus gallus</i>	R	phalanx 1, digit II	1	.1
44	<i>Gallus gallus</i>	R	phalanx 1, digit II	1	.1
45	<i>Gallus gallus</i>	R	phalanx 1, digit II	1	.1
38	<i>Gallus gallus</i>	L	phalanx 1, digit II	3	.5

39	<i>Gallus gallus</i>	L	phalanx 1, digit II	1	.1	
40	<i>Gallus gallus</i>	L	phalanx 1, digit II	1	.2	
41	<i>Gallus gallus</i>	L	phalanx 1, digit II	1	.1	
46	<i>Gallus gallus</i>	I	phalanx 1, digit II	1	.1	
161	<i>Gallus gallus</i>	I	phalanx 1, digit II	1	.1	
38	<i>Gallus gallus</i>	L	phalanx 1, digit II	3	.5	
39	<i>Gallus gallus</i>	L	phalanx 1, digit II	1	.1	
40	<i>Gallus gallus</i>	L	phalanx 1, digit II	1	.2	
47	<i>Gallus gallus</i>	L	phalanx 2, digit II	1	.1	
48	<i>Gallus gallus</i>	L	phalanx 2, digit II	1	.1	
49	<i>Gallus gallus</i>	L	phalanx 2, digit II	1	.1	
50	<i>Gallus gallus</i>	I	phalanx 2, digit II	1	.1	
51	<i>Gallus gallus</i>	I	phalanx 2, digit II	1	.1	
52	<i>Gallus gallus</i>	I	phalanx 2, digit II	1	.1	
37	<i>Gallus gallus</i>	R	fibula	1	.1	
13	<i>Gallus gallus</i>	R	tibiotarsus	1	.7	
11	<i>Gallus gallus</i>	L	tibiotarsus	1	.4	
12	<i>Gallus gallus</i>	L	tibiotarsus	1	.9	
14	<i>Gallus gallus</i>	L	tibiotarsus	1	.1	
30	<i>Gallus gallus</i>	I	patella	1	.2	
63	<i>Gallus gallus</i>	I	patella	1	.2	
25	<i>Gallus gallus</i>	R	tarsometatarsus	1	1.1	
26	<i>Gallus gallus</i>	L	tarsometatarsus	1	.6	
27	<i>Gallus gallus</i>	L	tarsometatarsus	1	.1	
28	<i>Gallus gallus</i>	I	tarsometatarsus	1	.0	
61	<i>Gallus gallus</i>	I	phalanx		53	7.4
62	<i>Gallus gallus</i>	I	phalanx		4	.5
176	Class Aves/Class Mamm. III		limb bones	3	.3	
169	Class Mammalia		indeterminate	94	9.2	
177	Class Mammalia		indeterminate	27	2.6	Burned
170	Class Mammalia II		rib	12	3.5	
171	Class Mammalia II		limb bone	12	5.2	
175	Class Mammalia II		limb bone	1	0.5	Burned
291	Class Mammalia II		limb bone	1	1.2	
183	<i>Sus scrofa</i>	R	lower incisor	1	2.9	
197	<i>Sus scrofa</i>	R	scapula	1	5.6	
192	<i>Sus scrofa</i>	L	ulna	1	41.6	
193	<i>Sus scrofa</i>	R	ulna	1	11.0	
194	<i>Sus scrofa</i>	R	radius	1	10.3	
195	<i>Sus scrofa</i>	L	radius	1	37.1	
196	<i>Sus scrofa</i>	I	radius	1	4.3	
190	<i>Sus scrofa</i>	I	fibula	1	.1	
187	<i>Sus scrofa</i>	I	phalanx	15	2.3	
184	<i>Sus scrofa</i>	I	phalanx I	1	1.5	

