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Cultural Resource Survey of the
United States Naval Academy
Annapolis, Maryland

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ABSTRACT

This report presents the results of the Legacy Resource Management Program, Cultural Resource Management survey as it relates to the United States Naval Academy (USNA) in Annapolis, Maryland. Sponsored by the United States Department of Defense and managed through the Naval Facilities (CHESDIV), a multi-faceted project was initiated by Archaeology In Annapolis, an on-going research project jointly sponsored by Historic Annapolis Foundation, and the University of Maryland, College Park. The project was comprised of an archaeological survey conducted over a 2 month period, title searches on properties now occupied by the USNA, oral history interviews conducted with residents of a former neighborhood purchased by the Academy, and the use of the AutoCAD computer mapping program to assist with the archaeological survey and to potentially generate a predictive model of where historic or prehistoric cultural resources may exist on USNA property. Conclusions drawn from this study highlight the rich amount of cultural resources which exist in the form of artifacts dating from the late-1700's, deeds information that shows changing economic and social patterns throughout the 290 year history of the ground occupied by the Academy, memories of individuals who lived through the expansion of the Academy into their homes, and a series of maps which can be used to indicate the likelihood of further cultural resources.

<u>**Plates**</u>

<u>**Tables**</u>

INTRODUCTION

This report presents the results of a multifaceted cultural resource survey project performed on the grounds of the United States Naval Academy (USNA) in Annapolis, Maryland. The main objective of the project was to provide the Navy with information about what types of cultural resources exist for the area now occupied by the USNA. From the Legacy Resource Management Program guidelines (Report to Congress, September 1991) the legislative purpose of Legacy as it relates to this project are stated in purposes 1, 5 and 6. Purpose 1 is "to establish a strategy, plan, and priority list for identifying and managing significant biological, geophysical, cultural, and historical resources existing on, or involving, all Secretary of Defense lands, facilities, and property." Purpose 5 is "to establish programs to protect, inventory, and conserve the artifacts of Native American civilization, settler communities, and others deemed to have historical, cultural, or spiritual significance." And, purpose 6 is "to establish inventories of all scientifically significant biological, geophysical, cultural, and historical assets on Department of Defense lands. In addition to the specific attributes of the asset, these inventories are to catalog their scientific and/or cultural significance as well as their interrelationship to the surrounding environment, including the military mission carried out on the land upon which they reside." With this information, the Navy is equipped to make appropriate planning decisions for capital improvement projects or other activities that would affect areas that contain valuable cultural resources. The four phases of the project included an archaeological reconnaissance survey of the historic core of the Academy to determine presence or absence of archaeological remains, a complete deeds search for all properties acquired by the Academy during its expansion into the city of Annapolis from 1845 through 1941, oral history interviews with former residents of a neighborhood that was a casualty of this expansion, and the use of AutoCAD map overlays to predict locations of possible historically significant features such as buildings relating to Naval Academy history or structures dating from before the Academy was built. A secondary objective of the Legacy Project as it applies to the USNA was to assemble this information into a consolidated report that would highlight the significance of the existing cultural resources.

Plate 1. Navy officers and midshipmen took great interest in archaeological work done in the Yard during summer 1993. Here, site supervisor relates information to Navy officer about history of Governor's Mansion which was located here until 1901.

The Legacy Project is administered by the Department of Defense, Chesapeake Division. The principal investigator for this project is Dr. Mark Leone, professor in the Department of Anthropology at the University of Maryland, College Park (UMCP). Others involved in the project were Mr. Thomas Bodor, supervisor of all archaeological fieldwork on the Academy, and Mr. Kevin Etherton, assistant supervisor, Dr. Jean Russo of Historic Annapolis Foundation, who assembled the deeds information, Ms. Hannah Kaiser, who supervised the oral history interviewing, and Ms. Gilda Anroman, who produced the AutoCAD map overlays. Dr. John Seidel, also of the Department of Anthropology at UMCP, contributed to the design of the archaeology excavation. The project began in November 1992 with deeds searches for the properties acquired by the Navy during the Academy's period of expansion from 1845 through 1941. Archaeological excavation was started on June 7, 1993 and all fieldwork was completed by August 1, 1993. Both the AutoCAD mapping and the oral history interviews were done contemporaneous with the archaeological survey.

This report presents the results in a format that follows with the guidelines for cultural resource investigations set forth by the Maryland Historic Trust (McNamara 1981). The report begins with information regarding the location of the project area (Figure 1), a prehistoric and historic background for the project area, and any information on previous investigations which may be used to gain some insight into the types of resources that we would expect to find on the Academy grounds. The next sections present the results of each of the four phases of the study, and include conclusions and recommendations for each phase. The report then presents a overall summary of the four phases and provides recommendations based on the results from each phase.
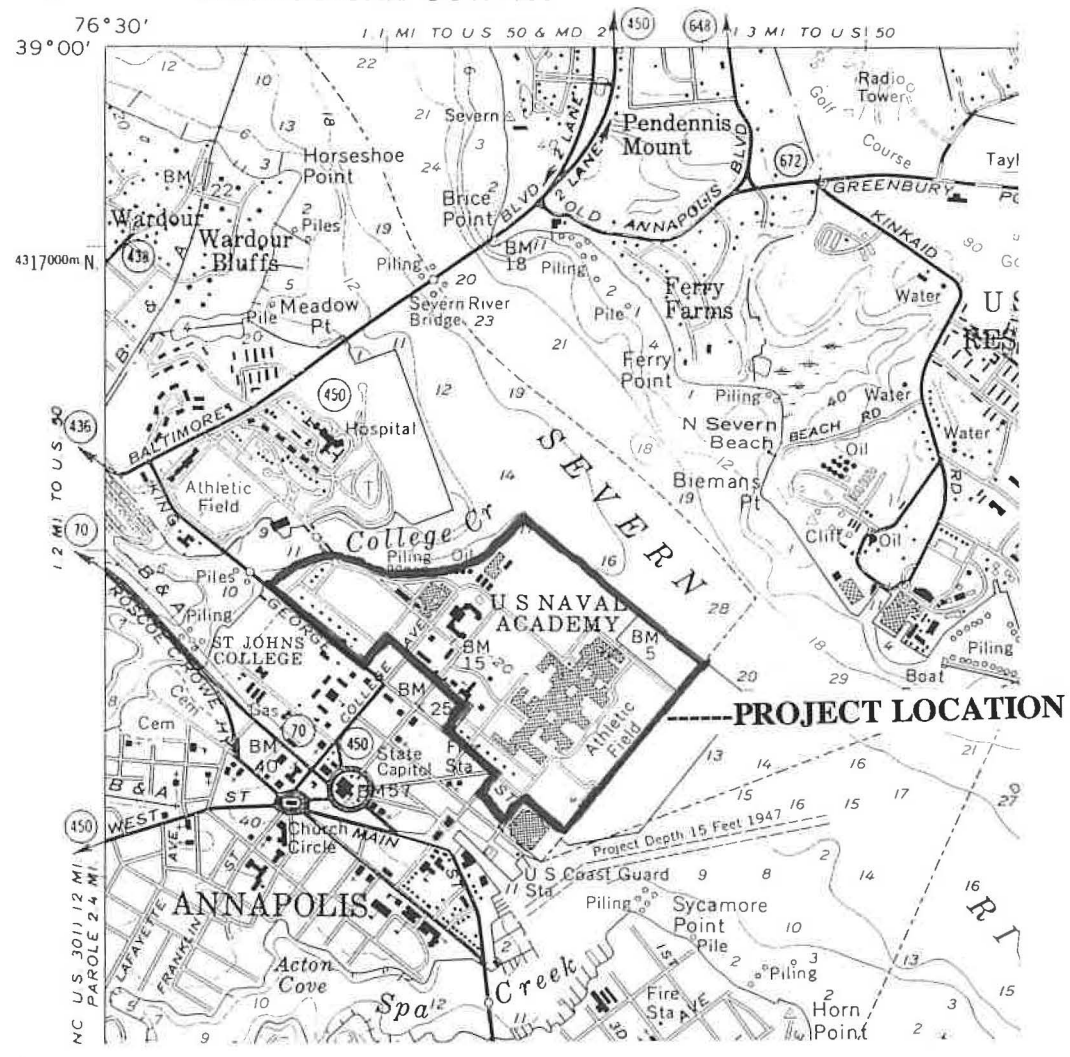
Figure 1. U.S.G.S. Quad Map of Annapolis

PROJECT RESEARCH DESIGN

The purpose of Legacy funding devoted to a Phase I cultural resources reconaissance of the United States Naval Academy was to discover and assess the archaeological remains beneath the current campus. The following questions governed the use of a series of discovery techniques, using documentary research, oral histories, digitized historic maps excavations.

Were there archaeological remains beneath the Academy?

If there were remains, were they scattered everywhere or were they isolated in particular locations?

Given the high level of disturbance of the ground of the USNA, could there be intact archaeological remains near those areas?

Given that parts of the city of Annapolis existed on what became USNA land, were any parts of that city left archaeologically? Specifically, were there prehistoric remains, were there any remains from the 17th century, was any part of the 18th century settlement left? Was any part of 19th century worker housing left? Was anything left from 20th century residential housing left? Was any of Hell Point left?

Were there African American remains anywhere? Or the remains of any other ethnic group?

Were there any remains from earlier phases of the Academy itself?

Since we did not plan to use archaeological material to address issues of class, race, or economic group, could documentary and oral information comment on African Americans, poor versus rich groups, and sources of income.

Would the use of digitized historic maps, when overlayed on the USNA's Existing Conditions Map, predict successfully the location of archaeological remains on the campus?

Would oral histories indicate the relationship between the residents of Hell Point and the Academy? Could we determine the meaning of the name Hell Point? Could we determine how former residents felt about the absorption of their neighborhood into the USNA campus?

Could title searches for the parcels of land that currently make up the Academy campus provide information otherwise unavailable about the history and archaeology of the campus?

Could the above sources of information be made to coincide coherently enough to allow the USNA to predict which parts of its campus had to be protected for future archaeology? Were there parts of campus where no archaeology was needed?

Plate 2. Students from University of Maryland field school excavate test pit in front of the Commandant's quarters (18AP68). Late 18th century artifacts were discovered here during this excavation.

ENVIRONMENTAL SETTING/PROJECT LOCATION

Physiography and Topography

The United States Naval Academy lies on a point of land bounded by the Severn River to the west and Spa Creek, the Annapolis City harbor to the east, and the town of Annapolis to the south. This project area is located on the western shore of the Atlantic Coastal Plain Province, within Maryland Research Unit 7 which is the Gunpowder-Middle-Back-Patapsco-Magothy-Severn-Rhode-West Drainages (figure 2). The topography of the western shore of the Atlantic coastal plain province is characterized as gently rolling uplands.

Climate

Anne Arundel County presently has a temperate mid-continental climate. Rainfall is moderate, but the city's location and the surrounding bodies of water (i.e. the Chesapeake Bay and its tributaries) provide humidity. Snowfall is also moderate. Mean temperatures for the Annapolis area include a low of 34°in January and a high of 79° in July (Fassig 1917:181, Steponaitis 1980:3-4).

Vegetation and Fauna

Between 25,000 B.C. to 15,000 B.C. the Chesapeake area forests consisted of spruce, pine, some fir, and birch trees. By 10,000 B.C. the forests had become dominated by oak-hickory, representing a more varied and thus more exploitable environment (Maryland Dept. of Natural Resources). Modern vegetation in the county includes oak, chestnut, and hickory forests in the upland areas of the coastal plain and evergreen forests in the lowland coastal plain (Braun 1967:245). Faunal species dominant in the coastal plain include deer, small mammals, such as rabbit, squirrel, and fox, and birds, such as turkey and water fowl (Shelford 1963).

Geology and Soils

The substrata soils in the Chesapeake area are formed from unconsolidated sedimentary deposits of sand, silt, clay, and gravel which overlie crystalline bedrock. Though the topographic relief in the area is not diverse, the sediment deposits vary greatly in

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Council for Maryland Archeology
MARYLAND ARCHEOLOGICAL RESEARCH UNITS

COASTAL PLAIN PROVINCE
Unit 1 - Atlantic Drainage
Unit 2 - Pocomoke Drainage
Unit 3 - Nanticoke-Wicomico-Manokin-Big
Annemessex Drainages
Unit 4 - Choptank Drainage
Unit 5 - Chester River-Eastern Bay
Drainages
Unit 6 - Sassafras-Elk-Northeast-Bush-
Susquehanna Drainages
Unit 7 - Gunpowder-Middle-Back-Patapsco-
Magothy-Severn-South-Rhode-West
Drainages
Unit 8 - Riverine Patuxent Drainage
Unit 9 - Estuarine Patuxent Drainage
Unit 10 - Estuarine Potomac Drainage
Unit 11 - Riverine Potomac Drainage

PIEDMONT PROVINCE
Unit 12 - Potomac Drainage
Unit 13 - Patuxent Drainage
Unit 14 - Patapsco-Back-Middle Drainages
Unit 15 - Gunpowder-Bush Drainages
Unit 16 - Susquehanna-Elk-Northeast
Drainages
Unit 17 - Monocacy Drainage

APPALACHIAN PROVINCE

Unit 18 - Catoctin Creek Drainage
Unit 19 - Antietam Creek-Conococheague
Creek Drainages
Unit 20 - Licking Creek-Tonoloway Creek-
Fifteenmile Creek Drainages
Unit 21 - Town Creek Drainage
Unit 22 - Evitts Creek-Georges Creek ·
Drainages
Unit 23 - Potomac-Savage Drainages
Unit 24 - Youghiogheny-Casselman Drainages

PROJECT LOCATION

Figure 2.   Maryland Research Units

depth, texture, and degree of permeability (Brush, et. al. 1977:7). Much of the soil within the project area has been artificially deposited by human activity. The natural soils in the project area are of the Monmouth Series; sandy loam with a 0-2% gradient, formed from unconsolidated beds of fine textured sediments. The soil is deep, strongly acidic, well drained, olive colored, and tends to be highly erodible. The soil profile is made up of 40-70% glauconite (green sand) at any point. (Kirby and Matthews 1973).

Past and Present Land Use Patterns

Native Americans may have utilized locations now occupied by the United States Naval Academy, however, the only known sites documented are situated on the western bank of College Creek. Since its founding in 1845, the United States Naval Academy has changed and expanded dramatically. Even before the Naval Academy was located here, the land was used for residential and business purposes, and as farmland or pastures. After the founding of the Academy, the land was used primarily for military training and education purposes. Military encampments were set up on the grounds during the Revolutionary War and the Civil War, but no battles were fought here during either war.

A major portion of the Naval Academy is built on reclaimed land from the Severn River. Approximately one half of the present day Academy lies on fill that was brought in over a period of 112 years since 1847, with the last major fill episode in 1959. While new some new construction projects are scheduled, there remains many parts of the Academy which have been open ground since the earliest parts of Annapolis were settled.

There were four areas tested during this project. They are as follows: Preble Hall, which is located just inside gate 3 off Maryland Avenue (this area covers approximately 1 acre of land), the Ellipse (18AP67), located directly in front of the Naval Academy Chapel and covers approximately 9.5 acres, Porter Road (18AP68), which is located just inside the Academy wall and runs paralell with King George Street and covers approximately 1.5 acres, and Hell Point (18AP69), which is actually beneath the Halsey Field House visitors parking lot and covers approximately 1 acre.

PREVIOUS INVESTIGATIONS

Prior to this current archaeological survey of the Naval Academy grounds, no excavations were conducted in the immediate location of our project area. However, over the past twenty-four years, four areas on lands owned or operated by the United States Naval Academy were surveyed and found to contain cultural deposits from both prehistoric and historic periods. These investigations performed between 1969 and 1987 consisted of surface surveys or limited shovel testing. The Cady Cove site (18AN152 or 18AP7) was recorded in 1969 and is located on the south side of the head of Shady Lake along the Severn River. The Meadow Point site (18AN239 or 18AP19) was recorded in 1972 and is located on the Severn River shore east of the Route 50 bridge. No other information was available for both of these prehistoric sites. Arundel Estates (18AN342) in 1974, which was a late-Woodland site, was the third investigation conducted. The last was the College Creek/Woodland Shore site (18AP46) in 1987 which is located on a point of land north of Rowe Boulevard between the Rowe Boulevard bridge and the King George Street bridge. While all of these sites are categorized as prehistoric, the only report written for any of the sites identified in the general project area was for 18AP46 and is on file at the Maryland Historic Trust. There are no reports on file at the Trust for the Cady Cove, Meadow Point, or Arundel Estates sites.

There are a multitude of historic sites, some 65 of them, which have been identified in the Historic District of Annapolis, some of which contain written reports on file at the Maryland Historic Trust library. The high concentration of known historic sites in the town of Annapolis, and adjacent to this project area, indicated the liklihood of finding further evidence of historic activity. The prehistoric sites previously identified were located more on the periphery of the project area, and given the high amount of activity in this area during the historic period (post-1600), it was not expected that intact, prehistoric remains would be found.

PREHISTORIC BACKGROUND

Paleoindian Period (ca. 13,000-7500 B.C.)

The PaleoIndian Stage is not well represented in Annapolis and in the surrounding Anne Arundel County area. Most occurrences of PaleoIndian components within the county are represented by fluted points found out of context, on the surface of multi-component sites (Brown 1979). The scarcity of PaleoIndian sites within Anne Arundel county, as well as in the entire Coastal Plain Province, is the result of environmental changes which occurred in the Chesapeake Bay region during the retreat of the Wisconsin ice sheet. Retreat of this ice sheet resulted in global sea level rise and eventual formation of the Chesapeake Bay through the drowning of the ancient bed of the Susquehanna River and the lower reaches of her tributaries, thus covering PaleoIndian sites located there (Kraft 1971).

Human occupation of Anne Arundel County may have begun as early as 13,000 B.C. (Steponaitis 1980:12), although occupation of areas north of the Middle Atlantic region was probably prior to 12,000 B.C. due to the presence of glacial ice (Funk 1978:16). Traditionally PaleoIndian subsistence was believed to have depended primarily on the hunting of Pleistocene megafauna (Willey 1966, Griffin 1977). However, recent evidence suggests that PaleoIndian populations of the Eastern Woodland probably focused on hunting white tailed deer (Gardner 1980:19-20). Ritchie (1957:7) suggests that subsistence strategies possibly included foraging for plants, fishing, and hunting for small mammals. The tool kit of the PaleoIndians was adapted primarily to a hunting economy and included scrapers, gravers, bruins, denticulates, hammerstones, utilized flakes, and knives, as well as fluted points. (Kinsey 1972:327-330, Funk 1972:17-21, Gardner 1974:5, Custer 1984).

PaleoIndian populations were mobile, changing location throughout the year in order to utilize available resources. Based on work at the Flint Run Complex in Virginia (Gardner 1974:19-23, 42-44, 1977, 1979) several types of PaleoIndian sites have been identified. The largest of these sites are base camps, the main locus of habitation, which are identified by the variety within the artifact assemblage present at the site, non-random lithic distribution indicating discrete activity areas, and occasional pits and post molds. Base camps may have been occupied seasonally by aggregate bands. Examples of base camps include the Thunderbird site in the Flint Run Complex, Virginia and the Shoop site in Pennsylvania

(Gardner 1974, Witthoft 1952). Smaller PaleoIndian sites may represent special purpose sites occupied by smaller groups for shorter periods of time. These sites include quarry sites, quarry reduction stations, base camp maintenance stations, and outlying hunting sites. Steponaitis notes that PaleoIndian base camps identified by diverse artifact assemblages, non-random distribution of lithic debris, activity areas, and post holes and molds, are found in riverine environments. Further, quarry sites were identified by a lack of tools, and the presence of large amounts of debitage and a crypto-crystalline rock source (Steponaitis 1980:66). This indicates that eastern PaleoIndians were not following migrating animals but were occupying sites on a seasonal basis.

Archaic Period (7500-1000 B.C.) The end of the Pleistocene was marked by environmental changes, including the inundation of some riverine environments, a change from mixed coniferous forests to northern hardwoods, and a more temperate climate. (Whitehead 1972:308-310, Carbone 1976:121). Gradual changes in the flora and fauna, begun during the PaleoIndian Stage were continued through the Early Archaic Period, resulting in modern temperate flora and fauna populations through most of the Middle Atlantic region (Guilday 1967:232). The Archaic Stage is one of cultural adaptation to these changes, it is further divided into the Early, Middle and Late Archaic Periods.

The Early Archaic Period (7500 - 6000 B.C.) is characterized by the appearance of two artifact traditions, the Corner Notched tradition (7500 - 6800 B.C.) and the Bifurcate tradition (6800 - 6000 B.C.). The Corner Notched tradition was marked by a change from fluted points to corner notched points, reflecting different hafting techniques and utilization. The general artifact assemblages of Paleo and Archaic peoples were very similar, the differences between the two peoples was in what they hunted (Steponaitis 1980:69-70). The Bifurcate tradition involved the scheduled use of a number of seasonal available resources. In general, the settlement pattern for this period is similar to that of the PaleoIndian Stage (Gardner 1974, 1977, and 1979).

The Middle Archaic Period (6000-4000 B.C.) was marked by the replacement of northern Boreal forests by oak-hickory forests (Whitehead 1972:308-310). The climate gradually became warmer with increased precipitation from the Early Archaic Period to the

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Middle Archaic Period. Subsistence strategies and settlement patterns of the Middle Archaic Period were similar to Early Archaic Period patterns. Mobile bands utilized seasonally available plants and animals. Tool kits used during the Middle Archaic Period were similar to PaleoIndian and Early Archaic Period tool kits. New additions to the tool kit included stone mortars and polished stone atlatl weights, used to balance atlatl spear throwers, recovered at the Hardaway and Doerschuk sites, North Carolina. (Coe 1964:51-55, 80-81).

Some researchers have postulated an abandonment of coastal areas in favor of the Piedmont during the Middle Archaic (Kavanagh 1982:50). However, the continued rise of sea level during this period has probably submerged coastal sites associated with the Middle Archaic Period (Steponaitis 1983:177).

Gardner (1978) and Custer (1984), have identified three types of sites associated with the Middle Archaic Period which reflect the social organization of the period. (See also Gardner and Custer 1978). The macroband base camp (Custer 1984:67) was occupied by numerous family units. Artifact assemblages recovered indicate fairly long term occupation with a wide variety of activities at these locations. Microband base camps were occupied by smaller family units, probably individual family groups. These base camps tended to be located in environmental settings that could not support the larger populations associated with macroband base camps. Both the macroband and microband base camps were associated with procurement sites. Fewer tool types are associated with these sites and they tend to be related to a limited number of activities. Site location was dependent on the type of resource being utilized (i.e. quarry sites, interior hunting sites, etc.).

The Late Archaic Period (4000-1000 B.C.) was marked by a warm and dry climate and dominant oak-hickory forests. Four traditions flourished during the Late Archaic Period. The Piedmont tradition (4000-2000 B.C.) was an in situ development in the Middle Atlantic Region (Kinsey 1972:337, McNett and Gardner 1975). Contemporaneous and co-existing with the Piedmont tradition was the Laurentian tradition (4000-2000 B.C.) which was centered in the St. Lawrence River drainage of Ontario, New England, and New York (Ritchie 1969:29) but also extended south into Maryland. Custer suggests that the third tradition, the Broadspear Tradition (2000-1500 B.C.), developed out of the Piedmont tradition as an adaptive response to changing environmental conditions (Custer 1978:3). The

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final tradition, the Fishtail Tradition (1500-750 B.C.), developed during the terminal Late Archaic Period and extended into the Early Woodland Period (Steponaitis 1980:28).

Subsistence and settlement patterns throughout the Piedmont and Laurentian traditions remained similar to the patterns of the Middle Archaic, suggesting a social and political organization similar to the PaleoIndian and Early and Middle Archaic populations. Bands were probably egalitarian in nature. A seasonal fusion/fission organization is postulated for population movement in which individual families spent a part of the year at microband base camps following seasonally available resources. During another part of the year several bands, probably connected through a kinship network, fused together at macroband base camps. (Custer 1984:67-68). After 3000 B.C. major environmental changes occurred in the coastal plain province which changed the subsistence and settlement patterns of the local population. The Broadspear tradition developed between 2000 and 1900 B.C., several researchers have suggested that the Broadspear tradition is a development out of the local Piedmont Tradition, with a primary focus on riverine environments (Kinsey 1972:347; Turner 1978:69; Mouer, et. al. 1980:5, and Steponaitis 1980:26). However, Turnbaugh (1975:54, 56) believes that this tradition represents more intensive exploitation of shellfish and estuarine resources in the south, while riverine resources were exploited in the north. Gardner (1982:60) suggests that Late Archaic coastal plain sites utilized estuarine resources and that these sites may have supported semi-sedentary populations. Broadspear knives and woodworking tools recovered from Late Archaic Coastal Plain sites could indicate that specialized tools such as fish traps, nets, and canoes, were being manufactured (Custer 1984:97). Stone and ceramic containers for cooking and storage as well as storage pits appear. The ability to store food resources at the macro and microband base camps allowed groups to remain sedentary for longer periods of time and to support higher population densities. Turner (1978) notes a marked population growth in the Virginia Coastal Plain during the terminal Archaic and Early Woodland Periods.

Woodland Period (1000 B.C.- 1600 A.D.) The transition from Archaic to Woodland is marked by the appearance of woodworking tools, such as axes celts, and cordage-impressed ceramics. Both types of artifacts reflect a more sedentary lifeway.

This developmental stage is divided into three periods: Early, Middle and Late Woodland. In the middle Atlantic region, settlement and subsistence patterns established during the Archaic Stage continued until European contact. Custer (1984:96) and Wright (1973:20) both postulate a settlement pattern which includes large macroband base camps whose populations periodically separated and moved to smaller microband base camps. Gardner (1982:66) suggests that the macroband base camps were occupied as semi-sedentary sites.

The Popes Creek phase of the Middle Woodland Period is seen as a continuation of and an intensification of the subsistence patterns established during the Early Woodland. Large semi-permanent macroband base camps were located along estuarine or riverine zones of river drainages, and were surrounded by extraction or procurement camps. Settlement patterns indicate that a variety of environmental zones were being utilized (Steponaitis 1980, Handsman and McNett 1974, Wright 1973).

The Late Woodland Period on the western shore of the Maryland coastal plain is divided into two phases, the Little Round Bay phase (A.D. 800-1250) and the Sullivans Cove phase (A.D. 1250-1650). Custer (1984:146) suggests that vast changes occurred in the settlement and subsistence patterns of prehistoric Native Americans during the Late Woodland Period. Prior to 1000 A.D., settlement and subsistence patterns centered around intensive hunting and gathering with some reliance on cultigens. Groups continued the seasonal round of movement from base camp to base camp with occasional forays to procurement sites. Sometime after 1000 A.D. agriculture appeared in the Middle Atlantic Region. Domesticated plants probably appeared prior to A.D. 1000 but, as Flannery (1968) points out, it is difficult to clearly differentiate between intensive horticulture and the actual practice of agriculture in the archaeological record. The process of change from intensive gathering and horticulture to agriculture was gradual. Even with the appearance of agriculture, hunting and gathering still continued. Moeller (1975), Arminger (1975), and Kinsey and Custer (1982) report the recovery of a variety of wild plant remains in association with domestic plants at sites in Pennsylvania.

After A.D. 1000 Native American groups in Anne Arundel County became more sedentary than any previous group had been, as they intensified their practice of agriculture

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as an economic base. The surplus which agriculture supplied allowed a sedentary life style to develop which included villages. These villages were larger than any previous macroband base camp had been and contained storage facilities such as large pits and more permanent house structures. Large villages were probably surrounded by smaller hamlets or the farmsteads of individual family groups. When European explorers and colonists arrived in the Chesapeake Bay Region, Native American populations were living in large villages, relying on an intensified and integrated utilization of natural and cultivated resources.

HISTORIC BACKGROUND

Early Settlement (1629-1683) Maryland was granted to George Calvert, the first Lord Baltimore, in 1629, and was established as a proprietary colony. The official settlement of the colony was in 1634 at St. Mary's City, which became the capital of the colony. As the majority of the population lived on tobacco farms, there was little urban growth in the colony (Carr 1974). The present site of Annapolis was settled in 1649 but remained a small village throughout the seventeenth century.

The name of the settlement was changed between 1656 and 1683 from Providence to Proctors, after Robert Proctor's tavern, which was located near the base of present day Duke of Gloucester Street (Baker 1986:192-193). The name of the town was again changed to Arundelton in 1683, when it became an official port of entry for the tobacco trade. It was during these years as a proprietary colony that Maryland developed an economy based on tobacco export. The smaller farmers relied on the large plantation owners for the processing and shipping of the tobacco. These large plantations were self-contained as they had blacksmiths, coopers, cobblers, as well as docks from which to ship their tobacco. Thus, Maryland was organized to grow, process, and export tobacco (Middleton 1954).

The Late Seventeenth Century (1683-1694) The Acts of 1683, chapter 5 of the General Assembly, appointed commissioners to lay out a town at Proctor's. Prior to this time the town had not been surveyed. The Commissioners were authorized to purchase one hundred acres from the then current land owners. The land was then to be surveyed and staked into one hundred one-acre lots, with streets and alleys and open spaces for a church, chapel, market, and other public buildings (Riley 1901:38). Richard Beard was hired to survey the town. Reconstruction of Beard's survey by Baker (1986:192) indicates that the original settlement was concentrated along the shoreline, rather than the higher ground over-looking the harbor. The streets and lots laid out by Beard were concentrated in the area of present-day Shipwright and Market Streets.

In 1689, Maryland became a royal colony as a result of the "Glorious Revolution" when William and Mary became the sovereign rulers in England. The capital of Maryland was moved from St. Mary's City to Annapolis under the direction of the second royal

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governor, Sir Francis Nicholson. In designing the city, Nicholson intentionally used a Baroque design for the political purpose of creating stability by using the church and the State House as the focus of his design (Reps 1965).

The Growth Of Annapolis (1695-1783) Annapolis received its charter as a city in 1708 (Riley 1901:39). Historical records indicate that the city underwent several distinct periods of growth during the eighteenth century. Papenfuse (1975) has identified three periods of development within the city. The first was a period of uncertainty while the new town was establishing itself. Nicholson's decision to move the capital to Arundelton ensured that the town would survive but not necessarily grow. During this period of uncertainty, Baker (1983 and 1986) notes two phases of land development within the city. During the first phase, 1695-1705, the planter/merchant class purchased most of the lots within the city but quickly sold them off. The second phase, 1705 to 1720, was characterized by the purchasing of large blocks of city property by resident merchants such as Amos Garrett, Charles Carroll the Settler, William Bladen, Thomas Bordley and Daniel Larkin.

Papenfuse suggests that property became valuable in Annapolis after 1715 because of the return of the proprietary government and the development of local industry. He (Papenfuse 1975:10) identifies the period from 1715 to 1763, as the period of "Industrial Expansion and Bureaucratic Growth". After 1720, commercial zones developed within the city, as the importance of mercantilism grew (Baker 1986; Leone and Shackel 1986:7-8). Craftsmen such as goldsmiths and watchmakers did not appear until after 1720 and other luxury crafts developed much later (Baker 1986:201). Ship building had been carried out in the Annapolis harbor since the Puritans first settled in 1650. However associated crafts such as ropewalks or block and sail makers did not appear in the city until after 1735 (Papenfuse 1975:10).

The period 1745 to 1754 marked a significant increase in economic growth within the city. Employment for free white males was available in the civil service (Baker 1986:204). Craftsmen were branching out into other businesses, such as dry good importing, while still retaining their original craft (Papenfuse 1975:15, Baker 1986:202). This period of growth

was interrupted by the French and Indian War (1754-1763), which caused a general economic decline in Annapolis.

The Battles of the Revolutionary war did not directly impact the city. Several British war ships anchored near the city during the war, but did not fire on it (Riley 1887:177-178). The end of the Revolutionary War also signaled the end of the Age of Affluence. Annapolis went into a slow and steady economic decline after the American Revolution and by 1820 was no longer the leading mercantile center of Maryland. A factor contributing to the decline of Annapolis was the rise of Baltimore as a major mercantile and shipping center. Annapolis began to feel the pinch from Baltimore's shipping industry as early as 1747.

Post Revolutionary War Annapolis (1784-1840) Annapolis tried to attract the government of the new nation to the city. Had the city succeeded, the economic gains would have made up for the losses in shipping. The city tried to use its central location in the new country and its new State House to attract the government. The State House had been erected in Annapolis between 1772 and 1779. Annapolis actively sought the location of the permanent capital within the city but Congress voted in 1791 in favor of the Washington D.C. location (Reps 1965:241).

Economic strategies and the attraction of new business to Annapolis were interrupted during the War of 1812. The city turned into a military encampment and the citizens were constantly expecting an attack from the British. Annapolis continued in its search for sources of revenue in addition to the revenue generated by State government spending. Negotiations concerning the location of the Naval Academy at Annapolis continued for twenty-eight years. In 1845, the Naval academy opened in Annapolis (Riley 1887:254 and 264-265).

During negotiations between the Navy and the City of Annapolis (1817-1845), the city began to make improvements in the transportation available between the city of Annapolis and other points in the Tidewater region. These improvements may have been prompted by the need to present Annapolis as a desirable location in which to do business.

The Antebellum Era (1840-1860) During the 1840's and 1850's the City of Annapolis experienced the growing tension between the North and the South. Annapolis itself was home both to unionists and secessionists.

Economically the Civil War was a boom to many of the local merchants who sold supplies to the troops quartered in the city (Riley 1887:320). However after the war a short economic decline set in. The commerce of Annapolis prior to the war had depended on the spending habits of government officials living in Annapolis and the wealthy slave holding planters. After the Civil War, the abolition of slavery curtailed the trade with these planters. Riley, the city's historian, remarks that after the war "The Naval Academy, in some measure, supplie[d] the benefits of a foreign trade. The oyster-packing establishments, of which there [were] about ten, [brought] considerable money into the city, which...redeeme[d] the mercantile business from annihilation" (Riley 1887:319).

The Late Nineteenth and Twentieth Centuries In the late 1870's Annapolis began to expand. The building industry began to boom in the late 1870's. New houses and shops were constructed along Maryland Avenue, Market, Conduit, Prince George and King George Streets on large residential lots which had formerly been held by single owners, but which were now being subdivided (Baker 1986:197). Despite the economic growth the major "industry" in Annapolis remained the State government.

Annapolis during the twentieth century continues to be the capital of the State of Maryland and the location of the United States Naval Academy. During the 1950's the downtown area suffered the economic decline and urban blight that was found in many American cites. Unlike many other cities, Annapolis did not engage in wholesale urban renewal, but preserved many of the city's earlier buildings. These eighteenth and nineteenth century buildings have become the location of shops along Maryland Avenue, Main Street, and the City Dock which cater to the new Annapolis industry of tourism.

HISTORY OF NAVAL ACADEMY

The nearly 150 year history of the United States Naval Academy includes a detailed account of its land acquisition patterns as well as its use of that land. From its beginning in 1845 with the purchase of 9 1/2 acres of land, to the present, the academy has purchased property and constructed buildings in accordance with its needs. The areas of our research (Preble Hall, the Ellipse, Porter Road, and Hell Point) have all been affected by processes carried out over the years by the navy. These processes include land acquisition, demolition of existing buildings, and the construction of new ones. Although it is beyond the scope of this report to include a complete history of the land acquisition patterns and all the construction and destruction episodes, as well as all other changes initiated by the Academy, we will try to provide a general overview of the physical development of the Academy and detail how this affected the areas under investigation for this project.

Land Acquisition

The United States Naval Academy was established in 1845 on land in Annapolis, Maryland on a peninsula known as Windmill Point. The Naval Academy began when Fort Severn, an army post built in 1808, and its surrounding nine acres were ceded to the Navy on August 15, 1845. The school was officially opened on the tenth of October of that same year. Since that time, the academy has greatly expanded in size. Between 1847 and 1959, the academy has purchased over eighty acres of land from private and state holdings and has reclaimed approximately one hundred acres from the Severn River and Annapolis Harbor. The first acquisition came in 1847 with the purchase of six acres located just east of Fort Severn, north of Scott Street, and extending to the original shoreline. It was purchased for $14,105. In 1853, a section of property between College Avenue and Maryland Avenue and extending from Hanover Street to the shoreline was purchased, as was property known as Blake Row, which was located between Scott Street and Hanover Street and extending east to Governor Street. The Scott Street property totaled eleven acres and sold for $24,212.21. That same year, lands were reclaimed from the Severn River and Annapolis Harbor, extending the academy to the north and east. The third acquisition came in 1867 when a five

acre section of property, located between Hanover Street and Scott Street and between Governor Street and the new shoreline, was purchased for $25,000. This purchase included the Governor's Mansion. Also in 1867, a ten acre pie-shaped parcel of land, located on the banks of College Creek, was purchased for $6,000. One year later, a sixty-seven acre section of land known as Strawberry Hill was purchased. This property was located due north of the academy, across College Creek. The next purchase came in 1873 when four acres of land, located between Wagner Street and College Avenue and extending north from Hanover Street to the shoreline, were acquired for $41,964.83. In 1891, twelve acres were acquired along the shore of College Creek next to the property purchased in 1867. It carried a price tag of $84,464.33. After the turn of the century, properties located between Hanover and King George Street were purchased. These three separate parcels of land, totaling no more than eleven acres, were purchased in 1902 for a combined price of $176,101.42. Also, between 1902 and 1906, over twenty acres of land were reclaimed from the Severn River and Annapolis Harbor. The last piece of property purchased by the academy included eleven acres known as Hell Point. It was located in an area east of Randall Street, and north of Prince George Street. The academy purchased this property in 1941 for $402,783. Post-war acquisitions included further reclamation projects. Dewey Field along the Severn and Farragut Field on Annapolis Harbor were constructed on land which had been reclaimed in 1959. They totaled approximately twenty-six and twenty-nine acres respectively.

Construction and Destruction

When the academy first received Fort Severn and the peninsula it was located on, there were a number of buildings already in existence. They included the commandant's and officers quarters, a hospital, a bakery, and some miscellaneous smaller buildings. The academy would utilize these existing buildings for such things as classrooms, dormitories, faculty quarters, a recitation hall, and the superintendents residence (Sweetman 1979:25). Between 1846 and 1861, several construction projects were undertaken by the academy. Along Stribling Row, midshipmen's quarters, Recitation Hall, and the mess hall were built. To the west of the mess hall, a chapel and an observatory were built. Just to the north of Scott Street, four separate buildings were constructed as temporary faculty quarters. To the

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south of these, along Hanover Street, six two-story faculty buildings were constructed. This row of buildings, built on land that had been acquired in 1847, came to be known as Blake Row. The houses that were there prior to this were demolished. To the west, on the opposite side of Maryland Avenue, more faculty buildings and a hospital were constructed. In addition to the construction projects three monuments were introduced to the academy at this time, the Japanese Bell in 1858, the Herndon Monument in 1859, and the Tripoli Monument in 1860 (Sweetman 1979:57).

Due to the outbreak of the Civil War, the academy was moved to Newport, Rhode Island in 1861. During this time, the academy grounds were converted to an army post and occupied by Union troops. In 1865, the academy returned to Annapolis and classes resumed in October of that year. The newly appointed Rear Admiral David Dixon Porter, who served as superintendent from 1865 to 1869, was committed to restoring the academy to its prewar appearance, expanding it in physical size, and constructing much needed buildings. It was Porter who appropriated the funds to purchase the Governor's Mansion and its surrounding land. The wings of the mansion were razed, as were its outbuildings. A row of officers quarters and guest houses were then built. These new facilities were located along Hanover street just east of Governor Street. The Naval Academy library was then transferred to the first floor of the mansion while the second floor housed the superintendents offices (Sweetman 1979:85). Porter also initiated the construction of a new armory, buildings for steam engineering, physics, and chemistry classes, a chapel, and a dormitory known as New Quarters.

From 1869 to 1890 there was little in the way of new building projects on the Academy grounds. Notable exceptions include the demolishing of the Dulany House and the building of a new superintendents house on the same site. This was done sometime between 1881 and 1886 when Captain Francis Ramsay was superintendent. Also, in the early 1890's Captain Robert L. Phythian, Superintendent from 1890 to 1894, had several new officers quarters built. These were located along Upshur Road, south of where Worden Field now stands (Sweetman 1979:133).

By the 1890's, the Academy was in serious need of major renovations. Ernest Flagg, a New York architect, was commissioned to devise a plan to modernize the academy

buildings, grounds, and sanitation systems. His plan met with approval; congressional appropriations were eventually obtained, and work began in 1899. From 1899 to 1913, the academy would undergo significant changes regarding its appearance and function. The shoreline was extended on both sides of the academy and new dormitories, office buildings, officers quarters, a faculty club, a power plant, and a chapel were built. In addition, modern sanitation and water systems were introduced, as were underground power lines. These changes ushered the academy into the twentieth century. As for historic buildings, Fort Severn was demolished in 1906, leaving the two brick guardhouses at gate three as the only remnants of the old academy (Sweetman 1979:144). Some of the new buildings and their completion dates include, Dahlgren Hall 1903, Macdonough Hall 1903, Bancroft Hall (north east wing) 1904, Officers Club 1905, Bancroft Hall (remaining) 1906, Superintendents House 1906, Administration Building 1907, and the Chapel in 1908 (Sweetman 1979).

The building of Luce Hall would be the next construction project of the academy after the completion of Flagg's plan. This occurred in 1919, just after World War I. Ten years later, Hubbard Hall would be built and the terracotta dome of the Chapel would be replaced with copper. During the Depression, between 1932 and 1939 significant building projects were initiated. In 1932, Bancroft Hall had two wings added, the Chapel's nave was extended north toward the Severn, and Leahy and Melville Halls were built. In 1939 Preble Hall was completed. No further construction would be initiated until after World War II. This post-war construction included an addition to the Mess Hall in 1952, the building of Halsey Field House and additions to Bancroft Hall in 1955, and finally, the land reclamation and subsequent development of Dewey and Farragut Fields in 1959 (Sweetman 1979:187-213).

