



**North Carolina Department of Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Pat McCrory
Secretary Susan Kluttz

Office of Archives and History
Deputy Secretary Kevin Cherry

February 4, 2014

Robert L. Doudrick
Station Director, Southern Research Station
US Forest Service
200 WT Weaver Boulevard
Asheville, NC 28804-3454

Re: Demolish and Replace Forest Service Southern Research Station, Research Triangle Park,
Durham County, ER 12-0496

Dear Mr. Doudrick:

Thank you for your letter of December 20, 2013, transmitting the cultural resources assessment report by TRC Environmental Corporation concerning the above project.

With regard to archaeological resources, one Native American lithic site (31DH743) and one lithic isolated find (31DH742) were recorded during the archaeological portion of the investigation. Due to the sparse nature of the resources and the lack of stratigraphic integrity, the author has recommended the sites as not eligible and calls for no additional archaeological investigation in connection with this project. We concur with these recommendations.

We have reviewed the Historic Structure Evaluation for the USDA Forest Service Southern Research Station Research Triangle Park Forestry Sciences Laboratory and Administrative Site and concur with the author's finding that the research complex is eligible for listing in the National Register of Historic Places under Criterion A for the role of the station in the research efforts of the Forest Service in the southeastern United States and under Criterion C as an intact example of mid-twentieth century architectural design. The contributing elements of the station are the Laboratory Building (DH3502), Head House (DH3503), Annex (DH3504), and old Chemical Storage Building (DH3505). No boundaries for the complex were suggested, but the description of the layout and landscaping would suggest the entire 28.56 acre site.

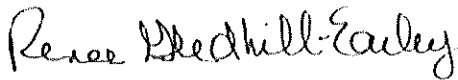
Demolition of buildings eligible for listing in the National Register is an adverse effect upon historic properties and requires consultation between the federal agency and the State Historic Preservation Officer pursuant to Section 106. We look forward to beginning the required consultation with the USDA Forest Service.

The report meets our office's guidelines and those of the Secretary of the Interior.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or renee.gledhill-earley@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,



for Ramona M. Bartos

cc: Rodney Snedeker, National Forests in North Carolina
Paul Webb, TRC Environmental Corporation

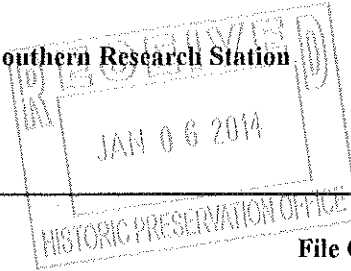


United States
Department of
Agriculture

Forest
Service

Southern Research Station

200 WT Weaver Blvd.
Asheville NC 28804-3454
828-257-4832 Voice
828-257-4840 Fax
828-259-0503 TDD



File Code: 2360/1500

Date: December 20, 2013

Ms. Ramona M. Bartos
Deputy SHPO
Division of Archives & History
4617 Mail Services Center
Raleigh, NC 27699-4617

ER 12-0496

Dec 1/29/14 A- Datt 1/16/14

Dear Ms. Bartos:

Enclosed is the Cultural Resources Assessment report for the USDA Forest Service Southern Research Station, Research Triangle Park Forestry Sciences Laboratory and Administrative Site, Durham County, North Carolina for your review and comment.

S Rse 1/31/14

Sincerely,

FOR ROBERT L. DOUDRICK
Station Director, Southern Research Station

Enclosure

cc: Mark J McDonough, Rodney Snedeker

JAN 07 2014



**CULTURAL RESOURCES ASSESSMENT OF THE
USDA FOREST SERVICE SOUTHERN RESEARCH STATION
RESEARCH TRIANGLE PARK FORESTRY SCIENCES LABORATORY
AND ADMINISTRATIVE SITE, DURHAM COUNTY, NORTH CAROLINA**

DRAFT REPORT

ER 12-0496

Submitted to:

SOUTHEASTERN ARCHAEOLOGICAL SERVICES
565 N. Milledge Avenue
Athens, Georgia 30601

and

NATIONAL FORESTS IN NORTH CAROLINA
160A Zillicoa Street
Asheville, North Carolina 28804

By:

TRC ENVIRONMENTAL CORPORATION
50101 Governors Drive, Suite 250
Chapel Hill, North Carolina 27517

Authored by:

Ellen Rankin, Paul Webb, and Brooke Kenline

November 2013

JAN 07 2014

ABSTRACT/MANAGEMENT SUMMARY

TRC Environmental Corporation (TRC) has completed a cultural resources assessment of the USDA Forest Service Southern Research Station Research Triangle Park Forestry Sciences Laboratory and Administrative Site in Durham County, North Carolina. The study area is located at 3041 E. Cornwallis Road within the Research Triangle Park (RTP) in the North Carolina Piedmont, and covers about 28.56 acres. It contains a maintained lawn area, an administrative campus with seven structures, and a wooded, undeveloped area.