185	<i>Sus scrofa</i>	I	phalanx I	7	2.8	
186	<i>Sus scrofa</i>	I	phalanx II	6	1.4	
188	<i>Sus scrofa</i>	I	phalanx III	15	3.7	
189	<i>Sus scrofa</i>	I	carpal or tarsal		13	3.8
191	<i>Sus scrofa</i>	I	metapodial	1	3.5	
198	<i>Bos taurus</i>	I	rib	1	59.1	
199	<i>Bos taurus</i>	I	rib	1	31.2	
200	<i>Bos taurus</i>	I	rib	1	26.3	
201	<i>Bos taurus</i>	I	rib	1	13.5	
202	<i>Bos taurus</i>	A	thoracic vertebra	1	54.1	
204	<i>Bos taurus</i>	A	thoracic vertebra	1	17.9	
205	<i>Bos taurus</i>	A	thoracic vertebra	1	11.6	
206	<i>Bos taurus</i>	R	scapula	1	25.3	
207	<i>Bos taurus</i>	I	scapula	1	17.7	
203	<i>Bos taurus</i>	I	femur	1	13.0	

**Feature 2-4, Feature Fill, Flotation Heavy Fraction**

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212	Class Osteichthytes		vertebra	24	.3	
211	Class Osteichthytes		spine	253	1.7	
262	Class Osteichthytes		spine	5	.0	
270	Class Osteichthytes		spine	2	.0	
247	Class Osteichthytes		indeterminate	16	.4	
263	Class Osteichthytes		indeterminate	28	.5	
264	Class Osteichthytes		scale	117	.4	
223	Family Ictaluridae	R	frontal	1	.1	
250	Family Ictaluridae	A	ethmoid cornu	1	.1	
249	Family Ictaluridae	A	supraoccipital	2	.3	
224	Family Ictaluridae	L	maxilla	1	.1	
253	Family Ictaluridae	L	angular	1	.0	
215	Family Ictaluridae	R	angular	2	.2	
219	Family Ictaluridae	R	dentary	1	.2	
222	Family Ictaluridae	I	palatine	2	.1	
256	Family Ictaluridae	R	quadrate	1	.1	
226	Family Ictaluridae	I	hypohyal	2	.1	
216	Family Ictaluridae	A	urohyal	1	.1	
252	Family Ictaluridae	A	urohyal	1	.0	
251	Family Ictaluridae	A	complex vertebra	1	.1	
225	Family Ictaluridae	R	preoperculum	1	.1	
227	Family Ictaluridae	L	preoperculum	1	.1	
255	Family Ictaluridae	L	operculum	1	.1	
217	Family Ictaluridae	L	supracleithrum	1	.1	
218	Family Ictaluridae	R	supracleithrum	1	.1	
254	Family Ictaluridae	R	supracleithrum	1	.1	
214	Family Ictaluridae	R	cleithrum	1	.3	
257	Family Ictaluridae	L	coracoid	1	.1	

258	Family Ictaluridae	I	coracoid	1	.1	
220	Family Ictaluridae	I	coracoid	1	.0	
221	Family Ictaluridae	R	pectoral spine	1	.1	
259	<i>Micropogon undulates</i>	L	opisthotic	1	.0	
260	<i>Micropogon undulates</i>	R	opisthotic	1	.0	
261	<i>Micropogon undulates</i>	L	hyomandibular	1	.1	
266	Class Aves		eggshell	280	2.0	
228	<i>Gallus gallus</i>	I	tarsometatarsus	1	.0	
229	<i>Gallus gallus</i>	L	phalanx 2, digit II	1	.1	
230	<i>Gallus gallus</i>	R	phalanx 2, digit II	1	.1	
231	<i>Gallus gallus</i>	I	scapholunar	1	.0	
232	<i>Gallus gallus</i>	I	phalanx		0	.0
233	<i>Gallus gallus</i>	I	phalanx 1	5	.2	
246	<i>Gallus gallus</i>	I	phalanx 1	1	.2	
234	<i>Gallus gallus</i>	I	phalanx 3	1	.1	
269	Class Aves/Class Mammalia		phalanx		1	.0
211	Class Mammalia		indeterminate	239	1.7	
248	Class Mammalia		indeterminate	19	.2	
265	Class Mammalia		indeterminate	1	.1	
267	Class Mammalia		indeterminate	39	2.1	
268	Class Mammalia		indeterminate	5	.1	
245	Rat spp.	A	caudal vertebra	1	.0	
238	Mouse spp.	A	vertebra	2	.0	
239	Mouse spp.	A	atlas	1	.0	
240	Mouse spp.	R	premaxilla	1	.0	
243	Mouse spp.	I	incisor	1	.0	
241	Mouse spp.	L	humerus	1	.0	
242	Mouse spp.	R	humerus	1	.0	
244	Mouse spp.	L	scapula	1	.0	
235	<i>Sus scrofa</i>	I	phalanx II	2	.8	
236	<i>Sus scrofa</i>	I	phalanx III	1	.1	
237	<i>Sus scrofa</i>	I	carpal or tarsal		1	.4