Project Area

The site known as Preble Hall, which is located between College Avenue and Maryland Avenue north of Hanover Street, was first purchased by the academy in 1853. Two buildings known as Faculty Quarters were built sometime between 1853 and 1861. A hospital was also built in this same area around 1856. In 1860 the Tripoli Monument was given to the academy and placed in this area. New Quarters was probably the most significant structure to affect this site. Completed in 1869, it was a large four-stories high

red brick building with a centered clock tower and an iron veranda across its face (Sweetman 1979:87). This massive structure not only housed all the midshipmen, it also provided for a mess hall, a recitation room, offices, a steam room, a kitchen, bathrooms, and a laundry room (Sweetman 1979:87). Directly behind New Quarters was a neighborhood known as Lockwoodville which is described as a four-acre shantytown. Superintendent John L. Worden initiated its purchase in 1873 (Sweetman 1979:102). During Flagg's renovations of the academy, New Quarters was demolished and an officers and faculty club was constructed in the same general vicinity. Leahy Hall and Preble Hall were the last buildings constructed on this site. They were both completed during the 1930's.

The Ellipse is located on land purchased in 1847. Prior to its acquisition, this area was home to Franklin Buchanan, first superintendent of the Naval Academy, and Francis Scott Key's brother-in-law, Judge Joseph Nicholson. The Naval Academy bandstand is now located on the site of the Nicholson Mansion (Crane and Kieley 1945). Both the Nicholson and Buchanan houses were razed in 1859. An 18th-century road known as Scott Street was also located in this area. After the academy purchased this property, the existing houses were demolished and new buildings were built. Between 1847 and 1861 a chapel, observatory, and temporary faculty quarters were constructed. During Flagg's renovations, existing buildings were razed and walkways were constructed throughout. A new chapel, superintendents residence, and an administration building were all placed at the top of the Ellipse facing the Severn River. The faculty buildings in this area, also known as Blake Row, were demolished. It is not evident that any more construction occurred here after this time. There are historic maps which show the outlines of temporary quarters existing on the Ellipse between 1917 and the early part of 1920, however, there has been no other documentation located to substantiate it. In any case, this area has remained largely unchanged, with the exception of landscaping activity, since the turn of the century.

The Porter Road area was purchased by the academy in 1902 and is located between Hanover and King George Streets extending east towards the Annapolis harbor. Prior to this purchase, a group of nineteenth-century dwellings and tenements were located here. Shortly after the Academy acquired this property, the houses were destroyed and a group of seven new officers quarters were constructed. A canal was later dug in front of these homes in

Plate 3. Residents from the officers' quarters along Porter Road (18AP68) often observed and questioned archaeologists as they worked in this area. Here, archaeology field school students display artifacts from bag to help explain the importance of archaeological remains beneath the ground.

order to transport materials used in the construction of the new Chapel. It extended west from the Harbor toward Buchanan Street.

Hell Point is a seven acre parcel of land purchased by the academy in 1941. There were late nineteenth and early twentieth century neighborhoods here before the Academy bought the land. Once the Navy purchased the property it sat vacant for approximately fourteen years until Halsey Field House was built along with the surrounding parking lot.

Plate 4. Students of all ages were intrigued by archaeology taking place on the academy. Here, site supervisor takes time out to teach students about the rich cultural resources which exist beneath portions of the academy.

ARCHAEOLOGICAL SURVEY

Research Design

Archaeological testing at the United States Naval Academy (USNA) in Annapolis, Maryland began with historical research of the properties or tracts of land that are now occupied by USNA. This was done in order to determine what areas would contain archaeological deposits which are prehistoric or which date from the turn of the seventeenth century through to the mid-twentieth century. The purpose of this phase I reconnaissance survey is to enable the Navy to make more informed management and planning decisions in compliance with the guidelines expressed in the Legacy Resource Management Program purposes 1, 5, and 6. From the cooperative agreement between the University of Maryland, College Park and the Department of Defense, the University of Maryland agreed to conduct a systematic archaeological reconnaissance survey which will relate the history of the USNA to its location, including its historic remains, those of Annapolis before the founding of the USNA, and the site's possible prehistory. Because of the size of the USNA and of the history of the land and institution, a portion of the property was treated to reconnaissance. Reconnaissance means surveying maps, records, and below-ground remains. The portion to be treated to archaeological reconnaissance was determined primarily by the documentary research, but includes the oldest section of land, occupied since the seventeenth century.

The design of the archaeological phase of Legacy is two-fold. The primary focus was the systematic aligned sampling of the ground currently occupied by the USNA, which was performed solely in order to identify the presence or absence of cultural remains, both historic and prehistoric. This design follows what is generally called a phase I investigation, performed to locate potential historic or prehistoric archaeology sites. Phase II ivestigations follow the phase I and are used to determine the extent of the artifact concentrations located during the phase I survey. The phase II investigation may also determine the significance of a given archaeological deposit. Finally, if a site is determined to be significant and intact, but threatened with complete destruction, a phase III survey may be necessary to systematically excavated and record all deposits from a site. The second objective of this survey was to use AutoCAD to plot locales of historic areas based on availability of maps for

the areas of Annapolis now occupied by the USNA and maps of the early Academy. Specific locations of historic features (e.g., structures, roads, outbuildings, etc.) based on early Academy maps and historic maps of the city of Annapolis were pinpointed using AutoCad as a tool for overlaying these maps with current Academy base maps.

Based on the information gathered in the deeds research, the archaeology survey chose four areas on the Academy grounds that were expected to contain historic cultural remains. The survey also utilized AutoCAD map ovelays to predict, in advance of excavation, the location of historic features. The project was concerned primarily with locating intact remains dating from the early-eighteenth through the mid-twentieth century. Excavations in each of the four areas tested were focused on uncovering materials related to either the early Naval Academy or to those parts of the city of Annapolis which were consumed during the Academy's period of expansion, or both. It was not expected that prehistoric remains would be found in the project area because of the varying land use patterns over the past three centuries. The following pages present the specific research design for each test area and the results of the archaeological excavations within each.

Figure 3. U.S. Naval Academy showing the four archaeology project areas. Area 1 is Preble Hall. Area 2 is the Ellipse (18AP67). Area 3 is Porter Road (18AP68) and the Governor's Mansion. Area 4 is Hell Point (18AP69).

Based on map by J. Sweetman, The U.S. Naval Academy: An Illustrated History. Naval Institute Press, 1979.
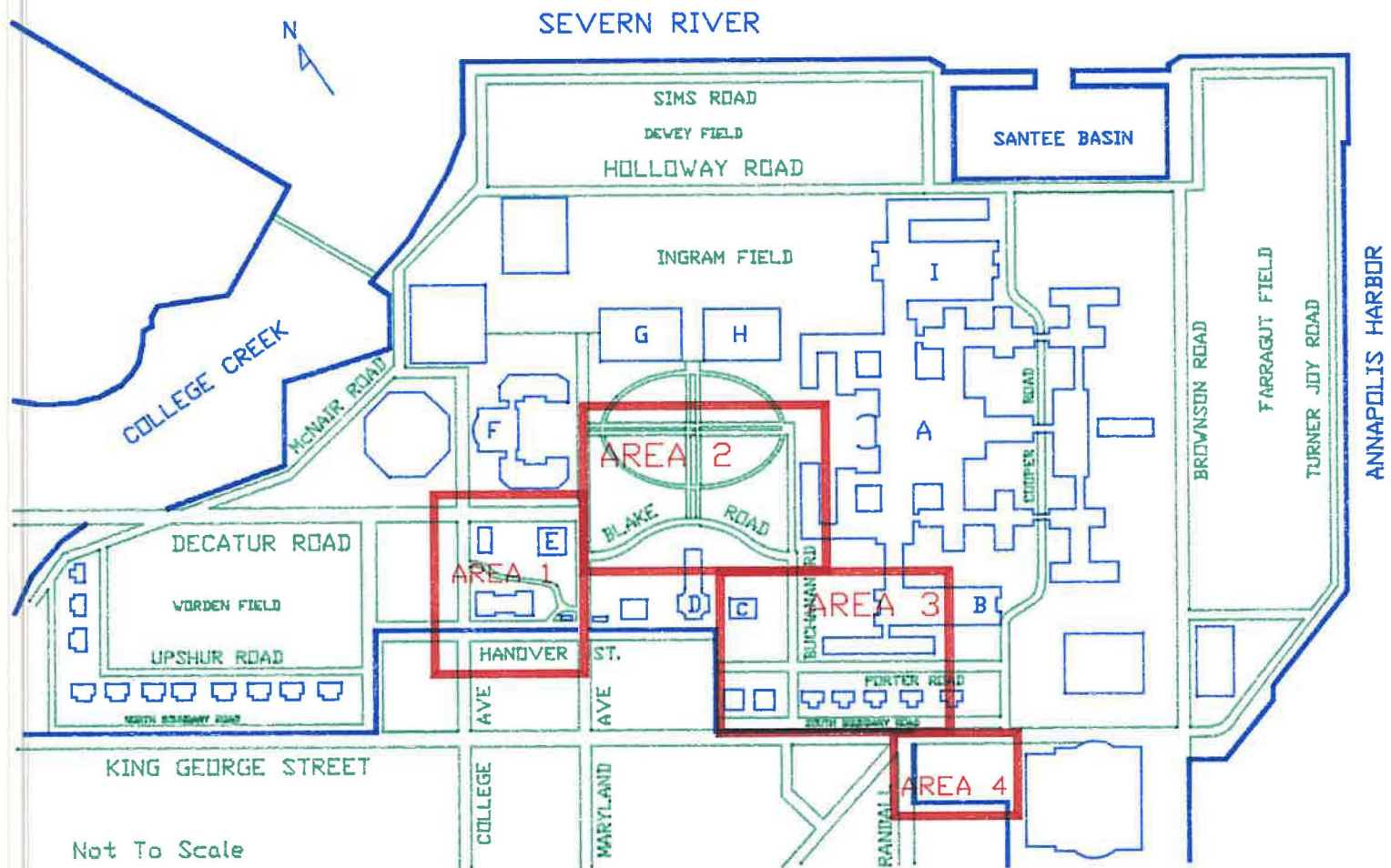
A Bancroft Hall
B Dahlgren Hall
C Superindendent's Residence
D Chapel
E Preble Hall
F Mahan Hall
G Michelson Hall
H Chauvenet Hall
I Macdonough Hall

Field Methodology

The project area was divided into four arbitrary yet distinct survey parcels to organize the testing program. A systematic aligned sampling strategy involves placing test units along grid transects spaced apart according to the size of the area to be tested. Testing was limited to the grassy areas and to locations which would not be disturbed by modern subsurface utility lines. A total of 76 separate units were excavated, however, units consisted of shovel test pits, 2'x 1' slot trenches, 2'x 2' units, and other trenches of varying size. By total volume, 124 1'x 1' units were excavated. All units were dug stratigraphically using trowels and shovels, however, arbitrary levels were assigned for any layers exceeding .50 feet in depth. All units were located along grid transects established with a transit. Some were assigned unit numbers (e.g., unit 1, unit 2), but each unit had polar coordinates assigned by where they were placed in relationship to 0/0 on the grid. Recorded data for each unit included level by level recording of artifacts, soil definition, elevations, and stratigraphic profiles drawn or recorded in field notes. All data recovered for each unit was recorded on standardized field forms, excavators notebooks, and in the site supervisors field notes. Elevations were taken from string lines drawn from a nail set in the southwest corner of each unit. These points were tied into datum points previously set by the Naval Academy with known elevations above sea level. All soils were screened through 1/4 inch screen mesh and artifacts were sent to the Historic Annapolis Foundation laboratory daily for washing and cataloging. The overall goal of this phase I testing was to gather data on artifact distributions, site stratigraphy, and the stratigraphic context of artifacts and features.

All maps presented in this section of the report should not be used as a precise indicator of the actual locations of the test pits. While they are accurate by most standards, these maps, as with all maps, contain a margin of error that can be accounted for by examining the multiple variables which go into producing any map. These variables include errors in surveying, either in the archaeological survey, or in the buildings and grounds survey of the Academy, or errors in the computer generated maps which were never corrected by their creators. In general, there is a margin of error for the maps shown in the archaeology section of the report of about 6 inches.

The following is a summary of excavations in each of the four locations chosen to be the focus of this project. Each excavation area (1 through 4) was determined through historical research done for all areas or parcels of land bought by the Academy from 1845 to 1941. The areas surveyed in this project were limited to the point of land between College Creek (also known as Dorsey Creek), Spa Creek, and the Severn River (see figure 3). It was determined that the historic core of the Naval Academy could yield significant archaeological remains, both of the early Academy (pre-Ernest Flagg) and of the town of Annapolis.

Laboratory Methodology

Artifacts from the United States Naval Academy were transferred daily to the Historic Annapolis Foundation/Archaeology in Annapolis archaeology laboratory, located at 77 Main St. All bags were checked to make sure each had received a bag number and that the provenience was printed clearly.

A core group of volunteers cleaned, labelled and catalogued the excavated materials. Ceramics, glass, bone and other stable artifacts were washed while metals and other fragile objects were dry brushed.

Once cleaned, artifacts were placed on a rack to dry. When dry, they were removed from the rack, sorted by material type, and placed in reclosable plastic bags. Each bag was labelled with the provenience information and bag number. Provenience information is comprised of the site number (e.g., 18AP67), followed by unit designation and level. If a feature was present, the feature number and level followed the unit.

The same information that was printed on the bags was also printed on the ceramics, household glass, bone and other diagnostic artifacts. Tags with the provenience information printed on them were attached to items such as buttons and other diagnostics that either because of size or material could not be directly written on.

Artifacts were catalogued for data entry into Archaeology in Annapolis' data base, Adam, which is based on dBase III Plus. During identification, the type of artifact, decorative aspects and manufacturing technique were coded into a six digit mastercode. This code ensures that the same terminology will be used throughout to identify a particular artifact. The computer translates this code into a written description which is included on all printouts. Other attributes such as form, quantity, and color were also recorded on the catalogue sheet. Data was entered into the computer and printed out to be proofed against the original sheets. This process ensures the integrity of the data.

Once all of the artifacts had been entered into the computer and any errors corrected, a printout was produced. This master printout was used to determine the Terminus Post Quem (TPQ) for each excavated level. The last artifact-bearing level which could be assigned a TPQ was used in the interpretation of the earliest date possible for deposits found in the unit. The TPQ's assessed in this project were based on diagnostic artifacts, which

includes all ceramics except locally made wares such as coarse lead-glaze earthenwares that have been used consistently since the early 1700's. The TPQ's assigned in the report are only meant to serve as an indicator of time period based upon the most diagnostic artifacts found. Therefore, if one peice of coal (a 19th century fuel source) was found in the same level as eight sherds of pearlware (post-1780), a TPQ of post-1780 was assigned to the level. These dates may be preliminary based on the limited testing done during this project, however, they should be used as an plausible indicator of time periods.

Artifacts were placed in plastic bags and stored in acid-free boxes in bag number order. All records were placed in storage at the University of Maryland, College Park Archaeology Laboratory. Artifacts, records, and reports can be made accessible for additional study.

AREA 1 - Preble Hall

This area is located in the grassy section between Preble Hall and Leahy Hall and between Goldsborough Walk and Decatur Road. The main objective for excavation in this area was to locate any remains from pre-Flagg Academy buildings or of Lockwoodville, an early to mid-nineteenth century tenement-like residential neighborhood. It was later discovered, however, that Lockwoodville was located where Worden Field now sits at the base of Wagner Street. Because Worden Field has been used as a parade ground since Lockwoodville was razed in the late-1800's, it is likely that this neighborhood still exists in this location. Excavations began in Area 1 with the placement of nine 2'x 2' test pits (see figure 4). Each was assigned a unit number (e.g., unit 1, unit 2, etc.), and polar coordinates (e.g., N25 W225, N125 W250). Two 1'x 1' units (units 10 and 11) were placed south of Goldsborough Walk primarily to locate any remnants of the officer's houses which were located here prior to the razing and subsequent reconstruction of the Academy during the first decade of the twentieth century.

Results

Archaeological test pits placed in Area 1 revealed that this portion of the Yard had been disturbed previously by a number of activities since the turn of the 20th-century. These activities include the razing of the New Quarters, the construction of an addition to Preble Hall to house the U.S. Naval Institute Press, and probable landscaping activities over the course of the Academy's period of rebuilding. All of these activities would have effectively destroyed any archaeological deposits in this general vicinity. Another explanation for why very few intact deposits were found would be that this area historically may have been used as grazing grounds for local herds (personal communication with Dr. Jean Russo) or may not have been utilized at all. All units excavated in Area 1 revealed very similar stratigraphy, with the exception of Unit's 1, 10, and 11. The basic stratigraphy in Area 1 consisted of a layer(s) of sod and associated clay down to approximately .5 feet below ground surface. Beneath this layer there was, consistently, a 10YR 3/4 dark yellowish brown sandy loam
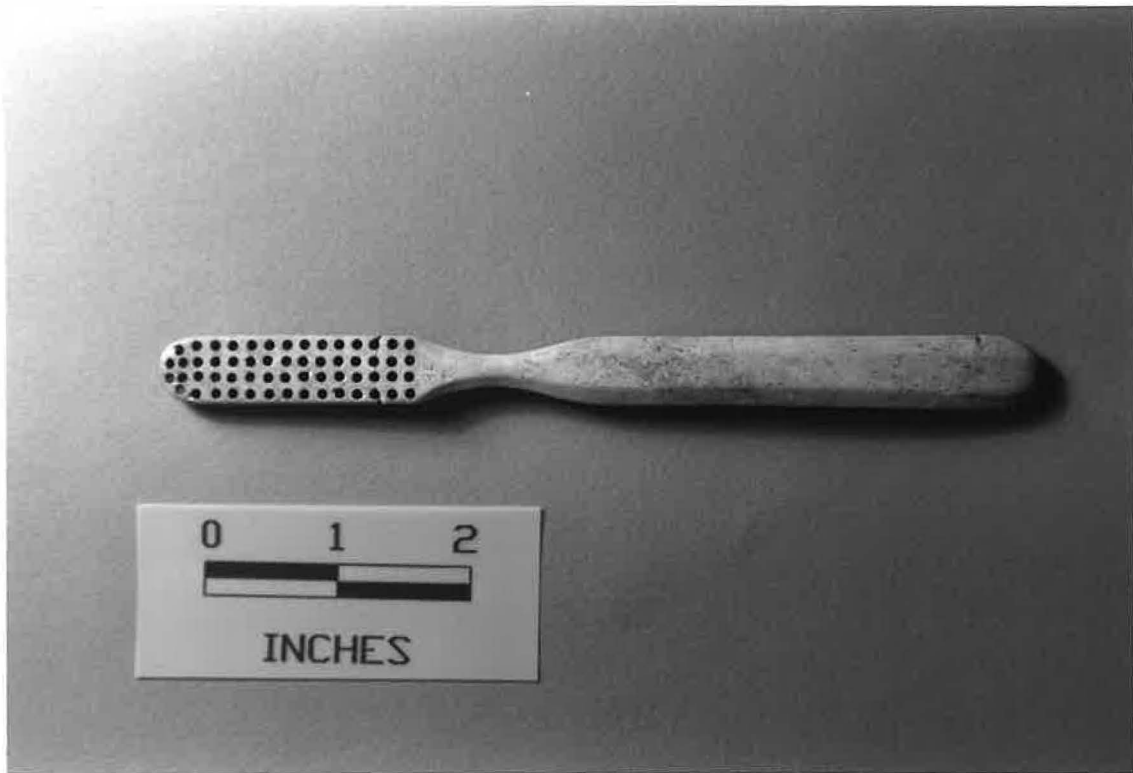
Plate 5. This 19th century bone toothbrush
was found in the Preble Hall area. It is a
Navy issue item which is evident from a faint
naval insignia carved into it.

with high bog iron content. This layer seems to cover most of Area 1 and generally contained a mixture of artifacts from varying time periods, indicating a high level of disturbance. Modern green bottle glass, for example, was found with creamware and Chinese porcelain. It is possible that the creamware and porcelain are remnants of eighteenth, or even early nineteenth-century deposits which were here, but which were heavily disturbed by the construction of the addition to Preble Hall. This could account for the presence of modern, twentieth-century artifacts. This layer either continued down to at least 3.5 feet below ground surface (Units 1, 2, 4, 6, 7, 8, 11) or was removed to expose similar soil but with a higher clay consistency (Units 3, 5, 9, 10). Clay loam or sandy clay loam soils were typical for sub-soil in this general area and the unit was normally ended when this type of soil was reached.

Unit 1 revealed intact stratigraphy down to approximately 2.5 feet below ground surface and contained a feature (soil anomaly or isolated deposit which is intrusive into a layer) that may be related to the New Quarters, a building that served as residence for all midshipmen from 1869 to 1905. The feature (feature 1) consisted of 2-course high bricks and mortar with a slight trough-like depression that was excavated along the edge of the bricks. The long edges of the bricks protruded out from the west wall of the unit and the depression may be an associated trench, although it was only .25 feet in depth. Materials found in the last artifact-bearing level of this unit (level H) contained early 19th-century ceramics (creamware, Chinese porcelain, white saltglaze stoneware, whiteware), as did the feature. Artifacts found in level G indicate a late-18th century date. While the feature itself may be related to the building known as the New Quarters, a 19th-century resident hall for Academy cadets, the soils associated with the level G indicate an earlier date of the late-1700's. The exact use of this area during that time period is unknown, and the deposits located in this general area may provide us with some answers. The last level excavated from Unit 1 (level H) was a sterile level and it was determined that sub-soil had been reached.

Unit's 10 and 11 did contain some late-19th to early-20th century building material such as slate, mortar, nails, as well as coal. These are most likely associated with the officer's homes that were here until the 1890's when they were removed to make way for the

new Academy. The stratigraphy from these units appears to be fairly mixed, however, the foundations or cellars for these houses may still be intact under the ground in certain locations. The use of AutoCAD overlays of maps of the early Academy and the current Academy for this vicinity may help to determine where the foundations or other features may still exist. Because only two pits were excavated here, it would be hasty to declare that no archaeological deposits of significance or integrity exist in this whole area.

Units 2 through 9 contained similar stratigraphy (see description on previous page), but it was determined that these areas had been severely disturbed by various activities mentioned above. Units 5, 8 and 9, for example, contained building debris such as brick, slate, mortar, and wire nails and it is probable that these units, as well as many of the others, reflect the activities associated with the construction of the addition to Preble Hall in 1962. For a more detailed description of these units or any others excavated in Area 1, see appendix A.

Excavations in Area 1 revealed that ground-breaking activities such as construction and razing of New Quarters, the addition to Preble Hall, and other probable landscaping has created severely mixed deposits throughout much of this testing area. Unit 1, however, did produce an intact feature (feature 1) and artifacts from associated levels indicate a time period of the mid to late 18th century. Therefore, it is likely that there are other isolated concentrations of intact deposits dating from the 18th century, and likely from later periods as well, beneath the ground in the area between Preble Hall and Leahy Hall. The dark blue line in figure 4 indicates the area of possible intact cultural deposits based on the results of excavation in unit 1. As of the writing of this report, Area 1 (Preble Hall) has not been assigned a site survey number with the Maryland Historic Trust.

AREA 2 - Ellipse (18AP67)

Area 2 (18AP67) is located in the vicinity known as the Ellipse, the name referring to the pattern of brick pathways which forms an oval when viewed from above. This area is bounded by Maryland Avenue to the west, Stribling Walks to the north, Buchanan Road and Bancroft Hall to the east, and Blake Road to the south. After walking through the area to be tested, it was determined that a systematic survey would consist of shovel test pits spaced 100 feet apart, more or less, depending on location of obstacles such as walkways, trees, statues, utility lines, or other buildings. In all, 25 shovel test pits were excavated in the Ellipse, however, these varied in size from 1 foot squares to 2'x 1' slot trenches. In addition to the 25 test pits in the systematic sampling, 4 trenches were excavated to test the reliability of historic maps by using AutoCad as predictor of where sites or features may exist beneath the ground (see figure 5). These test units will be discussed later in this section of the report.

The field methodology employed in this area is the same methodology used in other areas excavated during this project. However, it was decided not to end levels arbitrarily after .5 feet, but rather, depending on the artifact content and presence of natural stratigraphy, excavate in 1 foot arbitrary levels. The main objective for this systematic survey of the Ellipse was to determine if 18th or 19th century deposits existed intact beneath this ground surface. It was known through historical research of deeds and other texts that there was a street (Scott Street) which ran through the southern portion of this area, and that there were houses that date from the 18th-century which were here until the Academy bought this parcel of land in 1847. Two of the houses located here until 1859 were the Buchanan House and the Nicholson House. Little is known about the Buchanan House, but it is known that the Nicholson House was occupied by the brother-in-law of Francis Scott Key, author of the Star-Spangled Banner. After the destruction of these houses, some of the materials were used in the construction of Buchannan and Blake Row's, home to professors and officers during the late-1800's. Thus, there were strong suspicions that there might be eighteenth-century deposits in units excavated close to where Scott Street lay. The other research objective for excavating in the Ellipse was to determine if any remnant from the pre-Flagg, or early Academy exists under the ground. It was believed that a large structure known as
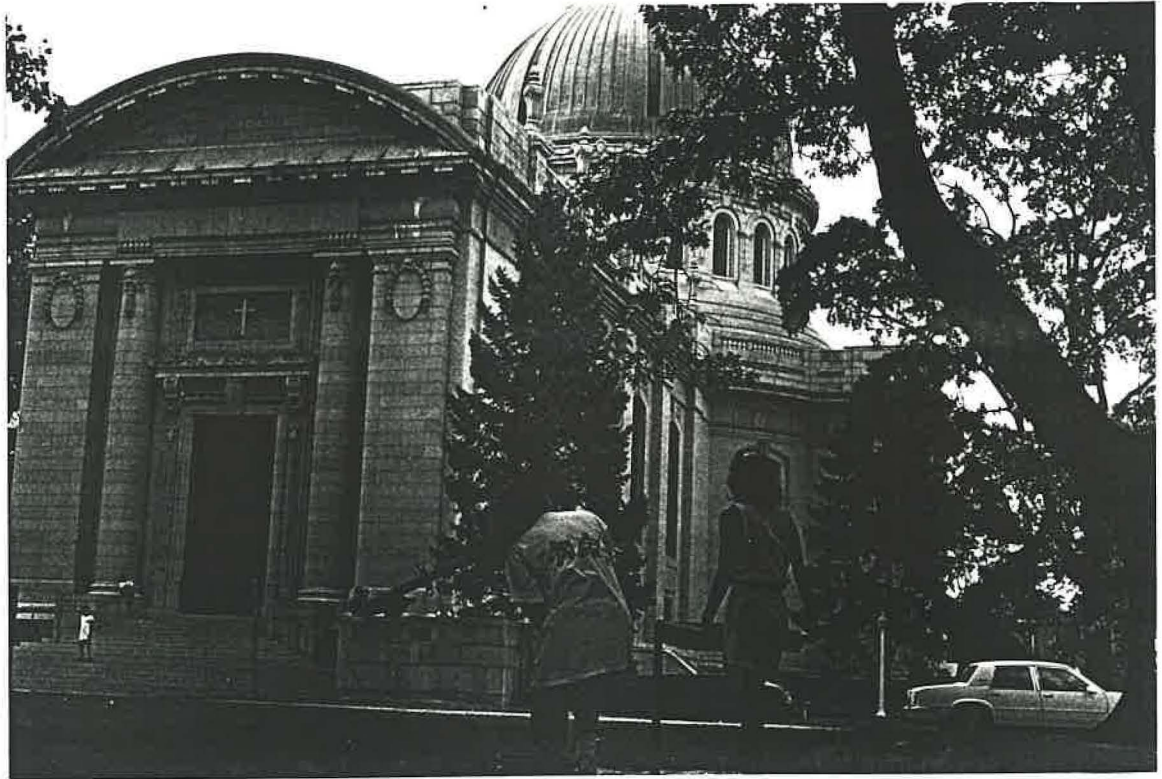
Plate 6. Excavations in front of Academy Chapel
(18AP67). Historical research revealed this was
the location of the home to former Academy
Superintendent Franklin Buchanan, as well as
Judge Joseph Nicholson, brother-in-law of Francis
Scott Key. Artifacts found in this area indicate
a time period of the early 1800's.

the Midshipmen's Temporary Quarters Annex C was located in the area south of Stribling Walks. Photographic or other reference to this building, however, was not found in a preliminary search of Academy files. Historic maps from Academy indicated that this building existed here during the early 1900's.

Results

Excavations in Area 2 (18AP67) produced a variety of material remains dating from the mid-18th century to the 20th century. A pattern was noted which indicated a higher concentration of artifacts along the southern half of the Ellipse and a lower concentration, in comparison, along the northern half. It is difficult to say at this point exactly why this distribution of artifacts occurred this way, however, it is known through maps of the area that just beyond Stribling Walks was the original shore line from the mid 1800's.

There were areas where substantial archaeological deposits were located and identified as probable eighteenth and nineteenth-century remains from activities on or around Scott Street. The following units contained artifacts which date from the mid to late-18th century through the mid-19th century: N100 E50, N200 E50, N150 E100, N200 E150, N200 E250, N125 E475, N125 E500 (see figure 5). The heavy blue line indicates the area of highest artifact concentration and sensitivity. While the stratigraphy from these units is not continuous across the entire area, the distribution of artifacts within each stratum from each unit indicates undisturbed contexts. In general, the first 1 foot of each unit revealed recent disturbed deposits with a variety of materials, from plastic to pearlware (see appendix for artifact lists). In two units along the southern edge of the Ellipse (N125 E475, N125 E500), a very hard-packed surface was exposed at approximately 1.5 feet below ground surface. It was believed that this surface is a remnant of Scott Street, which was covered over after the Academy purchased this portion of land in 1857. The exact use of Scott Street after it became U.S. Government property is unknown. Artifacts found above and within the layer thought to be Scott Street indicate a late-18th to mid-19th century time period. This would follow the chronology of the prior use of Scott Street by residents of Annapolis from the

18th-century, and subsequent acquisition and removal by the Academy during the mid-1800s. While it was strongly believed based on this initial discovery that Scott Street was intact beneath the ground, plotted maps of the early Academy with Scott Street drawn on it were later used in the field to locate another section of this street. Detail of these results will be discussed later in this section of the report.

Another unusual discovery made in the Ellipse was a thick deposit of late-19th to early-20th century mortar and plaster found in N300 E50 and N300 E150. The deposit was located at approximately 1.6 feet below ground surface and associated artifacts included brick fragments, cut nails, slate fragments, and coal. In N300 E150, the deposit of mortar is approximately 1.75 feet thick and excavators were not able to reach the bottom of this deposit due to the depth of the unit. In N300 E50, the deposit was approximately .8 feet thick and was removed to expose sterile sub-soil. After comparison of artifacts and mortar from these units, it was determined that these were the same materials. N200 E150 also contained a mortar/plaster deposit, however, the unit was ended when a plastic PVC-type pipe was uncovered. The deposit in which the pipe was set is very similar to the materials found in N300 E50 and N300 E150, however, the integrity of this deposit is ambiguous because of the modern pipe found here. It is reasonable to assume that this deposit was here when the pipe was laid and that it was refilled with the same soils. The layers above this pipe were composed of a soil/mortar/plaster which would indicate a mixing of layers. It is likely that this deposit is related to the same deposits in N300 E50 and N300 E150, although it is slightly more disturbed because of the installation of the plastic pipe. No pipe trench was noted during excavation in this unit.

During the filling episodes beginning in 1880 and lasting until 1902, the northern edge of the Ellipse would likely have been graded to produce an even slope between the fill zone and the original shore line. This activity could account for the lack of artifacts or features found in this general area of the Ellipse. The units included in this area are N420 E50, N400 E150, N400 E250, N400 E425, N400 E525, N400 E650. These units were located closest to Stribling Walks and they produced no intact stratigraphy and very few artifacts. The lack of artifacts located in undisturbed soil layers indicates that the northern half of the Ellipse will not yield significant archaeological remains. Other units which

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yielded very few artifacts and no intact stratigraphy include N300 E250, N300 E335, N300 E425, N300 E525, N300 E650. These units were all excavated down to sterile sub-soil, as were all units in the Ellipse. While an assortment of eighteenth through twentieth-century materials was located here, the lack of undisturbed soil layers indicates that the area has likely been disturbed by an unknown variety of activities over the last 150 years.
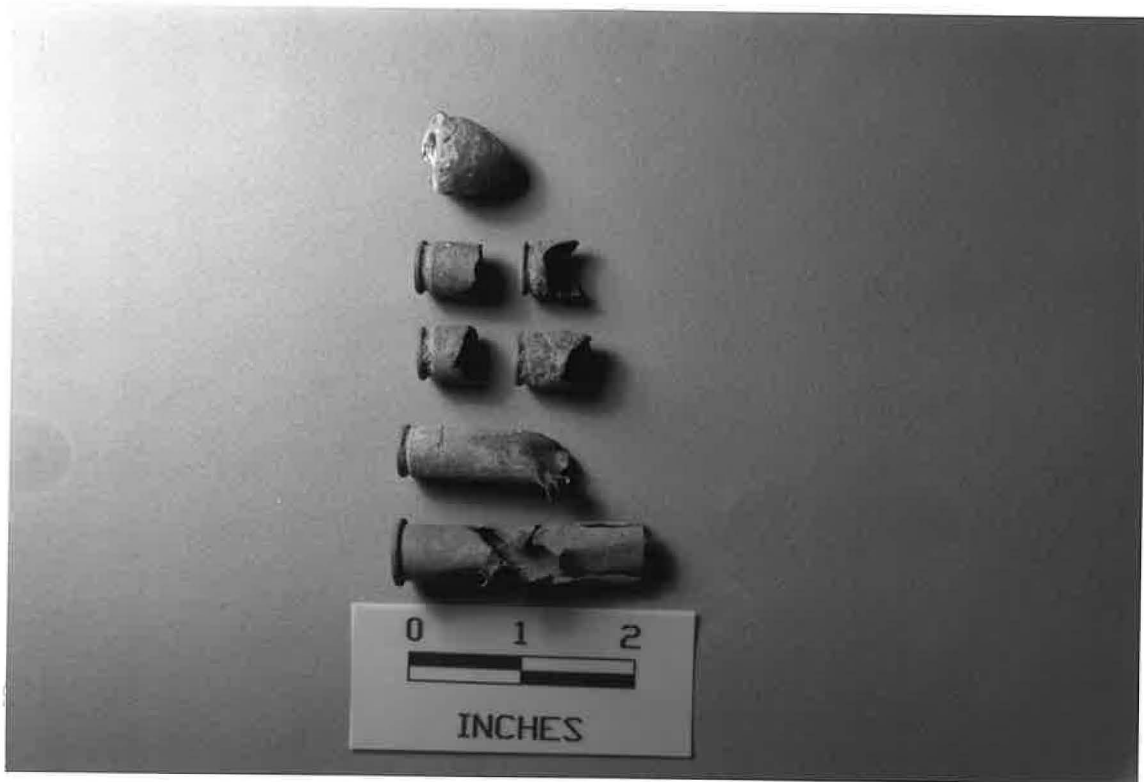
Plate 7. A number of pistol and rifle shell casings were found on the academy. Also found was a Civil War-era lead bullet shown at the top.

AREA 3 - Porter Road (18AP68)

Excavations in Area 3 (18AP68), along Porter Road, were limited to testing locations in the front yards of the officer's homes. A baseline was established along the sidewalk in front of these houses and units were placed on either side of this line. Figure 6 shows the location of test pits. The field methodology employed here is the same as the general methodology previously outlined in this section of the report.

The initial objective for excavating in this area of the Academy was to locate the presence or absence of materials dating from at least the early 1900's when the Academy purchased this portion of land. Deeds research and the use of Sanborn fire insurance maps as AutoCad overlays indicated a high probability for historic resources dating from the 1880's, including the presence of African-Americans who lived here until all of the buildings were razed in the early 1900's. All of these factors made it necessary to conduct subsurface testing in this area to assess the integrity of the archaeological deposits. Test pits did not extend further than Quarters 9 because of known disturbances here by the Academy during its rebuilding in the first decade of the 20th-century. These disturbances included a canal which was constructed to help bring in materials needed for the expansion of the chapel, and a pond which was located on the Governor's Mansion property. Photographs from the rebuilding of the Academy in the first decade of the 1900's show that the canal extended approximately as far as Quarters 9. It was determined through examination of this photograph that any deposits beyond here would be fill, and would produce no intact archaeological features or deposits.

Results

Archaeological test pits in Area 3 (18AP68) revealed high concentrations of both intact and slightly disturbed eighteenth, nineteenth, and early twentieth-century materials in discreet locations along Porter Road.

The following units produced a significant amount of eighteenth and nineteenth-century materials found in intact layers; N10 E115, N10 E150, S15 E150, and N10 E185. In unit N10 E115, thin layers of deposits were noted, however, because of the manner of

Plate 8. These large, butchered mammal bones were found along Porter Road (18AP68) A primary deposit of bones, such as these can be indicative of diet.
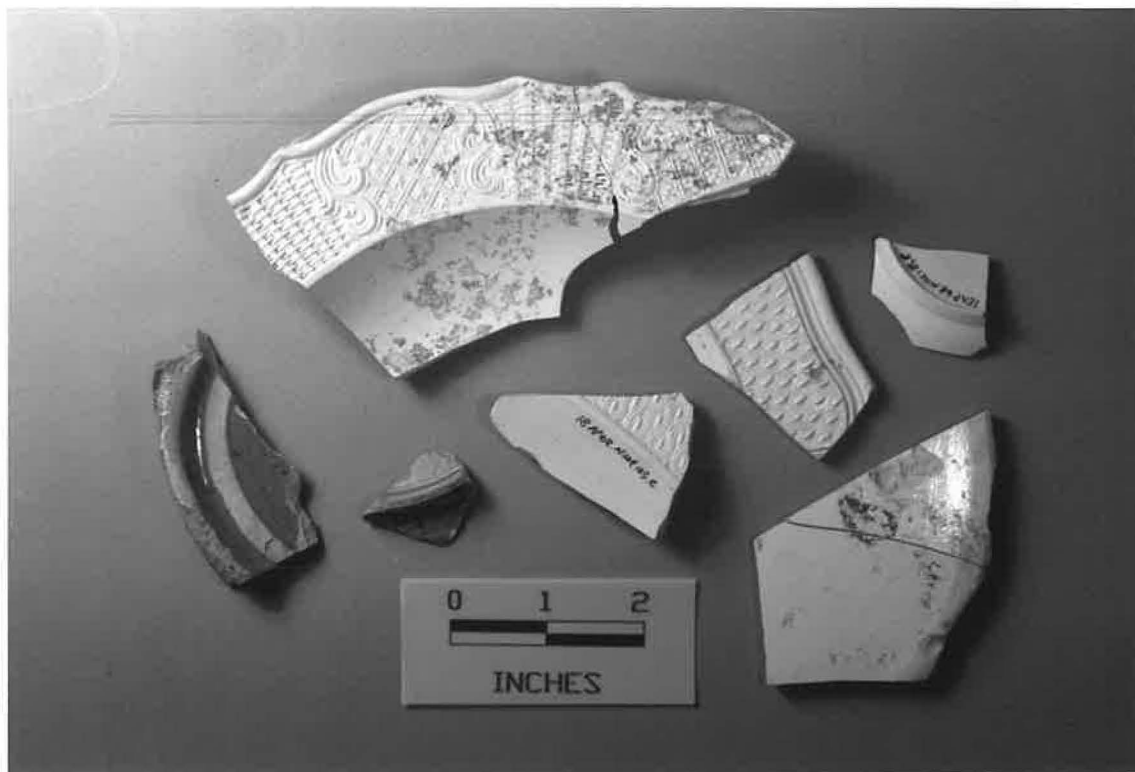
Plate 9. Early 18th century ceramic sherds were found along Porter Road (18AP68). These were some of the largest sherds found on the academy. They indicate intact, primary deposits.

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excavation these were not excavated as individual layers. The layers that were removed indicate undisturbed contexts that date from the late 1700's (level E), with preceding layers dating from sequentially later time periods (level D has a date of the mid-1800's, and level C dates from the late-1800's). Unit S15 E115 also contained late 18th-century to mid 19th-century layers.

As excavations moved further towards the east, more intact archaeological deposits were found dating from the mid-1700's through to the late-1800's. N10 E150 and S15 E150 both contained intact layers, with the earliest layers dating from the early-1800's. Level D in S15 E150 contained whiteware and olive green bottle glass, while at the same depth in N10 E150, pearlware, creamware, whiteware, and coarse earthenwares were found and the soil types are both a clay loam (10YR 4/6 dark yellowish brown).

Unit N10 E185 contained probably the most interesting and undisturbed deposits found in all areas of this project. Level B and C contained a high concentration of large butchered bones (plate 8), parts of at least 3 white saltglaze stoneware plates, slipware, and creamware (plate 9), indicating a date of the mid to late-1700's. The size of all of these fragments suggests a primary deposit that has not been disturbed by any subsequent activities. The last artifact-bearing level from this unit (level F) contained Chinese porcelain and a lead glaze earthenware base of a bowl. Therefore, the earliest datable layer from this unit is post-1780. It is difficult to say exactly what this layer indicates. However, it is certain that the layers from this unit are intact and contain significant deposits dating from the early periods of Annapolis's development. Unit S15 E200 contained late 18th-century deposits as well but the stratigraphy here was not as distinct as N10 E185. There were 3 layers excavated in this unit to a depth of 3.6 feet, and it is possible that this specific area may have been disturbed by some activity.