The study was conducted by TRC as a subcontractor to Southeastern Archaeological Services, Inc., under IDIQ Contract AG-4568-C-11-0036. The work included both an archaeological field survey and a historic structures evaluation. The archaeological survey was conducted from September 11–19, 2013, and was directed by Brooke Kenline. The historic structures fieldwork was conducted on October 8, 2013, by Ellen Rankin.

The archaeological survey included systematic 30-m interval shovel testing along those parts of the site lacking buildings or impervious surfaces and exhibiting less than 15 percent slope, as well as a visual inspection of the ground surface for cultural remains. A minimum of three tests were excavated on each habitable landform, and close-interval tests were excavated to delineate find locations. A total of 107 shovel tests were excavated; 77 transect shovel tests and 30 site/isolated find delineation shovel tests. One previously unknown site (31DH743) and one isolated find (31DH742) were recorded. Both resources are low density lithic scatters. They appear to lack the potential to provide substantive information concerning the prehistory of the region and are recommended not eligible for the National Register of Historic Places (NRHP).

The historic structures survey included comparable background research and detailed examination of the seven structures on the site, which include the Forestry Sciences Laboratory Building (constructed in 1962), the Head House/Lab (1964), the old Chemical Storage Building (1962), the new Chemical Storage Building (1990), the Office Annex (1965), the Garage or “Blue Building” (1970), and the Greenhouse (1996). As a result of the study, TRC recommends that the Forest Service Sciences Laboratory complex be determined NHRP-eligible under Criterion A on the state level for its role in the research program of the Forest Service in the southeastern United States and in the development of the RTP. The complex is also recommended eligible for the NRHP under Criterion C as an intact example of mid-twentieth-century design.

ACKNOWLEDGMENTS

We would like to thank Tom Christensen and Jack Baber of the USDA Forest Service Southern Research Station for providing access to the RTP facility grounds and structures, and Joel Hardison, Rodney Snedeker, and Scott Ashcraft of the National Forests in North Carolina (NFsNC) for providing background information.

For TRC, Brooke Kenline and Johann Furbacher conducted the archaeological survey. The background research was conducted by Brooke Kenline; Johann Furbacher conducted the lithic artifact analysis; and Matt Paré produced the graphics. The historic structures study was conducted by Ellen Rankin, and that portion of the report was reviewed by Geoff Henry. Heather Millis copyedited the report.

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1. INTRODUCTION

TRC Environmental Corporation (TRC) has completed a cultural resources assessment of the USDA Forest Service Southern Research Station Research Triangle Park Forestry Sciences Laboratory and Administrative Site in Durham County, North Carolina. The study area is located at 3041 E. Cornwallis Road within the Research Triangle Park (RTP) in the North Carolina Piedmont, and covers about 28.6 acres. It contains a maintained lawn area, an administrative campus with seven structures, and a wooded, undeveloped area.

The study was conducted by TRC as a subcontractor to Southeastern Archaeological Services, Inc., under IDIQ Contract AG-4568-C-11-0036. The work included both an archaeological field survey and a historic structures evaluation. The archaeological survey was conducted from September 11–19, 2013, and was directed by Brooke Kenline. The historic structures fieldwork was conducted on October 8, 2013, by Ellen Rankin.

The archaeological study identified one previously unrecorded archaeological site (31DH743) and one isolated find (31DH742). Both appear to lack the potential to provide substantive information concerning the prehistory of the region and are recommended not eligible for the National Register of Historic Places (NRHP).

As a result of the historic structures survey, TRC recommends that the Forest Service Sciences Laboratory complex be determined NHRP-eligible under Criterion A on the state level for its role in the research program of the Forest Service in the southeastern United States and in the development of the RTP. The complex is also recommended eligible for the NRHP under Criterion C as an intact example of mid-twentieth-century design.

This report is organized in the following way. Chapter 2 provides information on the natural environment, and Chapter 3 presents a summary of the culture history of the project region, including information on local history and previous research in the area. Chapter 4 specifies the research goals and methods. The results of the background research are presented in Chapter 5, and the results of the archaeological study are presented in Chapter 6. Chapter 7 contains the results of the historic structures study. The conclusions and recommendations are provided in Chapter 8, which is followed by a list of references cited. The artifact inventory is attached as Appendix 1, and archaeological site forms and structure forms have been provided under separate cover.