**APPENDIX IV**  
**Cultural Resource Form**







City/County: Alexandria

**SITE CONDITION/SURVEY DESCRIPTION**

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**Site Dimensions:** 115 feet by 250 feet **Acreage:** 0.30

**Survey Strategy:** Historic Map Projection  
Subsurface Testing

**Site Condition:** 75-99% of Site Destroyed

**Threats to Resource:** Development

**Survey Description:**

[Nov. 2009/Thunderbird] The Phase I field methodology consisted of the manual excavation of shovel test pits (STPs). The shovel testing strategy was designed to sample different location types within each lot as well as between lots, allowing for an examination of the usage of space both by individual households, between households and between neighborhoods. The planned shovel test pit locations within the project area were based on historic map projection and current conditions. A 40 foot interval shovel test grid was used for the placement of shovel test pits in portions of the project area that appeared to have been undeveloped based on historic map projection. When field conditions allowed, additional shovel test pits were excavated at close intervals in the vicinity of STPs that yielded artifacts if additional testing was deemed necessary to establish the presence or significance of historic or prehistoric cultural resources at the location. The number of shovel test pits was reduced in areas found to contain significant disturbance or deep fills, which precluded hand excavation.

Shovel test pits measured at least 15 inches in diameter. Vertical excavation was by natural or cultural soil levels; excavation stopped when gleyed soils, gravel or other impasses, water, or well developed B horizons too old for human occupation were reached. Soil horizons observed at the site were classified according to standard pedological designations. All soil was screened through 1/4-inch mesh hardware cloth screens. Soil profiles were made of representative units, with soil descriptions noted in standard soil terminology (A, Ap, B, C, etc.). Soil colors were described using the Munsell Soil Color Chart designations. Artifacts were bagged and labeled by unit number and by soil horizon.

Following consultation with Alexandria Archaeology, artifacts from the uppermost fill horizons (which contained primarily modern artifacts) were sampled from selected shovel test pits within each block and discarded from other STPs in the vicinity. Additionally, clearly modern artifacts and materials such as brick, faunal shell, coal, and slag were noted and discarded in the field.

The site dimensions are unknown pending additional investigation. The dimensions given are based on a buffer assigned to the feature for use in archeological monitoring.

[June 2011/Thunderbird] The archeological monitoring was required under the stipulations of the 2010 PA agreement and followed a Scope of Work approved by Alexandria Archaeology. All ground-disturbing activities within the project area was monitored or directed by an archeologist. Backhoe trenches were excavated beneath three of the circa 1954 building concrete slab foundations, following the demolition of the superstructure. The soil profiles were recorded.

Feature 2-1: The feature was exposed using a backhoe equipped with a flat-lipped (smooth) bucket. The full vertical and horizontal extents of the feature were determined and the work was documented with field notes, sketch plans, profiles and digital photographs.