Unit N10 E350 contained intact deposits possibly relating to the destruction of a house or part of the neighborhood. At approximately 3 feet below ground surface, a thick deposit of burned construction materials (e.g., brick, mortar, nails, wood, window glass) was uncovered. It is believed that these materials are the remnants of a house(s) that stood here

Figure 6. Area 3 (Porter Road-18AP68) Archaeology Base Map. The archaeological test units are shown in green; the areas of sensitivity are shown outlined in blue.

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until 1902 when the Academy purchased this portion of land. It is unknown what time period these original structures were built, but they appear on Sanborn Maps from 1885. Based on the data from units excavated further to the west (N10 E185, N10 E150), it is likely that this area has been occupied consistently since the mid-1700's. Chains of title searches also show the presence of structures here from the mid-1700's. N10 E380 contained similar deposits relating to the destruction of this neighborhood. A burned, ashy layer (level C) was uncovered and contained the same types of materials found in N10 E350, although in slightly thinner concentrations. S15 E380 contained intact deposits relating to the destruction of the houses in this area and the subsequent construction of the current officer's homes beginning in 1904. Materials such as marble, granite, slate, brick, and other construction materials were found in the lower levels of this unit, indicating activity associated with this construction.

In general, the units located in the western portion of the testing area contained no significant archaeological remains. While units in this general area did contain artifacts, no intact stratigraphy was present. The units which contained some artifacts from varying time periods but no stratigraphy include S15 E0, N10 E50, S15 E75, N10 E75, and S15 E115. These units were all excavated down to sterile sub-soil and averaged 3.5 feet in depth.

Other units excavated in this specific area were placed using AutoCad as a guide to predicting where historic resources lay beneath the ground. The results of these excavations will be discussed the section of the report which deals with the use of AutoCad.

Area 4 (18AP69) is located in the visitor's parking lot just inside Gate 1 of the Academy. This is part of the area known historically as Hell Point. With the exception of the southwest corner of the block which was not purchased, this portion of Annapolis was bought by the United States government in 1941 and contained the area of land from Randall Street to the shore of the Severn River, and from King George Street to Prince George Street. It is this area which was the focus of the oral history interviews done for this Legacy Project. Interviews were given by former residents of this neighborhood and an interpretive section of this report presents the results of over 19 hours of interviews with these residents.

Given the location's use as a parking lot and by request of USNA Public Works Office, it was decided that excavation would be limited to only the areas not covered by asphalt. Therefore, we were only able to excavate in the islands within the parking lot. These strips of soil bounded by the parking lot were approximately 100 feet long and about 18 feet wide. Units were placed in each of the five strips in the parking lot and a total of 15 shovel test pits were excavated here (see figure 7). The field methodology employed for this area follows with the general methodology used for the project.

Results

Excavations in Area 4 (18AP69) revealed scattered deposits of both intact and disturbed archaeological remains. Some units, for example, contained early-20th century remains, while other units produced virtually no artifacts and no intact stratigraphy. Units excavated along transects in the middle of this area produced no intact archaeological deposits while on the W0 and W281 transects, partially intact foundations were discovered.

Intact or partially disturbed deposits were discovered in units S30 W0, S58 W0, S78 W0, and S0 W281. In each of these units, structural remains were located and consisted of intact brick and mortar, nails, and other materials associated with domestic activities (e.g., coal, clinker, oyster shell, ceramics). The stratigraphic make-up of these units consisted of a disturbed layer down to approximately 1 foot below ground surface, with undisturbed soil layers beneath. Artifacts from the disturbed soil layer consistently contained modern 20th-century materials (plastic buttons, plastic fragments, aluminum pull tabs) which indicate recent disturbance. It is likely that this disturbance is a result of work done on the asphalt

parking lot. However, the undisturbed nature of much of the material beneath this layer indicates the probability that more architectural remains exist beneath the asphalt. The area of sensitivity in Hell Point (18AP69) is indicated in figure 7 by a heavy blue line.

The remaining excavated units (S30 W68, S60 W68, S85 W68, S30 W137, S60 W137, S85 W137, S30 W206, S60 W206, S80 W206) from Area 4 produced very little archaeological remains or intact stratigraphy. This lack of undisturbed remains is unusual given the high density of structures located here based on visual reference to Sanborn fire insurance maps dating from 1885. In all areas of the parking lot, on both sides of Halsey Field House, remains from the area known as Hell Point likely exist, however, they may be intact only in select locales where activities by the Academy have not disrupted the archaeological integrity of the deposits.
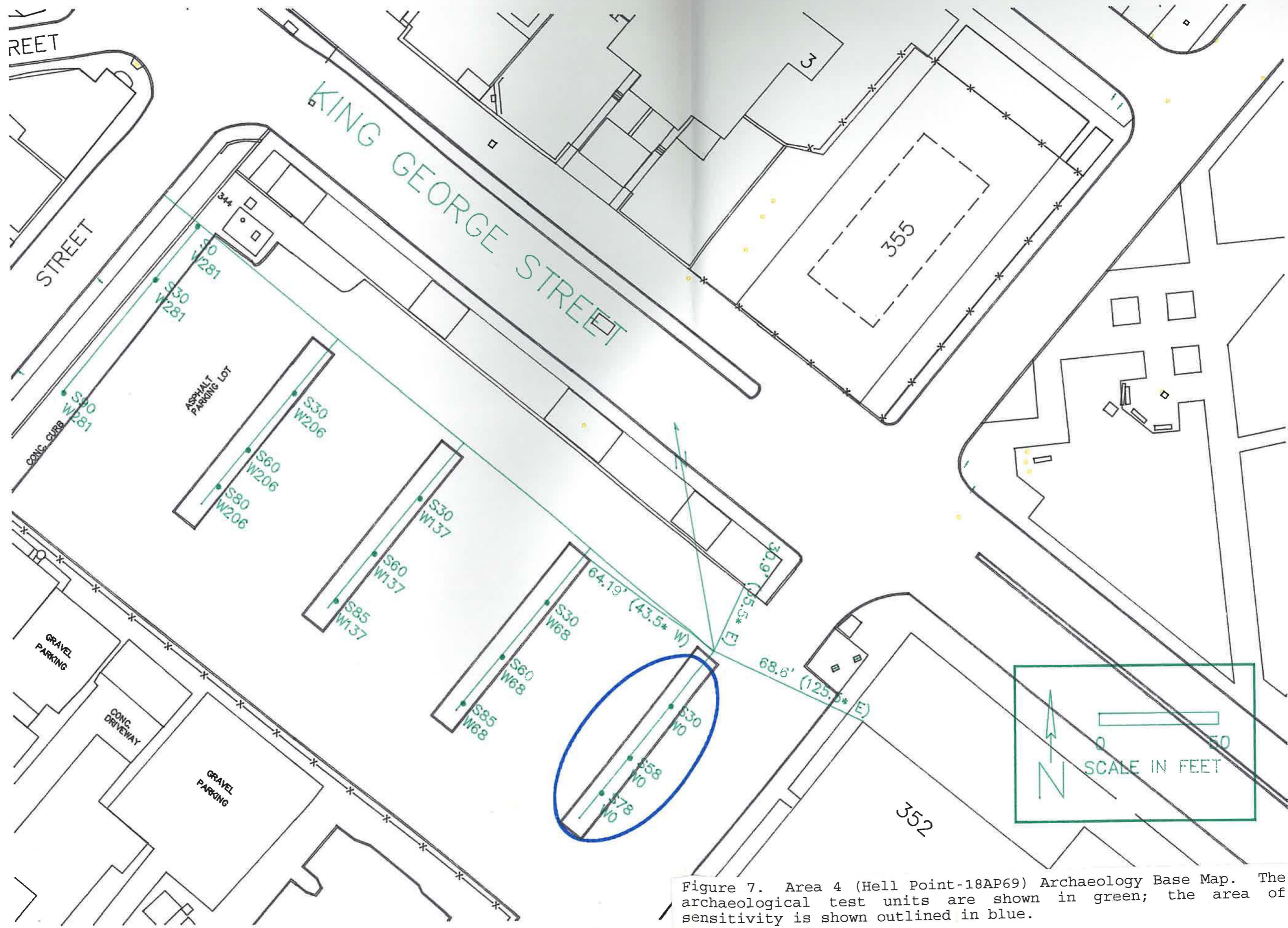
Figure 7. Area 4 (Hell Point-18AP69) Archaeology Base Map. The archaeological test units are shown in green; the area of sensitivity is shown outlined in blue.

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DECATUR ROAD

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UNIT 7
N125
W250

UNIT 9
N150
W225

UNIT 4
N75
W250

UNIT 6
N100
W225

UNIT 8
N125
W200

UNIT 1
N25
W250

UNIT 3
N50
W225

UNIT 5
N75
W200

118

PREBLE HALL

UNIT 2
N25
W200

2

CLUB ROAD

MARYLAND AVENUE

UNIT 10
S50
W50

UNIT 11
S75
W50

0   50

SCALE IN FEET

N
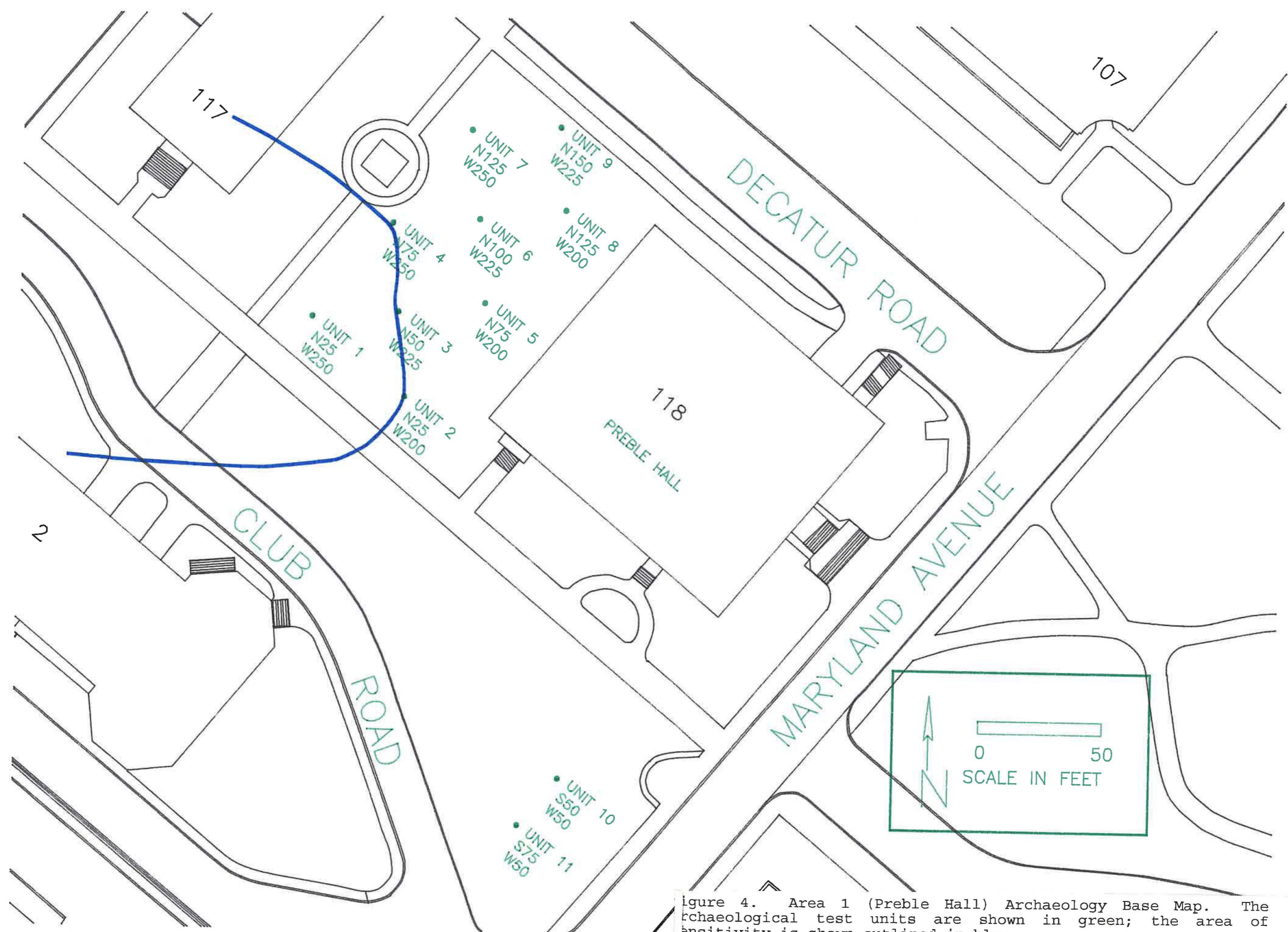
Figure 4.   Area 1 (Preble Hall) Archaeology Base Map.   The archaeological test units are shown in green; the area of ensitivity is shown outlined in blue.
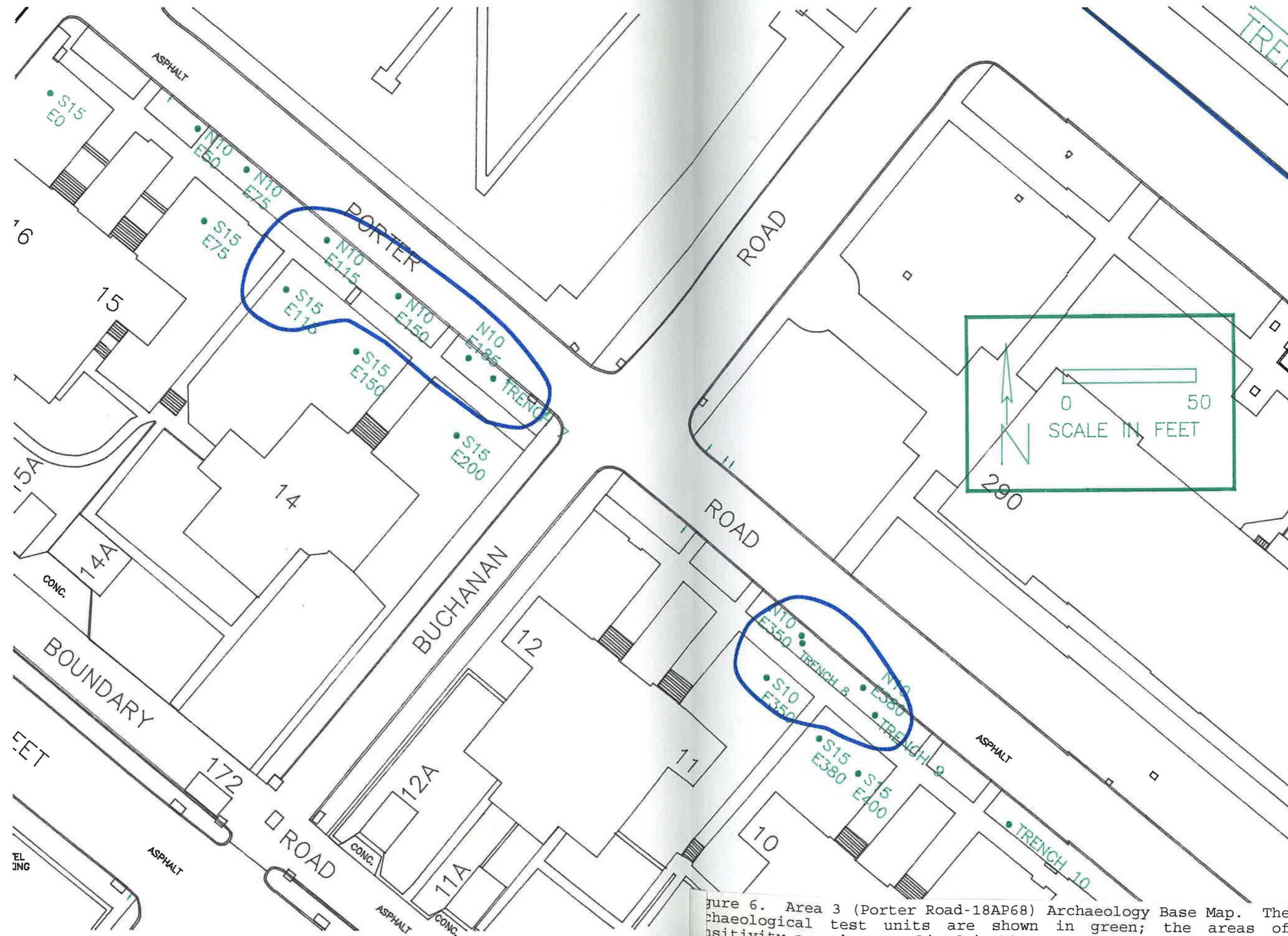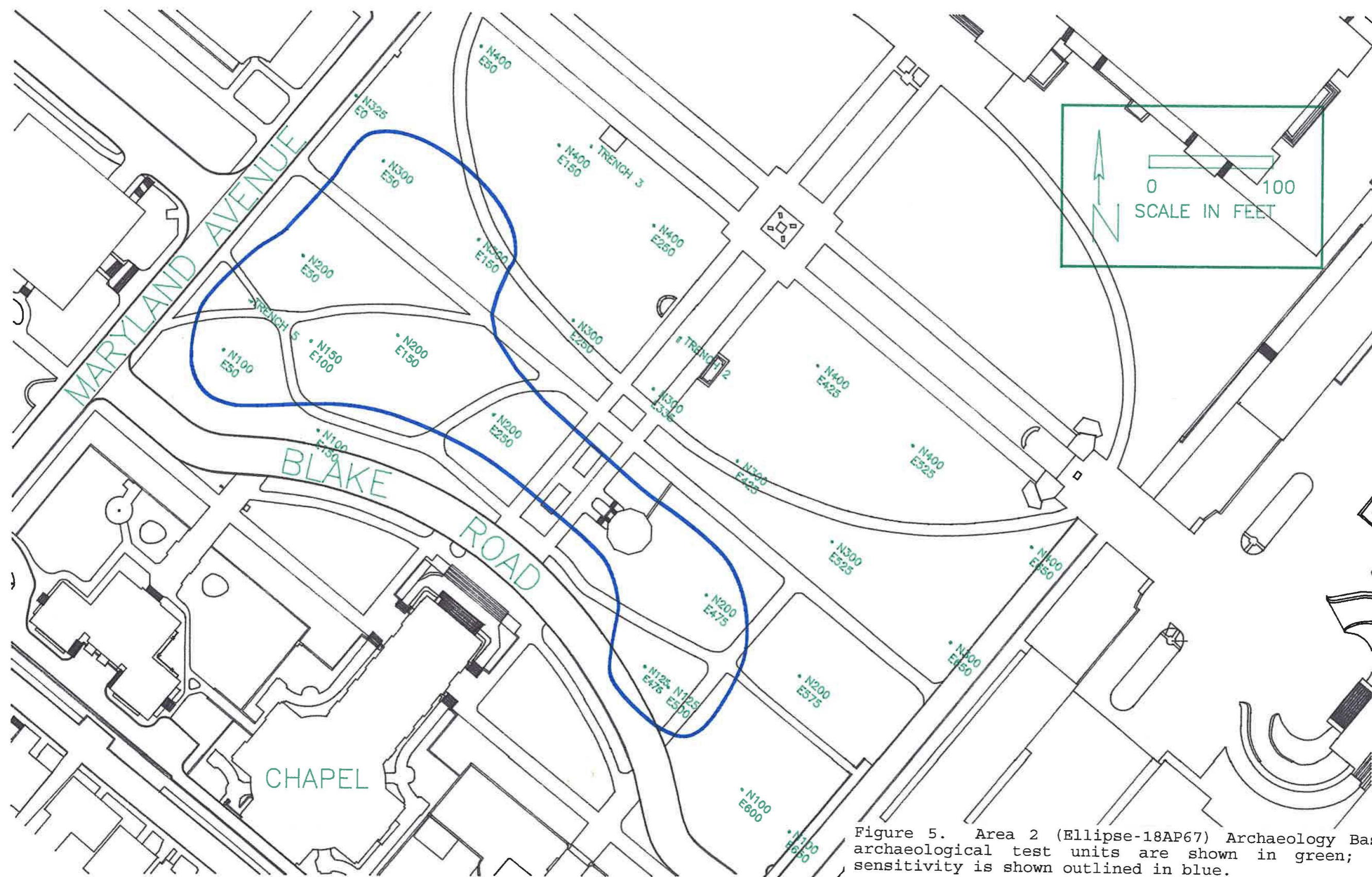
Figure 5. Area 2 (Ellipse-18AP67) Archaeology Base Map. The archaeological test units are shown in green; the area of sensitivity is shown outlined in blue.
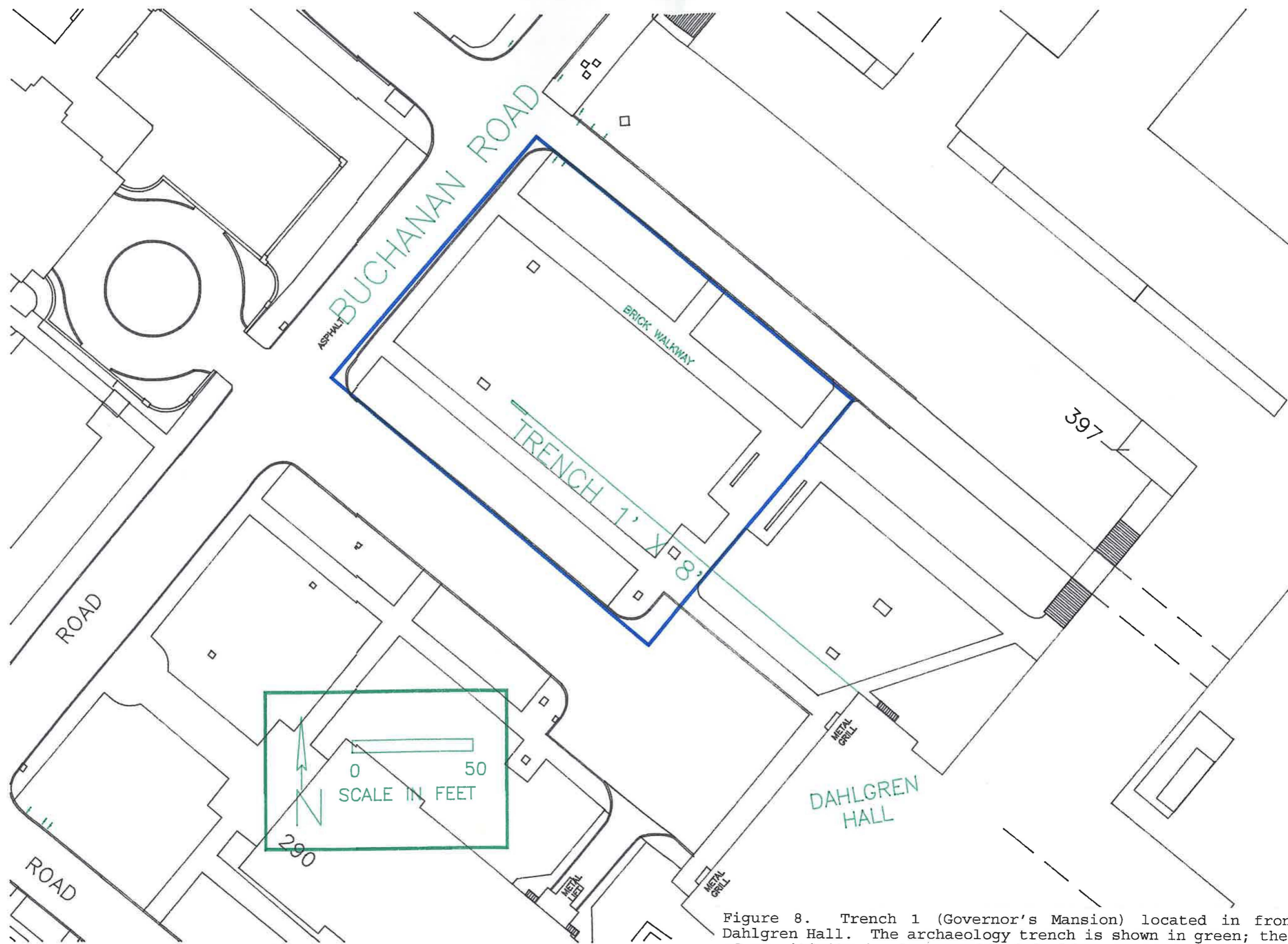
Figure 8. Trench 1 (Governor's Mansion) located in front of Dahlgren Hall. The archaeology trench is shown in green; the area of sensitivity is shown outlined in blue.

AUTOCAD TRENCHES

A total of 10 individual trenches were excavated in specific areas using the AutoCAD computer mapping program as a tool or guide to indicate where cultural resources may exist beneath the ground. For further information on how AutoCad was manipulated to provide this kind of information, see the previous section of this report.

The successful use of AutoCAD as a tool for determining where archaeological remains may exist was entirely contingent upon the accuracy of the maps which were obtained by Archaeology In Annapolis from the Naval Academy engineering division. These maps consisted of collage maps (those that are compilations of a series of different maps presented on one sheet), maps with inaccurate scales, and maps which were considered to be comparable with accuracy standards dictated by using AutoCAD. After examination of the maps by AutoCad consultants, the field supervisor, and the AutoCad specialist, it was determined which maps would be used to test specific areas of the Yard archaeologically.

The methodology employed for making the maps useful in the field consisted of taking measurements from known points on the grounds of the Academy. These measurements were recorded first using the computer to generate a distance in feet between a known point on the ground surface to a location such as a house wall or foundation. Then the same measurements were made in the field using steel tape measures. Once all appropriate measurements had been made, utility maps were checked to be sure no modern disturbances would be encountered. The main goal of this phase of the archaeological reconnaissance was to locate discreet signs of structures which existed, and may still exist, in the Yard. In all, four areas were tested using AutoCAD as a guide and predictor of where remains may exist. The objective of testing these areas were to; 1) locate intact or partially disturbed foundation from the 18th-century Governor's Mansion, or remains of alterations or renovations to this structure during the mid and late-1800's; 2) locate the surface of Scott Street; 3) locate foundations or buildings materials associated with the neighborhood which existed where Porter Road now lay; 4) locate any signs of the Midshipmen's Temporary Quarter's Annex C which is thought to have been located just south of Stribling Walks. Ten separate trenches were excavated and varied in size from 2'x 1' slot trenches to a 8'x 1' trench excavated to uncover remains of the original Governor's Mansion located in front of

Dahlgren Hall. Excavations in each area proved to be successful, as remains, either intact or partially disturbed, were discovered in virtually all of the units excavated for this purpose.

Results

Trench 1 was a 8'x 1' unit excavated to locate the remains of the Governor's Mansion which was purchased by the Academy in 1866. This structure underwent a series of changes to its appearance from that time until 1902 when it was torn down (plate 10). Once the appropriate measurements were made on the computer and then the corresponding site in the field, excavation of this trench began. The measurements obtained from the computer were 12.18 feet to the south or west sidewalk edge, 56.47 feet to the north sidewalk edge, and 190.6 feet to the northeast corner of Dahlgren Hall (see figure 8). The first 2 feet excavated from this trench produced no intact stratigraphy. Virtually no artifacts were recovered in the two levels excavated. However, beginning at approximately 2 feet below ground surface, a series of large, granite blocks were exposed. Also found in this level (level C) were brick with mortar attached, and other mortar and brick fragments. At 2.9 feet below ground surface, it was decided to expand the trench further west to expose more intact, granite foundation stones. Once the overburden was removed, part of a foundation was exposed which consisted of 2 large, flat, rectangular granite blocks with mortar between and on top, indicating that other stones would have been placed here. The stones lay level with the ground surface. No stones were removed from this assemblage because they were considered to be intact. Artifacts recovered from the last two levels excavated from this trench (level's D and E) contained 1 sherd of creamware, 1 sherd of tin-glaze earthenware, olive green bottle glass including the base of a bottle, brick and mortar fragments, a few small fragments of granite, and sandstone fragments with mortar attached. A date for this deposit based on ceramics is mid to late-18th century, however, granite was not commonly used as a building material until the mid-19th century and later (personal communication with Tony Lindauer). It is known that the Governor's mansion underwent three different
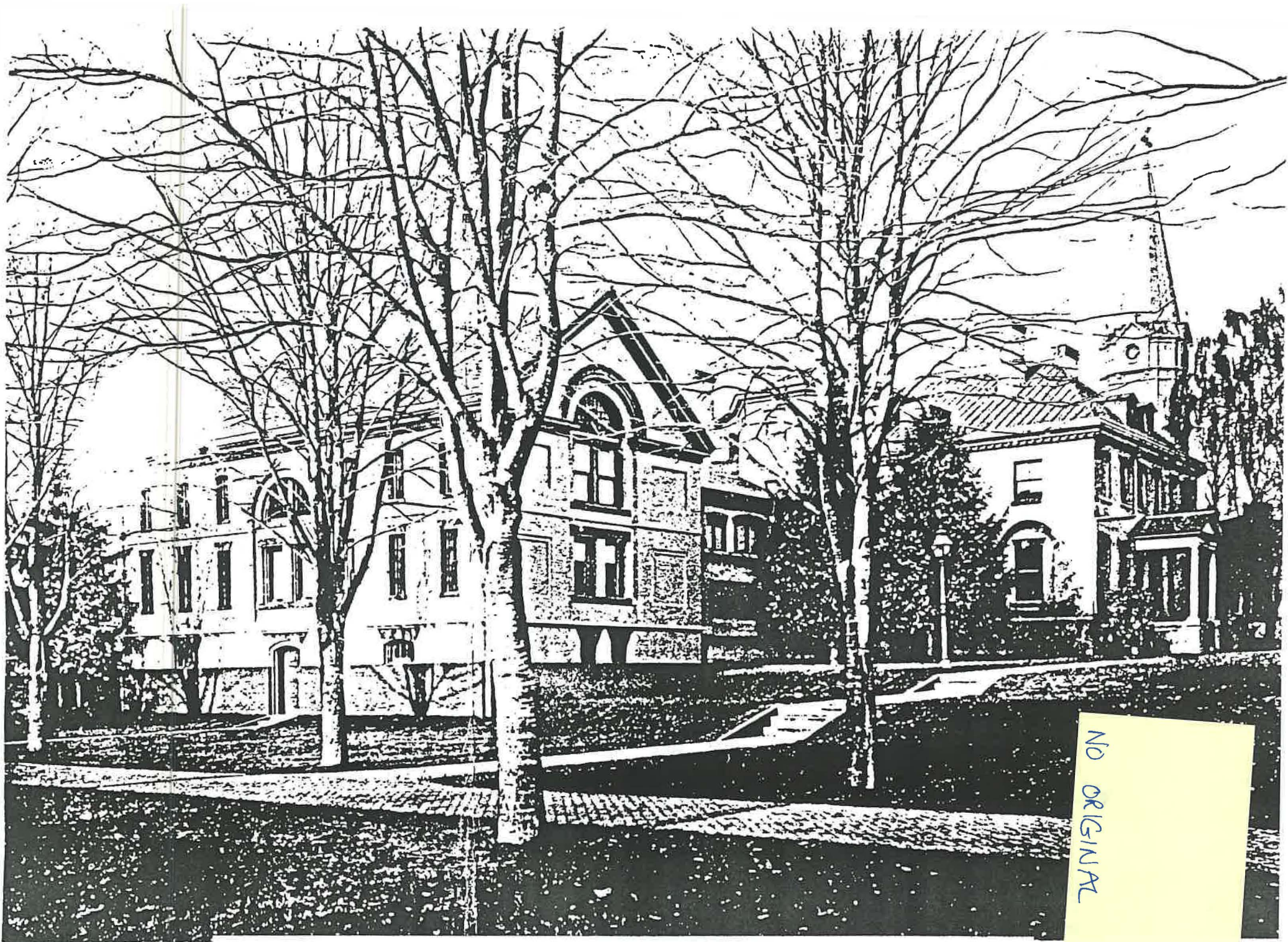
Plate 10. Governor's Mansion with Additions. Served as
library and Superintendent's office until 1902.

renovation projects since its purchase in 1868. The photograph presented in plate 10 show how the house appeared when purchased by the Academy, then the subsequent additions made to the original structure. It is quite probable that what was uncovered within Trench 1 are the mixed remains of an original portion of the mansion and the later additions to this structure. The granite stones indicate a mid to late-19th century time period, while the sandstone fragment is likely part of the 18th-century structure. In 1901, the building, which was now a three part structure, was razed and covered over with soil and it is likely that the rest of this structure still remains beneath the ground in the grassy area between Dahlgren Hall, the Superintendents Quarters, and Bancroft Hall. The heavy blue line on figure eight locates this archaeologically sensitive area. With the exception of a sewage pipe which runs roughly north to south through this section of grass, no other utility lines are located here at the time of this writing.

The next area to be tested using AutoCAD was located in 18AP67 (Ellipse) and was done to locate Scott Street, which dates from the 18th-century. This parcel of land was purchased in 1853, then removed soon after by the Academy. Distances were measured from the northeast corner of Preble Hall (approximately 78 feet) and a 2'x 1' slot trench (trench 4) was placed in order to determine whether Scott Street lay intact in this section of the Ellipse. At 1.85 feet below ground surface, a very hard-packed dry loam surface was exposed. Artifacts found in this layer (level D) included creamware and porcelain, and olive green bottle glass, indicating a post-1780 date of deposit. These materials were sparsely found throughout this layer and may have been embedded in this surface. No paving materials were found, but it is likely that this was a dirt road which would have become very hard-packed from activities on the road. After comparison of this level with level E from N125 E500 (also thought to be remnant of Scott Street), it was noted that the soils were very similar (sandy loam) and the soil was extremely hard-packed in both units. While a dirt road surface may seem too ephemeral to locate archaeologically, the evidence found here suggests otherwise. The last level excavated from this trench contained a small concentration of brick, nails, and mortar fragments and the unit was ended at approximately 3.25 feet below ground surface.

The next area tested using AutoCAD measurements was also located in 18AP67 and was investigated to find the remains of the Midshipmen's Temporary Quarters Annex C. This building appears on two maps which were obtained from the Public Works and Engineering offices of the Academy, and the remains found in N300 E50, N300 E150, and N200 E150 (see description above) suggested that this building was here, then torn down sometime during the early 1900's. A total of 3 trenches were excavated in order to locate other remains from this structure. Photographs from 1921 show a structure located between Stribling Walks and Michelson and Chauvenet Halls that is called Temporary Quarters by the archivists at Nimitz Library (see plate 11). This may be the same structure, but drawn in a different location on the map. The archaeological evidence suggests that a structure was located south of Stribling Walks, although no photographic or written record of this building were found.

The results of test trenches using AutoCAD measurements show that a structure may have existed in this vicinity. If so, however, it was probably used for a very short period of time. This interpretation comes as a result of research on this specific area to locate what structures may have existed here during the late 1890's and into the first decade of the 1900's. No information was found that indicated a structure here during those years. Excavations in Trench 2 (see figure 5 for location) revealed a thin lens of mortar (within level B) that appears to be the same type found in three of the units excavated during the systematic aligned survey. The other two trenches (trench 3 and 5) produced no indication of a structure in this area. Nevertheless, the deposit of mortar, plaster, and some brick and nails is found across a wide portion of the Ellipse. Further research on this material and other documents, including the maps from which the initial interpretation was made, is necessary before a solid interpretation can be presented.

The final area tested using AutoCAD measurements was along Porter Road (18AP68), in front of the officer's homes. Four 2'x 1' trenches were excavated here to attempt to locate and identify foundations or other structural remains which may exist here. Again, based on excavations during the systematic aligned survey, it was known that archaeological resources lay undisturbed beneath the ground in specific locales in this general area. For testing this area using AutoCAD, Sanborn fire insurance maps were used as overlays onto

the current Academy base map and measurements were taken from existing points on the ground surface (i.e., corners of sidewalks or curbsides). Four sites were chosen based on the probability that remains would not be disturbed by utility lines or the canal which extended up Porter Road to Quarters 9.

Of the 4 trenches excavated in this area, two contained structural remains. Trench 7, located in front of the Commandant's Quarters, produced intact structural remains at the base of level C. Three flat-laying bricks with mortar attached were located at approximately 3.5 feet below ground surface and were left intact by the excavators. This location would be, given the accuracy of the overlay, the front foundation of a structure shown on the 1885 Sanborn map. Materials found associated with this feature indicate a post-1820 date (whiteware) and the nature of the remains suggests that the foundation is intact in this specific location. Excavated units from the systematic aligned sampling of this area also revealed a heavy concentration of materials dating from the mid to late-1700's (N10 E185, N10 E150, S15 E150).

Trench 8 contained partially intact foundation remains relating to a house which appears on the 1885 Sanborn Map. At approximately 2.5 feet below ground, the destruction layer of this structure was encountered (level D). This consisted of a thick deposit of burned material (e.g., frame wood, mortar, brick, window glass, nails), with a two to three-coarse-high deposit of bricks located in the eastern edge of the unit. These brick were mortared together, but appear to have been slightly disrupted by the destruction of the house. It is not known what the structure was made of (e.g., frame or brick), however, the presence here of both types of materials suggests that the structure(s) might have been frame with brick supports. Excavations in this specific area show a wide deposit of burned materials covered by a deposit of soil dating from the early-1900's which may indicate that at least one structure burned sometime around the time when the Academy purchased this tract of land. Level E, beneath the burned layer, was a sand deposit that contained brick and mortar fragments. Excavations were halted before this layer could be completely removed because of the depth of this unit.

Trench 9 was also placed here to locate the foundation of a structure which appears on the 1885 Sanborn Map. The materials found in this unit indicate that construction debris
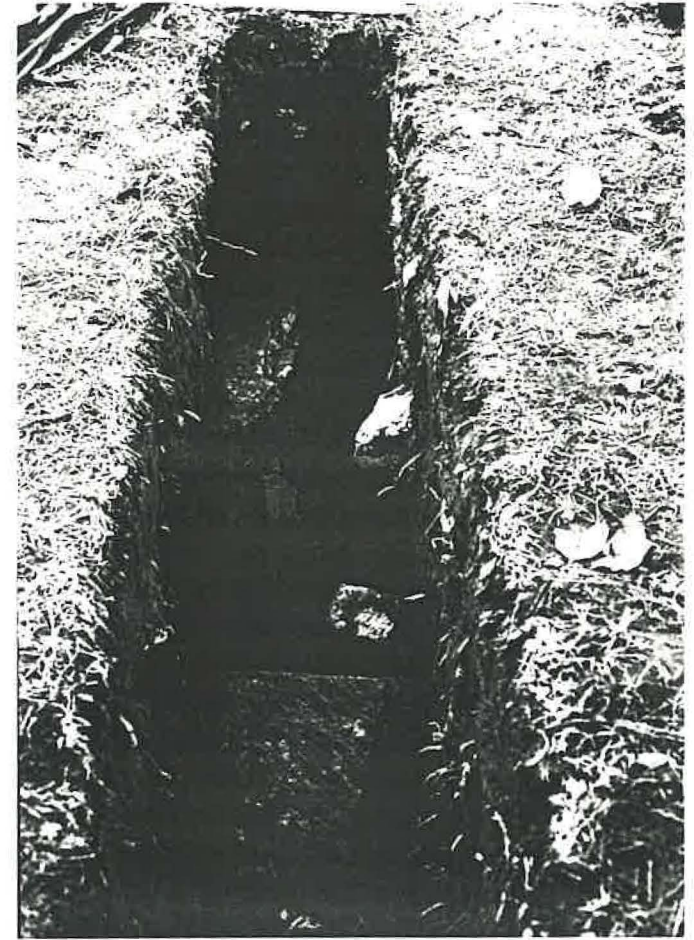
Plate 11. Trench 1 reveals foundation stones related to a later addition to the original Governor's Mansion of Maryland.

NO ORIGINAL

from the building of the current officers homes became mixed with the foundation or destruction debris of the previous house which was here. Levels F and G were an ashy clay, and it is believed that this ash may be the same as the deposit found in Trench 8 and N10 E350, although not as substantial. The unit was ended at 3.6 feet below ground surface because of the difficulty of removing soil, however, materials were still being found at this depth.