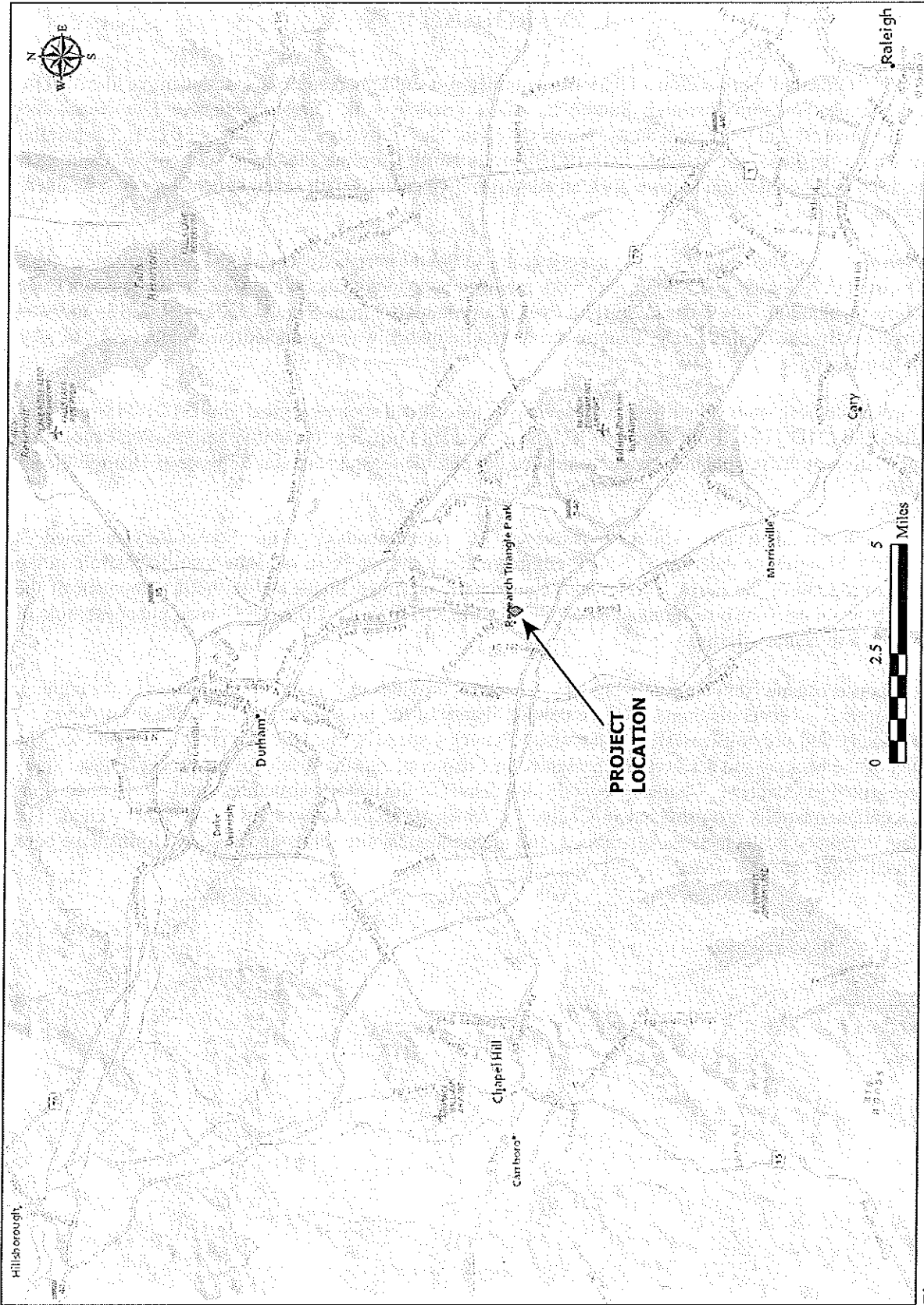


Figure 1.1. Location of the Southern Research Station Site in Research Triangle Park, Durham County, North Carolina.

2. ENVIRONMENTAL SETTING

PROJECT SETTING

The project area is situated in Piedmont uplands in the southeastern part of Durham County, near its border with Wake County. The 28.56-acre parcel (as shown on the Durham County GIS site) is bounded on the southwest by Cornwallis Road. The northwestern and northeastern boundaries are situated a short distance southeast of West Institute Drive and southwest of Blue Ridge Boulevard, respectively, both of which access the IBM corporate campus. The southeastern boundary of the tract follows a small tributary of Burdens Creek.

The project area includes the Forest Service administrative campus, consisting of structures, a mown lawn, and an access road, along with a wooded, undeveloped area that constitutes much of the tract. The wooded area contains a mixture of pines and small hardwoods, reflecting reforestation following the former (i.e., pre-1960) agricultural use of the tract.

PHYSIOGRAPHY, GEOLOGY, HYDROLOGY, AND SOILS

The study area is located in the North Carolina Piedmont, a wide rolling plateau situated “between the low relief Coastal Plain to the east and the more rugged Mountains to the west” (Orr and Stuart 2000:19). Geologically, the tract is underlain by Upper Triassic age sedimentary rocks of the Chatham Group, which are described locally as “sandstone and mudstone with thin interbeds of chert and impure limestone (NCGS 1985).”

The project tract is drained by an unnamed tributary of Burdens Creek, which flows southwest to join Northeast Creek within the upper regions of B. Everett Jordan Lake. Northeast Creek formerly continued southwest to join New Hope Creek, which flowed into the Haw River within the lake basin. The Haw River flows south to join the Deep River northeast of Sanford, forming the Cape Fear River. The Cape Fear flows generally southeast through the Piedmont and Coastal Plain of North Carolina, joining the Atlantic Ocean south of Wilmington.