Features were bisected and portions of the feature soils screened; or test units were hand excavated to investigate potentially significant archeological features and/or buried ground surfaces that were identified during the archeological monitoring. Vertical excavation was by natural soil levels or by arbitrary sublevels if determined necessary by the staff archeologist. Soil colors were described using the Munsell Soil Color Chart designations. Soils were screened through 1/4-inch mesh hardware cloth screens, in areas where full artifact recovery was deemed necessary. Artifacts were bagged and labeled by unit number and by soil horizon. The work was documented with field notes, sketch plans, and photographs.

The site consists of two non-contiguous portions: the northern portion measures 115 by 250 and the southern section of the site measures 35 by 20 feet.

City/County: Alexandria

**CURRENT LAND USE**

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**Land Use:** Domestic      **Example:** Dwelling, multiple      **Dates of Use:** 2009/11/01

**Comments/Remarks:**

The site is located within the James Bland Homes public housing project built in 1954 and 1959. Sidewalks, grassy lawns and shrubbery planted during the project's landscaping surround the 34 public housing buildings on the property. The project area surroundings may be generally described as inner city urban with mixed commercial and residential use.

**Land Use:** Domestic      **Example:** Dwelling, multiple      **Dates of Use:** 2011/06/01

**Comments/Remarks:**

The site is currently being redeveloped into multi-housing units, following the demolition of the circa 1954 James Bland Homes public housing units.

**SPECIMENS, FIELDNOTES, DEPOSITORIES**

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**Specimens Obtained?** Yes      **Specimens Depository:** Final Repository: Alexandria Archaeology

**Assemblage Description:**

Ceramics

- 3 buff bodied earthenware
- 20 hard paste porcelain
- 12 hard paste porcelain button
- 1 porcelain doll head
- 1 pearlware (1780-1830)
- 15 whiteware (1820-1900+)
- 3 refined white earthenware
- 1 Rockingham/Bennington (1800-1900+)
- 4 stoneware

Glass

- 1 bead
- 3 button
- 4 stopper
- 406 lamp chimney
- 144 bottle, bottle/jar, tableware, bottle/jar/tableware
- 16 tableware, pressed (1827-present)
- 1 safety glass (post-1915)
- 3 bottle, bottle/jar, clear manganese, chilled iron mold (1880-1915)
- 16 bottle, bottle/jar, flask, chilled iron mold (1880-1930)
- 89 bottle, bottle/jar, tableware, flask, automatic bottle machine (ABM) (1907-present)
- 4 bottle, bottle/jar, duraglas (1940-present)
- 66 unidentified glass
- 23 windowpane, lime soda (1864-present)

Metal

- 1 aluminum cap
- 3 brass button, clasp
- 1 brass tag
- 2 ferrous metal button
- 1 hook
- 15 nail, cut (post-1790)
- 33 nail, wire (1890-present)
- 59 nail, unidentified
- 1 spike
- 183 unidentified ferrous metal
- 1 unidentified lead

Miscellaneous

- 2758 blackberry/raspberry (Rubus) seed
- 1125+ bone
- 2 bone collar stud
- 136 brick
- 219 calcium carbonate concretion
- 1 clay marble
- 23 coal, cinder
- 323 egg shell
- 255 fish scale
- 216 grape vine (Vitis) seed
- 105 mortar, mortar with plaster attached
- 1 mother of pearl button
- 2 oyster shell
- 1 oyster shell button
- 1 peach pit
- 15 plastic, rubber bulb and tubing
- 332 slag

City/County: Alexandria

- 2 slate
- 2 slate pencil
- 1 vinyl record
- 4 wood

Prehistoric

- 1 quartz decortication flake
- 4 quartz primary reduction flake
- 9 quartz flake fragment

Specimens Reported? No

Assemblage Description--Reported:

Field Notes Reported? Yes                      Depository: [November 2009] WSSI, Gainesville, VA  
 [June 2011] WSSI, Gainesville, VA

**REPORTS, DEPOSITORY AND REFERENCES**

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Report (s) ? Yes                      Depository: WSSI, Gainesville, VA

DHR Library Reference Number:

Reference for reports and publications:

Archeological Evaluation Report (Phase I Archeological Investigation) and Research Management Plan For The James Bland Development Property, City Of Alexandria, Virginia. Boyd Sipe, M.A. November 2009

Report (s) ? Yes                      Depository: WSSI, Gainesville, VA.