The final trench excavated as part of the AutoCAD test was located along Porter Road. Trench 10 was placed to find any remnant of a structure that appears on the 1885 Sanborn Map. The location of this trench in front of Quarters 9 made it doubtful that any remains would be found based on the knowledge that a 20th-century canal extended up to the front of this house. Excavations revealed that this area has indeed been heavily disturbed by the canal. No remains from the neighborhood shown on the 1885 Sanborn Map were found and excavation was ended at 3.6 feet below ground surface.
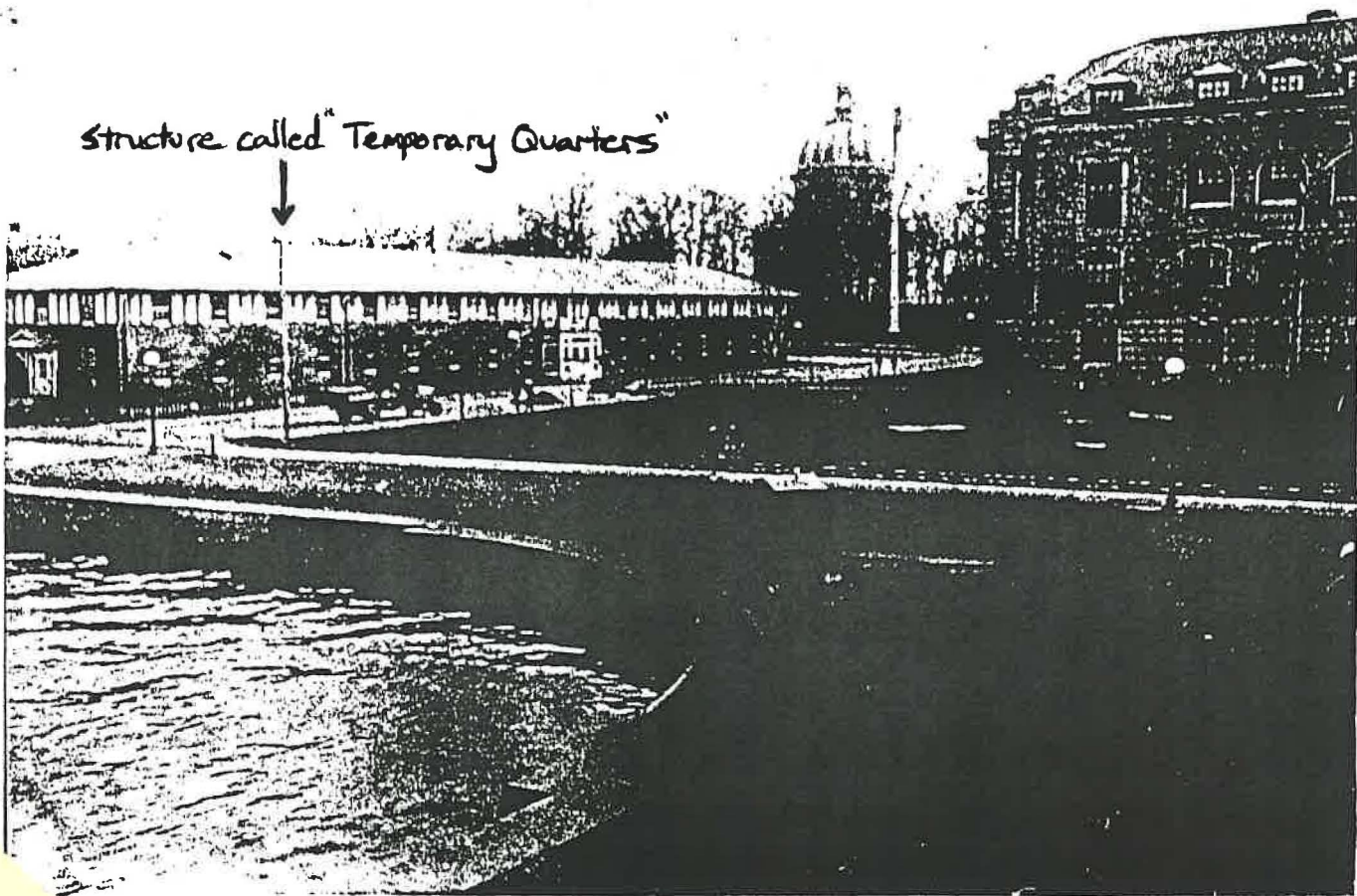
structure called "Temporary Quarters"

Plate 12. This 1920 of "temporary quarters". This structure may postdate remains from another structure which may have existed between it and the Chapel, seen in the background.

Summary of Results

The archaeology phase of this Legacy Project consisted of two approaches to discovering the presence or absence of cultural materials beneath the ground now occupied by the United States Naval Academy (USNA). These were a systematic aligned sampling of four areas of the Academy, and an attempt to predict where resources exist using the AutoCAD computer mapping program as a tool for manipulating documentary materials in the form of historic and current maps of the Academy. The results of each phase revealed that a major portion of the USNA contains intact or partially disturbed archaeological deposits dating from the early-1700's and that these locations can be predicted using the AutoCAD map overlays. It can only be speculated why no prehistoric remains were located during this survey, but it is likely, given the location of the Naval Academy on a point of land in close proximity to known prehistoric sites, both to the north on the St. Margaret's pennisula and to the south, along the South River, that Native American's utilized the area for hunting or fishing. It is assumed that no prehistoric remains were found during this survey because of the high amount of historic activity that has taken place on these grounds since the 17th-century.

In the Preble Hall area, it was determined that the archaeological record has either been severely disturbed by modern activities in this area (addition to Preble Hall, razing of New Quarter's, landscaping activities) or no substantial cultural materials were ever located here. One feature discovered in this area indicates, however, that some intact deposits may be found in isolated locations further to the southwest of this area.

Other areas investigated during the systematic sampling revealed intact, eighteenth, nineteenth, and early twentieth-century deposits. Three sites were named during this survey. These are 18AP67, the location known as the Ellipse, 18AP68, located along Porter Road, and 18AP69, located in the visitor's parking lot adjacent to Halsey Field House and known locally as Hell Point. Test pits excavated along the southern edge of the Ellipse produced numerous ceramics dating from the mid to late-1700's found in relatively undisturbed strata. Remains such as the destruction layer of mortar and plaster that is possibly related to a temporary structure which was located here during the turn of the 20th-century, an 18th-

century road surface (Scott Street), and other domestic refuse items in undisturbed strata all suggest that the archaeological record beneath the Ellipse survives.

Excavations in 18AP68 (Porter Road) showed evidence of structural remains and domestic refuse from both the neighborhood which was here until 1902, and from the early 1900's construction of the current officer's homes. Heavy concentrations of refuse items (i.e., large butchered animal bone, window and bottle glass, Chinese porcelain, coarse earthenwares, whitewares, and a variety of other types of ceramic) were found in isolated deposits in specific locations throughout this area. In general, most of the pits excavated in the strip of grass between the sidewalk and the south side Porter Road revealed intact stratigraphy and solid dates of deposition based on the artifacts found within each layer. The trenches placed here to test the accuracy of the historic maps using AutoCAD were successful in 3 out of 5 locations. Remains discovered in trenches 7, 8, and 9 strongly suggest that the foundations for a number of the structures which were here prior to 1902 are either intact or only partially disturbed. Intact 18th-century layers from pits excavated in the systematic sampling substantiates the results of the AutoCAD testing.

Excavations in Area 4 (18AP69) produced isolated remains from this neighborhood which was purchased in 1941 as the last parcel of land acquired by the Academy during its expansion into the city of Annapolis. In 4 of the 15 test pits excavated in the strips of soil within the parking lot, intact archaeological remains were located which relate to the former neighborhood. The remains consisted of portions of foundations found along the W0 transect and another foundation remnant located along the Academy wall in unit S0 W281. The reason why only 4 of the 15 test units produced intact deposits may be due to their location. The narrow strips of soil in the parking lot where the units were placed would likely have been created during the construction of the lot. This would explain the lack of stratigraphy and artifacts, and would produce a minimum date of the early to mid-20th century. Areas beneath the asphalt are likely to contain intact deposits relating to this historic neighborhood based on the map overlays produced on AutoCAD.

In order to show the distribution of certain categories of artifacts throughout the entire project area, which includes Preble Hall and AP67 through AP69, this table was created.

Artifacts have been quantified by area to show where the highest and lowest concentrations of cultural material was found on the Naval Academy.

	18AP67		18AP68		18AP69		Preble		Total
Ceramics	450	47.0%	344	35.9%	71	7.4%	92	9.6%	957
Glass	431	27.9%	747	48.3%	167	10.8%	200	12.9%	1,545
Bone	173	27.0%	356	55.6%	79	12.3%	28	4.3%	640
Shell	286	33.7%	318	37.5%	134	15.8%	110	12.9%	848
Brick	594	25.5%	1,234	53.0%	261	11.2%	239	10.2%	2,328
Nails	239	20.4%	706	60.2%	143	12.2%	84	7.1%	1,172
Mortar	121	15.6%	530	68.4%	88	11.3%	35	4.5%	774
Plaster	41	19.9%	133	64.5%	8	3.8%	24	11.6%	206
Coal	161	32.8%	179	36.5%	54	11.0%	91	18.5%	490

Table 1 - Artifact Quantities

This table indicates that the highest concentrations of artifacts recovered during excavations were from 18AP67 and AP68, with far fewer found in 18AP69 and Preble Hall. Based on this information, it is concluded that both 18AP67 and AP68 are highly sensitive areas of the Academy.

The graph in table 2 shows the distribution of artifacts recovered from the entire project area. The standards for determining sensitivity have been previously delineated and pertain to excavations from this project only. During excavations on the grounds of the USNA, certain areas were found to contain higher densities of artifacts of various categories. In relationship to the research design for the archaeology phase of the Legacy Project, the sole purpose of the reconnaissaince survey was to gather information on artifact distribution and quantity. The results show that the highest concentration of artifacts was found in 18AP67 (Ellipse) and 18AP68 (Porter Road), with 18AP69 (Hell Point) and Preble Hall containing fewer artifacts.

USNA Artifact Distribution (by site)
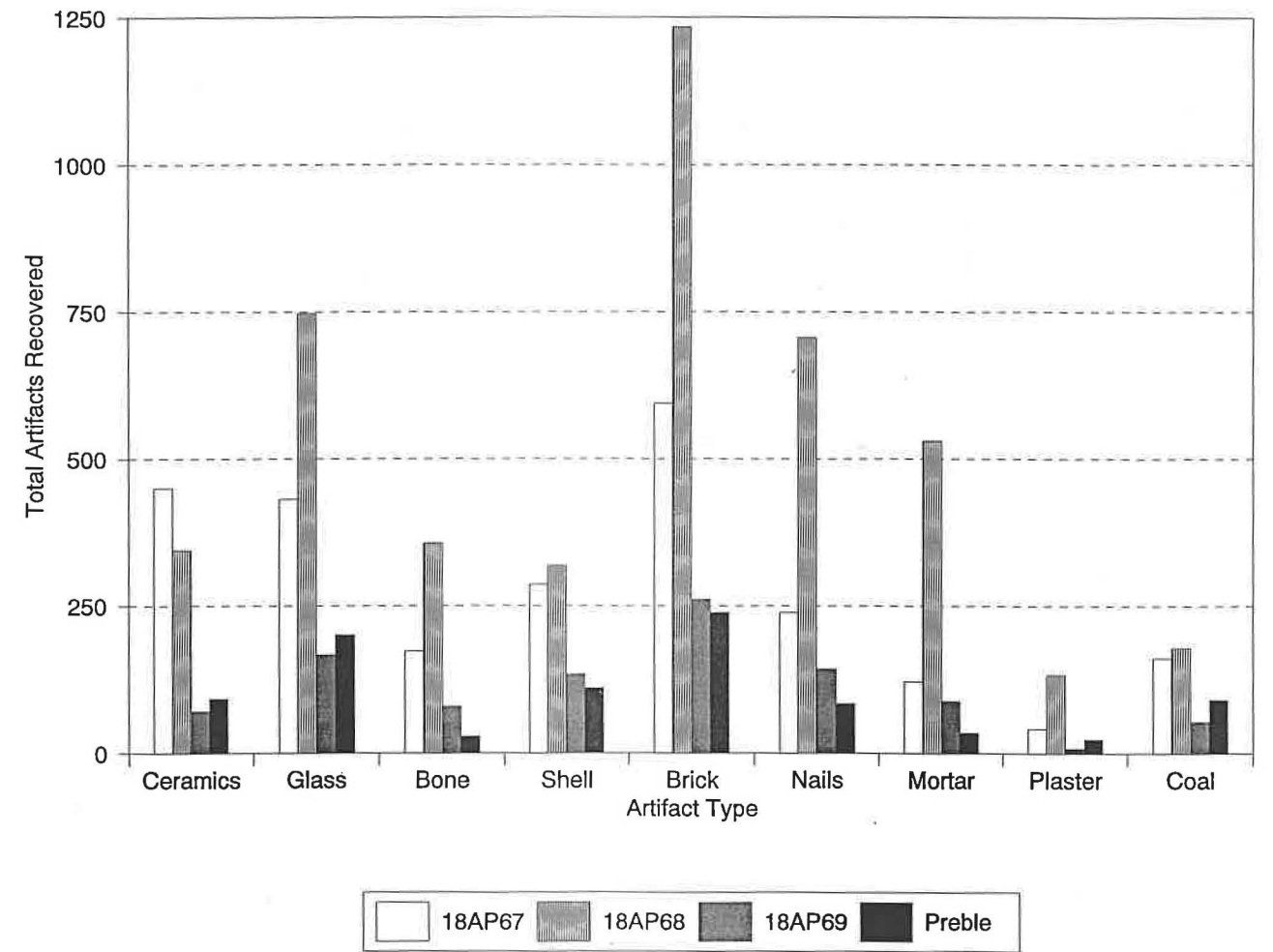
Table 2

18AP67 - Ellipse (Area 2)
18AP68 - Porter Road (Area 3)
18AP69 - Hell Point (Area 4)
Preble Hall (Area 1)

Recommendations

The following recommendations are proposed based on the results of the archaeological reconnaissance survey of four distinct areas of the United States Naval Academy. Testing allowed archaeologists the opportunity to investigate a location which is unique because of its distinct, yet very interactive histories. On the one side, there is a significant historic portion of the town of Annapolis which is now owned and occupied by the Naval Academy. On the other, there is a history of the institution which is located beneath the grounds of the current Academy. The relationship between the Academy and Annapolis is unique because of the varying ideologies which surround everyday activities within each. The oral history interviews conducted for this project reflect this. The archaeological investigation discovered the presence of cultural materials related to the findings of what is known through the documentary research done for each area tested. While the comparison of all aspects of this project is not complete, there is now a base for further research. The recommendations based on archaeological testing presented here reflect the importance of the discoveries made in the survey of the grounds of the Naval Academy. These recommendations are made in compliance with the criteria set forth under Section 106 of the National Historic Preservation Act.

The main objective for the archaeological reconnaissance survey on the Naval Academy was to inform the Navy about the archaeological deposits which exist on the grounds of the Academy. The criteria set forth for determining archaeological sensitivity are based upon the observations made during the field work and subsequent analysis of artifacts recovered. There are four standards by which recommendations were made that no ground-breaking activity by the Navy should be undertaken prior to further archaeological testing. The criteria are as follows:

1. Presence of artifacts - Where artifacts were found and which date to more than 50 years ago, a possible archaeology site may exist.

2. Intact stratigraphy - Artifacts recovered must be found in undisturbed stratigraphic deposits.

3. Time period - Each stratum must contain firm dates of deposition based on artifact types recovered. Mixing of artifact types with widely differing associated time periods may indicate a disturbed deposit or fill, and are therefore not included.

4. AutoCAD Maps - AutoCAD overlays were found to be relatively good predictors of locations of archaeological remains. But, this is a variable because some historic maps may have scaling inaccuracies or may show buildings which never existed.

The first three criteria outlined above are the main factors which led to recommendations to protect certain areas from disturbances. The use of AutoCAD proved successful during the field survey, however, caution must be taken when relying solely on these map overlays as predictors because of a number of possible inaccuracies detailed in the AutoCAD section of this report.

The maps in figures 4 through 8 show the location of test pits in each survey area, but also indicate areas of archaeological sensitivity. These "sensitivity maps" show encircled areas that follow with the aforementioned criteria. The boundaries drawn on the sensitivity maps are extrapolated from the locations of units with intact deposits. In other words, if one unit contained intact deposits and another unit on the same transect or surrounding did not, then the boundary line for sensitivity is drawn to the midpoint between the two units. This way, we can be sure to protect potentially significant areas which were not tested during this field season.

The archaeological record survives in discrete areas of the Yard and it is strongly recommended that where resources still exist, further archaeological testing be done prior to any further ground-breaking activities. Area 1 (Preble/Leahy Hall) produced virtually no intact archaeological deposits, with the exception of unit 1, which revealed an intact feature which may date from the early-1800's, but more likely from the mid-1800's based on it proximity to the location of the New Quarter's. Therefore, the area further to the southwest of unit 1 may be archaeologically sensitive because of the liklihood of more intact remains of the early Academy in this area (see figure 4). The heavy blue line indicates the limit of archaeologically sensitive ground. The open end indicates the possibility for intact remains further in that direction, however, no further testing was performed to determine the full extent. Based on our findings, the Preble Hall site does not meet the criteria for listing on the National Register of Historic Places.

Testing in the southern portion of 18AP68 (Ellipse) revealed a number of locations where remains, dating from the early 19th-century and later, lay intact. Based on results from two units in this area, it is now known that at least portions of Scott Street are intact along the southern edge of the Ellipse. Also, many units excavated in this area (7 of 25 units - 28%) produced 18th-century deposits. It is recommended that further archaeological testing be done in this general area prior to

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any ground-breaking plans of the Academy. Testing in the northern half of the Ellipse revealed that this area has been previously disturbed. Stratigraphic analysis of the pits excavated in this general area did not indicate that intact cultural layers exist. No further archaeology in this area is recommended.

The map in figure 5 shows the encircled area containing intact cultural deposits in 18AP67. This area contained the highest concentrations of artifacts in intact stratigraphic deposits. It is highly recommended that further archaeology be conducted prior to ground-breaking activities in this general area. The Ellipse Site (18AP67) does meet some of the National Register criteria, however, more data gathering would be necessary before this area could be considered.

18AP68 (Porter Road) contained the highest concentrations of intact deposits out of the four areas tested in this project. Based on historical research of the properties located here prior to the Academy's purchase, there is a strong history of African-American presence in this area. There is also evidence from the reconstruction of the Academy during the early part of the 1900's. It is strongly recommended that no ground-breaking activities be done in the entire area tested prior to further archaeological investigation. The blue circles in figure 6 show that areas of highest artifact concentration. It is advised that the entire site not be disturbed by ground-breaking activity, and the encircled areas contain some of the most intact and heavily concentrated deposits from the entire project area. Because of the history of African-Americans in this area prior to the Academy's expansion, and because this is one of the oldest, intact sections discovered during this survey, it is recommended that this site be evaluated for listing on the National Register of Historic Places.

The final area tested during the systematic aligned sampling was Hell Point (18AP69). Some remains from the neighborhood were discovered in 4 out of 15 units placed here. These units, however, were located in very limited spaces within the parking lot and in areas that would have likely been disturbed during the construction of the lot. Excavators were not permitted to remove any of the asphalt from the area to investigate other areas of the site. This makes recommendations difficult to make because a major portion of the parking lot was not tested. Based on the liklihood of further intact remains being located under this parking lot, it is recommended that this entire area be closely monitored during any ground-breaking activities to determine if further archaeological excavation is needed. Figure 7 shows the highlighted area of the site which contains intact stratigraphic deposits. If further remains are discovered, additional archaeological testing will be

necessary to determine the extent and integrity of the deposits, and any eligibility for listing on the National Register.

The use of AutoCAD to predict where resources lay beneath the ground was successful in 3 out of 4 areas tested. The location of foundation remains from a later addition to the 18th-century Governor's Mansion (located in front of Dahlgren Hall), eighteenth and nineteenth-century foundation remains along Porter Road, and the intact surface of 18th-century Scott Street(in the Ellipse) are all quite significant archaeological discoveries on their own, but they also emphasize the utility of computer overlays to generally predict where resources exist. No ground-breaking activity should be done in these areas prior to further archaeological investigations to determine the extent and integrity of the remains. Because of the significance of our findings using AutoCAD to direct us to locations on the Academy, the areas mentioned above should be investigated further to determine their eligibility for listing on the National Register

AUTOCAD MAPPING

Research Design

The design of the archaeological phase of the Legacy Project was two-fold. The primary focus was the systematic, aligned sampling of the ground currently occupied by the USNA. This phase 1 survey was performed solely to identify the presence or absence of cultural remains, both historic as well as prehistoric. The second objective of this survey - the focus of this particular section of the report - was to demonstrate, utilizing a sophisticated computer mapping program known as AutoCAD, the ability to predict locations of historic areas based on modern and historic maps of the areas of Annapolis now occupied by the USNA. The specific locations of historical features (e.g. structures, roads, shorelines, outbuildings, etc.) as identified on early Academy maps and drawings as well as on historical maps of the city of Annapolis were put into digital format using AutoCAD graphics technology. The use of computers in this work has the potential not only to improve speed and accuracy but also to provide a more integrated analysis of the changes in the physical aspects of the Academy through time.

The research design incorporated here was originally conceptualized by Dr. John Seidel of the Anthropology Department, University of Maryland at College Park. The principles behind this research design are rather straightforward. We wanted to demonstrate that by digitizing an historic map of the Academy and then overlaying it onto a digitized map of the current Academy, we would have two periods of time represented on one map, both drawn to scale and in digital form. At this point we could potentially see the spatial relationships of "the old to the new." For example, how close (or how far) was the old Governor's mansion from the current superintendent's quarters? Is there a structure currently sitting on top of this location or can we put in an archaeology test unit to find it?

This concept, although seemingly straightforward, is quite revolutionary in the field of archaeology. Archaeology fundamentally is a destructive science. Once a site is excavated, it is destroyed. Computer technology, and in particular the AutoCAD computer program, has provided the field of archaeology with a totally non-invasive tool. We have,

essentially, a technique that can tell us where to dig or where not to dig. Potentially, this should result in less site disturbance, less destruction and, ultimately, lower project costs.

For this project, a total of ten individual trenches were excavated in specific areas of the Academy using the AutoCAD computer mapping program as a tool to predict where cultural resources may exist beneath the ground. The usefulness of AutoCAD as a tool for determining where archaeological remains may exist was entirely contingent upon the accuracy of the maps used. These maps will be discussed in detail later in this section.

In all, four areas on the Academy were tested using this method. The main goal of this phase of the archaeological reconnaissance was to locate discrete signs of historic and prehistoric structures which existed, and may still exist on the grounds. The four areas chosen each had historic significance. The objectives here were: (1) to locate an intact or partially disturbed foundation from the 18th-century Governor's Mansion, or the remains of the alterations and renovations made to the structure after its purchase by the Academy. (2) to locate the surface of Scott Street. Scott Street was the home of Franklin Buchanan, the first superintendent of the then Naval School and also of Joseph Nicholson, a relative of Frances Scott Key. (3) to locate the foundations or building materials associated with the neighborhood that once occupied the area now known as Porter Road. (4) to locate any signs of the Midshipmen's Temporary Quarters Annex C, which is thought to have been located just south of Stribling Walk.

The use of AutoCAD as a predictive tool proved to be successful in each of these four locations. The details of the archaeological finds and the precise locations of the units will be discussed in a later section of this report.

MAP SELECTION

As mentioned earlier, the success of AutoCAD as a predictive tool is directly dependent upon the accuracy of the maps used. If the maps are inaccurate in any way, those inaccuracies will be carried over when the maps are digitized. Only a small sampling of maps was used during this project. They can be easily divided into (3) categories: the digital map of the current USNA, Sanborn fire insurance maps, and historic Academy maps.

Base Map

The first category includes the digital map of the current USNA, technically known as the Existing Conditions Map (ECM). This map will be referred to as "the base map" throughout this report. It was provided to us by the Academy's department of Public Works. This map is composed of 43 quadrants, each of which constitutes a separate drawing file. These quadrants and/or files, used either individually or collectively, constitute the base map. It was onto this map that the older maps and drawings of the Academy were overlaid.

Sanborn Maps

The second category of maps used were the Sanborn fire insurance maps. During the 19th century, there was a huge increase in the production of what are known as thematic maps; fire insurance maps are one example of these. These large-scale urban maps originally were created as a reference tool for fire insurance underwriters and gained wide acceptance after the middle of the 19th century. By the beginning of the 20th century, when the Sanborn Map Company had become the dominant producer in the United States, their coverage had been extended to most communities of any size in the country, including Annapolis. The Sanborn Map Company's production peaked in the early 1930's, and during its almost 100 years of activity the company covered more than 13,000 U.S. towns (Karrow and Grim, p.214).

Typical fire insurance maps are hand-colored lithographs, normally printed on sheets measuring twenty-one by twenty-five inches, with a scale of 1 inch = 50 feet. Coverage for small communities was issued on several loose sheets while that for the largest cities ran into several bound volumes.

These maps contain a wealth of information about the physical characteristics of individual buildings using color coding, symbols and abbreviations. The basic plan shows

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the street pattern and street widths, as well as the location and shape of individual buildings. This depiction of individual buildings and the identification of their use on these maps makes them a valuable resource for reconstructing urban landscapes that existed during the late 19th and early 20th centuries (Karrow and Grim, p.215).

One of the primary research possibilities of fire insurance maps, and one that we utilized in this project, is the ability to study change through time in a given area of a town. The Sanborn maps truly excel in this area. Our use of these maps was somewhat restricted in that the Sanborn maps show only the portions of the Academy "bordering" the town itself. This was helpful to us when we were working in the Porter Road and the old Governor Street section of the Academy, both of which are in the vicinity of King George Street. It was also helpful to us when we were in the area known as "Hell Point," which has been a part of the Academy proper only since the 1940's. The Sanborn maps were, unfortunately, of no assistance in the "ellipse" area of the Academy. This is one of the oldest sections of the Academy and has been Navy property since the 1850's - before Sanborn maps were produced.

Copies of these maps were obtained from the Library of Congress. They range in date from 1885 to 1930. Two maps from this group were chosen for use in our analysis.

Historic Academy Maps

The third category of maps used included drawings, lithographs and sketches made of the Academy at various times throughout its history. The authors of these often were associated with the Academy. Quite often the officers assigned to the Naval Academy or even the midshipmen themselves sketched different parts of the grounds. Many of these sketches have survived. In addition to these, there are a number of "maps" which are a composite of many different sketches, maps or lithographs brought together into one drawing. The accuracy of these drawings is questionable. For example, many of them were xerox copies of other copies. This procedure distorts the map. The more times a copy of a copy is made, i.e., the further one moves away from the original, the greater the level of inaccuracy. We had no way of knowing the generation of our copies of the drawings. The same is true of the drawings made by Academy officers and midshipmen. Many of these

were hand drawings that were copied from other hand drawings - thus involving several authors. While drawings with several authors can introduce many different perspectives into a map, it can also introduce a great deal of doubt as to its accuracy. Again, we had no way of knowing the "generation" of our maps. Unlike the Sanborn maps, which were photo duplicated from the original map - a process which minimizes the levels of distortion - we really could not ascertain the level of distortion with which we were dealing in this situation. Thus, the cartographic integrity of these maps was and is in question. It must be emphasized that cartographic resources have the greatest value when used in conjunction with other documents. Each type of source can then inform the other, confirming its accuracy and reliability.

Although questionable, the sketches, drawings and hand-drawn maps we examined did present an interesting "picture" of the Academy through time. The problem is that modern computer technology is very "unforgiving" when accuracy is involved. These maps and drawings were done by hand, and, while representing possibly the best for their time, they fall far short of acceptable when subjected to the precision of the AutoCAD program. Three such historic sketches and hand-drawn maps were used in our analysis.

By utilizing three different categories of maps, we were able to get a sense of the accuracy of the various maps. Since we were using the USNA's own digitized map of the Academy as our base, this map was "assumed" to be accurate. The only problem we initially encountered with this map was the confusion associated with actually looking at the buildings displayed on it. We had assumed we were looking at the outlines of building foundations but found later that we were looking instead at the outlines of the roof overhangs. This introduced a margin of error into the measurements we were taking.

To illustrate this point, consider an historic map such as a Sanborn. When this map is overlaid onto the base map of the Academy, the result is a map that shows both current and extinct structures of the site in direct relation to one another; they are at the same scale, they are in their proper location and they are in the same drawing. Utilizing one of the many features of AutoCAD, we can measure the distance from the modern building to the now extinct building and know where, for example, to place an archaeological test pit accurately that would have a high probability of containing the cultural remains of a given

structure - i.e., foundation stones, artifacts, etc. No matter how large a roof overhang is present, there will be errors in any measurements taken using them as a reference point. It should be noted that even inches "off the mark" can be significant archaeologically. There was no way to correct for this and at the same time maintain the integrity of our demonstration. Fortunately other options were available to us such as measurements to building steps, sidewalks, monuments and roads. As it turned out, we were quite successful in finding cultural remains using this technique.

In addition to the obvious technical comments concerning some of our maps, it is important to consider yet another perspective here. A map, essentially, is nothing more than a social construction of the world expressed through the medium of cartography. Far from holding up a mirror of nature that is either true or false, maps redescribe the world - like any other document - in terms of relations of power and cultural practices, preferences and priorities. What we read on a map is as much related to an invisible social world and to ideology as it is to phenomena seen and measured in the landscape (Harley, p. 3.). With this in mind, it becomes clear that there is no map, regardless of its cartographic merit, with a "perfect" window into reality. Representation is never neutral, and science is still a humanly constructed reality (Harley, p. 11).

METHODOLOGY

Over the past several years, an important trend in the area of maps and map products is the increase in the use of computers. Maps are an integral part of archaeological work. The use of computers in this field has as one of its benefits the improvement of speed and accuracy as well as providing the opportunity for a more integrated analysis. The most significant contribution of the computer to archaeology, however, is that it provides the field with a totally non-invasive tool.

Much of the method used in this project was adopted from the 1991 work of Seidel and Theobald at the Fort Nonsense Archaeological site in Morristown, New Jersey. This method was thoroughly discussed in their report. Much of the following description is taken from that report: Computer Mapping at Fort Nonsense: Archaeological Analysis & Interpretation. This work was published in 1991 by the National Park Service, U.S. Department of the Interior, Boston.

Computerized maps and drawings are advantageous because the necessary database is in a digital form. Computer techniques enable the archaeologist quickly and easily to manipulate the digital data to produce a given output, including the necessary mathematical or statistical operations, as well as scale or projection changes (Campbell, p.248).

Maps prepared at different scales, for example, cannot be overlaid for comparison of specific features; instead angles and distances to features must be measured by hand, a sometimes imprecise and always time-consuming approach. Furthermore, a map without one or more fixed reference points such as bench marks or datum points effectively "floats" in space; the precise location of any given point is difficult to ascertain, especially in comparison with other maps.

Computer aided drafting provides a solution to the problem because it gives us the ability to manipulate maps, rendering them all to the same scale, twisting and turning them so that they have comparable orientations, and displaying them as transparent overlays, so that various maps can be compared and contrasted.

Manipulation of the maps is made possible by converting them to computer files. Programs such as AutoCAD are one of the best vehicles for doing this. Maps are traced on

a digitizing table. As a pointing device is moved over the map, the computer stores the image. Images can then be produced at virtually any scale, either on a screen or on paper or mylar with a plotter. Different maps can be combined or displayed as several "layers", each in a different color, for comparison. These layers can be sequences so that they show the changes or evolution of the site through time.

There is currently available a wide variety of software suitable for drawing and mapping. For this project, we used AutoCAD release 10. Although used primarily by architects and engineers, AutoCAD can be adapted for use in the field of archaeology. To fully understand this research design as used in this project - the pros and the cons - a brief discussion of the AutoCAD software is necessary.

AutoCAD is one of a group of programs collectively known as CAD, or Computer Aided Design/Drafting programs. CAD programs can run on personal computer systems. Applications of CAD programs can not only be found in the architectural/engineering communities but also in the cartographic communities. It is here where we can most directly see the link between CAD and archaeology.

Although AutoCAD operates in a variety of computer environments, it requires certain basic hardware features in order to function. The computer used on this project was an IBM Personal System/2, Model 80 with a 115 megabyte hard drive, a 1.4 megabyte floppy disk drive, a math co-processor, and a 6 megabyte RAM. The display used was an IBM 8514A with a graphics adapter that allows finer resolution of screen images in an array of colors. It is analogous to an E-VGA screen. The "hardcopy", or paper copy of the drawings was plotted on a Hewlett Packard 7475A desktop plotter that allows plots up to 11x17 inches. A plotter is different from a printer in that it uses vertical movement of the paper, with horizontal movement of the drawing pens to produce technically accurate representations.

CAD programs use coordinate points to store, manipulate and draw entities, using the logic of the Cartesian coordinate system. In the Cartesian system, all points are located by their relation to an X axis and a Y axis. Each point has two coordinates, the first designating a position in a given direction along the X axis, and the second in a given direction along the Y axis. AutoCAD uses this same system to locate points on the drawing

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screen. The X and Y axis together define a plane. A good example of such a plane would be the surface of the earth. AutoCAD lets the user manipulate different (X,Y) coordinate systems within one drawing to create complex images. If three dimensional points are used, then a third axis, the Z axis is added to the system, necessitating three coordinates to define a given point (X,Y,Z). In other words, the Z axis adds depth and height to a drawing.

The lines, arcs and circles that constitute a drawing in AutoCAD are essentially a series of these cartesian points; they are "vectors" between points. A vector is simply an entity that has both magnitude and direction. The points that define these lines, arcs and circles may be entered into the computer in one of three ways. The first is by typing in the points at the computer's keyboard. For example, a circle may be drawn by telling AutoCAD where its center point will lie and then specifying its diameter or radius. The second method involves "scanning" the drawing using a piece of equipment known as a scanner. This is similar to a xerox copy, but the image is captured as a computer file; this file must then be converted into the necessary vector format using specialized software. The third technique - manual digitizing - was the method of choice throughout this project.

It is important to remember that maps act as storehouses for spatial information about features on the earth's surface. This information consists of the location of points, the paths of lines, the outlines of areas and the complex interrelationships between all the various types of features. The process of converting map data from its original, visual form to a digital format that can be handled by a computer is called digitizing (Campbell, p.248).

The hardware used for digitizing was the Numonics model 2200 digitizing tablet. Digitizing tablets come in a variety of sizes. Because of the need to use large scale maps throughout this project, a large size digitizing tablet was found to work best. The active area of the Numonics tablet is 36" by 48"; it is thus more accurately referred to as a digitizing table. Visually, it is a large, flat rectangle, approximately 2" in thickness. The electronic components that operate it are contained within the tablet itself. These components are primarily a series of sensors that are set up in such a way that they can recognize and record very precisely the movement of a pointing device across the surface of the tablet. This pointing device is referred to as a puck. It is about the same size as a computer mouse, but it differs in that there may be anywhere from 2 to 16 buttons on it, and at the top of the puck

is a circular piece of clear plastic with crosshairs in the center. This pointing device can be used to "trace" a map or a drawing which is affixed to the tablet. As the pointer is moved along the outlines of a drawing, the sensors detect the tracing movement and transmit the information to the computer. "Tracing" was the technique employed during much of this project.

To digitize a map, one simply affixes the map to the tablet. When the puck's crosshairs are placed on a specific point on the map and a button pressed, the tablet and computer will pick up and record that point's coordinates. By moving the puck around the drawing, one can in effect, "trace" the map. If the drawing is to scale, however, then the interval between two points will take on a specific value; the computer must somehow be told how to calculate that value. This calibration process is usually accomplished by telling AutoCAD the X/Y coordinates for each of two points on the map. Once that is done, the electronics of the tablet and the puck allow the program to assign values to and recognize each and every other point within the active portion of the tablet. If the lower left hand corner of the map is designated as (10,10) and the lower right hand corner is designated as (100,10) for example, AutoCAD can then calculate the coordinates of any other point on the map.

In order to facilitate the analysis of the maps used in this project, each map was input at a 1:1 scale; the program "remembers" the actual distance between points, as it was measured on the ground. Thus, instead of a group of maps at different scales, this project generated a group of maps which, in the computer files, are all at 1:1 scale. When overlaid on the computer screen, they are therefore shown at the same scales and are easily compared.

The "Plot" command in AutoCAD allows the map to be plotted at any scale the user chooses. All maps plotted for this report were printed as "scale to fit" the plotting paper. One of the many benefits of digitizing at a 1:1 scale is that AutoCAD has a variety of commands that allows the user to find distances and angles between entities, as well as obtain the coordinates for any point. The "Distance" command was used extensively throughout this project to measure distances between existing buildings and buildings long since gone. Thus, a drawing that is composed of both a current USNA map with a historic map overlaid

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on top of it creates the situation where a feature from the current map can be related to a feature from an historic map. Because the maps were all in a 1:1 scale in AutoCAD, it was extremely easy to create a drawing in which one map was overlaid on another.

One of the major advantages of a CAD program for analyzing maps is this ability to overlay information from different maps into one drawing. Before the development of CAD technology, mylar copies had to be made of all the maps involved - in order to overlay a series of maps, they must all be redrawn at the same scale. Because maps are input at a 1:1 ratio in a CAD program, the program itself accomplishes this redrawing. As long as there are redundant points between maps, they can be entered into the same drawing. All of a given map, for example, can be drawn on the screen if a single map is to be viewed, or two or more can be overlaid on the screen and viewed at the same time. Theoretically any number of maps can be overlaid in this manner. The limiting factor is dealing with the "clutter" on the screen and its subsequent readability.

Overlaying five maps on top of each other as one large composite map can certainly enhance analysis and comparison of information. It will also produce a map that is virtually unreadable because of the density of information it contains. An optimal system would be one in which the user could pick and choose the pieces of information from whichever maps were useful to a particular problem. We did this quite extensively throughout the project. AutoCAD allows such manipulation through its "Layer" system. Within any AutoCAD drawing, a user can define any specific features - or combination of features - as a separate layer. Thus, roads, trees, buildings and excavations could be entered on separate layers. These are similar to clear mylar, each containing separate kinds of information. Taken together, these layers form the complete drawing. The key to successful analysis is in AutoCAD's ability to "Freeze" and "Thaw" layers. A frozen layer will not appear on a screen until the command is given to "thaw" it. Therefore, bits and pieces of information that are not particularly useful may be turned off until they are needed. For example, the digitized map of the current USNA has information regarding tree locations that are not relevant to project goals. Fortunately, this data was on its own layer and thus could be "frozen" until needed.

Each layer was assigned a specific color to enable us to identify at a glance the information from different maps and layers. Although 256 differently colored layers are theoretically possible for a drawing, plotters can handle only a limited number of colors. The Hewlett Packard 7475A plotter used for this project can utilize six basic colors - red, magenta, yellow, green, blue and cyan). If black is used, it must be substituted at the expense of one of the above colors.

Each map digitized for this project had between two and ten layers, depending on the amount and type of information the map contained. A complete description of the layer names and their contents follows for each map used in this project. The type of entities (i.e. shoreline, road, text, etc.) on each layer and the layer names were kept consistent from map to map whenever possible.

RESULTS

A technique that was an integral part of our analysis and mentioned several times throughout this report is the "overlaying" of historic maps onto the USNA base map. Two problems presented themselves during this process. The first was the problem of differing scales. This problem was easily taken care of during the "Tablet, Calibrate" command. Using the scale that appeared on all maps, the actual measurements between certain structures and points were determined. Since this "tricked" AutoCAD into thinking of measurements as actual feet, rather than the representative inches of the map, the differing scale problem was solved (Seidel and Theobald, p. 17).

The second problem was that of aligning each map with other maps. Typically, surveyors and map makers will include at least two permanent, known points or markers in their maps. If a series of maps is made of an area, each will contain these two points, thus making it easy to align and compare the maps (Seidel and Theobald, p.17). Unfortunately this was not the case with many of the maps and drawings used in this project. In the absence of comparable survey points, one must attempt to isolate similar features on maps, such as corners of buildings, centers of flagpoles or corners of statues and then align them. This was extremely difficult at the Academy because many of the 19th-century buildings are gone, shorelines have been totally transformed, the old walkways have been altered in one form or another and the monuments have been moved around the yard to such an extent that they cannot be considered accurate benchmarks.

In the situation where it is not possible to isolate either survey points or redundant features, one is forced to fall back on the use of magnetic north to obtain comparable alignments. This is dangerous because of the deviations or fluctuations in the location of magnetic north (Seidel and Theobald, p. 17). These problems must, however, be overcome if maps are to be compared. The accuracy of alignment can severely affect the outcome of any analysis.

Since the AutoCAD phase of this project was experimental, we had the opportunity to try different procedures to see what worked the best and what did not work at all. The first type of alignment we attempted was to overlay a digitized map onto the base map using a

structure or feature that was common to both maps. The feature most commonly used was the southeast corner of the Chapel. Since the main section of the Chapel was an original part of the Flagg Academy, it has been on maps, drawings and plans since the turn of the century.

This procedure was fairly straightforward. Using the "I.D" command in AutoCAD, which identifies the coordinates of any point on the drawing, we can, for example, determine the X,Y coordinates of the southeast corner of the Chapel on the base map. Once this point is determined on the base map, we then have the insertion point for the map to be overlaid. Once the coordinate has been determined, it is essential to get an angular measure from the south east corner of the Chapel to its south west corner. This enables us to have both a redundant point and a rotation angle. We could have used the angular measure of the north arrow as the axis of rotation, but this could have introduced additional error due to the variations in magnetic north and also to variations in compass readings.

After digitizing the historic map or drawing, it is renamed as a "BLOCK". This makes the drawing or map one entity in AutoCAD, enabling it to be moved and manipulated with relative ease. The block is then brought into the digital base map file using the "INSERT" command. It is then "locked into" the base map at the precise X,Y coordinates of, for example, the southeast corner of the Chapel, and the base of the Chapel is then rotated according to the pre-determined angular measurement and anchored onto the base map. At this point, the drawing has been successfully overlaid onto the base map (see AutoCAD drawings).

Another type of alignment used was, in actuality, not an alignment at all. Here we simply digitized a drawing that was an "overlay" in itself. In this situation, we relied on the composite hand drawing of several people (see AutoCAD drawings, Figures 14a and 14b). No additional overlays were done of this drawing - it was simply taken "as is."

A third type of alignment used in this project, one that is similar in principle to the first discussed, uses a redundant landmark such as a road. In this situation, the alignment is not as precise as having a given point. The roads have to be aligned as "best as possible." What this means, simply, is that roads have changed over time; commonly they are widened. An old map will not necessarily show the road as it looks today but it still may be oriented in

the same direction and basically in the same location. In other words, enough redundant information is given to make a fairly accurate alignment. This is a technique known as "rubbersheeting." As the name implies, it is a way of molding a map into position, whereby an entire map is moved and/or rotated into place until most of the redundant features or structures on the two maps come into alignment (Seidel and Theobald, p.18). It is interesting to note that when doing the alignment for FIGURE 18, the north arrow on the overlay could not be used to input the map; it was inaccurately placed on the original - Sanborn Map, Annapolis #5, June 1885.