The tract primarily contains soils of the White Store series, which consist of deep, moderately well drained soils on Piedmont uplands that formed in residuum weathered from Triassic materials. These soils typically exhibit a brown (10YR 5/3) fine sandy loam plowzone overlying a strong brown (7.5YR 5/6) Bt horizon. Besides the White Store soils, a small area along the drainage at the southeastern edge of the property is mapped as Cartecay and Chewacla soils, which are composed of loamy alluvium derived from igneous and metamorphic rock (USDA National Resources Conservation Service [NRCS] 2013).

FLORA AND FAUNA

The study area is located in the Atlantic Slope section of the Oak-Pine Forest region (Braun 1950; Oosting 1942), where mature forest vegetation occurs only in isolated stands. Presently, oak (*Quercus* spp.) and pine (*Pinus* spp.) are the most common species in upland communities, with hickory (*Carya* spp.), white poplar (*Populus alba*), red maple (*Acer rubrum*), black gum (*Nyssa sylvatica*), and dogwood (*Cornus* spp.) all common.

Prior to intensive Euro-American settlement, in addition to arboreal species, the forests supported a variety of undergrowth species. The latter included several varieties of edible berries, such as blackberries and raspberries (*Rubus* spp.) and huckleberries (*Gaylussacia* spp.), as well as numerous other species used for food and medicinal purposes.

The forests would have supported a substantial and diverse fauna prior to intensive Euro-American settlement (Lefler 1967). Potential game species include white-tailed deer (*Odocoileus virginianus*), turkey (*Meleagris gallopavo*), black bear (*Ursus americanus*), raccoon (*Procyon lotor*), opossum (*Didelphis marsupialis*), gray squirrel (*Sciurus carolinensis*), and fox squirrel (*Sciurus niger*). Deer and turkey would have been especially numerous in sub-climax forest settings, such as clearings created by forest burning. Other species present include beaver (*Castor canadensis*), gray fox (*Urocyon cinereoargenteus*), otter (*Lutra canadensis*), muskrat (*Ondatra zibethica*), wolf (*Canis* sp.), panther (*Felis concolor*), bobcat (*Lynx rufus*), and box turtle (*Terrapene carolina*) (Shelford 1963).

3. CULTURAL BACKGROUND

PREHISTORIC OVERVIEW

North Carolina has been inhabited for over 12,000 years and has experienced several major changes in the cultural traditions of its residents. The discussion that follows is a brief outline of the major recognized prehistoric and historic periods of this area of the state. Much of the earlier part of the cultural sequence for the region is based on Coe's (1964) investigations of the prehistoric cultures of North Carolina, combined with more recent research. Archaeological work conducted by the Research Laboratories of Archaeology (RLA) at the University of North Carolina at Chapel Hill has added greatly to the understanding of prehistoric lifeways in this region, particularly concerning the latter part of the prehistoric sequence. Later prehistoric to historic contact occupations of the North Carolina Piedmont have been discussed by Ward and Davis (1993, 1999) and others.

The prehistory of the project area can be divided into four basic periods: Paleoindian, Archaic, Woodland, and Late Prehistoric to Contact. Much of our knowledge concerning Protohistoric and early historic lifeways and material culture comes from the northeast-central Piedmont along the Haw, Eno, and Dan rivers (e.g., Ward and Davis 1993). Excavations in these valleys have documented later trends and developments in native societies, including evidence for direct or indirect contact with European (mainly English) traders.

Paleoindian Period (ca. 10,000–8000 B.C.)

The first indisputable evidence for human occupation in the southeastern United States is during the Paleoindian period, from approximately 10,000 to 8000 B.C. The Paleoindian occupation of the Southeast is known predominantly from surface sites. Key diagnostic artifacts of this period are fluted (such as Clovis) and unfluted lanceolate projectile points; a variety of flake tools, such as endscrapers, graters, retouched blades, and burins, are also associated. The later Paleoindian phase appears to include Dalton (Goodyear 1982) and Hardaway (Ward 1983) points. Available dates for early side-notched points follow closely behind those associated with fluted points (e.g., Driskell 1996; Goodyear 1982).

Paleoindian groups are presumed to have been highly mobile with a subsistence strategy primarily focused on migratory large animals (horse, bison, mammoth), but also strongly emphasizing other plant and animal food resources, such as seeds, fruits, nuts, and small animals (Meltzer and Smith 1986). Settlements are thought to have included small temporary camps and less common base camps occupied by loosely organized bands. Although Paleoindian projectile points are uncommon in private collections, they are comparatively well represented in the North Carolina Piedmont (e.g., Daniel 2005).

Archaic Period (ca. 8000–1000 B.C.)

The Archaic period began with the onset of Holocene, post-glacial climatic conditions in the Southeast, when warmer global temperatures resulted in warmer and wetter conditions, and has been subdivided into three subperiods: Early, Middle, and Late. As a whole, this period is characterized by a general increase in the density and dispersal of archaeological remains, more regionally distinct tool forms, continued reliance on game animals and wild plant resources, increased use of locally available lithic raw materials, and subsistence settlement strategies contingent to specific environments. Group organization (as modeled for hunter-gatherers) is presumed to have been highly mobile. In some regions there is evidence for intensification of the economic base, with much more permanent occupations, development of trade networks, and inter-group or interpersonal violence. Architectural evidence is rare, indicating that most structures were not substantial constructions.