DHR Library Reference Number:

Reference for reports and publications:

James Bland Development Property (Block 2) City of Alexandria, Virginia. Addendum to the November 2009 (Revised 2010) Archeological Evaluation Report (Phase I Archeological Investigation) and Research Management Plan. John Mullen. November 2011 (Revised May 2012).

**PHOTOGRAPHIC DOCUMENTATION AND DEPOSITORY**

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Photographic Documentation?	Depository	Type of Photos	Photo Date
Yes	WSSI	Digital color	2010/11/01
	WSSI	Digital color	2011/06/01

**CULTURAL RESOURCE MANAGEMENT EVENTS**

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<b>Cultural Resource Management Event:</b>	Survey:Phase I/Reconnaissance	<b>Date:</b>	2011/06/01
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Organization and Person:

Organization: WSSI, Gainesville, V    First:    Last:

Sponsor Organization:

DHR Project Review File No: 2008-0695

CRM Event Notes or Comments:

**City/County:** Alexandria

Additional archeological work (archeological monitoring) was required under the stipulations of the 2010 PA agreement and followed a Scope of Work approved by Alexandria Archaeology. The goal of the monitoring was to locate and identify any potentially significant archeological resources that were not identified during the archeological site evaluation (Phase I investigation). The architectural remnants of several early 20th century dwellings and one privy feature were recorded as Site 44AX0212.

The foundation remnants were related to mapped structures and associated with slag and architectural artifacts with little interpretive value. The foundation remnants were not considered to be significant and Alexandria Archaeology concurred. Based on the documentary evidence and archeological data, the privy feature may have been in use between 1900 and the 1940s. While the privy feature had interpretive value, the surrounding area had been disturbed and no other features were identified. Alexandria Archaeology indicated that no additional archeological work was required beyond the documentation completed during the monitoring phase.

Site 44AX0212 is not considered eligible to the NRHP under Criteria A or B, as there is no known association with significant events or individuals or under Criterion C, in our opinion, as the architectural remains do not embody distinctive characteristics of a type, period, or method of construction, or represents the work of a master. Because of the extensive disturbance surrounding site 44AX0212, there is no remaining potential to yield additional significant archaeological information and in our opinion, is not considered potentially eligible to the NRHP under Criterion D. No additional archeological work is recommended.

<b>Cultural Resource Management Event:</b> Survey:Phase I/Reconnaissance	<b>Date:</b> 2009/11/01
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**Organization and Person:**

**Organization:** WSSI, Gainesvil      **First:** Boyd      **Last:** Sipe

**Sponsor Organization:**

**DHR Project Review File No:** 2008-0695

**CRM Event Notes or Comments:**

Thunderbird Archeology, a division of Wetland Studies and Solutions Inc.(WSSI) of Gainesville, Virginia conducted an Archeological Evaluation (Phase I archeological investigation) of the James Bland Development property; comprising two entire city blocks and three partial city blocks bounded by First, N. Patrick, Madison, N. Alfred, Wythe and N. Columbus Streets in Alexandria, Virginia. The work was sponsored by EYA of Bethesda, Maryland and was carried out in October and November of 2009.

**INDIVIDUAL/ORGANIZATION/AGENCY INFORMATION**

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**Individual Category Codes:**

**Honorif:**      **First:**      **Last:**

**Suffix:**

**Title:**

**Company/**

**Agency:**

**Address:**

**City:**      **State:**      **Zip:**

**Phone/Ext:**

**Notes:**

**Ownership Type:** Private

**Government Agency:**