The final type of alignment used in this project was totally experimental. It also involved "rubbersheeting" a drawing onto the base map. In this example, unlike the previous one, there were no redundant points. The drawing was rubbersheeted into place by using old sketches as a guide. When several redundant points are present, this method can be fairly accurate. When no redundant points are present, this method is simply guesswork. Although this composite "looked" fairly accurate (see AutoCAD Appendix, FIGURE 13), there was no way to determine its accuracy. No measurements where taken from this drawing to predict the location of cultural resources. It was included in the report as an example of an alternative procedure.

A technique (not used in this project) of overlapping repetitive structures and features from several **different** maps would have been helpful in determining the best, most accurate maps to use in the analysis. As it turned out, there were problems with many of the historic maps and drawings used. AutoCAD has the capability of measuring the distance between any two points, allowing verification of the accuracy of digitized information. This verification process is of critical importance when faced with multiple maps from different time periods. In the absence of other documentation, it is one of the best ways of determining which maps are reliable and can be used in analysis, interpretation or even reconstruction (Seidel and Theobald, p. 18).

AUTOCAD DRAWINGS

In the following pages are the maps digitized for this project. Each figure includes a cover sheet with a brief discussion of each map, along with comments about the digitizing process. The cover sheet also includes a list of layer names and colors used for plotting the various features. In some cases, two or more layers of a map were plotted in a single color. This is due to the specifications of the plotter used in this project, which is limited to six pen colors. The full range of color layers still reside in uncorrupted format on the digital AutoCAD files for each map. Plots included in this report were sized for convenience. Plots of various sizes can be made from the original drawing files.

```
===========================================
```
1991 EXISTING CONDITIONS MAP - DIGITAL
```
===========================================
```

MAP TITLE: Existing Conditions Map (ECM)
MAP AUTHOR: Lowe Engineers, Inc.
AUTOCAD FILE NAME: ACPLAN01.dwg - ACPLAN43.dwg

      This map was represented several times in the drawings that follow. It is referred to throughout this report as the "digital base map." It was onto this map that all the historic maps of the Academy were overlaid. The digital base map was provided to this project by the USNA's Department of Public Works. It is divided into 43 quadrants, each of which is an individual computer file: ACPLAN01.dwg through ACPLAN43.dwg. In order to create specific views, it was often necessary to combine two or more of these ACPLAN drawings.

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================================================
```
FIGURE 9a: ARCHAEOLOGICAL BASE MAP - PREBLE HALL SITE
```
================================================
```

MAP TITLE: Archaeological Base Map - Preble Hall
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_1.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The scale for this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 9a includes the archaeological grid with units (i.e., shovel test pits and trenches) overlaid onto quadrant 30 of the USNA digital base map. This view is an overall perspective of the general area.

107

117

DECATUR ROAD

UNIT 7
N125
W250

UNIT 9
N180
W225

UNIT 8
N125
W200

UNIT 4
N75
W250

UNIT 6
N100
W225

UNIT 1
N25
W250

UNIT 3
N25
W225

UNIT 5
N75
W200

118
PREBLE HALL

UNIT 2
N25
W225

2

CLUB

ROAD

MARYLAND AVENUE

UNIT 10
N50
W225

UNIT 11
N75
W200

0   50
SCALE IN FEET

N

173

366

126

122

121

108

===
FIGURE 9b: ARCHAEOLOGICAL BASE MAP - PREBLE HALL SITE
===

MAP TITLE: Archaeological Base Map: Preble Hall
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_1.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The scale for this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 9b includes the archaeological grid with units (i.e., shovel test pits and trenches) overlaid onto quadrant 30 of the USNA digital base map. This view is a detailed perspective of the actual site.

117

107

DECATUR ROAD

• UNIT 7
N125
W250

• UNIT 9
N150
W225

• UNIT 8
N125
W200

• UNIT 4
N75
W250

• UNIT 6
N100
W225

• UNIT 5
N75
W200

118

PREBLE HALL

• UNIT 1
N25
W250

• UNIT 3
N50
W225

• UNIT 2
N25
W200

MARYLAND AVENUE

CLUB

ROAD

2

• UNIT 10
S50
W50

• UNIT 11
S75
W50

0   50
SCALE IN FEET

===
FIGURE 10a: ARCHAEOLOGICAL BASE MAP - ELLIPSE SITE (18AP67)
===

MAP TITLE: Archaeological Base Map - Ellipse Site (18AP67)
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_2.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 10a includes the archaeological grid overlaid onto quadrants 30, 31, 34, and 35 of the USNA digital base map. This view is an overall perspective of the general area.

95

MARYLAND AVENUE

BLAKE

ROAD

CHAPEL

SCALE IN FEET

0   100

==
FIGURE 10b: ARCHAEOLOGICAL BASE MAP - ELLIPSE SITE (18AP67)
==

MAP TITLE: Archaeological Base Map - Ellipse Site (18AP67)
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_2.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 10b includes the archaeological grid overlaid onto quadrants 30, 31, 34, and 35 of the USNA digital base map. This view is a detailed perspective of the actual site.

MARYLAND AVENUE

BLAKE

ROAD

CHAPEL

• N400
E50

• N325
E0

• N300
E50

• TRENCH 3

• N400
E150

• N400
E250

• N350
E150

• N200
E50

• TRENCH 5

• N150
E100

• N200
E150

• N300
E250

• N400
E425

• TRENCH 2

• N100
E50

• N200
E250

• N300
E336

• N100
E150

• N400
E525

• N350
E425

• N400
E650

• N300
E525

• N200
E475

• N300
E650

• N125
E475

• N125
E500

• N200
E575

• N100
E600

• N100
E650

N
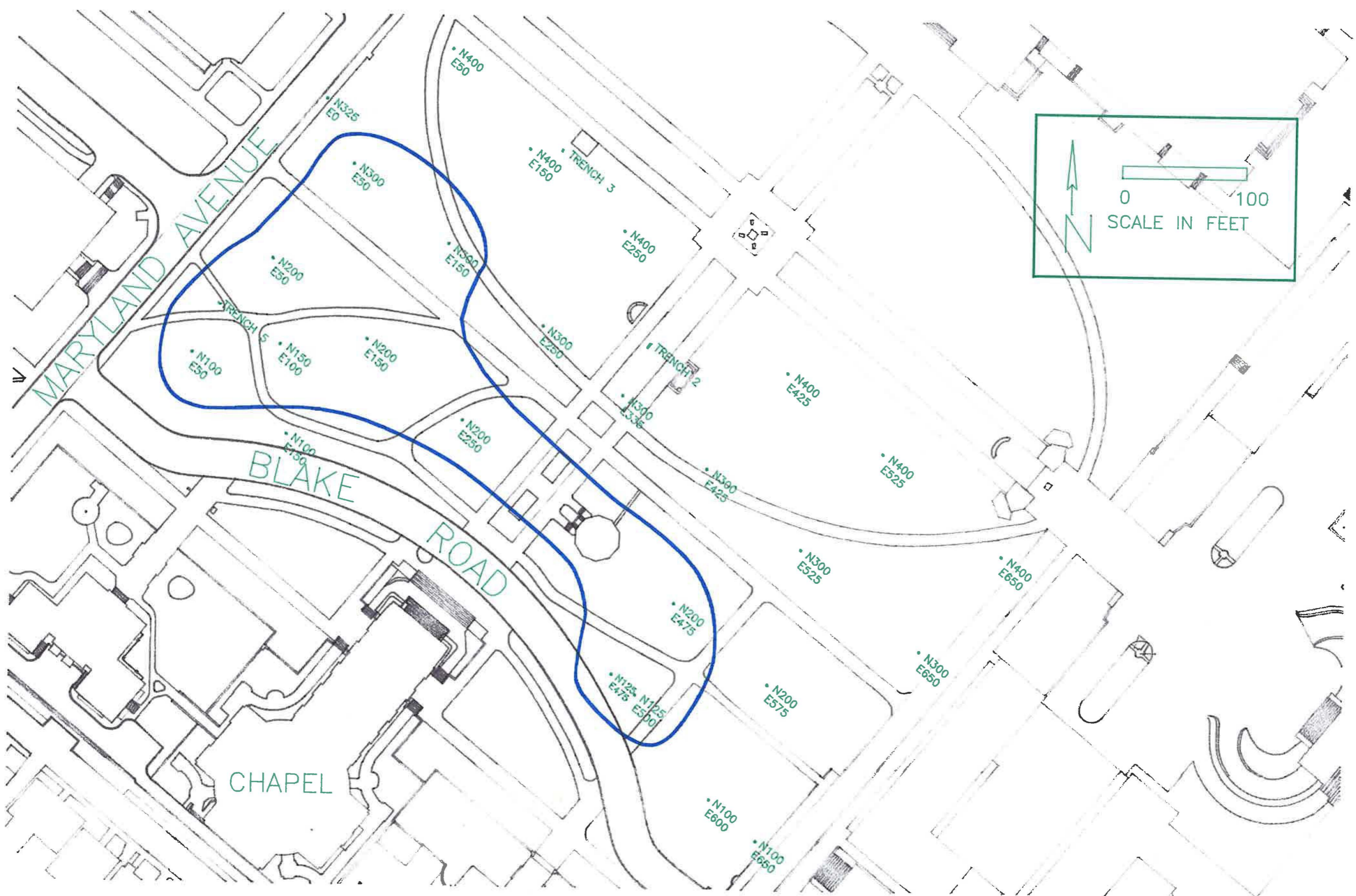
0   100
SCALE IN FEET

==
FIGURE 11a: ARCHAEOLOGICAL BASE MAP -
PORTER ROAD & MANSION SITE (18AP68)
==

MAP TITLE: Archaeological Base Map -
                                        Porter Road and Mansion Site (18AP68)
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_3.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 11a includes the archaeological grid overlaid onto quadrants 34 and 35 of the USNA digital base map. This view is an overall perspective of area.

BUCHANAN ROAD

TRENCH 1' X 8'

BRICK WALKWAY

SCALES

ROAD

PORTER

ROAD

S15
E0

NT0
E50

NT0
E75

S15
E75

NT0
E115

S15
E110

NT0
E150

S15
E150

NT0
E185

TRENCH

S15
E200

ROAD

DAHLGREN
HALL

290

103

290

294

0   50
SCALE IN FEET

BUCHANAN

ROAD

SOUTH

16

15

15A

14A

14

BOUNDARY

STREET

172

12

12A

11

11A

10

9

GRAVEL
PARKING
LOT

ASPHALT

NT0
E350

TRENCH 9

NT0
E350

S10
E350

S15
E350

S15
E400

TRENCH 9

ASPHALT

TRENCH 10

1

===
FIGURE 11b: ARCHAEOLOGICAL BASE MAP -
PORTER ROAD & MANSION SITE (18AP68)
===

MAP TITLE: Archaeological Base Map -
                                        Porter Road and Mansion Site (18AP68)
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_3.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 11b includes the archaeological grid overlaid onto quadrants 34 and 35 of the USNA digital base map. This view is a detailed perspective of the Porter Road site.

ASPHALT

PORTER

ROAD

BUCHANAN

ROAD

BOUNDARY

ROAD

ASPHALT

ASPHALT

CONC.

CONC.

CONC.

• S15
E0

• N10
E50

• N10
E75

• S15
E75

• N10
E115

• S15
E115

• N10
E150

• N10
E185

• S15
E150

• N10
E200

TRENCH 7

• S15
E200

14

14A

• 5A

6

15

16

172

12

12A

11

11A

10

• N10
E350

• S10
E350

TRENCH 8

• N10
E380

TRENCH 9

• S15
E380

• S15
E400

• TRENCH 10

TRK

290

0   50

SCALE IN FEET

N
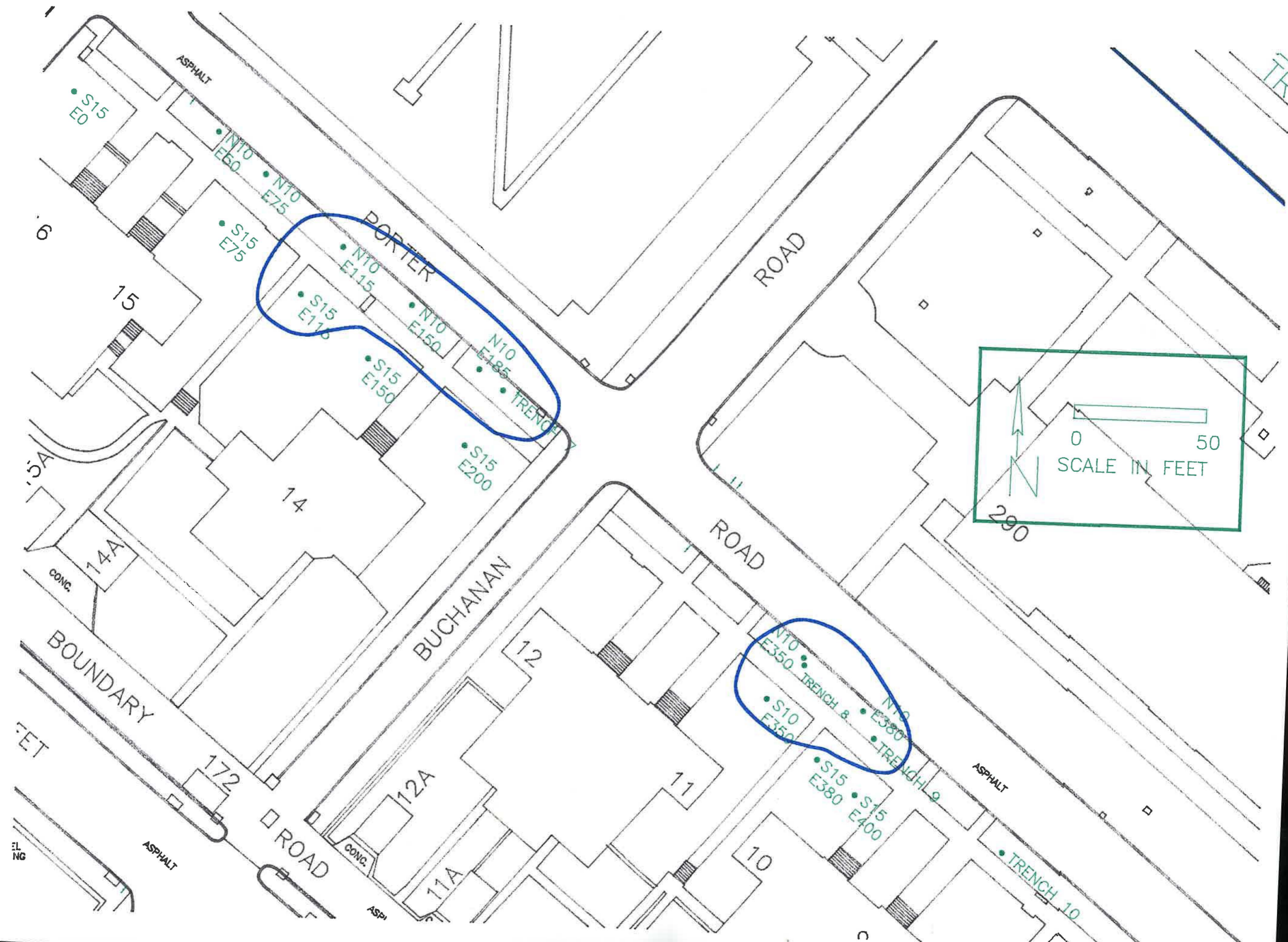
===
FIGURE 11c: ARCHAEOLOGICAL BASE MAP -
PORTER ROAD & MANSION SITE (18AP68)
===

MAP TITLE: Archaeological Base Map -
                                        Porter Road and Mansion Site (18AP68)
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_3.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 11c includes the archaeological grid overlaid onto quadrants 34 and 35 of the USNA digital base map. This view is a detailed perspective of the Governor's Mansion site.
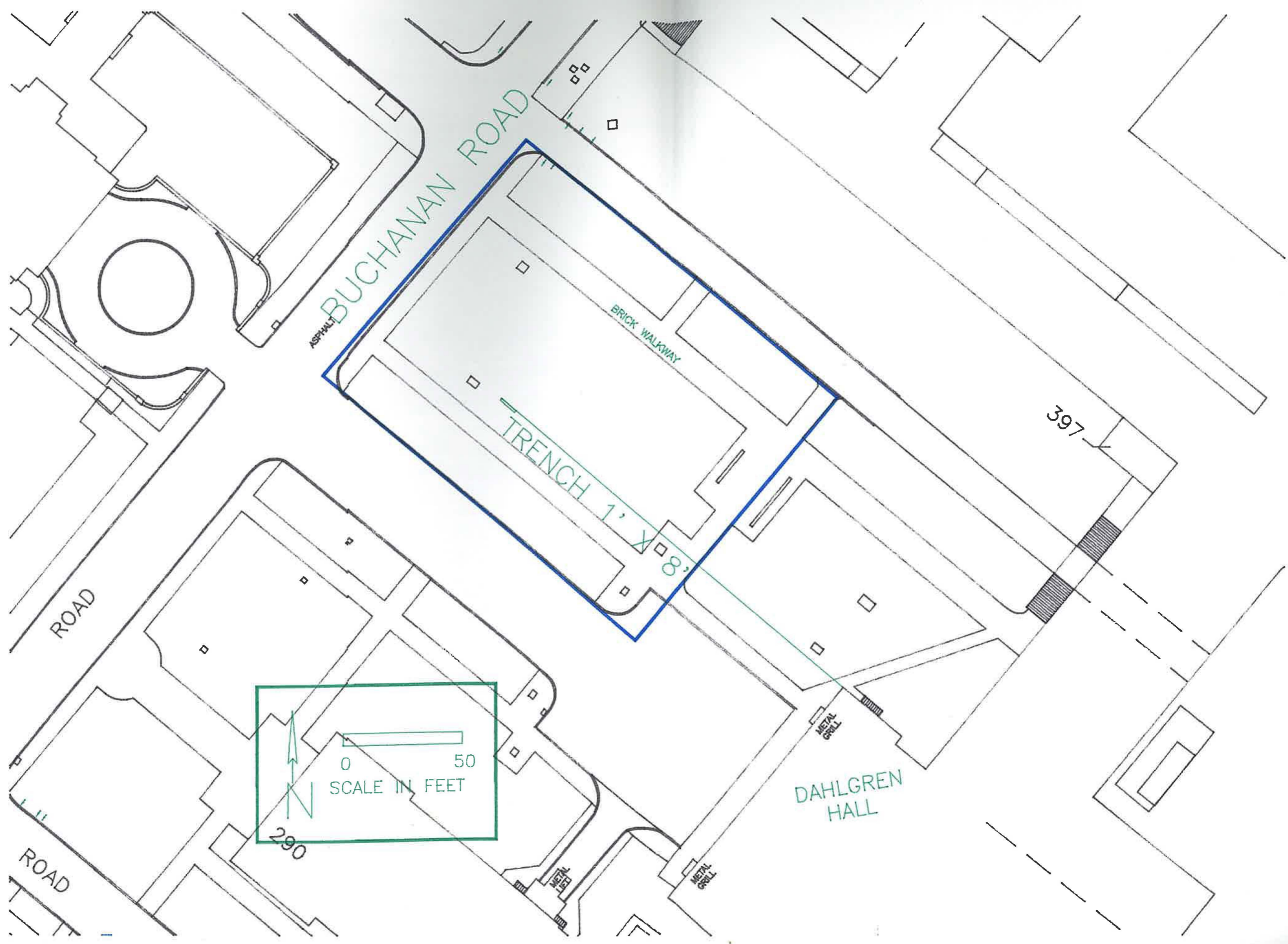
BUCHANAN ROAD

ASPHALT

BRICK WALKWAY

TRENCH 1' X 8'

397

ROAD

ROAD

290

METAL GRILL

METAL GRILL

METAL GRILL

DAHLGREN HALL

N

0   50
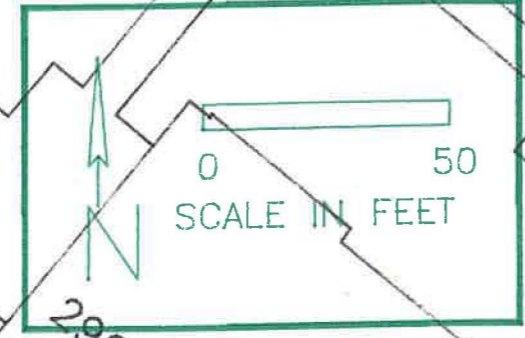
SCALE IN FEET

===
FIGURE 12a: ARCHAEOLOGICAL BASE MAP - HALSEY
PARKING LOT SITE (18AP69)
===

MAP TITLE: Archaeological Base Map -
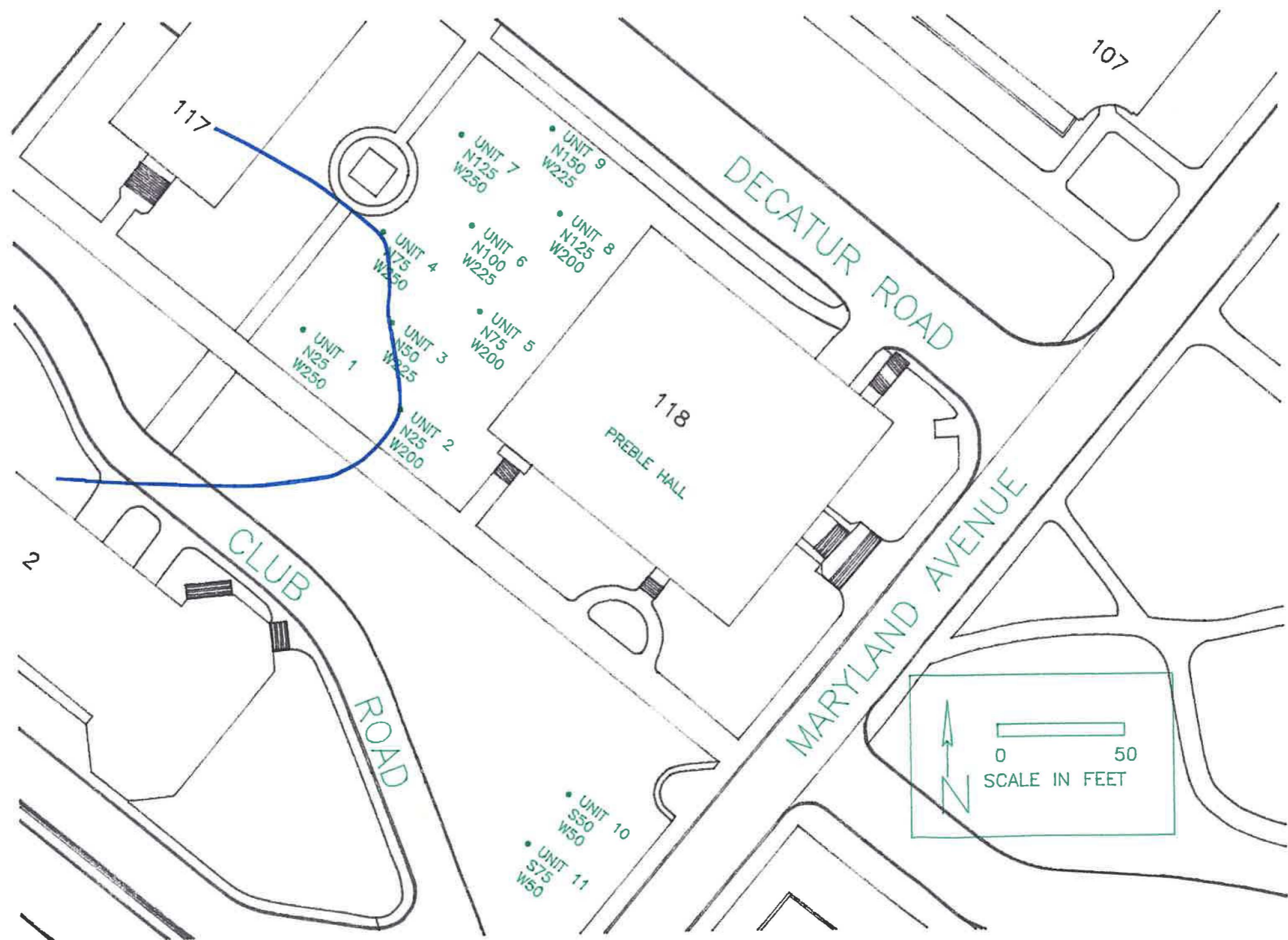   Halsey Parking Lot Site (18AP69)
ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_4.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

   Figure 12a includes the archaeological grid overlaid onto quadrants 38 and 39 of the
USNA digital base map. This view is a general perspective on the area.

===
FIGURE 12b: ARCHAEOLOGICAL BASE MAP -
HALSEY PARKING LOT SITE   (18AP69)
===

MAP TITLE: Archaeological Base Map - Halsey
                                             Parking Lot Site (18AP69)

ARCHAEOLOGY BASE MAP BY: T.W. Bodor
EXISTING CONDITIONS MAP BY: Lowe Engineers, Inc.
AUTOCAD FILE NAME: Figure_4.dwg
DIGITIZED BY: C. O'Reilly and G.M. Anroman

The original scale of this map was 1 inch = 30 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
G	Green	Archaeological Grid
S	Blue	Archaeologically Sensitive Area

Figure 12b includes the archaeological grid overlaid onto quadrants 38 and 39 of the
USNA digital base map. This view is a detailed perspective of the Halsey Parking Lot site.
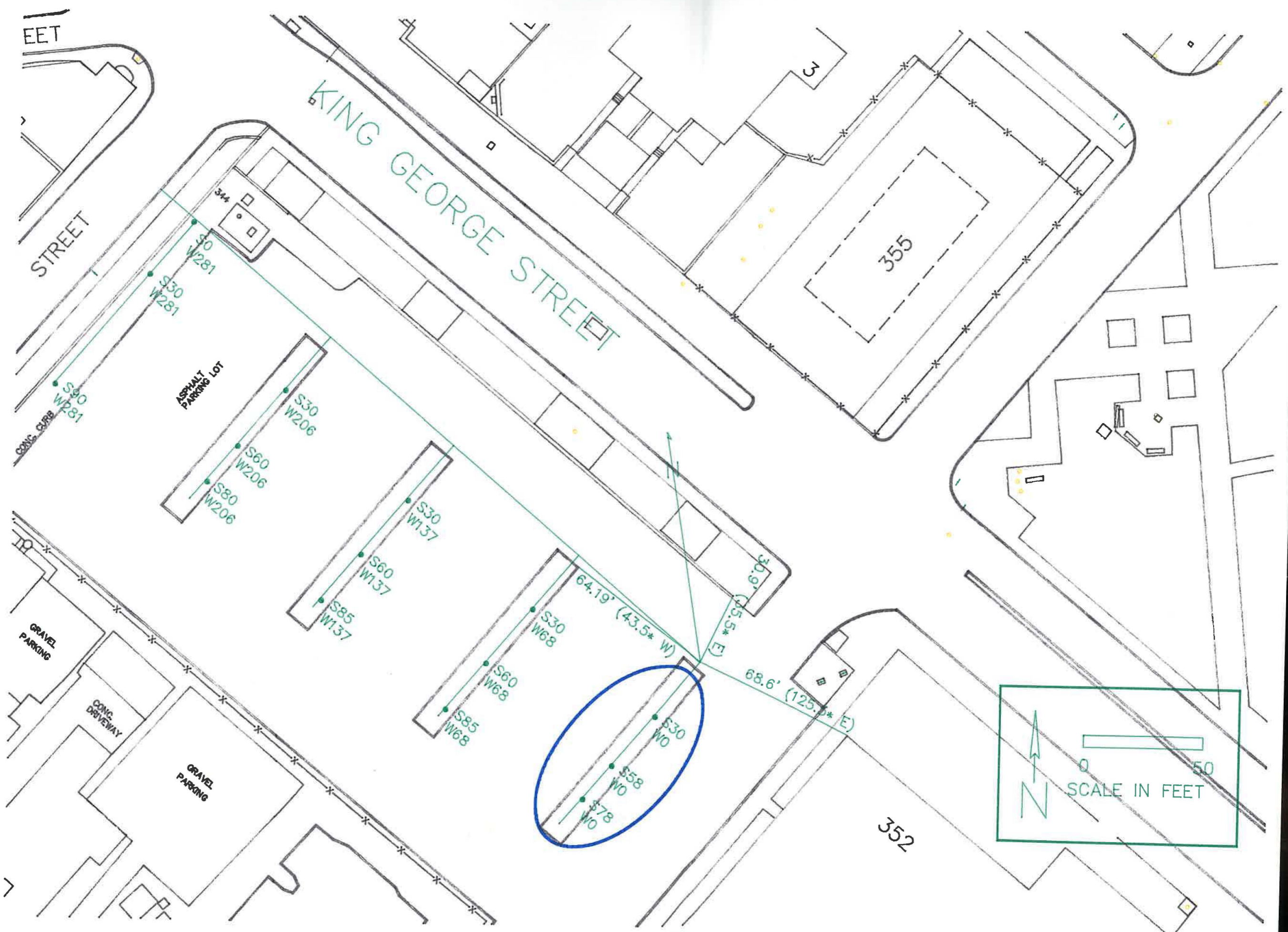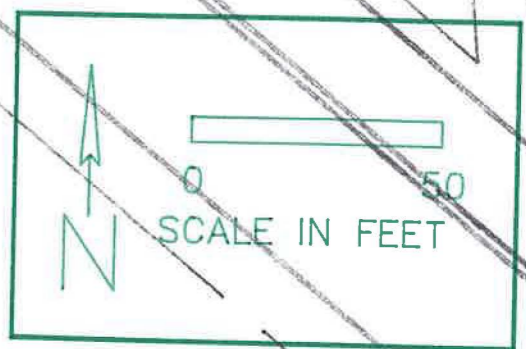
```
===============================================
         FIGURE 13: 1902 MAP OF USNA GROUNDS - OVERLAY
===============================================
```

MAP TITLE: 701 - Revised Plan of Naval Academy
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figure_5.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

The original scale of this map was 1 inch = 84 feet.

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
USNAEXT	Green	1902 - 1906 USNA

    Figure 13 consists of the historic "701- Revised Plan of The Naval Academy" map overlaid onto quadrants 30, 31, 34, 35, 38, and 39 of the USNA digital base map. The historic map used in this composite drawing was, at times, difficult to interpret. This "revised plan" of the Naval Academy was copied by unknown authors from the U.S. Coast and Geodetic Survey lithograph of 1896 and from the architect's layout.

    The original date of the "701- Revised Plan" map was 1902, but the map itself was revised several times: March 1903, October 1903, July 1905, and November 1910. In addition, it had several erasure marks, it contained buildings of doubtful authenticity and there was evidence that it had been photcopied several times. The alignment of repetitive structures was not always precise. For example, when we re-aligned the roads, the buildings were slightly off alignment and vice versa. It was, nonetheless, quite successful as a predictive model. We used this map to predict the locations of both Scott Street and the Temporary Quarters - Annex C. The details of the archaeological finds are discussed elsewhere in this report.

    This map was chosen for this project because of the incredible amount of information it contained. For example, it showed several "turn-of-the-century" buildings that still stand today. This enables us to overlay this map onto the current USNA map using redundant points (corners of buildings). This method of overlaying redundant or repetitive points, as discussed earlier in this section, produces the most accurate composite drawings.
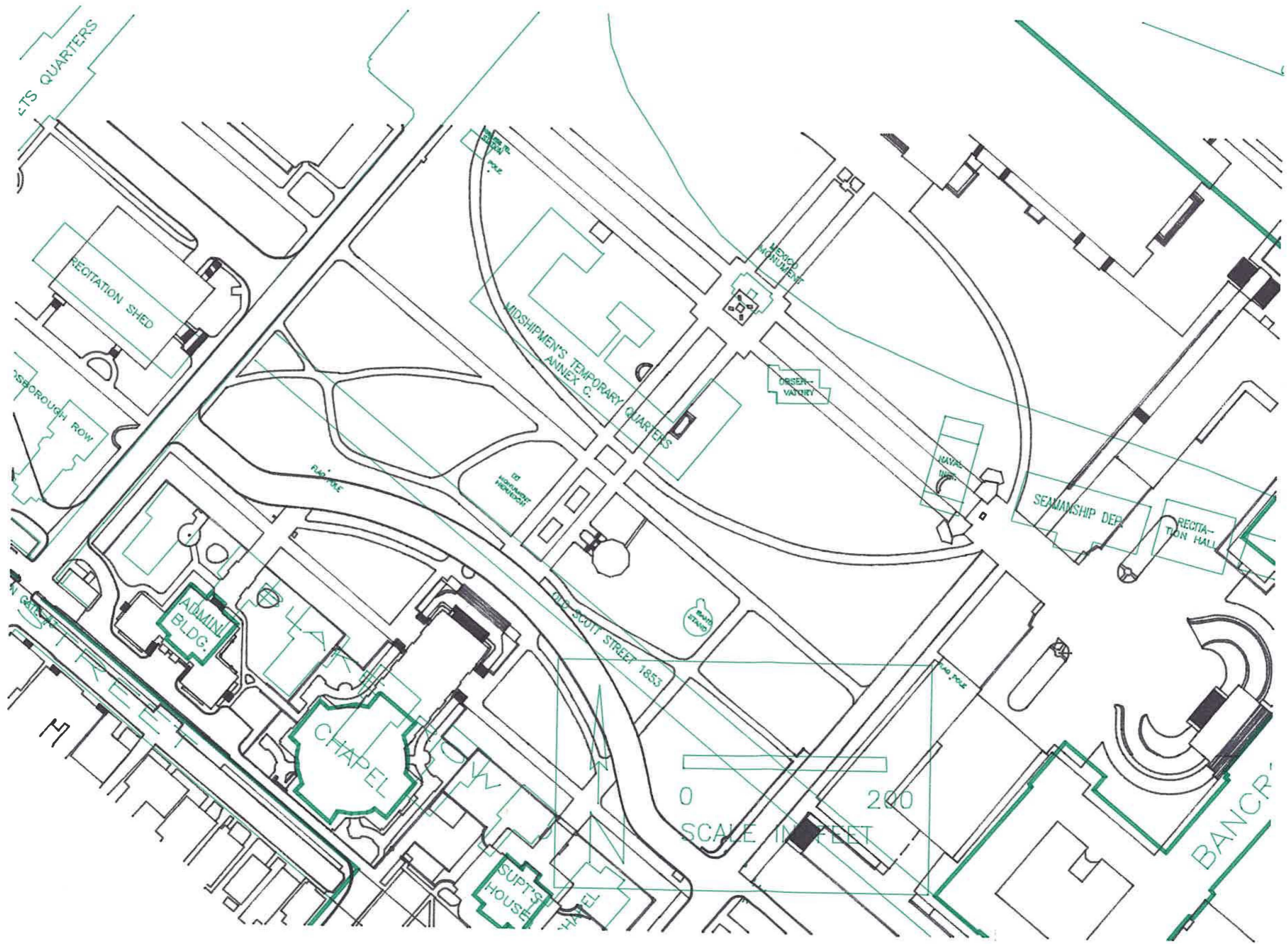
```
================================================
```
FIGURE 14a: DRAWING OF THE NAVAL SCHOOL OF 1845 WITH USNA OF 1935
```
= = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
```

MAP TITLE:	Plan of Naval School - 1845 In Exact Relation To Bancroft Hall
MAP AUTHOR:	Unknown
AUTOCAD FILE NAME:	Figure_6.dwg
DIGITIZED BY:	G.M. Anroman and C. O'Reilly

The original scale of this map/drawing was 1 inch = 100 feet.

LAYER NAME	COLOR	LAYER CONTENTS
1845MAP_TEXT	Black	Text
1845MAP_WALL_1845	Yellow	1845 Boundary Wall
1845MAP_SHORE_1845	Blue	1845 Shoreline
1845MAP_ROAD_OLD	Blue	1845 Roads
1845MAP_ROAD_NEW	Green	1935 - 1956 Roads
1845MAP_STRUCT_OLD	Blue	1845 Buildings
1845MAP_STRUCT-NEW	Cyan	1935 - 1956 Buildings
1845MAP_SHORE_PRES	Red	1935 - 1956 Shoreline

Figure 14a shows the 1845 Naval School in relation to the 1935 USNA. It consists of hand copies of several different drawings. According to the legend on the map, the original tracing of it was lost. This tracing was made from a mounted print of the original, with changes and additions from 1935 to 1956 included.

This view shows the map in its entirety. This map was used to predict the location of the old Governor's Mansion. Since this was more a drawing than a map, its accuracy is questionable. Nonetheless, remains were found in the predicted location.

SEVERN RIVER

(SANTEE BASIN)

(SANTEE ROAD)

(PRESENT SEA WALL)

(LUCE HALL)

(MACDONOUGH HALL)

(DEWEY BASIN)

(NORMAN SCOTT NATATORIUM)

NORTHEAST ARCADE ROAD)

(PRESENT SEA WALL)
(SANDS ROAD)

FORT SEVERN

BRANDYWINE COTTAGE

(FIRST WING)   (THIRD WING)   (FIFTH WING)

"ROWDY ROW"

"APOLLO ROW"

BATTERY

SHORE LINE 1845

MESS HALL (BUILT 1845)

MESS HALL AND RECITATION HALL

GARDEN FENCE

MULBERRY TREE

(MESS HALL)

(STRIBLING   WALK)

"THE ABBEY"

HOSPITAL (BUILT 1845)

SUPERINTENDENT'S HOUSE

(COOPER ROAD)

(FARRAGUT FIELD)

(CHAUVENET   WALK)

(CHAPEL WALK)

PROFESSORS' HOUSES

OLD SCOTT STREET

GATE HOUSE

(SECOND WING)   (FOURTH WING)

"SUPTS & PROFS'" OFFICES

"GAS HOUSE"   (SIXTH WING)

BOUNDARY WALL - 1845

SHORE LINE 1845

(PRESENT SEA WALL)

(SOUTHWEST ARCADE ROAD)

(MARYLAND AVENUE)

(BLAKE   ROAD)

HOUSE OF THE GOVERNOR OF MARYLAND

(EBERLE ROAD)

(BUCHANAN ROAD)

(KADM'N BLDG)

(CHAPEL)

(FULLAM ROAD)

DAHLGREN HALL

HANOVER STREET

N
SCALE IN FEET

(SUPERINTENDENT'S WING)

(WARD HALL)

(THOMPSON STADIUM)

(PORTER ROAD)

POND

OLD GOVERNOR'S STREET

0   200
SCALE IN FEET

(SOUTH BOUNDARY ROAD)
KING GEORGE STREET

```
=================================================
```
FIGURE 14b: DRAWING OF THE NAVAL SCHOOL OF 1845 WITH USNA OF 1935
```
=================================================
```

MAP TITLE: Plan of Naval School - 1845 In Exact
                                 Relation To Bancroft Hall
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figure_6.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

The original scale of this map/drawing was 1 inch = 100 feet.

LAYER NAME	COLOR	LAYER CONTENTS
1845MAP_TEXT	Black	Text
1845MAP_WALL_1845	Yellow	1845 Boundary Wall
1845MAP_SHORE_1845	Blue	1845 Shoreline
1845MAP_ROAD_OLD	Blue	1845 Roads
1845MAP_ROAD_NEW	Green	1935 - 1956 Roads
1845MAP_STRUCT_OLD	Blue	1845 Buildings
1845MAP_STRUCT-NEW	Cyan	1935 - 1956 Buildings
1845MAP_SHORE_PRES	Red	1935 - 1956 Shoreline

Figure 14b shows the 1845 Naval School in relation to the 1935 USNA. It consists of hand copies of several different drawings. According to the legend on the map, the original tracing of it was lost. This tracing was made from a mounted print of the original, with changes and additions from 1935 to 1956 included.

This view shows a detailed view of the area. This map was used to predict the location of the old Governor's Mansion. Since this was more a drawing than a map, its accuracy is questionable. Nonetheless, remains were found in the predicted location.

(SECOND WING)   (FOURTH WING)

TREET   GATE HOUSE   BOUNDARY WALL – 1845

ROAD)

(SOUTHWEST ARCADE ROAD)

HOUSE OF THE
GOVERNOR OF MARYLAND

(FULLAM ROAD)   DAHLGREN HA

(BUCHANAN ROAD)

(SUPERINTENDENT'S QTRS.)

(WARD HALL)

0   100
SCALE IN FEET

POND
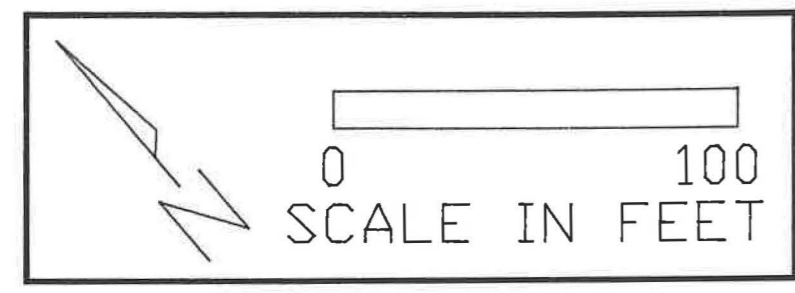
===
FIGURE 15: SANBORN MAP OF 1897 WITH PRESENT USNA - OVERLAY
===

MAP NAME: Sanborn Map of 1897 with present USNA
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figure_7.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

LAYERS NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
C	Green	1897 Sanborn Map

Figure 15 consists of the 1897 Sanborn Fire Insurance Map, Plate #9, overlaid onto quadrant 34 and 35 of the digital base map. This map shows a view of the Governor's Mansion with its many late 19th-century additions.

No common structures were shared by this map and the Academy base map. Sanborn maps, however, pay great attention to roads. Thus, this map was "anchored" into the digital USNA map using the intersection of East Street and King Goerge Street.

SCALE IN FEET

0   100