The Early Archaic period, ca. 8000–6000 B.C., is marked by the end of the glacial climate and the extinction of numerous large animals. This period is usually subdivided into the earlier corner-notched (Palmer and Kirk) and later bifurcate traditions (St. Albans and LeCroy). A transitional type between the earlier Hardaway and the Palmer types is also now recognized that has characteristics of both types, and is referred to as a “small Dalton” (Ward and Davis 1999). No artifacts of non-lithic raw materials have been found to represent this cultural tradition. There are striking lithic artifact similarities throughout the Southeast for this period, but tremendous variety in site size, content, and function. The Early Archaic period tool kit included adzes, graters, drills, and perforators (Ward and Davis 1999).

Some Piedmont investigations, such as those at the Haw River sites in Chatham County, North Carolina, suggest a tendency toward a collector-gatherer strategy (Claggett and Cable 1982). Other research supports the theory that a forager strategy was employed, particularly one that centered on the procurement of lithic material (Daniel 1998). Populations appear to have been highly mobile and could have coalesced around available resources during the winter months (Anderson and Hanson 1988). Hunting forays would have been made by small groups to supply the base camp through the winter. Groups may have moved exclusively along drainages, crossing large drainages only on special occasions for macroband gatherings (Anderson and Hanson 1988). Daniel (1998) suggests that quality raw material sources, particularly Uwharrie rhyolite outcrops, were the focal point of the settlement patterns. The forests of the Piedmont would have provided a reliable source and good variety of food, perhaps allowing groups to focus their settlement patterns on less widely available resources, such as high quality lithic material. Anderson (1996:173) suggests that there was an increase in the use of seasonal camps during this period.

Much of our understanding of the Middle Archaic period, ca. 6000–3000 B.C., in Piedmont North Carolina comes from research conducted at a few well stratified floodplain sites along the Roanoke and Yadkin rivers, such as Doerschuk, Gaston, and Lowders Ferry. Numerous studies have added settlement pattern information.

The Middle Archaic period can be distinguished from the Early Archaic by the more frequent recovery of ground stone artifacts and a less diverse chipped stone tool kit. Diagnostic bifaces that are associated with this period include Stanly, Morrow Mountain, and Guilford types (Blanton and Sassaman 1989; Coe 1964). Bannerstones or atlatl weights first appeared during this period and are associated with the Stanly occupation. It is assumed that population density increased during the Middle Archaic period, but small hunting and gathering bands probably still formed the primary social and economic units. Populations during this period appear to have relied primarily on a foraging-based economy (Anderson 1996:174). Larger sites tend to occur near or along river floodplains, but numerous small sites, probably utilized for specialized resource extraction, are characteristic of upland locales. A larger number of Middle Archaic sites are known in the Piedmont region than in the Coastal Plain, a fact that Anderson (1996:174) attributes to the spread of pine during the Middle Holocene.

The Late Archaic period is generally dated between ca. 3000–1000 B.C. in the North Carolina Piedmont. Like Middle Archaic sites, Late Archaic sites are common in the study area, although few have been the primary focus of archaeological investigations. The lower Southeast in general saw an increase in sites from the Middle to Late Archaic, and most researchers agree that a population increase is reflected in these data (Anderson 1996).

The existence of formal base camps occupied seasonally or longer is inferred, together with a range of smaller resource-exploitation sites, such as hunting, fishing, or plant collecting stations (Claggett and Cable 1982; Mathis 1979; Ward 1983). Large Late Archaic sites are found in river floodplains, as at the Gaston, Doerschuk, and Lowders Ferry sites, and some of these have characteristics of intensive occupations not seen in earlier periods, in the form of occupation middens, high feature density, and

circular pit hearths (Coe 1964:119). Feature types associated with Late Archaic occupations in North Carolina and Virginia include rock hearths (or heated rock dumps) and small pits.

Late Archaic occupations in the Piedmont are marked by a variety of large- to small-stemmed points. The most prominent and recognizable of these is the Savannah River stemmed type, a large, broad-bladed, square stemmed point that appears ca. 3000 B.C. and lasts to ca. 1500 B.C. Subsequent Late Archaic sites frequently contain slightly smaller stemmed points (Ward and Davis 1999:71).

Grinding implements, polished stone tools, and carved soapstone bowls became fairly common, suggesting increased use of plant resources, and possibly changes in subsistence strategies and cooking technologies. Although regional evidence is minimal, the first experiments with horticulture probably occurred at this time.

Woodland Period (ca. 500 B.C. to A.D. 1450)

The Woodland period in the North Carolina Piedmont began around 500 B.C., corresponding with dated evidence for the earliest use of ceramics in the area. Subsistence strategies may have included increased reliance on the cultivation of native and non-native (tropical) plants, although evidence for plant cultivation is (at best) scanty until the Late Woodland transition. Ceramics became more diversified with respect to temper and surface decoration, and sub-regional differences are evident. Triangular projectile points are diagnostic of the latter Middle and Late Woodland periods, linked to the introduction of bow and arrow technology, the timing and nature of which probably varied across the region (Nassaney and Pyle 1999). In the latter part of the Woodland sequence, occupations are characterized by an increasing focus on riverine floodplain locations.