```
============================================
```
FIGURE 16: 1897 SANBORN FIRE INSURANCE MAP - PLATE 9
```
============================================
```

MAP TITLE: 1897 Sanborn Map - Plate 9
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figure_8.dwg
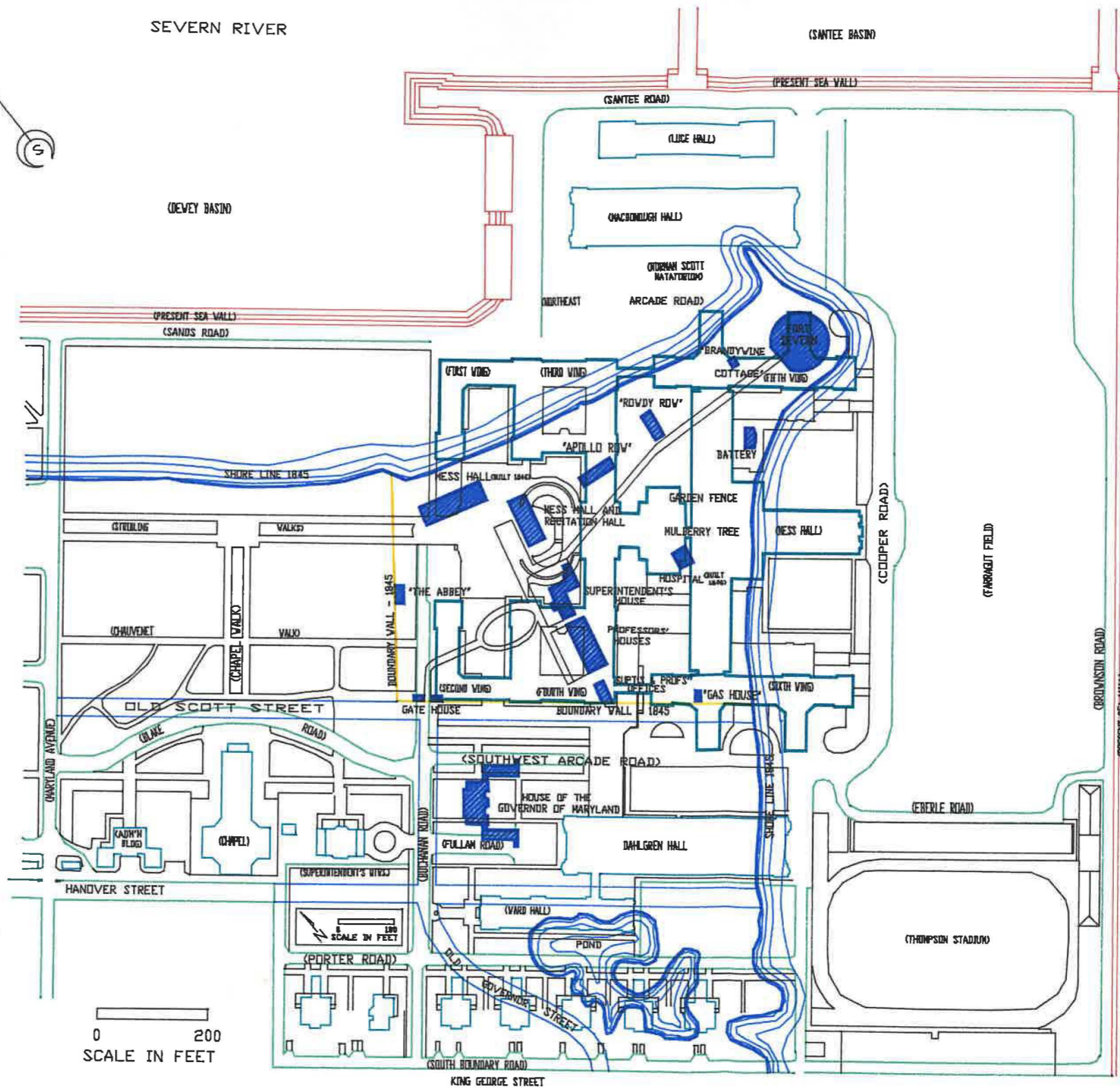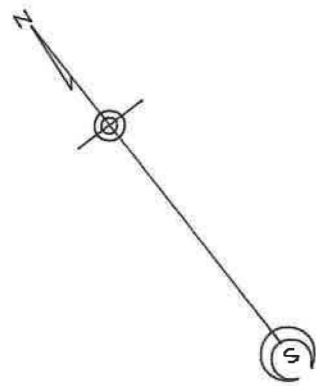DIGITIZED BY: G.M. Anroman and C. O'Reilly

The original scale of this map was 1 inch = 50 feet.

LAYER NAME	COLOR	LAYER CONTENTS
SAN1897_TEXT	Black	Text
SAN1897_BUILDINGS	Cyan	1897 Buildings
SAN1897_ROADS_ACAD	Green	1897 Roads In The Yard
SAN1897_ROADS_ANNA	Green	1897 Roads Not In The Yard

Figure 16 was the appearance of the digitized Sanborn map before it was overlaid onto the base map of the Academy.(See figure 19.) It is included to show some of the details of the "layer" feature of AutoCAD.
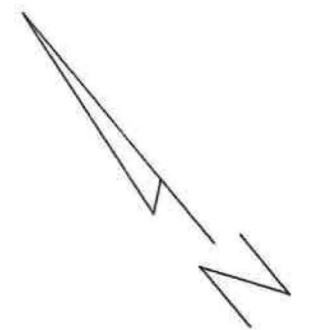
117

SCALE IN FEET

0   100

U.S. NAVAL   ACADEMY   GROUNDS

JULY 1897
ANNAPOLIS
MD.

BLAKE ROW

LIBRARY

CHURCH

PORTER ROW

PROFESSORS AND OFFICERS RESIDENCES

PROFESSORS AND OFFICERS RESIDENCES

50'   86'   3'

LOCKERS   LOCKERS   LOCKERS   LOCKER   LOCKERS

BR'K   WALL   10'   GATE   BR'K   WALL   10'

HANOVER
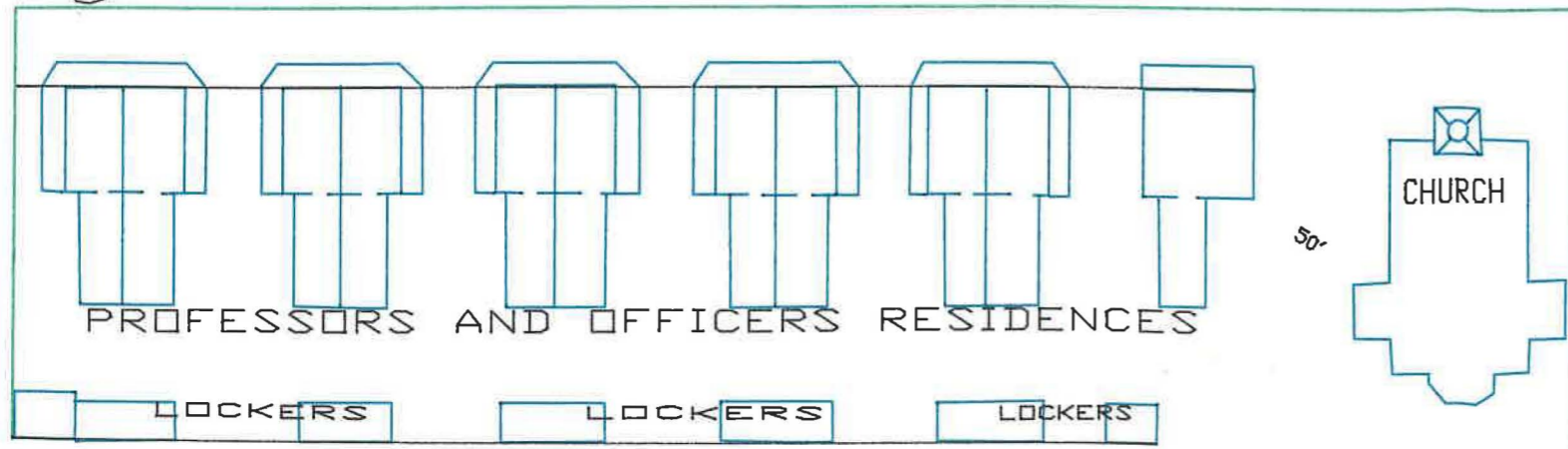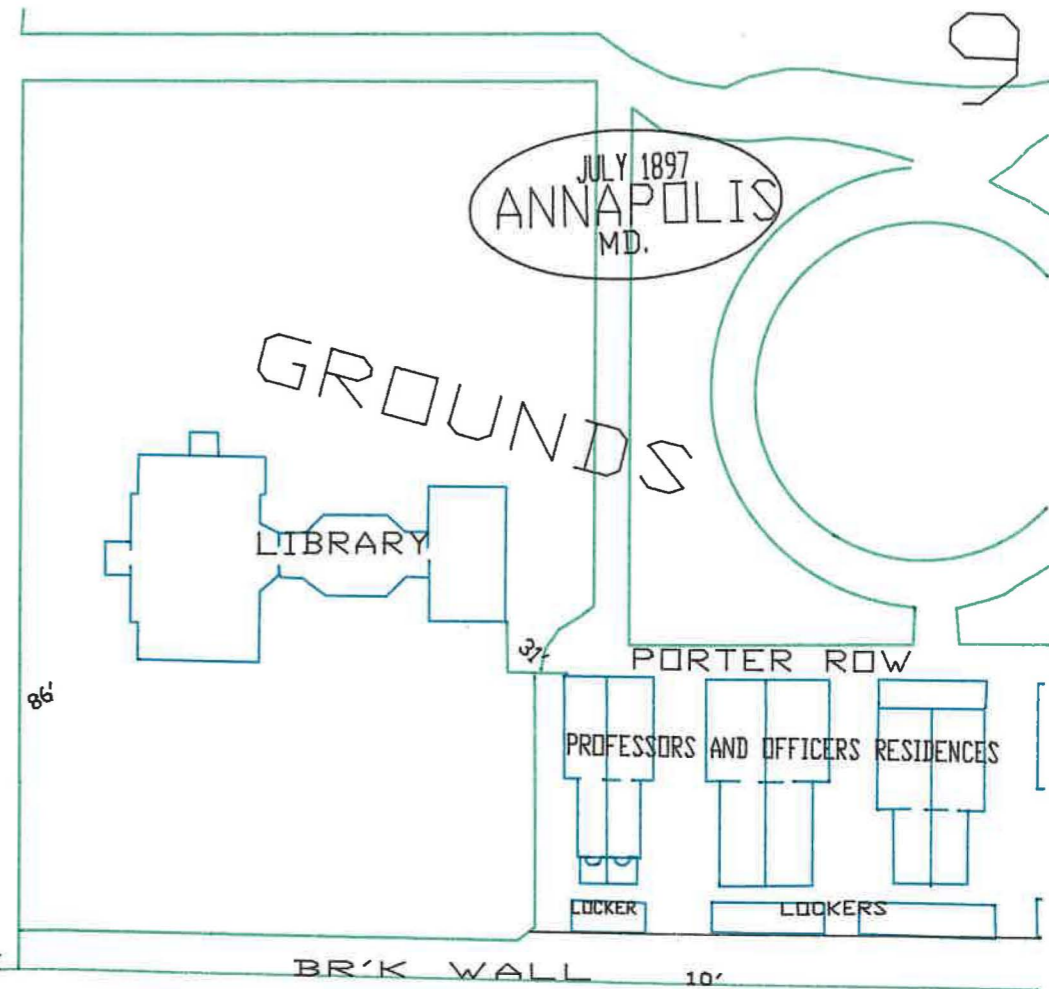
==
FIGURE 17: PROPERTY ACQUISITIONS MAP
==

MAP TITLE: Property Acquisition 1845 To 1962
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figure_9.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

LAYER NAMES	COLOR	LAYER CONTENTS
BUILDINGS	Cyan	3 Building Areas
PROP_BOUND	Red	Property Boundaries
TEXT	Black	Text
ROADS	Yellow	Major Roads
OLD_SHORE	Blue	Old Shore Lines
HATCH	Green	Hatch (Shading) Patterns

Figure 17 is the plan of the USNA showing how property was aqcuired from 1845 to 1962. This drawing shows early property boundaries and the dates the USNA acquired each parcel.

There are three building groups on the map: Bancroft Hall, Isherwood Hall and the Academic group consisting of Maury Hall, Sampson Hall and Mahan Hall. These were most likely placed as reference points on the drawing to orient the viewer to the general area. This map was included in this report because it illustrates how USNA property was purchased in small aqcuisitions through time. It was not used in the predictive model demonstration.

SEVERN   RIVER

DEWEY FIELD
RECLAIMED LAND
1959
25.885 ACRES +/-
△

2 ACRES

RECLAIMED LAND
1902 TO 1906
7-3/16 ACRES

RECLAIMED LAND
1902 TO 1906
17 ACRES

RECLAIMED
1880 TO 1902
18-3/16 ACRES

NO. 1
OLD FORT SEVERN
PURCHASED IN 1808
CEDED TO THE NAVY DEPT.
IN 1845
9-3/4 ACRES
$1801.00

FARRAGUT FIELD
RECLAIMED LAND
1959
29.860 ACRES +/-
△

NO. 2
PURCHASED IN 1847
6 ACRES (MORE OR LESS)
$14105.00

NO. 6
PURCHASED
IN 1873 - 1874
4 ACRES
(MORE OR LESS)
$41,946.83

NO. 9
PURCHASED IN 1891
12 ACRES (MORE OR LESS)
$84,464.33

△

SCOTT STREET

NO. 3
PURCHASED IN 1853
11 ACRES (MORE OR LESS)
$24,212.21

NO. 4
PURCHASED IN 1866
5 ACRES (MORE OR LESS)
STATE OF MARYLAND $25,000.00
(GOVERNORS MANSION)

NO. 5
PURCHASED IN 1867
10 ACRES
VISITORS & GOVERNORS
OF ST. JOHN'S COLLEGE $6,000.00

HANOVER STREET

NO. 10 A
PURCHASED IN 1902
1-3/4 ACRES
MORE OR LESS
$44,096.29

NO. 10 B
PURCHASED IN 1902
5-3/4 ACRES (MORE OR LESS)
$108,619.40

NO. 10 C
PURCHASED IN 1902
3-1/4 ACRES (MORE OR LESS)
$23,385.73

WATER STREET

KING GEORGE STREET

NO. 11
PURCHASED IN 1941 FOR $402,783.00
DEED 7.92 ACRES
ACTUAL 7.55 ACRES

PRINCE GEORGE STREET

CREEK

DORSEY

WAGNER STREET

COLLEGE AVENUE

MARYLAND AVENUE

GOVERNOR STREET

FULLAM STREET

RANDALL STREET

0   200
SCALE IN FEET

===

FIGURE 18: 1885 SANBORN FIRE INSURANCE MAP - PLATE 5

===

MAP TITLE: 1885 Sanborn Map - Plate 5
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figur_10.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

The original scale of this map was 1 inch = 50 feet.

LAYER NAME	COLOR	LAYER CONTENTS
ROAD	Red	1885 Road
TEXT	Black	Text
BUILDING	Cyan	1885 Buildings -USNA & Annapolis
PIPES	Green	Water Pipes/Manhole Covers

Figure 18 shows an 1885 view of the USNA and its relation to the city of Annapolis. Most of the sections of Annapolis, as shown on this map, have been incorporated into the present-day Academy.

This map has a very noticable error on it; the north arrow is oriented the wrong direction. Other than this, it proved to be an accurate source of information to the project.

SEE   SCALE OF FEET   SHEET   NO. 4.

JUNE 1885
ANNAPOLIS
MD.

5

SCALE IN FEET
0   200

MARYLAND   AV.

SHEET   NO. 6.

PRINCE GEORGE

KING GEORGE

HANOVER

NAVAL   ACADEMY   GROUNDS.

DWELLINGS

DWELLINGS

DWELLINGS

OFFICERS

PROFESSORS

AND

OFFICERS

DWELLINGS

24

25

DENTIST.

DW'GS

CHURCH.

GOVERNOR

TENEMENTS

TENEMENTS

26

NEGRO DWELLINGS

LIBRARY.

EAST

BRIDGE

DWELLINGS

TENEMENTS

NEGRO TENEMENTS.

27

TENEMENTS

PROFESSORS & OFFICER'S DW'GS.

LOCKERS.

RANDALL

SEE   SHEET   NO. 9.

SEE

==

FIGURE 19a: SANBORN MAP OF 1885 WITH PRESENT USNA - OVERLAY

==

MAP TITLE: Sanborn Map Of 1885 With Present USNA
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figur_11.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
C	Green	1885 Sanborn Map

Figure 19a consists of the 1885 Sanborn Fire Insurance Map overlaid onto quadrants 34, 35, 38, and 39 of the present USNA. This view is an overall perspective of the area.

In this case, there were no redundant structures to use as anchoring points. There was, however, roads that survived from the late 19th-century. The Sanborn map was anchored into the USNA base map using the corner of King George Street and East Street as its redundant point.

The precision which is so common to Sanborn maps - especially in relation to roads and buildings - make them an indispensable source for historical research.

HANOVER STREET

PROFESSOR

LAKE ROAD

FOURTH WING

SIXTH

CHURCH

SCALES

PORTER

TENEMENT ROAD

397

16

15

16A

KING GEORGE

GEORGE STREET

SOUTH

BOUNDARY

14

14A

GOVERNOR TENEMENT

BUCHANAN

12

290

PROFESSOR'S & OFFICERS

103

11

11A

290

294

10

DWG

TENEMENTS

103

9

KING

SOUTH

BOUNDARY

277

8

356

SCALE IN FEET
0   100
N

7

7A

TENEM'TS

DWGS

DWG   DW'G

DWG

EAST STREET

EAST   RD. DWELLINGS
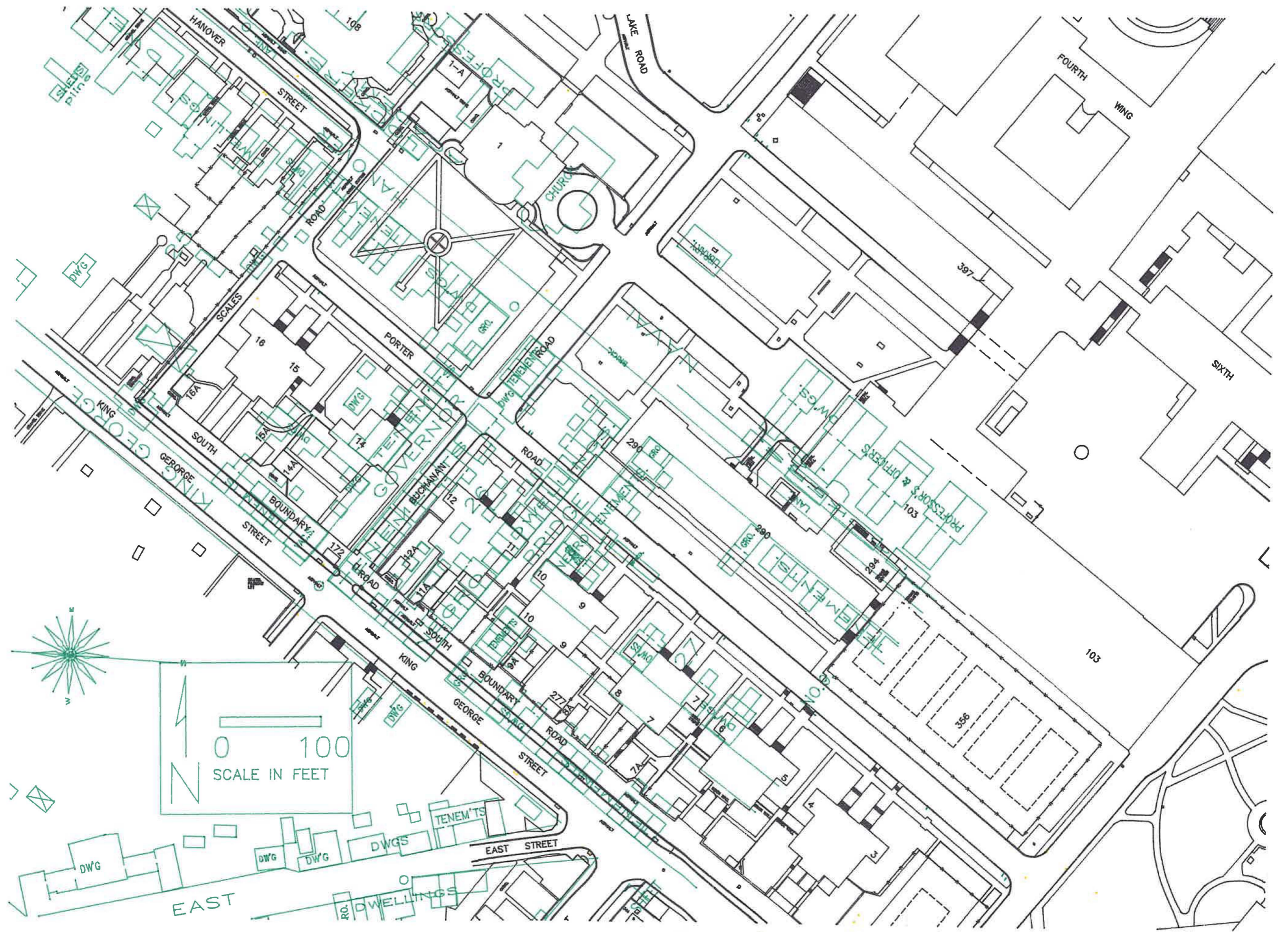
```
================================================
```
FIGURE 19b: SANBORN MAP OF 1885 WITH PRESENT USNA - OVERLAY
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================================================
```

MAP TITLE: Sanborn Map Of 1885 With Present USNA
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figur_11.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
C	Green	1885 Sanborn Map

Figure 19b consists of the 1885 Sanborn Fire Insurance Map overlaid onto quadrants 34, 35, 38, and 39 of the present USNA. This view is a detailed perspective of the Porter Road area showing the density of late 19th-century structures that once existed on this spot.

In this case, there were no redundant structures to use as anchoring points. There was, however, roads that survived from the late 19th-century. The Sanborn map was anchored into the USNA base map using the corner of King George Street and East Street as its redundant point.

The precision which is so common to Sanborn maps - especially in relation to roads and buildings - make them an indispensable source for historical research.

SCALES

PORTER

16

15

16A

GRO.

TENEMENT ROAD

DW'G

BRICK

SOUTH

15A

TENEM'T

DW'G

14

GOVERNOR

14A

ROAD

290

GRO.

DW'G

GERORGE

KING

STREET

BOUNDARY

BUCHANANT

172

12

26

ROAD

12A

GRO.

TENEMENT

BRIDGE

TENEMENTS

290

GRO.

ASPHALT

GRO.

294

GRAVEL
PARKING
LOT

ASPHALT

ROAD

11

11A

DWELLINGS

10

9

TENEMENTS

ASPHALT

ASPHALT

SOUTH

TENEMENTS

10

9A

9

DW'G

27

DW'G

KING

BOUNDARY

277

8A

8

7

DW'G

DW'G

DW'G

GEORGE

ROAD

GRO.

DW'G

7A

6

5

SCALE IN FEET

0   100

N

S

TENEM'TS

BRICK WALL

BRICK WALL

ASPHALT

4
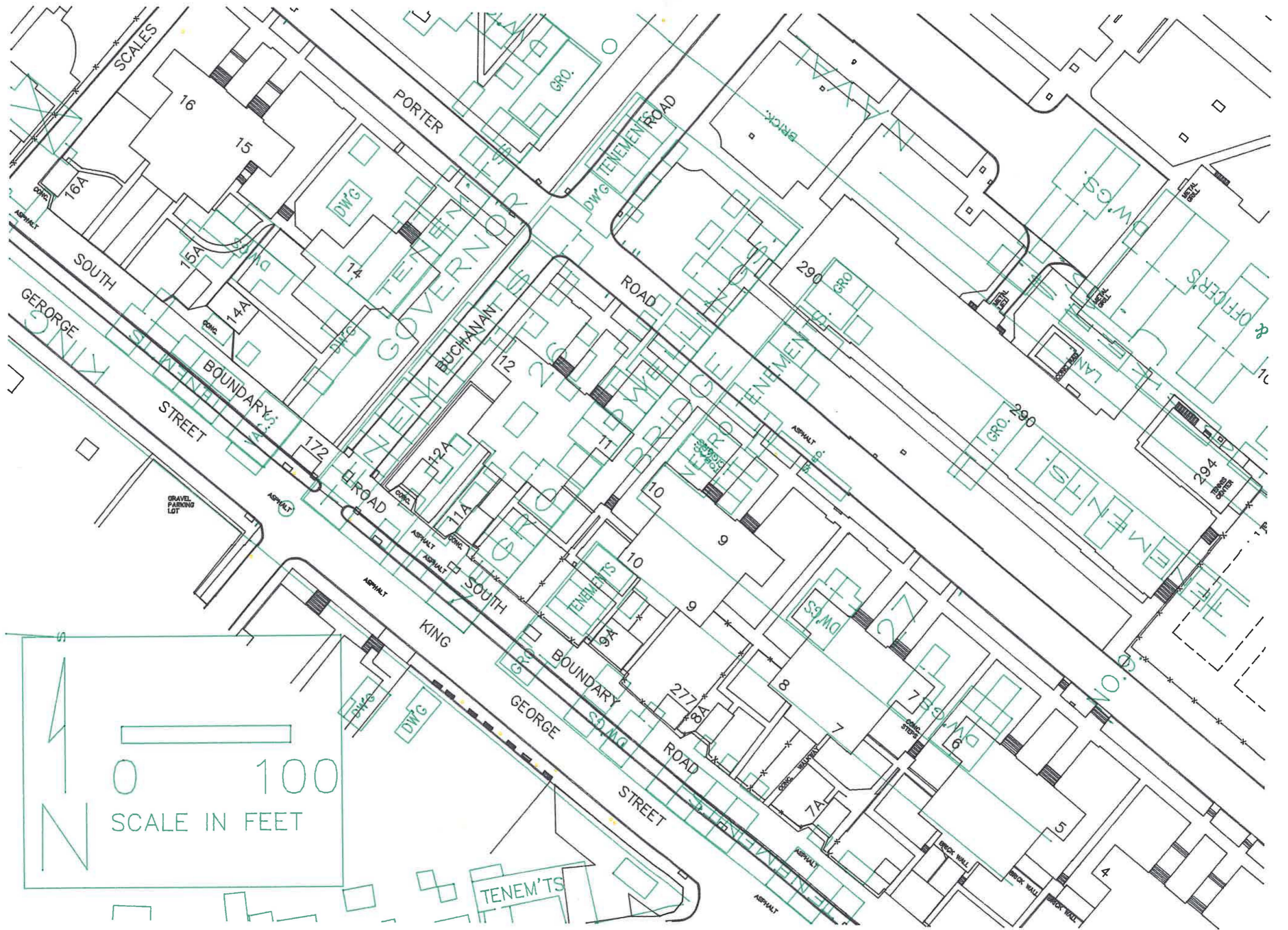
OFFICERS

```
=================================================
```
FIGURE 20: PLAN OF NAVAL SCHOOL - 1845
```
=================================================
```

MAP TITLE: Plan Of Naval School - 1845
MAP AUTHOR: Unknown
AUTOCAD FILE: Figur_12.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

The original scale of this drawing was 1 inch = 40 feet.

LAYER NAME	COLOR	LAYER CONTENTS
1845_PlAN	Black	1845 Plan Of The Naval School
TEXT	Black	Text

This drawing looks remarkably similar to portions of the 1845 Map of the Academy which was detailed in figure 14a and 14b of this report. Although no such information was given on this particular map, it may have been one of the many sources used to create that shown in figure 18a and 18b.

This map was used here, primarily, to show an overlay in which there were no redundant points (see next map- figure 21).

N

"THE ABBEY"

BOUNDARY WALL - 1845

GATE HOUSE

MESS HALL AND
RECITATION HALL

"APOLLO ROW"

"ROWDY ROW"

"BRANDY WINE"
COTTAGE

FORT SEVERN

GARDEN

SUPERINTENDENT'S
HOUSE

GARDEN FENCE

BATTERY

FLOWER

PROFESSORS'
HOUSES

MULBERRY TREE

SUPT'S & PROFS'
OFFICES

BOUNDARY WALL - 1845

SHORE LINE 1845

"GAS HOUSE"

40 FEET

PLAN OF NAVAL SCHOOL - 1845

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============================================
```
FIGURE 21: 1845 NAVAL SCHOOL WITH PRESENT USNA - OVERLAY
```
============================================
```
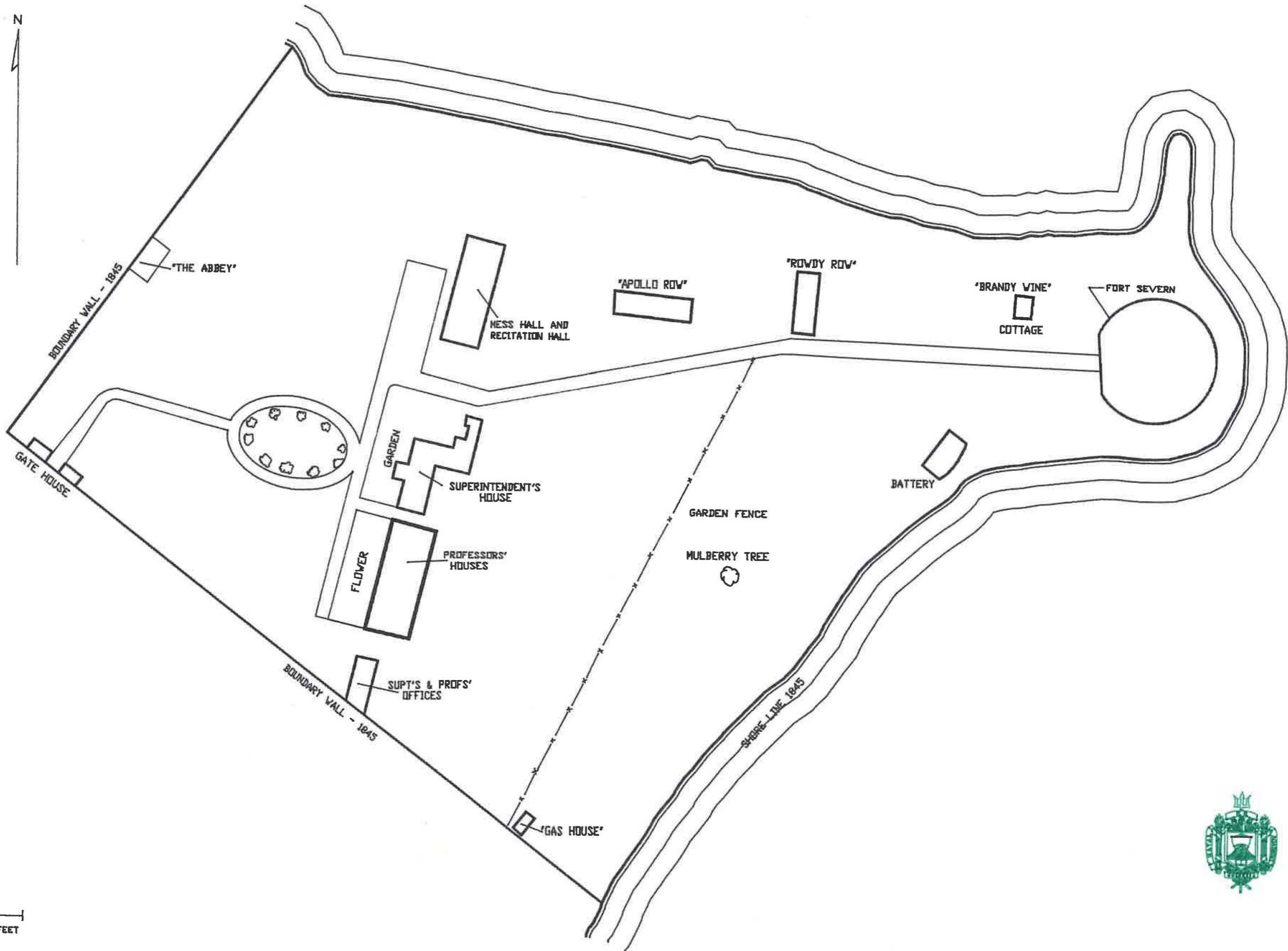
MAP TITLE: Plan Of Naval School - 1845
MAP AUTHOR: Unknown
AUTOCAD FILE NAME: Figur_13.dwg
DIGITIZED BY: G.M. Anroman and C. O'Reilly

LAYER NAME	COLOR	LAYER CONTENTS
0	Black	Present USNA
C	Green	1845 Naval School

This map shows the 1845 Academy overlaid onto the current USNA. As mentioned previously, there were no reliable redundant points, structures, or features to use in aligning the two maps. Instead, the 1845 drawing was "rubbersheeted" onto the base map; i.e. the entire map is moved and/or rotated into place until most of the features or structures on the two maps came into alignment. Rubbersheeting is used when no survey points exist with which to align one map with others. Where redundant points exist, the technique is fairly accurate. When no redundant points exist, as in Figure 21, rubbersheeting ismerely sophisticated guesswork (Seidel and Theobald, p.18). The figure 21 overlay was not used in the predictive model demonstration.
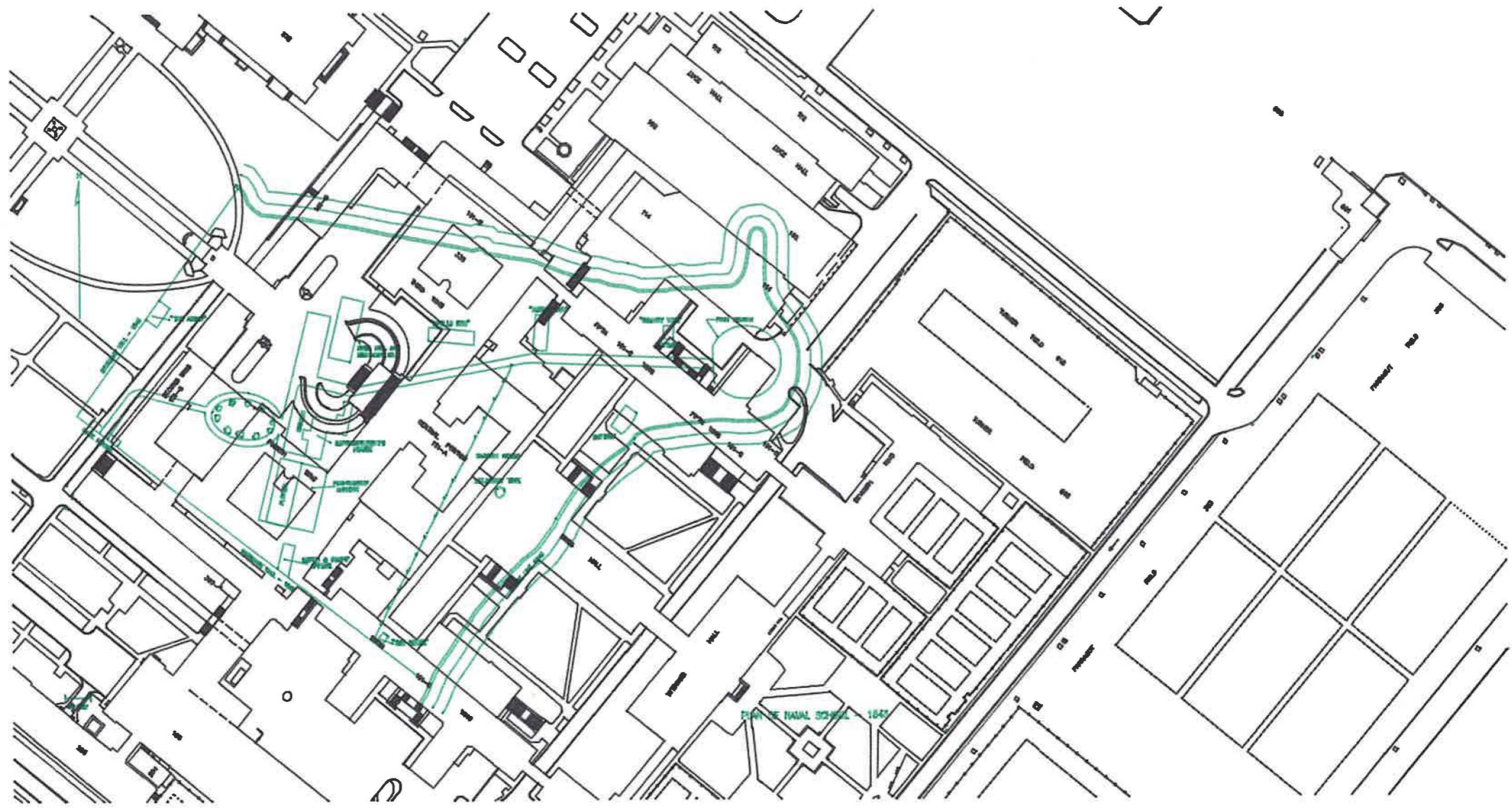
PLAN OF NAVAL SCHOOL - 1845

CONCLUSIONS

One of the objectives of the archaeological phase of the Legacy Project was to demonstrate, using AutoCAD, the ability to predict locations of historic significance based on modern and historic maps of the areas of Annapolis now occupied by the USNA. The results of our work show that a portion of the USNA contains intact or partially disturbed archaeological deposits dating from the early 18th-century and that these locations can indeed be predicted using AutoCAD technology. This illustrates one of the most significant contributions of the computer to archaeology - it provides the field with a totally non-invasive tool.

The success of AutoCAD as a predictive tool in archaeological surveys, as evidenced in this project, demonstrates the successful application of CAD technology to the field of archaeology. In addition to being a predictive tool, AutoCAD represents an effective, faster and more precise way of dealing with maps and map data. Most notable of its features in this respect are speed of map production and a sophisticated manner of data manipulation.

Traditionally a tool of the engineer and architect, AutoCAD is finding new applications in archaeology, which is becoming increasingly technical. As the field of archaeology continues to expand, it demands highly precise and accurate new tools. The precision and accuracy of programs such as AutoCAD was demonstrated in the archaeological survey of the United States Naval Academy. Its many other features are now and will continue to be explored by archaeologists.

RECOMMENDATIONS

The use of AutoCAD technology as a predictive tool in the archaeological phase of the Legacy Project proved to be an unquestionable success. Because the AutoCAD phase of this project was experimental, only a small sampling of historic maps was used. Having demonstrated that AutoCAD is indeed successful at predicting the location of cultural remains, it is necessary to continue this process using several different types of maps. Once a series of maps has been digitized and overlaid on the USNA base map, an accompanying historic study of the vicinity will be undertaken.

Cartographic resources have the greatest value when used in conjunction with other documents. Each type of source can then inform the other, confirming its accuracy and reliability. This broad perspective is absolutely essential when engaged in this type of analysis. Every historic map manifests two sets of rules. First, there are the cartographic rules; a map as an index to the location of things, processes, and events in the past. The second set can be traced from society into the map. The map becomes a "signifying system" through which "a social order is communicated, reproduced, experienced and explored." Maps do not simply reproduce a topographical reality; they also interpret it (Harley, p.10).

It is strongly recommended that the digital mapping of the Academy continue as proposed. The information gained by utilizing this type of technology to predict the location of historic, cultural resources would be an enormous asset to the public works and planning departments of institutions such as the Naval Academy.

Research Design and Objectives

The tract history research provides an historical context for the archaeological field work and for artifact recovery and analysis. It serves to identify areas of potential interest by locating structures and recovering patterns of land use. By documenting both the socioeconomic development of particular sites, including such variables as wealth, race, age, and occupation of residents, and the nature of development--whether residential or commercial and the varieties of commercial use, this research provides a context within which to assess the meaning and significance of artifacts recovered from particular sites and to compare material culture across sites.

The research design is one that has been used to provide similar contexts for other Annapolis archaeological projects, although never before on this scale. The starting point for all work has been the deeds transferring ownership of the individual pieces of property to the Naval Academy. These and all subsequent deeds are abstracted for relevant information: metes and bounds, references to man-made or natural features, purchase price, occupation and residence of grantors and grantees, and prior history. If a "being clause" is included in the contract, the information contained in that clause is used to locate the previous deed. If no clause is included, grantor-grantee indices, chancery court records, wills, and similar records are searched for references that will continue the title. Such references are not always available and for that reason not all chains of title will be complete. In some instances, however, smaller parcels will have been parts in the past of larger tracts, making it possible to recover the ownership trail although there will be gaps in the chain.

Using the completed chain of title, which identifies **owners** over time, information from census records, assessment records, and city directories is then incorporated into the title. These records provide information about **improvements** on the property (assessments and city directories) and about **occupants**--as opposed to owners--including age, race, household composition including slave ownership prior to 1864, occupation, wealth, and nativity (census records and city directories). Census records do not list place of residence until 1870, making linkages less than certain for some pre-1870 owners and impossible for

tenants prior to 1870. Assessment records similarly do not list individual properties until mid-nineteenth century and do not begin consistently to use street addresses until even later. House numbers did not stabilize until the early twentieth century, so that it is not always possible firmly to link residents listed in early city directories or assessment descriptions with specific houses. Nevertheless, a high degree of recovery can be achieved.

The chains of title are included as an appendix to this report. For each chain of title, the information is given in chronological order, beginning with the deed transferring ownership to the United States government and working back to the earliest available deed reference. Information from other archival sources is included at the appropriate point in the chronology. The first column lists the source (unless otherwise specified, the source is Anne Arundel County Land Records, located in the Anne Arundel County courthouse and the Maryland State Archives); the second gives the date (for deeds, this is the date the deed was signed, not the recording date); and the grantor and grantee, followed by all relevant descriptive material.

Results and Interpretations

Parcel One - Fort Severn

In 1808, the Mayor, Recorder, Aldermen and Common Councilmen of the City of Annapolis sold a tract of land to the United States of America for $1.00, on which the government "has erected certain fortifications." The property, which became Fort Severn, had belonged to Walter Dulany, and included the Dulany residence, store house and yard, gardens, stable, coach house, and windmill.

After the Naval School was established in 1845 on the site of Fort Severn, the institution expanded its holdings on the peninsula formed by the Severn River and College Creek nine times over the next century. (An expansion planned in the 1960s was halted through the efforts of local citizens, led by Historic Annapolis Foundation.) The character of the property acquired in each of the successive acquisitions depended to a large extent upon the date of the purchase/condemnation and to some extent upon the size of the parcel being added.

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<u>Parcel Two</u>   (Titles <u>2.1</u> - <u>2.3</u>)

The first expansion occurred in 1847, adding six acres to the Academy's grounds. These six acres were the property of just three owners. The Academy's location on the site of Fort Severn placed it on the periphery of Annapolis. None of the Academy land located on the east side of College Creek was included in the initial survey of Annapolis as laid out by Governor Francis Nicholson in 1695. A small portion of the Academy, land at the intersection of King George Street and Maryland Avenue, was surveyed by James Stoddert in 1718 as part of the New Town lots added to the city at that time to provide home sites for craftsmen. King George Street was drawn only from Tabernacle (now College Avenue) to the waterfront, but may not have been passable even for that distance, as the marshy area between Paca Garden and Governor's Pond may have precluded passage along the street. The Governor's House and Fort Severn occupied most of the ground east of the New Town lots while the town pasture accounted for the land to the west. Consequently, there had been little development in this area prior to 1845.

The government acquired the lot adjoining the Naval School [2.1] from Rebecca Lloyd Nicholson, daughter of Governor Edward Lloyd (EL V), property described as early as 1783 as containing a "brick messuage [dwelling] and other improvements." When the lot had been sold in 1764, four tenants lived there: John Thompson (little), Margaret Mangeant, negro Hannah [who would have been a free black woman], and Margaret Moore. These individuals undoubtedly lived in four small frame buildings that would subsequently have been razed to build the brick house sold in 1783 by the heirs of James Reith, mariner and innholder. Reith bought the property in 1767 and may have built the large brick house for the purpose of operating an inn; with the nearby ferry landing at the end of Maryland Avenue, he had a ready clientele of travelers.

The lot west of Mrs. Nicholson was sold to the government by Alexander Randall, appointed by the Chancery Court to sell the disputed property. The land had been bought in 1817 by Henry Duvall, as part of the settlement of the estate of John White. Duvall in his will described the property as "his house and lot at Severn Ferry," which he purchased with a ferry boat. Duvall did not live in this house, however. He lived in the house belonging to James Williams, acquired by Rebecca Nicholson in 1825. Depositions taken for the

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Chancery suit c.1847 identified the tenants of the Duvall property over a 30-year period as Robert Wilson, then James Jacobs, and then Elizabeth Brewer Robinson for "upwards of twenty-five years." The house was standing on the land when Duvall bought the property in 1817.

The final lot in this group of three belonged to Captain Franklin Buchanan, first superintendent of the Naval School. At the time that Buchanan sold it to the government, Academy professor A. N. Girault was renting the home, a two-story brick dwelling with outbuildings. Buchanan had owned the house since 1837; the home itself dated from at least the late 1700s.

Thus, the first expansion of the Academy incorporated three properties, at least two substantial brick houses--one the former residence of the Academy's first superintendent, a number of outbuildings, and the southern terminus of the Severn River ferry. At least one of the properties, and perhaps others, had been the site of earlier, probably frame homes. It is possible that the Nicholson house was operated as an inn, in conjunction with the ferry, for a period of fifty or more years.

Parcel Three (Titles 3.1 - 3.14)

In 1853, the grounds of the Academy expanded again with the purchase of eleven more acres, to the west and south of the properties purchased in 1847. The land ran from the Severn River to Hanover between Tabernacle (College Avenue) and Northeast (Maryland Avenue) streets and from Scott to Hanover between Northeast and Governor streets. This expansion involved the purchase of 14 different pieces of land.

The land bounded by the Severn River, Northeast, Hanover, and Tabernacle consisted of two large lots, which were probably unimproved; they may have been used as pasture or arable land. The easternmost lot belonged to the daughters of Mary Galloway Marcy, who had been the sole heir of her father, John Galloway. Mary Marcy, in her will written in 1843 and probated in 1849, left Tulip Hill to her husband during his lifetime and her Annapolis land to her daughters. John Galloway, who died in 1810, had left all of his real property to his daughter Mary. The deed transferring the land to the government described the property as "for many years in the possession of Robert Welch of Ben as tenant of the

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grantors." Robert Welch of Ben, a prominent citizen of Annapolis, lived within a block of this land at 207 Hanover Street (the Peggy Stewart house); he may well have pastured horses and cows on this property or farmed it for household produce.

The westernmost lot was sold to the government by Thomas Alexander of Baltimore City; he and Alexander Randall had acquired the land in 1843 from the same Robert Welch of Ben. Welch had purchased the land in 1829 from Henry Hall Harwood, who had in turn bought it from Edward Henry Calvert of Prince George County in 1816. Harwood was one of four purchasers from Calvert, but eventually bought out the other three. Edward Henry Calvert inherited the property from his father Benedict Calvert, who had become its owner upon his marriage to his cousin Elizabeth Calvert. Elizabeth's father, Governor Charles Calvert, had bought a five acre tract in 1729 from Thomas Larkin of what had originally been Nicholson's Vineyard and the Town Pasture. Later known as lots Nancy and Betsy, they were resurveyed by Edward Henry Calvert as Plattsburgh. When the city of Annapolis was laid out in 1695, this land had been set aside as pasture for town residents and it probably continued to be used for that or similar purposes after it passed into private ownership.

The balance of parcel three consisted of the block bounded by Scott Street, the grounds of Government House (the Governor's residence), Hanover Street, and Northeast Street. This block contained ten lots, half of the New Town lots that were surveyed in 1718 as an addition to the original city plan. Lots W, T, R, S, and Q fronted on Scott Street and lots L, M, N. O, and P on Hanover Street. The lots were originally intended to provide lower cost housing in town for craftsmen and most were developed in the eighteenth century, although not necessarily by the artisans for whom they were originally intended. Specific deed references mentioning housing occur in the 1700s for a number of the lots; it can reasonably be assumed that houses and other structures were built on most of the lots during the eighteenth century.

The government acquired lots O and P from Amelia Pinkney, widow of Ninian Pinkney, "where the said Amelia Pinkney hath for many years resided and which were devised to her by her husband." Ninian Pinkney purchased the two lots in 1812. Prior owners of lot P included Mary Boyle (who also owned land on West Street and whose husband had been a

sheriff of Anne Arundel County), Francois Firmin Perier, William Paca (between his service as governor and as a Federal district judge), James Peerman (a house carpenter), Edward Dorsey (gentleman), John Lomas (gentleman), and John West (mariner). Actual occupants of the premises, prior to Pinkney's purchase, may often have been tenants rather than Dorsey, Lomas, or Paca. Lot O was held by William Cummings, who also owned lots R and S. Cummings sold the three lots in 1761 to John Stevens; they passed at Stevens' death to his daughters. John Randall acquired lot O in 1809; Pinkney acquired the land three years later when Randall's holdings were sold to settle his estate. The Pinkney house is the only home in this area to be included on the 1832 Claude map of Annapolis.

The contiguous lots L, M, N, and T were owned in the late 1830s by Robert Welch of Ben, owner also of the section of parcel three between Scott Street and the Severn, described above. In the late 1760s and early 1770s, lots L and M had been acquired by Anthony Stewart, owner of the Peggy Stewart House (lot H), and they continued to be sold with lot H through Welch's acquisition in 1836. Owners prior to Stewart's purchase included the same mixture of merchants, gentlemen, and craftsmen as occupied lots O and P. Lot N similarly changed hands a dozen times between 1721 and 1811, the year when Richard Harwood of Thomas, owner at that time of the Peggy Stewart House and lots L and M, add Lot N to his holdings. When Harwood's estate was sold to settle an equity case in 1836, Welch bought the Peggy Stewart House and the associated lots, including L, M, and N. He added lot W to his holdings in 1839, buying it from Richard Chase who had inherited the lot from his father, Judge Jeremiah Townley Chase. Chase left his son Richard two lots, W and T, occupied in 1823 by three tenants.

Lot Q, at the corner of Scott and Governor streets, was owned in the 1750s by William Perry, a mariner, and his wife Ann, who mortgaged the land in that year to John Thompson, a carpenter. Two years later Anne Griffith Perry sold the lot to Thompson. In 1770, Thompson's son Richard, a tailor, sold the lot to merchant Jonathan Pinkney but reacquired it two months later; the property is described in the deeds as including a "dwelling house . . . and improvements." Thompson mortgaged his property several times in the 1770s, finally transferring title in 1787 to William Goldsmith; Thompson was now an insolvent debtor and Goldsmith the trustee authorized to sell Thompson's land for the benefit

of his creditors. In 1798, Thompson still lived in the one-story frame house as a tenant. Thomas Harwood, who would buy the Peggy Stewart House two years later, bought the lot in 1789. Rebecca Nicholson, who owned the house across Scott Street, purchased the lot in 1836; trustees for her estate sold it to Alexander Hagner in January 1849. As all the owners of this property maintained residences elsewhere in the city, this house undoubtedly continued to be rental property until Hagner sold the lot to the government in June 1849.

The adjoining lot, lot R, was surveyed in 1718 for John Rencher. William Cummings, gentleman, acquired this lot as well as lots S and O, property described in 1752 as three lots and a brick house (but with no specification as to which lot contained the house). John Stevens, also a gentleman, acquired the three lots in 1761 and they were inherited in 1781 by his three daughters, each daughter getting one of the lots. Sarah, who received lot R, married Nicholas Maccubbin, who sold the lot in 1784 to merchant James Ringgold. Ringgold sold it to John Bullen, gentleman, who in turn transferred it to Thomas Dalzell, a house carpenter, in 1787. Robert Welch of Ben acquired this lot also, but sold it in 1815 to Thomas Morgan. Part of the lot was sold in 1825 to James Bosley of Baltimore City, and the rest was occupied by Morgan and his family until his heirs sold it to the government in 1853. At that time the land was described as "part of a lot . . . where Henrietta Stewart [Morgan's widow] has for many years resided."

Upon James Bosley's death in 1843 the property passed to his widow Elizabeth; when she died, their daughter Margaret inherited it. Margaret and her husband William Wyatt sold the lot to the government in 1853. As both Bosley and the Wyatts lived in Baltimore City, the house must have been occupied by tenants during their ownership.

The balance of lot R, and possibly part of lot S, was improved in 1853 by a frame duplex house, half occupied by Benjamin Taylor and half by the heirs of Richard Parkinson. Taylor had purchased the land in 1835 from Robert Welch of Ben, and had sold half--already improved by the house--in 1839 to Richard Parkinson. The metes and bounds in both deeds describe this land as part of lots G and H but other references in the boundary descriptions make it clear that the lots lie along Scott Street, not Hanover. Lots G and H are not part of the Academy grounds and so would not have been sold to the government in 1853. Robert Welch of Ben's connection to this land is not clear, however; it does not lie adjacent to any

of the other lots that he held. Further work will be needed to clarify this particular chain of title.

The remaining lots, [perhaps part of] S and T, provide the first--but not the last--example of the impact that the establishment of the Naval Academy had upon the development of Annapolis. Both lots were purchased in 1849 by Philip Clayton and George Jones. Clayton was a bricklayer who had property holdings throughout the city and Jones was the first chaplain of the Naval Academy. (Nothing in the land records suggests the origin of this partnership but biographical studies of the two men might reveal the connection.) It seems clear that Clayton and Jones acquired this land with the expectation of subdividing it into smaller building lots and selling those lots to individuals connected with the Naval Academy. By 1853, they had succeeded in selling four of the lots, at least three of which were owned by faculty members at the Academy at some time between 1849 and 1853. Clayton and Jones acquired this land from Franklin Buchanan. Buchanan would be the Naval School's first superintendent but he acquired at least one of the two lots eight years before the school was established, making it unlikely that he had purchased the lot in anticipation of future profits from its development. Buchanan bought an unimproved lot with a 91' front on Scott Street in 1837 from Thomas Franklin. Franklin had acquired the land the previous year when the estate of John Randall was sold by decree of the Chancery Court. Randall may have acquired the property in 1809, at the time that he purchased lot O from one of John Stevens' daughters; lot S was the inheritance of another of Stevens' daughters. The balance of the Clayton and Jones property came from the estate of Jeremiah Townley Chase; as noted above, this land, with lot W, had been rented in 1823 to three tenants. Thus, nearly two-thirds of the block, 350' on Scott Street--which had been occupied in 1823 by only three households--had been subdivided for two-thirds of its length (216') into eight properties (Robert Welch of Ben still held 133' at the west end of the block, land that perhaps had one or two tenants at most). The prospect of profits to be made from development of land adjacent to the Academy, occasioned by an influx of faculty and other staff to man the new school, surely motivated the purchases of Clayton and Jones. [The inclusion of other property in some deeds and the failure to specify the full purchase price in others makes it impossible to estimate the profits that the pair might have made.]

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Parcel Four   (Title 4)

The government's earlier purchases, in parcels two and three, included a range of lower and middling income housing ranging from modest frame to more substantial brick construction. In 1866, the Academy expanded by acquiring one of the most substantial brick homes in the City of Annapolis, one that had served as the governor's residence from 1769. The Board of Public Works sold "the square or lot of ground with the Mansion and appurtenances lying between the Harbor, Hanover Street, Governors Street, and Scott Street," a total of four acres, to the United States of America for $25,000 and use of the house until January 1869. Act #46 of the General Assembly, passed in January 1866, had authorized "the sale of Government House and grounds . . . as an addition to the site of the Naval School."

The State of Maryland had acquired this property in 1781 when the Commissioners to Preserve Confiscated British Property sold "1 lot with a commodious dwelling house and many other valuable improvements" to Thomas Sim Lee, Esquire, governor of Maryland. The property had been owned by the last proprietary governor, Robert Eden, who had left the colony in 1774 to return to England. The Commissioners' Ledger and Journal noted that on Thursday, 17 May 1781, "The Board took possession of the property which belonged to Governor Eden in Annapolis, & having taken an inventory thereof, leave His Excellency Thomas Sim Lee, Esq. in possession of the same." The inventory enumerates a store room, coachman's room, boy's bedroom, long garret, servant man's bedroom, woman's bedroom, Mrs. Eden's dressing room, Sir Robert's bedroom, gilt parlour, and a passage between the parlours. The principal rooms, other than the one parlor, are not identified, but they and Sir Robert's bedroom are furnished with numerous mahogany chairs and tables in a variety of forms, some of the tables topped with marble, a number of paintings and portraits, mirrors with gilt frames, and expensive window draperies and blinds. At least twenty-two rooms, including nine bedrooms, the two parlors, dining room, kitchen, pantry, and laundry room, have their contents itemized in the inventory, which indisputably reveals the house--whether a "commodious dwelling" or "the Mansion and appurtenances"--to have been the equal in elegance and grandeur of Paca, Hammond-Harwood, Brice, Ridout, Scott and the other surviving Georgian masterpieces in Annapolis.

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The property is further described in the deed by which Eden purchased the house and grounds from Edmund Jenings of Lincoln Inn, Middlesex, Esq. in 1769. Jenings sold to Eden "all that messuage or capital mansion house with the garden yards coach house stables and outhouses . . . late in the tenure or occupation of His Excellency Horatio Sharpe [governor of Maryland] as tenant to the said Edmund Jenings."

A view of the house prior to its purchase can be obtained from the Edward Sachse "Bird's Eye View of the City of Annapolis," c.1858, which shows a three-story, five-bay Georgian house with a projecting central pavilion and porch, flanking outbuildings extending out from the front facade, and elaborate gardens between the house and the water. "The Harbor of Annapolis," by George M. Bache and F. H. Gerdes, 1846, depicts four small buildings on each side of the mansion house, extending toward the water in a widening arc on each side.

Parcel Five   (Title 5)

The Academy, having expanded along Hanover Street as far as the harbor, made its next extension of the grounds on the western side of its campus, leapfrogging over two tracts that would be acquired later. The government spent $6,000 in 1867 to buy "a parcel of ground adjoining College Green" totalling ten acres and three perches from the Board of Visitors of St. John's College. The land was bounded by King George Street extended, College Creek, the Severn River, the property of the Annapolis Gas and Light Company, and the property of Henry Lockwood. This land, granted to St. John's College when it was established by legislative act in 1784, was part of the area set aside for town pasture land. Both the Bache and Gerdes chart of 1846 and Simon J. Martenet's "Martenet's Map of Anne Arundel County," 1860, show the property as undeveloped. The Sachse print of 1858 suggests that there might have been some houses on this tract but a comparison of the Sachse with G. M. Hopkins' "Atlas of Anne Arundel County," 1878, indicates that the houses in question are part of Lockwoodville, a development on the land owned by Henry Lockwood, which would be acquired later by the Academy. The Hopkins atlas identifies the older areas--the original Fort Severn property and parcels two through four--as the United States Naval Academy and the land acquired in parcel five as United States Government Property.

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In 1873-1874, the government acquired a portion of the land lying between the area Hopkins designated as the Naval Academy and the land purchased from St. John's. These four acres were part of a section of Annapolis known as Lockwoodville, taking its name from Professor Henry Lockwood, a West Point graduate who taught gunnery and other subjects at the Academy from 1847 to 1860. Although Lockwood gave his name to this area, he never owned the entire four acres. He did purchase, in 1852, title to the "northwest part of lots Nancy and Betsy between College Green and the Severn River" from Alexander and Catherine Randall and Thomas and Priscilla Alexander, parties of the first part, and Thomas and Sarah Lowman, parties of the second part. Randall and Alexander had sold this land to Thomas Lowman in 1848 for $850. Lowman had subsequently sold it to Lockwood for $305.55 and payment of the balance of the money that he owed Randall and Alexander. Examination of the deeds makes it clear that Lockwood purchased a strip of land running from the Severn River to Hanover Street, a distance of about 415', and from Wagner Street, described in an 1863 deed as a "land from Hanover to the Severn on the west bank of a shallow pond," back toward Tabernacle Street for a distance ranging from about 70' along the river and 60' along Hanover. Randall and Alexander retained the land to the southeast back to Tabernacle.

Randall and Alexander had acquired this land as part of a larger purchase from Robert Welch of Ben in 1843 that totalled 15.5 acres [3.11 #3] and encompassed the entirety of lots Nancy and Betsy. Part of this tract had been sold to the government in 1853. No acreage is specified in the 1853 deed, but the sale price was $1,192.21, while Alexander and Randall had paid Welch $2050. This change in value suggests that the government purchased about half the tract in 1853. Henry Hall Harwood sold the land to Welch for $500, so some development must have occurred between 1829 and 1843, probably in the form of frame rental houses.

When the government expanded into the Lockwoodville four acres, they acquired most of the lots by condemnation, having failed to reach a mutually agreeable price with the owners, purchased others, and bought any surviving rights of the Lockwoods, the Randalls, and Thomas Alexander's heirs to the land in question. The government plat of the land

depicts it as consisting of twenty-one lots; most owners held one lot, but Timothy O'Brien owned five and Charles Lawrence's heirs and John Mullavel each owned two.

The assessment records for 1860 offer a view of the development of this community, which--like the area purchased in parcel three--developed as a result of its proximity to the Naval Academy. Lockwood, like Clayton and Jones, had acquired a tract of land that he would subdivide and sell to people drawn to Annapolis by the Academy and in need of housing. And like the earlier parcels, this one also encompassed a range of housing stock and a diverse group of residents. In 1860, Henry Lockwood still owned eleven lots, improved by eight houses, with a total value of $3,800. Four of the lots were on Bill Joe Street (Wagner Street); the two unimproved lots were valued at $100 and $200, the houses at $300 each. Four lots were on Hanover; the two on the north side of the street were part of parcel six and were valued at $700 and $500. Two were near the river, one improved by a house valued at $350 and the other a vacant lot worth $200. George Hayden owned property along the Severn River fronting 209' on Tabernacle and running back toward Wagner for 185' feet. The assessor counted this land as three lots, improved by a house (located on the government's lot 15) valued at $1000 and a wharf on the waterfront worth $600 (acquired by the Annapolis and Elk Ridge Railroad in 1864); the unimproved lot in between was assessed at $700. Other property owners included Professors E. A. Roget, holder of nine lots, eight of them improved for a total value of $2,825, and Joseph Nourse, with four improved lots, the houses valued at $200, $400, $400, and $250. Roget and a partner also owned a $200 stable. Jemima Dorsey, a free black woman, owned two houses worth $250 and $300. Other property owners on Bill Joe accounted for four houses, two worth $300 and two worth $200. One of Annapolis's wealthiest property owners, carter William Bishop, a mulatto, owned a house worth $300, a small part of his total real estate valued at $8,000. Finally, Randall and Alexander still held two unimproved lots, each assessed at $600.

Thus property owners included whites and blacks, owner occupants and landlords, Naval Academy faculty members and members of the larger Annapolis community. While most of the houses ranged in value from $200 to $400, the Hayden dwelling was assessed at $1,000. Later histories of the Academy have described this area as "variously owned, and filled with cheap dwelling-houses and tenements" (Soley, James Russell, Historical Sketch of

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the <u>United States Naval Academy</u>, 1876, p.119) and "a most disreputable and forlorn section of Annapolis dotted with many negro shacks and shabby houses and an old brewery" (Jackson, Elmer Martin, Jr., <u>Annapolis</u>, 1936-37, p.131). To some extent this was an accurate description, but the assessment officers, at least, offer a less jaundiced view of the housing and the residents. The Bache and Gerdes 1846 chart shows no improvements, no streets even, in this area. The 1858 Sachse print shows a two-story three-bay, possibly brick building in the area where the Hayden home should have been, as well as the nearby wharf. Only three or four other buildings appear in the Lockwoodville vicinity. Martenet's 1860 map depicts the Hayden home and wharf, the Annapolis terminus for the Severn ferry, and a house on Hanover near the corner of what would become Bill Joe/Wagner Street. By the 1878 Hopkins atlas, the Naval Academy has expanded into this parcel. Soley notes that all of the structures were torn down except one, which was converted to a bakery (Soley, p.119). The bakery appears on the Hopkins map; it would appear to be the former Hayden residence. Thus both the development of these four acres and the disappearance of their residential character reflect the growth of the Naval Academy. As the Academy expanded outward, enveloping the land in parcel three, enterprising Annapolitans purchased adjacent land and subdivided it into building lots. In this case, Professor Lockwood was the prime developer, but he was joined by faculty members Roget and Nourse, whose original Annapolis purchases had been parcel three lots developed by Clayton and Jones.

<u>Parcel Seven</u>   (Title <u>7</u>)

The government added the remaining 12 acres of Lockwoodville to the Academy grounds in 1891, to complete their purchase of the land lying between the original Fort Severn property and College Creek and between either King George or Hanover and the Severn River. In incorporating the remainder of Lockwoodville, they acquired a parcel of land similar in development and character to the portion purchased in 1874.

<u>Parcel Eight</u>   (Titles <u>8.1</u> to <u>8.37</u>)

In 1902, the government purchased all of the land lying between Hanover and King George streets, running from 193 Hanover to the harbor. The 10.8 acres included the lots

fronting on Bridge, Water, and Holland streets and Bunker Hill Terrace; in all the Academy acquired sixty-nine residential and commercial properties. By the time of the publication of the 1903 Sanborn maps, these blocks were described as "Grounds recently acquired by U. S. Government and razed. Now being graded for improvement."

This land was never laid out in lots in the original city plan. Neither Hanover nor King George streets extended to the water; both ran only from North East Street (Maryland Avenue) to a point somewhere behind the Paca garden. Governor's Pond filled most of the area between the harbor, King George and Hanover streets, and what would have been the line of East Street were it extended toward Fort Severn. Governor's Pond was not filled in until the mid-nineteenth century. The 1846 Bache and Geddes chart of the Annapolis harbor still shows the pond with a few houses to the northwest; yet by the 1858 Sachse print, the area has been filled, the land is relatively free of vegetation, and a dozen or so houses have been built, mostly along Hanover Street. Martenet in 1860 shows the addition of Bridge Street, running parallel to Governor, and what is probably Water Street, although it lies too far to the east. By the 1878 Hopkins atlas, Bunker Hill Terrace has been added as an alley off Governor Street, and the entire area contains about three dozen houses. Most of the houses shown on the 1897 Sanborn map, the last to be issued before the Academy acquired the land, shows about the same level of development as the Hopkins atlas depicts. The only significant changes are the addition of fourteen "tenements" or simple frame houses at the ends of Governor and Bridge streets closest to King George, and some filling in of the waterfront area.

When the pond was filled in, the area became known as Harwood's Venture or Governor's Pond, taking its name from its owner, Thomas Harwood. With the sell off of the Harwood estate by order of the Equity Court in 1836, Harwood's Venture was divided into lots and sold to the highest bidders. Lots 8 and 9 encompassed the block between Hanover, Bridge, King George, and Governor streets; Alexander Randall purchased those lots. Randall, a prominent lawyer and owner of the house now known as the Bordley-Randall House, figures prominently in the history of the Academy grounds. He and Thomas Alexander purchased land on the west side of the early Academy, both from the Harwood

estate and from Robert Welch of Ben, as well as the Harwood's Venture land to the southwest.

The portion of Harwood's Venture between Hanover, Bridge, and King George streets and the harbor was bought by Richard Gill. When Gill died in 1852, he left the property to his wife Ann, who sold the entire tract in 1860 to John Mace, John Benjamin, Henry Medford, Jr., and Daniel Medford. These four men then divided the property among themselves and began subdividing it for resale. Alexander Randall did the same for his portion of the Harwood land, even selling part of it to the partnership of Philip Clayton and George Jones, who had developed part of parcel three.

The area developed as a mixture of residential and commercial property, with a range of housing stock, and a diverse residential population. The Sanborn maps identify many of the properties as dwellings but a sizable portion are labelled "tenements," a less substantial and less expensive type of housing. All of the houses on the west side and most of those on the east side of Bridge Street are described as having black occupants, but these were the only houses so designated. There were grocery stores at the corners of Hanover and King George streets on the west side of Governor; a saloon, two candy stores, a lunch room, and a boot maker's shop on Bridge; a saloon and boarding house on Holland; and, by 1897, several oyster houses on the waterfront.

Of the thirty-four heads of household living on Bridge Street in 1896, nine worked as waterman, 6 were laborers, 4 were domestics, 2 were laundresses, and six (all but 1 of whom were women) were cooks. Most of the households had more than one employed person--both men and women--and most had unrelated boarders. The mix of occupations tended to be very similar on the other blocks, but most of them had a sprinkling of higher status or skilled jobs as well. Residents of Governor Street, for example, included a painter, musician, school teacher, fireman, electrician, and blacksmith. Hanover residents included two marines, two firemen, a bugler, and a building contractor. Households on the streets other than Bridge on average had fewer workers and fewer boarders. The watermen and the presence of the oyster houses reflected the explosion in the Chesapeake seafood industry that resulted from late nineteenth-century transportation and refrigeration developments that made

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it possible to ship Chesapeake oysters nationwide. The laborers, cooks, and laundresses may well have found employment at the Naval Academy. The surnames and occupations of many of the residents of these blocks also suggest that more of them were black than the Sanborn maps' "Negro tenements" would indicate.

Parcel Nine (Titles 9.7 to 9.80)

The government's final purchase of land for the Naval Academy consisted of a waterfront neighborhood known as Hell Point, bounded by King George, Randall, and Prince George streets and the waterfront. At the time of purchase, in 1941, the size of the area had been increased substantially from its depiction in the 1718 Stoddert plat, more than doubling in size. The original land was surveyed by Stoddert as lots 97 through 100. Beginning in the eighteenth century, property owners on lots 98 and 99, which fronted on the harbor, gradually increased the size of their holdings by filling in the adjoining waterfront.

These lots were originally surveyed for Amos Garrett, first mayor of Annapolis, and Charles Carroll. Patrick Creagh--painter, mariner, builder--bought lots 98 and 99 in 1731 from Garrett's heirs and added lot 97 in 1743. Creagh's daughter, who married Richard Maccubbin, inherited her father's property in 1747. The Maccubbins sold lots 98 and 99 to William Wilkins in 1761 and Richard repurchased them from Wilkins to clear the title, describing the transfer as including buildings, keys, and wharves. Both lots were valuable waterfront property, fronting on the Dock and the Severn, and had already been developed to take advantage of their commercial possibilities. The sale in 1761 had been for the benefit of Creagh's creditors; Maccubbin repurchased the lots in 1763. Described as a merchant in 1761, Maccubbin had become a gentleman by the time that he leased the two lots in 1774 for ninety-nine years to James Higginson and William Whetcroft. The description of the property included references to Maccubbins' "present brick dwelling house," yard, "garden pailing," and stable.

Charles Carroll leased lot 100 to architect Joseph Horatio Anderson in 1772, stipulating that Anderson within ten years would build "such house or houses as will rent for £20 a year" and keep them in good order. Lot 100 was the landlocked lot of this group; its development consequently lagged behind that of the others. Anderson's lease was to run for

seventy years but after only twelve years Carroll's son, Charles Carroll of Carrollton, extended a ninety-nine year lease to William Whetcroft.

Whetcroft subsequently sold lot 100 to Thomas Rutland, who had also acquired lot 99 and two other lots. He mortgaged the four pieces of property in 1787 to George Mason, of Gunston Hall in Virginia. The description of the property is instructive: "All houses and improvements and all made ground and wharves and improvements upon the entrance into the dock of said city which ground joins the lots of Charles Carroll of Carrollton and Richard Maccubbin and is all the ground between said lots and the water, which ground was partly purchased by Thomas Rutland from William Whetcroft and partly made by himself and storehouse, warehouses, counting house and dwelling house, wharf and wharves on said ground." By the end of the colonial period, therefore, these waterfront lots had been highly developed for commercial as well as residential use.

During the early nineteenth century, ownership of much of this property passed into the hands of the Sands family, whose descendants still reside in the family home on lower Prince George Street. The financial difficulties of James Sands resulted in the forced subdivision and sale of the property in the middle of the nineteenth century, at which time the western portion of the area began to undergo more intensive residential development, a process that had also been fostered by the creation of Holland Street to provide access to more of the property. The eastern--waterfront--portion, at the same time, underwent increasing development for commercial purposes.

The 1858 Sachse print depicts Prince George street as a continuous row of homes and Holland as also substantially built up; a large wharf extends out from the foot of Prince George Street into the harbor. The Martenet map of 1860 confirms the appearance of Prince George and the steamboat wharf. By the 1878 Hopkins atlas, the pattern of development is well established: houses along Prince George and Holland streets (Randall has not yet been cut through) and more intensive commercial development along the water. The one steamboat wharf has become a series of eight wharves and oyster houses. Within a dozen years, Randall Street had been created, allowing for more residential construction.

By 1903, two alleys had been opened parallel to, and two perpendicular to, Prince George Street to allow access to the interior of the two blocks. Terry's Alley opened off

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Randall and Johnson Place off Holland, both running west from those streets; Block Court and Joyce Court ran south from King George between Randall and Holland for half the width of the block. The alleys also provided access to stables and carriage houses; within a decade or two these interior roadways would be lined with garages. Except along the waterfront, most of the buildings were residences, but there were a scattering of business: in 1903, for example, a junk yard, beer storage facility, boarding house, laundry, restaurant, and livery stable; in 1930, two stores, two garages, and an auto repair shop. Along the waterfront in 1903, moving north to south were H. B. Myers lumber yard, C. H. Russell & Co. oyster packing, C. R. DuBois & Co. oyster packing (closed), Jas. I. Johnson & Co. oyster packing (closed), and the steam boat dock and freight house. In 1913 the steamboat dock remained and Farinholt Meredith Co. (planing mill, joiner shop & lumber yard) had taken over the area formerly occupied by Myers and the vacant land between the Holland Street houses and the oyster packing plants. Eight years later, Farinholt Meredith had become the Meredith-Healy Lumber Co., with the Annapolis-Claiborne Ferry Co. wharf and two oyster packing plants on the waterfront east of their facility. The Tolchester Co. operated out of the steamboat wharf at the foot of Prince George Street. In 1930, the two steamboat companies remained but the J. F. Johnson Lumber Co. (now on West Street) had taken over both the former lumber yard area and the oyster packing plants. The seafood industry had already peaked in Annapolis.

The appraisals of these properties, made in 1941 to establish property values and on file at the Maryland State Archives, contain complete descriptions of the structures on each lot. These descriptions are summarized in the individual titles. Most of the housing was frame, much of it substandard, and had been built in the twentieth century, particularly that on the interior alleys. Hell Point by the 1930s had the reputation of being a heterogeneous and somewhat disreputable neighborhood, but the evidence from the early twentieth century suggests that this character may have developed over the century and grown more pronounced in the years before demolition than it had been when the neighborhood first developed. For example, the 1910 directory is the only city directory to identify residents by race. If one assumes that such designations were consistently recorded, there were only three black families living in this area at that time, all residing on Block Court. While more

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people earned their living as watermen and laborers (a pattern similar to that of the area to the west that had been added to the Academy a decade earlier) than by any other single trade, residents worked as tailors, barber, engineer, bricklayer, clerks, carpenters, policemen, postal clerk, saloon and restaurant owner, plumbers, tinners, printers, musicians, grocers, machinists, coppersmith, liquor dealers, baker, firemen, electricians, lawyer, chief gunner, and bookkeeper (three, all female).

Many of these occupations could undoubtedly be linked to employment at the Naval Academy, either directly or indirectly. The population of Annapolis and the economic impact of the Academy had expanded greatly as a result of the rebuilding of the campus in the early 1900s, a building project on a scale unprecedented in Annapolis history. The project first brought an influx of workmen hired to build the new campus, who had to be housed, clothed, fed, and entertained, and then brought an expanded Academy work force with similar needs. Among the more notable indirect effects of the building activity on the campus was the construction of Carvel Hall Hotel. A son of William Larned, who worked as an assistant to Ernest Flagg, wrote to his father of the opportunities that he foresaw in Annapolis for a new hotel, leading Larned to purchase the Paca house and grounds for that purpose. Carvel Hall Hotel, although not a project of the magnitude of the Academy buildings, was nevertheless a major building project in its own right, generating employment both during its construction and for its operation.

Entries for the 1924 directory show a similar employment pattern, both in the diversity of occupations--a large group of unskilled laborers and a broad range of skilled positions--and in the degree to which employment was undoubtedly related to the Naval Academy. This directory does not identify the race of residents, however, making it impossible to determine whether or not the racial mix had changed appreciably. There is considerable continuity between the residents of 1910 and the residents of 1924.

The heterogeneity associated with Hell Point only become apparent in the 1939 directory, with a number of Filipino families now living in the area. The skilled positions in which people had found employment during the century are now specifically identified with work at the Naval Academy; people noted as pipe fitters or welders, etc. are pursuing those employments at the Academy, as are cooks, laundresses, waiters, and other types of

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workers. One can infer as well, that the people employed in the latter positions are probably black although there is no way of verifying that supposition using these records. There continues to be continuity among property owners but turnover among the rental population, known from the appraisal records to have been a substantial proportion of the residents.

Summary of Research Results

Two major general points can be drawn from the documentary research as well as the specific details on property usage that are incorporated into the individual tract histories.

The first is that the history of the development of the land that over time became part of the Naval Academy is intimately connected with the history of the Academy itself. After 1845, the property into which the Academy expanded contained the residences of Academy employees, residences frequently constructed in anticipation of demand generated by the Academy, a speculative process often carried out by personnel associated directly with the Academy, particularly in the later years. The Academy has thus built over much of its own history.

Second, the grounds of the Naval Academy preserve below the surface a complete microcosm of the City of Annapolis. From the earliest days of inhabitation until the last purchase in 1939, the property that became the United States Naval Academy housed the full range of social groups, economic classes, racial and ethnic groups, businesses, and housing stock to be found anywhere in the city. One could conduct archaeological excavations only with the grounds of the Academy and recover the material culture of the City of Annapolis.

Recommendations/Conclusions

To protect the below-ground remains of the City and to enable their recovery whenever the opportunity presents itself, the most important step to take next would be the incorporation of the tract histories into the Autocad process. This can best be done by creating hand-drawn plats from the metes and bounds contained in the deeds and transferring those plats to the Autocad maps. This process will not result in precise correlations between the two, as the plats will only rarely have reference points to contemporary features, but they will be an approximation that will allow identification of potentially rich or significant archaeological resources.

Inclusion of the title information into the Autocad mapping process will make it possible both to determine areas of potential archaeological impact and to evaluate the character of the artifacts that can be recovered from the site.

ORAL HISTORY

Research Design

The oral history project gathered recollections from former residents of Hell Point, a predominantly working class integrated neighborhood dating from the end of the nineteenth century until it was acquired and demolished by the Naval Academy in 1941. The purpose of the oral history project was to amplify the archaeological excavation, historical research, and AutoCad data on Hell Point with the memories of people who had lived in the neighborhood. The project concentrated on the neighborhood assessed by the Naval Academy in the fall of 1941, prior to its acquisition, an area located between King George and Prince George Streets and from Randall Street to the water. The interviews with former residents of this area focused on three topics: the origin of the name and the location of the Hell Point neighborhood about which there was some dispute; the relationship of the Hell Point residents with their neighbors and with the larger Annapolis community; and the relationship of the Hell Point residents with the Naval Academy.

One of the objectives of the interviews was to ascertain from diverse perspectives what it was like to grow up in a neighborhood whose name had such a negative connotation and how that affected the residents' relationships with the rest of the community. A second was to ask questions about how people from different ethnic groups, and to some degree different class backgrounds, got along in an integrated community during a period of segregation. And thirdly, because this neighborhood was, first, next door to the Naval Academy and ultimately absorbed by it, information would be collected about the social and economic connections between the Academy and the residents of Hell Point and how the acquisition affected their lives.

Plate 13. The area known as Hell Point offered a unique view into the past from both archaeology and oral history. Here, oral historian Hannah Jopling (holding books) brings a former Hell Point resident by for a look.

Methodology