The Early Woodland (ca. 500 B.C. to ca. A.D. 400) period has been the subject of few focused studies. In the absence of clearly stratified sequences, separation of materials from this period with that of later intervals is often difficult. Early Woodland period occupations in the Piedmont are represented by the Badin and Yadkin ceramic series, which appear to overlap in time (Ward and Davis 1999:85; Webb and Leigh 1994).

Badin ceramics are sand tempered and stamped with either a cord wrapped or fabric wrapped paddle (Coe 1964:27–29). This ceramic type has similarities to the coastal type, Deep Creek. Yadkin ceramics are finished with cord wrapped and fabric wrapped paddles, but also with carved paddles producing designs such as check stamping, linear check stamping, and simple stamping, and are tempered with crushed quartz (Coe 1964:30–32). Ceramic manufacturing techniques continued into the subsequent Middle Woodland period, characterized by different combinations of elements—cord marking, fabric impression, and check stamping surface treatment, and coarse sand or crushed quartz temper (Coe 1964:30–32).

Associated projectile points mainly conform to two separate traditions. The first of these is defined by a reduction in size of earlier Late Archaic styles. Gypsy stemmed points appear to represent a continued trend toward diminution in size for stemmed points, essentially developing out of the small Savannah River stemmed type (Oliver 1981:188–189). Other varieties related to Early Woodland occupations include small, contracting stemmed points similar to the Piscataway and Rossville types, and similar points have been recovered from Early Woodland contexts in North Carolina (Kirchen 2001:44). Early use of triangular points likely accompanied the continued use of stemmed points for some time.

The lifeways of these peoples seem to have changed little from those of their Late Archaic period predecessors. A settlement pattern characterized by relatively permanent river-bottom base camps and specialized upland exploitation camps is inferred (Mathis 1979). Early Woodland use of certain cultigens

may have increased from earlier times; however, the main staples were still nuts and other wild plants and the large animals, such as white-tailed deer.

The Middle Woodland period (ca. A.D. 400 to 1000) in the North Carolina Piedmont can be understood as an arbitrary construct until changes in artifact styles and settlement patterns can be distinguished from that of the preceding period. It appears that gradual changes occurred, so that the latter part of the Middle Woodland more closely resembled the subsequent period than the preceding interval. Ceramic artifacts dating to this period include a continuation of the Yadkin series and the introduction of the Uwharrie series. Uwharrie ceramics, used into the early Late Woodland period, are fabric, cord, or net impressed, quartz tempered, usually interior scraped, and occasionally crudely incised. Uwharrie phase sites in the region reflect more intensive and long-term occupations. During this time, triangular point types (such as Yadkin large triangular) represent the continued refinement of bow and arrow technology in the region.

Horticulture is thought to have assumed increasing importance, and the cultivation of maize may have been initiated at this time, although it did not gain prominence until much later. Compared to previous periods, it appears that site density increased considerably, especially along river floodplains (Ward and Davis 1993; Woodall 1984). Numerous large and small sites have been found dating to this period, suggesting periodic aggregation and dispersion, or some kind of a village/base camp dichotomy in the settlement patterning.

In central North Carolina, the Late Woodland (ca. A.D. 1000–1450) is characterized by large and small horticultural-based sites focused on the floodplains of major streams. Woodland Piedmont groups are presumed to have had an egalitarian social organization based on kinship ties, and do not appear to have been integrated into chiefly hierarchies. Subsistence evidence indicates a mix of hunting, gathering, and cultivation, and faunal assemblages include a variety of climax forest and forest edge species.

Throughout much of the Piedmont, the Late Woodland period marks the later stages of the Badin-Yadkin-Uwharrie sequence proposed by Coe (1964). The Late Woodland period in the southern Piedmont is represented by later manifestations of the Uwharrie series. Most of the later Uwharrie pottery is net impressed, and while the interiors are occasionally scraped, sand replaced crushed quartz as the tempering agent. Large storage pits are found at sites, and small triangular arrow points appear ubiquitous sometime after ca. A.D. 1000 and continued to be used even after the introduction of firearms in the region (Eastman 1993:447). A similar manifestation, the Haw River phase, has been defined for the north-central Piedmont region. Settlement during this time appears to have been dispersed and somewhat similar to that of the Uwharrie phase, although settlements are commonly found along secondary streams (Ward and Davis 1993:407; Ward and Davis 1999:103–104). Uwharrie series pottery appears ancestral to that of the Haw River series, defined for the latter part of the Haw River phase, which is generally characterized by changes in vessel morphology and greater decorative elaboration (Ward and Davis 1993:408).

Late Prehistoric and Contact Period (ca. A.D. 1450–1650)

The late prehistoric to contact-period Native American occupation of the North Carolina Piedmont is represented by archaeological manifestations of the Hillsboro phase. During the Hillsboro phase, ceramics changed substantially and villages were nucleated within stockades (Davis and Ward 1991). A well-researched example of a Hillsboro phase occupation is the Wall site in Hillsboro. Hillsboro phase subsistence practices were a continuation of earlier Haw River practices. Hillsboro ceramics are markedly different from those of the preceding phase, with primarily simple stamped surfaces and some check stamped ware tempered with medium to fine sand or feldspar. Burial practices were also somewhat different. Haw River and earlier phase sites contain burials of flexed individuals in oval pits, with little funerary offerings. Hillsboro burials were placed in shaft and chamber pits, with some evidence of communal feasting associated with the mortuary customs, and offerings of food in clay pots (Ward and

Davis 1999:115). From this combination of evidence it is inferred that the Hillsboro phase represents an intrusive population that moved into the area around A.D. 1400 (Ward and Davis 1999:115).

EARLY HISTORIC PERIOD AMERICAN INDIAN OCCUPATIONS

The historic period Native American occupation of the North Carolina Piedmont has been documented from contemporary accounts and through excavations at several sites, including the Mitchum site (Ward and Davis 1993), the Jenrette site (Ward and Davis 1993), and the Fredericks site (Davis and Ward 1991; Davis et al. 1998). The Mitchum site, located on the Haw River in northern Chatham County, is thought to represent mid-seventeenth century settlement by the Sissipahaw Indians (Ward and Davis 1993). It consisted of a small, stockaded village with at least one oval-shaped house; a small number of graves contained associated glass trade beads and brass ornaments, and pipes similar to European forms suggest the introduction of milder strains of tobacco during this time (Ward and Davis 1993:367–368). Jenrette series ceramics, similar to those of the Hillsboro series, are associated with the early historic period occupation of the Mitchum site.

The Jenrette site, located on the Eno River in northern Orange County, may represent a late seventeenth century village of the Shakori Indians. This small stockaded settlement was characterized by wall trench house construction, storage and roasting pits, and plain or simple stamped ceramics. Limited contact with Europeans during this time was indicated by glass trade beads, terra cotta pipes, and peach pits. The Fredericks site, also known as Occaneechi Town, is adjacent to the Jenrette site, and was the early eighteenth century village occupied by the Occaneechi.

The Fredericks site shows the intensified nature of the trade between Indians and Europeans; a variety of utilitarian tools, including firearms, marks the Fredericks site occupation, although traditional subsistence practices persisted. The presence of formal cemeteries also suggests the effects of epidemic disease on the Native population. This small community contained 10–12 houses enclosed within a stockade. Associated ceramics were plain or check stamped, and triangular arrow points (and other traditional stone tool types) continued to be manufactured and used (Ward and David 1999:243–244).

As Merrell (1987:20–21) and other researchers have noted, the early historic period was marked by extensive epidemics among the Native American populations of the area, accompanied by increasing Euro-American intrusions. Surviving groups were forced to relocate and regroup. By the 1740s most of the local Native American groups had amalgamated with other groups to the north and south and ceased to appear as distinct tribes in the historical record. Descendants of some of the groups continue to inhabit the Piedmont, however, and in recent years have begun to reassert their identity.

EURO-AMERICAN SETTLEMENT

The first recorded exploration of the area that later became Durham County was made by John Lawson in 1701. The earliest Euro-American settlement of the area likely occurred in the 1740s, when settlers began to enter the area from Pennsylvania via the Great Wagon Road. Those who settled east of the Haw River were predominantly of Scotch-Irish origin (Blackwelder 1953:15). Most settlers were yeoman farmers, holding about 100 acres of land per family. Initial settlement was gradual, and much of the area remained sparsely populated until the 1760s. Orange County was formed in 1752 and included most of present-day Durham County, as well as several adjacent counties.

Before the American Revolution, the area that would become Wake and Durham counties found itself under a series of administrative bureaucracies because of the complex changes that followed developments in Europe. From 1663 to 1729 North and South Carolina were part of the lands granted to the Lords Proprietors, while from 1729 to 1746 they were administered by Colonial governors. In 1778,

the North Carolina General Assembly resolved to establish a permanent capitol in Wake County, and the City of Raleigh was soon planned and laid out (Powell 1989). Even so, development and population growth in outlying Wake County remained slow until well into the nineteenth century (Murray 1983). Although the North Carolina Railroad (NCRR) was platted in the 1850s, no real population centers existed between Raleigh and Hillsborough at that time.

What is now the City of Durham began in the 1850s as an NCRR station on Bartlett Durham's property. The tracks ran east to west, and the business district developed on the north side of the tracks, while the south side developed as mixed industrial and residential (Roberts et al. 1982). Tobacco production became a dominant industry in Durham soon after the Civil War, with the period between the 1870s–1910s the height of the industry in this area. Durham County separated from Orange County in 1881. The new county also included part of adjacent Wake County, largely due to the influence of Durham's large and powerful tobacco companies.