     For purposes of consistency, all of the interviewers followed an outline of question topics which covered such subjects as the history and geography of Hell Point, descriptions of the neighborhood streets and activities such as recreation, schooling, family outings, and community events. Interviewers also asked about historical events such as the depression. In terms of the Naval Academy, former Hell Point residents were asked about their participation in activities on the Naval Academy grounds, their relationship with Naval Academy children, midshipmen, and personnel and their recollections about the Naval Academy acquisition of Hell Point.

     Twenty students, mostly undergraduates from the University of Maryland, College Park, conducted the hour-long interviews. There were also two College Park graduate students and three students from other universities. The students participated in a training program of approximately 14 hours that included lectures on oral history techniques and three practice interviews. In the Maryland Hall of Records, the students studied historical documents that included the 1920 census, the 1939 City Directory and the 1941 housing assessment of Hell Point commissioned by the Naval Academy. After conducting the interviews, the students spent 10-15 hours transcribing their tape. (See appendix).

     Former residents of Hell Point, called memoirists for this report, were selected with the assistance of the President of the Hell Point Association, an organization that was founded in the 1980s to organize get-togethers of former residents of the neighborhood. An attempt was made to locate people from all parts of the Hell Point neighborhood, including people who lived on the alley streets of Block Street, Joyce and Terry Courts and Johnson Place, and to select a group that represented the economic and ethnic diversity of the community as well as a range of time.

Analysis

The accounts of the memoirists provide a good introductory description of life in Hell Point prior to the Naval Academy's take over of the land. The memoirists confirm and contradict each other's versions of the past, consequently providing multiple perspectives of the neighborhood, the history of its name, what life was like in Hell Point and what it was like living next door to the Naval Academy.

Hell Point: Its Location and History

Among the memoirists, there is no agreed upon location of Hell Point. It can extend any where from below Holland Street, below Randall Street, or below upper East Street (see map#). The eastern boundary was King George Street and the Naval Academy wall. The western boundary is disputed. Some places it is at Prince George Street, while others believe Main and Compromise Streets are the boundary, and still others even extend up Green Street a ways. One memoirist, Robert Campbell, was told by his grandmother that the original Hell Point was located near the Tecumseh statue where people used to fight in the 19th century. According to him, the neighborhood moved westward as the Academy absorbed the land.

Few of the memoirists had a clear sense of the origin of the name. Theresa Newman said she did not know that she lived in Hell Point until she was in high school. She thought that the name "sounded like a horrible place and it wasn't that way at all". In some respects the name had a life of its own, perhaps coming from the location of the neighborhood, down on the waterfront-- "that end of town". It was associated with waterfront activities, largely with the watermen who made their living down there, sailors coming ashore, with rowdy behavior, drinking, being tough, fighting.

> I don't say it was a reputation but I can remember if you wasn't from that area you just didn't come down and fool around. It just was simple. That was a taboo to come down to that part of town and fool with anyone. And the way I used the word hell raisin', the hell raisin' part was good times. I can't remember people fighting against other people. I don't remember that. I remember some sailors gettin' in a fight comin' down there and trying to push their way. My dad was a sailor, tried to push their way around into the bars and it just didn't work.
> (Goodman)

The memories span forty years, the people changed, but the name was always associated with specific behavior in the neighborhood.

Hell Point: Life In and Out of the Neighborhood

While some of the memoirists claim that living in Hell Point did not effect their relationship with people outside the neighborhood, others spoke about the stigma they experienced as a resident of the neighborhood

> "as a kid, four or five of us would walk up King George Street....the mother used to say'here comes those Hell Pointers', and get her son and bring him in the house and say,'come on in here". (Rausch)

Or,

> And there are other stories, that people will tell from Hell Point, that like they went home with maybe a classmate. Well the minute the mother would know that that child lived in Hell Point, you know, never again were you invited...(DeLucia)

Mayor Hopkins' future mother-in-law didn't want her daughter marrying him because of where he grew up. The Apostals who owned a restaurant had other problems:

> Well, at one time people were afraid to go down there, cause the first years when we had the restaurant we were trying to get waitresses and no one would want to work there. And we asked a couple of fella's that used to come into the store had teenage daughters if they would have their daughters work part-time. They said no not in Hell Point. (Apostal)

On the other hand, many of the memoirists had fond memories of their own childhoods, and in some cases adulthoods in Hell Point.

> We had families that came from this environment that went on to be very sucessful. I would say, my belief is this community prepared you for life. Some things you can learn through books, and all, but living in Hell Point was an education, because it was different than other sections of Annapolis because basically we thrived on the water, the watermen, and the Academy, and ships, when they used to come in, I know the business merchants when naval ships used to dock here. It was like Christmas....
> (Berman)

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They saw themselves differently, as exemplified by one memoirist's description of the residents of Hell Point:

I don't know why it was ever called that. Just that its because it was a lot of poor people lived down there and they were right rough. But there were a lot of good people lived down there, too. Damn good people.(Bruce)

Or explained it this way:

Well because the people who lived there have gotten a, or some of 'em who lived there have really pulled themselves up by their bootstraps. And they really, they're really excellent people.... "It was not the best place to live which was no fault of the people. They just didn't have the money and the landlords didn't keep the houses up. (Dowsett)

They also saw themselves as a close knit community, Victoria Pruitt recalls:

What I liked about Hell Point was we knew everybody. You know, everybody was friendly. Everybody was close, just like you talk to people, you sit on the porch. People you sit on your porches a lot in those days. Or if you didn't have a porch, they sat outside in their homes and we used to sit out there on hot summer nights cause it was so hot. We didn't have air condition or nothing like that and ah that's about it. You know, everybody was... that's what I like about ....we knew everybody.(Priutt)
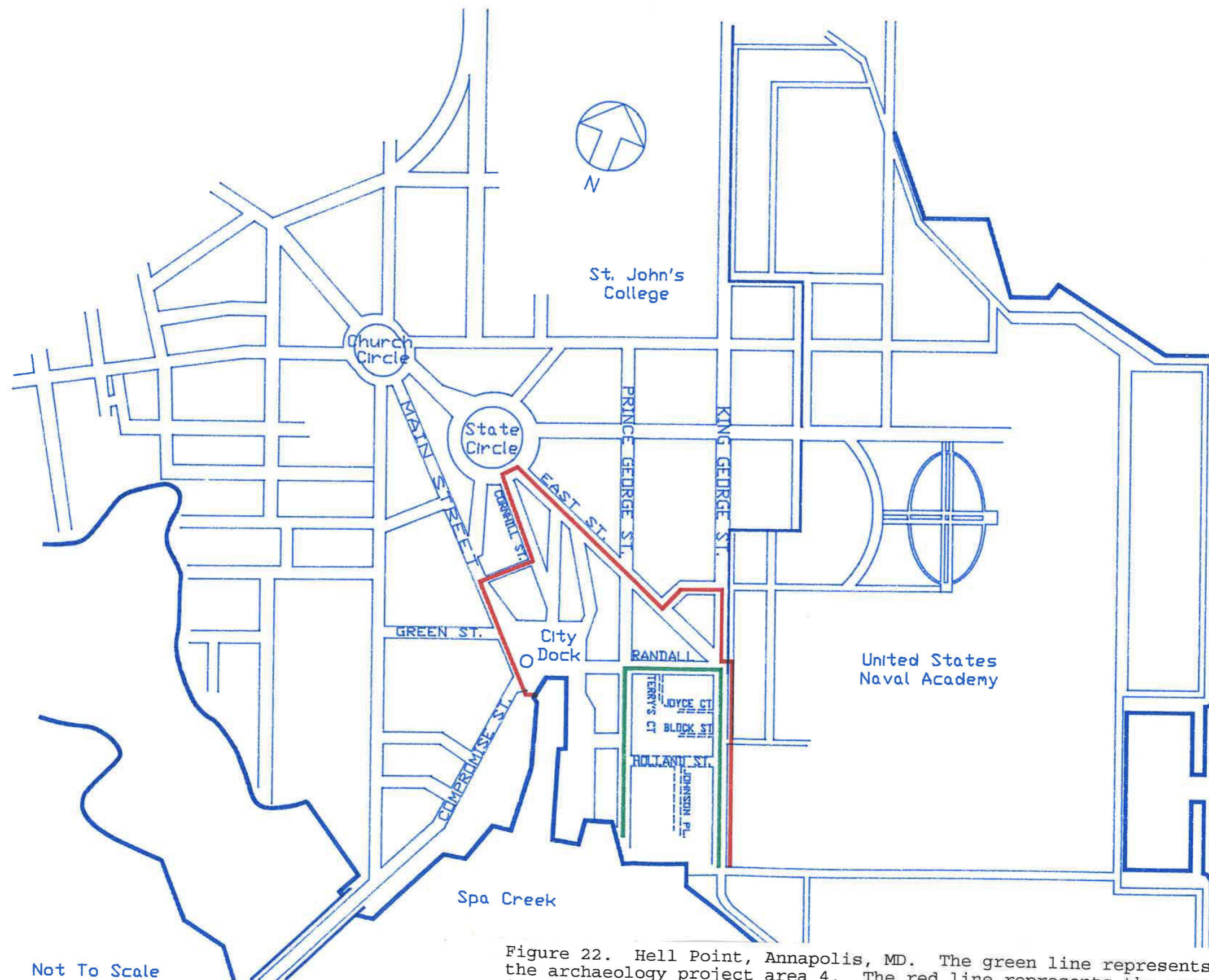
Figure 22. Hell Point, Annapolis, MD. The green line represents the archaeology project area 4. The red line represents the area identified as Hell Point by former residents in oral history interviews. The blue streets are modern Annapolis, MD; earlier streets are shown in dotted lines.

Hell Point was integrated in the sense that people from a variety of ethnic groups and classes lived together in this neighborhood. As Leonard Berman, who grew up on Prince George Street explained it,

> it was actually an area or a neighborhood of upper middle class people and towards the lower part of Prince George's Street, which is also part of Hell Point. I would say you had your blue collar workers. It was a good mix, a good ethnic mix. But most of the houses between the street which is now missing, Holland street and Randall Street were what you might term town houses and some prominent citizens living in those houses. It was just a great place to grow up....there were mixtures of all kinds of people. There were Italians, there was Jewish, there was some Polish, I don't know too many of the derivations. I'm just thinking of some of the people who come to mind it was a white neighborhood that fronted off Prince George, but directly behind it, was a nonexistent street known as Block Street was a black community, unfortunately a very poor black community.

The recollections of the memoirists reveal that integration meant that different people lived together in this small community, but they primarily lived separate lives and in separate places with their own ethnic group and class during this period of strict segregation in Annapolis. For example at this time there were "colored" and "white' bathrooms in Market place, separate schools for African American children and European American children to attend, and African American bars and European American bars right next door. As one resident described it:

> In those days there was a color line in Annapolis and not only was there a color line there were two color lines. There was one between the white establishment and all others - anyway as I perceived it - there was the African American community and there was the Filipino community.
> (Eucare)

"People got along" but "they kept to themselves" is the theme that emerges from the interviews with Jews, Italians, Greeks, Filipinos, an African American and members of other ethnic groups.

Some memoirists say that the children all played together, but went to separate schools. Louis Hyatt explained his relationship with African-American children:

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but we lived on an integrated street. Played together, grew up together, were friendly, but we didn't go to school together. For that matter we couldn't. We used to go and grab the money to go into Mandris', and get our ice cream soda for ten cents or Reeds. We couldn't go together to get ice cream soda on account, cause they didn't serve blacks in there.

Tom Worthington recalled that because he did not go to school with any African Americans, he did not know any or play with those he saw playing down around the waterfront. Several memoirists were unfamiliar with the streets where the African Americans lived -- Block Court, Terry Court, Joyce Court and Johnson Place. Robert Norman, a European American who played ball with African Americans felt "watched" when he went into Block Court where African Americans lived,

Yeah, there was no reason we couldn't all go down in there, but any alley groups of people like that would watch any visitors they had from different parts of the city and the kids would think nothing of having a little fight. Whether it be Eastport or Hell Point or just like that.... They stayed pretty much to theirselves. They [African Americans] worked mostly at the Naval Academy, they where mostly [also] all Filipinos. They intermarried and they had no problem there. I went to school with them [Filippinos] and some of them were good athletes. They just melted in the population.(Norman)

Leonard Berman, on the other hand, called Block Court a shortcut to the Academy and was not uncomfortable going through it. Several memoirists said that the African Americans knew their place.

the colored people and the Filipinos they knew their place and they would stay with their own, they never mix up you know what I mean? (Apostals)

and
But the Fillipinos were very nice, cleanpeople, they had their own contingent of friends, and relatives. (Kotzin)

And yet some may have been fearful of African Americans and Fillipinos. As ayoung girl, one woman recalled that she did not like to venturedown Holland Street. Anumber of Fillipinos who worked in the Naval Academy kitchen lived in a boarding house where,

according to some memoirists, prostitutes allegedly worked. Perhaps because of this, parents of another girl didn't want her on Holland Street after certain hours.

> We were not allowed to go on Holland Street after a certain time. As it began to get dark. There were a of umm(long pause) well, what my parents considered bad elements down there. (Emrich)

Several members of the Jewish community saw themselves as a small closely-knit community. They echoed the descriptions of the African Americans and Filipinos -- they knew their place and kept to themselves.

> whereas far as we were concerned, we didn't have too many Jewish people in that area. But we mostly stuck to ourselves, we didn't go looking for the goyim to be friendly, some might intermarry. We didn't do that. We stuck to our own. And I think it gave us a little more strength. When you don't stick together, you kind of dissipate. (Kotzin)

Some Hell Point residents also segregated themselves by class. Several spoke of "snooty" rich neighbors who lived higher up on Prince George and who ignored them. One member of the upper class who lived on Prince George Street said that the girls from Holland Street would taunt her and call her a 'Prince George Streeter". Others spoke of King George as being 'Up town". The Naval Academy assessment of the neighborhood and the 1939 City Directory show that there is a hierarchical arrangement of residents, the poorest living down near the waterfront ends of Prince George and King George and in the alleys and Holland Street. As one former resident explains it:

> I would say King George Street was an area where you were kind of starting to get uptown a little bit. Um, there was a lot of people that lived on King George that had money. And further up Prince George Street people had money. (Goodman)

Yet a number of children from different class and ethnic backgrounds were close friends and played together regularly. Other former residents describe a cohesiveness in the neighborhood. People did help each other out in difficult times, something that practically all of them experienced, especially during the Depression. One woman poignantly described neighbors helping her family when her brother died of the flu in 1918.

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Because I'm telling ya, if anybody had any sickness or, during the flu epidemic of 1918 you could not find better people, or caring people than those people there. I lost my brother in the flu epidemic in 1918. And of course my mother was terribly upset over it. He was only 18, 18 years old. An' you have never in all your life seen people outpoured there, of course they wouldn't go in, in the houses that had, people that had the flu. Because , it was ah, well I don't know how, just how to describe it. But they just didn't do it. But the women down there cooked and baked, and they brought everything and put it right on our porch. And I'm telling you one thing, it was just an outpouring of love, and affection. It couldn't have been any better. (Thompson)

Food was shared, children were looked after by neighbors. There were also block parties at one time and many of the children played together down by the water front, back of the school on Green Street, on the oyster pile next to Dock Street. On Craig Street everybody roller skated. As one woman recollects,

In fact when we were kids to raise money we didn't do the lemonade stands, that kind of thing, snowball stands. We did shows. We used to use one of the garages and set up chairs and for a nickel people could come in and we did tap dancing shows and I don't know, singing and all that sort of stuff, we had a great time doing it. Umm, another thing we used to do, Craig Street, because there was practically no traffic in those days. Craig Street was very smooth and we used to skate on it.

Many children congregated in the Salvation Army on Randall, and then on Prince George Street. These children improvised their equipment:

We were poor people of course, the younger kids would get together and go swimming or we would make a sock up. Take a couple of socks and roll them together, take a broomstick and go down to the school ground and play ball. That was our ball. We didn't have aany hard ball or soft ball, we had to use a sock. (Goodman)

The former Hell Point residents also recalled that colorful characters frequented the neighborhood. There was a policeman referred to as "Stiff Moreland". According to Mayor Hopkins he was an imposing figure that made the children go stiff when he walked by. There was also Piney Lowman, a policeman, who was well known for finding and breaking up craps games. Mrs. Gray who made crab cakes around the Dock Street area was famous

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throughout Annapolis. A vegetable man with a memorable call was in the neighborhood frequently. There were a number of harmless drunks, too.

One of the big attractions for the children of Hell Point was the ferry and steam boats at the end of dock. In the summertime, cars would line up all the way to College Avenue waiting to cross over to the Eastern shore. Boys would take advantage of the long wait and shine shoes for money.

Nearby was the fire station which was another big attraction for some of the children. Movies were a part of Saturday mornings. The market area was very busy on saturdays with farmer's wagons. Fish stalls were right next to the dock. Sometimes there was a carnival or a minstrel show.

Hell Point: Relations with the Naval Academy

The memoirists present a broad perspective of a rich and multifaceted relationship with the Naval Academy. They recount their own childhood and teenage experiences on the Naval Academy grounds as well as some of their parents'. Their memories also represent different ethnic and class views of the Academy. For many of the Hell Point residents, the Academy sustained them, and for the Academy, the Hell Point residents were an important source of labor. To some degree it was a symbiotic relationship. On the other hand, while the residents may have considered the Academy a source of entertainment and income, others never ventured on to the Academy grounds, but felt that the Academy held the residents of Hell Point in low esteem. One resdient describes the interconnectedness between the Academy and the residents of Hell Point.

> I went down to all the sports. In those days, they used to have boxing, and we used to go down there, oh, we loved to go down to the boxing bouts on a Friday night. Basketball, we went to all the games. Baseball. But, I never worked down the Naval Academy. Most everybody has. But for some reason I never did get in there. But, my mother worked, my mother worked over there in what they call North Severn now, it was, in those days it was called Experimental Station. My mother worked over there for thirty years. She was payroll clerk. The only thing, the only contact I ever had with the Navy itself was when the candidates were prepping for the Academy. And then a lot

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of them after they got in would come out and visit us, you know, when they could get out. And they used to, my aunt used to also have what they call 'hop girls'. These girls would come down for the weekend. And the midshipmen would take them around down to the dances and all that kind of stuff. They were called 'hop girls'. She used to have them a lot too. There was a lot of boarding houses around then.

Seen from a child's point of view, particularly a boy, the Academy was considered a great playground for sports, a place to sneak into football games, or earn money parking cars or hawking programs for those games.

It was a place where the ground police, called Jimmy Legs, would chase you off the Academy on their bicycles

> Every now and then the Jimmy Legs would chase us around, but that, that didn't bother us, I mean, they used to ride on bicycles in those days. (Norman)

For some, it was also a place for free movies and food,

> We used to sneak aboard the ship because they showed movies there, and we would sneak aboard, and when the lights went out we'd sit on the floor and watch movies.
> Me and the other poor kids from town. We'd also get dinner there on Sunday afternoon.... they would feed us. They always had great, great amounts of leftovers. They never used it all. So, the town kids would go there for a good dinner on Sundays. (Campbell)

It was also a place where midshipmen would adopt you:

> I can tell you the Naval Academy has a very, very, very, soft spot with me, because I went in there a lot to play, and Midshipmen then, that's why I have such a great admiration. The Midshipmen then, although there was no official big brother organization, Midshipmen were my big brothers. You would go in there as a little kid, and remember we are talking about a town that had two thousand Midshipmen there, and the town is like thirteen thousand people. And you go in there and the Midshipmen paid attention to you like big brothers, they did, I would be taken to the movies by them in there. (Hopkins)

The Academy also helped the poor in Hell Point;

> And the most vivid remberances I have of living there was that every Christmas we would get food baskets from the Naval Academy. The

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midshipmen would bring in food baskets at Christmas time. They would be in their uniforms, in their blue uniforms wearing white hats.
(Eucare)

As teenagers, Hell Point boys had to compete with midshipmen for dates, while some Hell Point girls went to dances with midshipmen whom some of them married. Other girls flirted with enlisted men or sailors whom the Hell Point boys would fight. Some girls and their families received midshipmen as guests:

> The midshipmen came in on Saturday afternoon, we might have two tables of bridge. The midshipmen, mother taught them all how to play bridge, mother and my father. And, they'd sit here and play bridge and, or read or do . . . we had a table here that had drawers in it. They couldn't smoke in the Academy for awhile.
> And so, we let them bring their pipes and their cigarettes and they kept them, this table had little compartments in it, and each one had a place to keep his cigarettes and his pipe, or whatever.
> I had a marvelous childhood, I think.... Some of midshipmen when they went around and got a box of these Eskimo Pies one Saturday afternoon and we had the best time. On Sundays, Mother -- not every Sunday -- but Mother always made delicious cakes, she was a very good cook. She had tea on Sunday afternoons, and a lot of the midshipmen and their drags-- we knew them all-- and would come by and have tea with Mother and eat cake, or they'd dance in the parlor. Why the parlor floor didn't fall in, or the chandelier didn't break loose, I don't know. Cause the floor just would, well, they did the Charleston, they did everything!(Dowsett)

For the adults of Hell Point, the Naval Academy was a source of income. Some adults boarded prospective midshipmen studying for admission or midshipmen's dates, or drags. Others boarded enlisted men. Many adults living in Hell Point worked at the academy. Their jobs ranged from mess hall attendants, laundry workers to members of the band and mathematics professor. Some were discriminated against.

> Now my dad was one of the few Filipinos while he was serving in the Navy that could read and write english. And because of that he was rather rapidly promoted to first class mess steward. And in civilian life he played that kind of leadership role as well in the Filipino community. If some of his compatriots were filling out a job application or in many cases it would happen that they were filling out an application for citizenship they would come to my father and he would perform this as a gesture of goodwill for the Filipino's in

the community. But my dad did have an education, and with that - when I say an education, relative to his Filipino pears - I would say he probably might have gone as high as, or finished elementary school. He had a beautiful handwriting. Really lovely handwriting. But he was also, became a self taught accountant. I say self taught - he took the Lasalle extension accounting courses and I can recall for years he was doing that. And I can recall some gentleman coming down and presenting him with a certificate when he completed the accounting courses. And he applied for many jobs at the Naval Academy. What was referred to as a white collar job instead of being a blue collar worker. But he couldn't get any kind of job at all down there even though he had this accounting certificate. So my father really felt that he had been discriminated against and it - well what do you do about it? Who are you gonna tell? They didn't have any laws that would protect people against discrimination in those days.(Eucare)

Adults from Hell Point also socialized the members of the Academy community, had midshipmen visit their homes. Some went for walks on the Academy grounds on weekends, or watched parades:

> And every Sunday we would take a walk from there to the Navy Academy. And that, that was a little outing for us. A whole bunch would get together[from Eastport] and walk that little bridge, and its like, you get on the edge of it, and the man used to crank the bridge to open it for the boats to come through.
> We'd go down to the Naval Academy and watch the, eh, midshipmen march, at regular days for 'em to come out, and we'd watch 'em.

> A number of Hell Point families had relatives who were in the Navy.

> At Christmas time there would be Christmas parties aboard the Cumberland for all of the families in the area. Or we would be invited because dad was quartered aboard the Cumberland when he was in the Navy. And so a lot of his friends were still there so mother and dad would take us there for the Christmas party. (Eucare)

Hell Point shop owners and tavern keepers relied on the business of Academy personnel, sailors off ships and midshipmen who were allowed to leave the Academy grounds on Saturdays. Midshipmen were not permitted to drink or smoke or to hold hands with their dates. They were also not allowed to leave the Academy from Gate One, which was across

the street from Hell Point. Only enlisted men could leave from that Gate. Midshipmen could leave the grounds from Gate Three on Maryland Avenue.

Some of the Hell Point residents felt that there was a boundary between them and the Naval Academy:

> Alright, the Naval Academy to me, now, I lived right outside the Naval Academy,but it was like a foreign land. I never went at this time that I'm talking about,I never went into the Naval Academy. (DeLucia)

Others felt a barrier defined by the wall:

> The wall was a physical thing but it was also a block in a sense that what was on one side of the wall should not mingle with the other side. . . .Hell Point didn't represent any thing but a place people lived so they would be close to their work, and that was predominantly what it was. An area and of course some homes on Prince George Street where people had retired. Quite a few of them had nice homes.
>   In the Navy, families stuck pretty much together. The ones that lived in the Yard and the ones that lived out in the town. They went to their own functions. The dances and teas and different parties that they would have. (Norman)

According to Robert Norman the midshipmen would

frequent a certain part of town:

> They don't go far, they would go up to Maryland Avenue, which is one section, which was a Midshipmen section, and they went into different bars and tea places on those streets cause they were teetotalers, no Midshipmen could drink even if he was old enough.

Others interpreted the prohibition of Midshipmen from using Gate One as an

indication of the Academy's view of Hell Point.

> Now, midshipmen may use Gate One, but back in those days Mids were not allowed to use Gate One because you were coming out into a bad part of town.(Hopkins)

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Hell Point: Naval Academy Take-Over

Some residents believe that it is because the Academy

held Hell Point in such low regard that the neighborhood was an

obvious choice for expansion.

> If you go up to Maryland \Aavenue, why didn't they, if they need to expand
> why didn't they take that? If you go back, and I'm sure you'll find, and this
> is no criticism, just a matter of record, and it has nothing to do with the
> people that run the Naval Academy, because it wasn't their decision, but you
> will find that somewhere along the line there is a, I've seen it, in the records
> up in D.C. that area being right outside of Gate One is bad, lets buy it, and
> expand the Naval Academy there.

The memories of the Hell Point residents about the Naval Academy take-over of the

neighborhood are somewhat conflicting. A number of them had already moved out of the

neighborhood by 1941 and they were not affected by it. Some lived in homes that were

ultimately not torn down. Several were away at the time and only heard about it through

letters from home.

Rumors about the take-over had been circulating for some time. According to Horace

Bruce, "It was in the wind for a long time that they were going to take over what they did."

Some thought that they would loose the Academy if they had not been able to expand into the

Hell Point neighborhood because the Academy threatened to move. Some thought the

expansion was for the war effort.

> That had to be for the war effort. And that was when they had the people
> come down, make surveys of the land that they wanted. They had to have it
> right away, and then after they got it, it took 'em I guess about five or six
> years to build the Field House, which they said they needed for the war effort.
> They had a big football field there right on the corner, they took that off, and
> made it what is now the Field House. (Kotzin)

The reaction to the expansion was strong, according to some:

> The local people were very upset. In fact, I remember when they petitioned,
> when the Academy was taking where the field house is now. They had a
> petition, and they fought it.

On the other hand, none of those interviewed had a strong feeling about the land being vacant for so long after the neighborhood was destroyed. The impression from the recollections of these memoirists who were aware of the take-over is mixed. Some were still upset by the experience:

> The Naval Academy condemned some property down here in 1941, but they didn't do one thing about it until 1954, not one thing. They threw the people out too....
> A Naval officer wrote this letter about the low class people that lived there. He said they were lowlife, drunks, watermen, that didn't count for anything. They did throw the people out in the street. Even my grandmother and grandfather, who were in their eighties. They condemned their property. They gave them 1600 dollars for a two and a half story house. They were in their eighties and had nowhere else to go. My Aunt had to take them in.

For other families, while the move caused an initial disruption, they ended up in a better house:

> Well I think they were glad to get away from that because they was, the houses was like little shacks like. She moved from there up here to Pleasant Street. I think she was glad to get from down...the Naval Academy was so...they were near the water, and the houses weren't so, you know, built so nice. (Ford)

Another recalled her feelings about leaving Hell Point:

> Well, there was little tinge of disappointment, you know, cuz I was very happy there and then when we did move, we went to a very nice location, Charles Street, which is still right downtown. (DeLucia)

Some people were upset because they did not believe that they got a fair price for their house

> Wasn't too much. We had a warehouse a half a block down the street where we lived. And, I think they gave us enough to buy a house, but not enough to build a warehouse. And we were very upset, because when you want to buy, you know, you want to buy it as cheap as you ...and when you sell, you want to get as much as you can. So we were caught, really, in the middle. So we bought ourselves a house in the part of it, historical Annapolis. (Kotzin)

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Some heard about the misfortunes of others:

They were very upset because they didn't get the money [they] expected to get, when the Naval Academy took the houses over. They said this is how much your house is worth, this is how much you gettin'. And with that amount they couldn't go elsewhere. They were having difficulties.(Mary Apostal)

Other spoke of the loss of their friends:

Well, as many of them as possible stayed, found places in Hell Point. Then, the rest went to Eastport.
I know where Harbour House is right now, that was a row of, today they'd be classified as shacks, but they were home to some of my dear friends today. That there are today, and that were then. Boys that I played with, but they all had to move. I remember one family, the Altman family, there was eighteen children, the Hubbards, about seventeen, or eighteen. And when they moved, and tore those down, it affected me personally, because a lot of my buddies and playmates were leaving out of the area. (Mel Hyatt)

Some of the merchants were worried about a loss of business as a result of of the

number of families that had to move out to West Annapolis and Eastport.

But the merchants were a little bit apprehensive about losing their customers, So it was a substantial part, the people that lived there, that worked in the businesses, the clerks.... so when you take, whatever it was, a hundred and some houses, I don't recall how many it was, but a good hundred or more, that's a big chunk of the downtown business economy. (Louis Hyatt)

Others found that their busineses boomed after Hell Point
was torn down:

When the expansion came in and took the Holland Street and all that, and then we come up on the top of the world. Before that we always had midshipmen but very very few. And when the Naval Academy took the uh, made the expansion and when they had to put the field house in there and all, we couldn't serve them enough. There was that much of a difference. (Cleo Apostal)

On a walk around present-day Hell Point, Thomas Worthington also described what it

was like to lose his playground. It wasn't just that his good friends were now scattered to

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different parts of Annapolis. The ferry dock, where he loved to watch the ferry and steam boats come in was relocated to Sandy Point. He frequented the area less and less because he had no reason to be there. Another's memory of the take-over relates to his seeing the torn down neighborhood as a source of surplus lumber for firewood for his family:

> I was living at 96 Dock Street and I can recall as they were tearing it down they were being so very careful tying up these little bundles of laths. ...Anyway, somebody had taken the time, for whatever reason, to stack this lumber ever so neatly as they were tearing it down. And I can recall going over there and seeing that and saying "Hey, that's great firewood." So I grabbed a hold of the bundle and was carrying it off and next thing you know I feel somebody grab me. "You're stealing government property." And they were going to lock us up. It was me and my brother. And another guy came by and said look, "these kids are just taken lumber for - they're not stealing it in the sense you're thinking of. They're not gonna go out and sell it. There just gonna use it to heat their house." The guy who was holding us relented thanks to the intersession of this guy who had a little bit of empathy for what we were doing and he let us go. He said, "get out of here and stay out."(Eucare)

A final view of the take-over focuses more on the

transformation of the neighbood:

> Well I would have to look at it through today's eyes mind and I would have to classify it as progress, I suppose it beat the alternative losing the Naval Academy, and we would resent that because the Naval Academy had to expand. I will say, as the years went on, it gave a very nice neat appearance in the back of our yard. You didn't have the so-called slums we had before, but there was a bit of charm about what was there before.(Burman)

Results

The twenty students interviewed a total of 23 Annapolitans about Hell Point, 19 of which had lived in Hell Point. Of the other four, one was the grand daughter of a former resident, the other a frequenter of the neighborhood and the remaining two owned a restaurant at the corner of Randall and Market Place. The interviews lasted an hour each, several extended to two hours. The interviews have been transcribed and are included in the

appendix. Because of time constraints during the Field School, the transcriptions were not edited for spelling of proper street names and the like.

The memoirists represent a cross-section of the Hell Point community by gender, class and residence and to some degree ethnicity. Ten women and thirteen men were interviewed. Of the 19 who lived in the neighhorhood, eight lived at various locations on Prince George Street, one on Randall, two on Holland, one on Dock, one on East, two on Cornhill, two on King George. Two others lived in several places throughout the neighborhood. There were several Jews, Filippinos, Italians, Greeks and one African American among those interviewed. Most were from working-class families. Their memories span from about 1910 to the mid-forties, after the acquisition of the neighborhood.

There was however only one African-American, who was the grand daughter of a former Hell Point resident. And there were no watermen or sailors interviewed to gain their perspectives about life in Hell Point. Moreover, a number of the respondants were not in Annapolis at the time of the Hell Point acquisition so that they were unable to provide information about the take-over.

The memoirists answers to the research questions were varied and interesting, presenting rich accounts about the origin of the name of Hell Point, the location of the neighborhood, what it was like to live in an integrated community during a period of segregation, how the residents got along with each other and the rest of Annapolis, their relationship with the Naval Academy and the impact of the take-over on their lives. They were very cooperative and enjoyed recollecting their childhoods.

PROJECT CONCLUSIONS

ARCHAEOLOGY

The archaeological survey conducted on the grounds of the Naval Academy located historic remains dating from the 18th-century through the 20th-century. No archaeological deposits from before the early to mid-1700's were discovered during this field season, nor were prehistoric remains found.

Excavations in four discrete areas of the Yard revealed intact stratigraphy and diagnostic artifacts. During the systematic aligned sampling, intact deposits were found along Porter Road, along the southern edge of the Ellipse, and in isolated locations within the visitor's parking lot adjacent to Halsey Field House. Excavations in the area between Preble and Leahy Hall's revealed only one partially intact feature which is probably related to the New Quarter's, a large, 4-story structure that served as midshipmen's residence from 1869 to 1905.

Over 20% of the area tested contained intact remains dating from the late 18th-century to the late 19th-century, and approximately 20% contained intact mid to late 18th-century deposits. Approximately one-half of the entire area surveyed during this project revealed that recent, 20th-century activities has disturbed much of the archaeological record within the Naval Academy walls.

There remains a significant portion of the Academy which is not built on fill and which may contain further historic, and possible prehistoric, archaeological deposits. The use of AutoCAD as a tool to predict the location of archaeological sites was successful during the 1993 field season. Ten spots were determined for archaeological testing based on using overlays of historic maps on the current Naval Academy base map. Measurements to these spots on the ground were made on the computer, then surveyed in the field. Excavation of trenches to locate the remains which were originally noted on the maps proved successful in 6 out of 10 excavation units. Remains of house foundations, including what is likely to be that of the original Governor's Mansion, were discovered using AutoCAD maps.

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AUTOCAD

One of the objectives of the archaeological phase of the Legacy Project was to demonstrate, using AutoCAD, the ability to predict locations of historic significance based on modern and historic maps of the areas of Annapolis now occupied by the USNA. The results of our work show that a portion of the USNA contains intact or partially disturbed archaeological deposits dating from the early 18th-century, these locations can be predicted using AutoCAD technology. This illustrates one of the most significant contributions of the computer to archaeology; It provides the field with a non-invasive tool.

The success of AutoCAD as a predictive tool in archaeological surveys, as evidenced in this project, demonstrates the successful application of CAD technology to the field of archaeology. In addition to being a predictive tool, AutoCAD represents an effective, faster and more precise way of dealing with maps and map data. Most notable of its features in this respect are speed of map production and a sophisticated manner of data manipulation.

Traditionally a tool of the engineer and architect, AutoCAD is finding new applications in archaeology, which is becoming increasingly technical. As the field of archaeology continues to expand, it demands highly precise and accurate new tools. The precision and accuracy of programs such as AutoCAD was demonstrated in the archaeological survey of the United States Naval Academy. Its many other features are now and will continue to be explored by archaeologists.

TRACT HISTORY

The land between the Severn River and College Creek that now comprises the United States Naval Academy was incorporated into the Academy by a series of purchases and condemnations extending from the transfer of Fort Severn by the War Department to the Navy Department in 1808 until the acquisition of the Hell Point area in 1941. This series has been treated in this report as consisting of nine parcels, parcel one being the 1808 transfer and parcel nine being the Hell Point acquisition. Within each parcel, there is a separate chain of title for each separate deed. The character of the property acquired in each of the successive acquisitions depended to a large extent upon the date of the purchase/condemnation and to some extent upon the size of the parcel being added.

Two major points can be drawn from the documentary research as well as the specific details on property usage that are incorporated into the individual tract histories.

The first is that the history of the development of the land that over time became part of the Naval Academy is intimately connected with the history of the Academy itself. After 1845, the property into which the Academy expanded contained the residences of Academy employees, residences frequently constructed in anticipation of demand generated by the Academy, a speculative process often carried out by personnel associated directly with the Academy, particularly in the later years. The Academy has thus built over much of its own history.

Second, the grounds of the Naval Academy preserve below the surface a complete microcosm of the City of Annapolis. From the earliest days of inhabitation until the last purchase in 1939, the property that became the United States Naval Academy housed the full range of social groups, economic classes, racial and ethnic groups, businesses, and housing stock to be found anywhere in the city. One could conduct archaeological excavations only with the grounds of the Academy and recover the material culture of the City of Annapolis.

ORAL HISTORY

The interviews produced a lively portrait of life in Hell Point from approximately 1910 until it was torn down by the Naval Academy in 1941. While it is interesting that there is no single explanation for the name of Hell Point, many of the memoirists believe that it referred to the rough behavior primarily of watermen and sailors and adolescent boys. No one interviewed had been involved in the rowdy drinking, many had heard or witnessed it and the fights that often ensued. And one outsider, Thomas Worthington, described being protected by Hell Point boys who were good fighters, but also hard working young men who helped their families. This behavior has been associated with Hell Point for its entire history. Is this a function of the location of the neighborhood, the sorts of people who live in it or frequented it? From the stories being told, the residents were stigmatized because of where they lived and what the neighborhood implied to the rest of Annapolis. The negative categorization of Hell Pointers was a common phenomenon; as a way of controlling them, the poor are often labelled dangerous, unruly, and underserving.

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In contrast to these negative labels, the Hell Point residents defined themselves a hard-working, close-knit people. They established as sense of community and solidarity amongst themselves. They thought of themselves as people who played together as children and whose parents helped each other out in difficult times.

They were aware of their ethnic and class distinctions which were reflected in their residency patterns and in their tendency to cluster into bounded groups. As some memoirists recall, though, this segregation within this diverse community was not total. Some residents did associate with members of other classes and ethnic groups.

The memoirists' picture of the Naval Academy is also interesting, and the views range from childhood to adulthood perspectives. While some suggested that there was a sense of difference between the Naval Academy and the Hell Point residents who were held in lower esteem, the Naval Academy was very important in the lives of Hell Point residents. For children, the Academy was a playground, an institution of support, a place to earn money, a place to find big brothers. As adolescents, it was a place for going to parties, meeting young men, or competing with midshipmen for dates with young women, as well as a place to find work. For the adults, it was an important source of income from a job, from boarding naval employees, or dates for or with midshipmen. For the adults it was a source of steady employment and a place for sports and cultural events.

While the Academy sustained many of the families living in Hell Point, it also ultimately took away their homes. For some, this experience was an opportunity to move to another home. For others, however, it was a painful loss of a special home and neighborhood.

PROJECT RECOMMENDATIONS

ARCHAEOLOGY

The results of the archaeological survey lead to recommendations for further testing to be done in 3 out of the 4 areas focused on during this field season. The discovery of intact cultural deposits in almost one-half of the total area tested indicates a high possibility for the existence of cultural remains in other parts of the Yard which were not surveyed for this project.

The archaeological record survives in discreet locations in the Yard and it is strongly recommended that where cultural resources still exist, further archaeological testing be conducted prior to any further ground breaking activities. It is strongly recommended that no ground-breaking activities in the southern half of the Ellipse (18AP67), along the western half of Porter Road (18AP68), and in the visitor's parking lot (18AP69) adjacent to Halsey Field House, as well as in all areas not reclaimed or known to contain fill, be done before further archaeological surveying and historical research.

The discoveries made during the reconnaissance survey, which include intact eighteenth and nineteenth century remains at 18AP67 and 18AP68, twentieth century remains in 18AP69, and late nineteenth and early twentieth century remains found throughout the entire survey area and relate to the history of the early development of the Academy, are important in many ways. In terms of historical significance, the Academy has on its property an intriguing artifact assemblage dating from the early 1700's and extending through the mid-20th century. Materials recovered during this survey reflect not only the physical development of the early, pre-Flagg Naval Academy, but also of some of the neighborhoods which comprised the town of Annapolis long before the Naval Academy was established here in 1845. The eligibility of the sites identified during this project for listing on the National Register has not been determined because the scope of the project was such that archaeological testing was limited and site boundaries were not fully identified. However, the areas of highest sensitivity would be probable candidates for National Register listing and it has been recommended that further archaeological investigation be done prior to any ground-breaking activity by the Academy. Also, the effectiveness of AutoCAD to locate

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remains during this survey emphasizes its potential for success in other locations in the Yard.

Historical data in the form of land deeds, for example, are available for locations on the western side of College Creek, and there have been prehistoric sites identified here as well. Both the information recovered during this field season, and the existence of known prehistoric (see previous investigations section of report) and historic cultural resources on the western side of College Creek emphasize the importance of investigating more of the Academy grounds to determine the integrity and significance of these deposits.

AUTOCAD

The use of AutoCAD technology as a predictive tool in the archaeological phase of the Legacy Project proved to be an unquestionable success. The use of the computer in the field of archaeology is multifaceted. The most significant contribution of the computer, to the field as a whole, is it provides us with a non-invasive tool. Given that archaeology is, fundamentally a destructive science, a non-invasive tool is an extraordinary concept. Since the AutoCAD phase of this project was experimental in nature, only a small sampling of historic maps were used in this project. Having demonstrated that AutoCAD is indeed successful at predicting the location of cultural remains, it is necessary to continue this process using several different types of maps. Once a series of maps have been digitized and overlaid on the USNA base map, an accompanying historic study of the vicinity will be undertaken. It must be emphasized that cartographic resources have the greatest value when used in conjunction with other documents. Each type of source can then inform the other, confirming its accuracy and reliability.

This broad perspective is absolutely essential when engaged in this type of analysis. Every historic map manifests two sets of rules. First, there are the cartographic rules; a map as an index to the location of things, processes, and events in the past. The second set can be traced from society into the map. The map becomes a "signifying system" through which "a social order is communicated, reproduced, experienced and explored." Maps do not simply reproduce a topographical reality; they also interpret it (Harley, p.10).

It is strongly recommended that the digital mapping of the Academy continue as proposed. We now know that AutoCad is a reliable, non-destructive tool that has proven

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itself successful at predicting the location of historic, cultural resources. The information gained by utilizing this type of technology would be an enormous asset to the public works and planning departments of institutions such as the Naval Academy.

TRACT HISTORY

To protect the below-ground remains of the City that lie within the Academy grounds and to enable their recovery whenever the opportunity presents itself, two important steps should be taken. First, the tract histories should be incorporated into the Autocad process. This can best be done by creating hand-drawn plats from the metes and bounds contained in the deeds and transferring those plats to the AutoCAD maps. This process will not result in precise correlations between the two, as the plats will only rarely have reference points to contemporary features, but they will be an approximation that will allow identification of potentially rich or significant archaeological resources.

Second, summaries should be prepared for the individual chains of title, as described under Research Design and Objectives. Individual property summaries will require an expenditure of time well beyond that allotted for completion of the Site Reports project and would have to be carried out as a second phase. The chains of title included as an appendix to this report include examples of the summaries that would be prepared for all properties.

Inclusion of the title information into the Autocad mapping process and preparation of tract history summaries will make it possible both to determine areas of potential archaeological impact and to evaluate the character of the artifacts that can be recovered from the site.

ORAL HISTORY

These initial oral history interviews provide a solid beginning for more research of Hell Point. To more fully understand the nature of the neighborhood and the relationship with the Naval Academy, more research is required. For one thing, the interviews were only an hour long, not sufficient time to explore in-depth these topics with any person. Consequently, there should be some follow-up interviews with some of these memoirists. Secondly, additional memoirists should be identified and interviewed, particularly African

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Americans and watermen whose perspectives are under-represented in this first report. Efforts should be made to find former residents who lived on some of the other streets that were also not sufficiently represented in this project. More former Hell Point residents who were directly affected by the take-over should be interviewed to more fully understand what this experience was like. And former Hell Point residents who worked at the Academy would provide valuable information about the Academy as an employer. Such additional information would fill out what has already been collected, thus providing the archaeology with a rich context.

ADDITIONAL WORK FUNDED BY THE LEGACY PROGRAM

The following tasks are being done to continue the work funded by the Legacy Program and described in this report.

All of the archaeological remains recovered during the reconnaissance reported here will be treated so that they can be stored according to Federal Curation Standards.

Approximately 20 more hours of oral history from former residents of Hell Points will be collected. These memorists will be more representative of the population and will include more African Americans and Filipinos. Additional women who lived in Hell Point will also be interviewed.

Title searches of the rest of the land on the east side of College Creek will be finished. Title searches for all of the parcels that compose the historic core of the campus will be taken as far back into the 18th century as possible. Some of this material will involve hand-drawn maps of the original metes and bounds of these properties.

A series of up to 20 historic maps will be digitized using Auto-CAD. Some of these will be overlayed against the Existing Conditions Map. Also to be digitized are some of the hand-drawn maps of metes and bounds. The purpose of all the digitizing is to allow the USNA to know where historic remains may lie below its current campus with the greatest accuracy possible before any excavation is undertaken.

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