As the nineteenth century progressed, there was increased pressure on cotton mills to reduce Southern dependence on Northern technology and industry. Counties from Durham eastward made greater efforts to provide raw cotton to industrialized Piedmont counties, where waterpower was abundant. After the Civil War, many factories were established, and textile manufacturing became a dominant industry in most of the Piedmont. Textile manufacturing was an important industry in nineteenth and early twentieth centuries in Durham, in part due to the success of the tobacco industry, which created a need for tobacco bags.

Although a few small settlements developed along the railroad between Durham and Morrisville (to the southeast) in Wake County, the project area and other outlying parts of Durham County remained thinly settled agricultural land into the 1950s. As described by Anderson (1990:413), the future Research Triangle Park was situated in the "dark corner" of the county, where land "was still comparatively cheap and used for farming, if at all." Aerial photographs (see Chapter 5) suggest that by 1940 much land in the immediate project area was becoming reforested, with few active farms in the immediate area.

4. RESEARCH GOALS AND METHODS

RESEARCH GOALS

The primary goal of the project was to complete a cultural resources study of the Forest Service facilities for the purposes of regulatory compliance. If significant resources were encountered, the archaeological field data were to be combined with information obtained by the background research to address the nature of the prehistoric and historic period occupations of the area. Similarly, the historic structures study was intended to evaluate the extant buildings within the context of the RTP and similar Forest Service facilities.

RESEARCH METHODS

Specific research methods were utilized for the background studies, field research, analysis, and reporting stages of the project. The methods used in each stage of research are outlined below.

Background Research

Background literature review was conducted to gather information on any known cultural resources on and adjacent to the project tract and included examination of the following materials:

- Archaeological site files and reports at the North Carolina Office of State Archaeology in Raleigh;
- Historic structures data available from the North Carolina Historic Preservation Office (NC HPO) in Raleigh;
- Information on the historic structures maintained at the project site; and
- Historical maps and other data available on-line and in TRC's collection.

Archaeological Field Methods

The archaeological survey complied with all pertinent state and federal regulations, including the North Carolina Office of State Archaeology's (OSA) *Guidelines for Preparation of Archaeological Survey Reports in North Carolina*. The field survey was conducted by a team of two, consisting of the Field Director and an Archaeological Technician.

Following standard regional procedures, the archaeological survey consisted of a walk-over of the project area and excavation of shovel tests at 30-m intervals in all areas that did not exhibit impervious surfaces, disturbed areas, wetland, or greater than 15% slope. Following NFN procedures, at least three shovel tests were excavated on each individual habitable landform.

All shovel tests measured about 30 to 35 cm in diameter and were excavated to sterile subsoil or at least 60 cm below surface. All soil was screened through ¼ inch screen for uniform artifact recovery. The stratigraphy, including the texture and Munsell soil color of representative soils, was recorded, as was the artifact content (when applicable) for each shovel test.

When artifacts were found, delineation shovel tests were excavated at 15-m intervals in cardinal directions around the positive test. Site boundaries were determined based on the presence of two consecutive negative shovel tests and/or disturbance. For each site or find identified, a datum was established, scaled sketch maps were drawn, and photographs were taken. Boundaries were marked with flagging tape, and GPS coordinates were recorded for all discovered resources.

In addition, a visual inspection of the exposed ground surface across the project area was conducted to search for any evidence of chimneys, cemeteries or other potentially significant resources that might be affected by the project.

Archaeological Laboratory Methods

All artifacts were returned to the TRC Chapel Hill office for processing. Upon arrival in the laboratory, bag numbers were checked, and artifacts were washed and sorted for more detailed analysis.

Lithic Artifact Analysis. Lithic artifacts were first sorted into general flaked tool and debitage categories. The following categories were used:

Hafted Biface/Projectile Point. Hafted bifaces or projectile points are finished bifaces or unifaces exhibiting modification of the basal element to facilitate hafting and symmetrical, or occasionally asymmetrical edges converging to a point (if they are considered complete). These are traditionally considered to be projectile points, but may also function as hafted or unhafted knives; for that reason, they are often referred to as PP/Ks (Projectile Points/Knives).

Debitage. Debitage fragments are the byproduct of lithic tool manufacture. Flake type (complete flake, broken flake, flake fragment, or shatter—after Sullivan and Rozen [1985]), counts, weight, raw material, and size category (by 1 cm range) were recorded, and presence or absence of cortex was noted.

Raw Material Identification. Chipped stone raw materials were identified based on macroscopic characteristics. Categories recognized in the assemblage include quartz and metavolcanic materials. Metavolcanic materials were analyzed according to the codes in Table 4.1.

Table 4.1. Metavolcanic Raw Material Reporting Codes.

Groundmass	Color/Intensity	Features
Aphyric (A) = no phenocrysts	(L) = light	(Fb) = flow banded
Porphyritic (P) = phenocrysts present	(D) = dark	(Pb) = parallel banded
(QP) = quartz porphyritic	(Gn) = green	(Sp) = speckled
(PP) = plagioclase porphyritic	(Gy) = gray	(W) = weathered
(QPP) = quartz and plagioclase porphyritic	(Wh) = white	
(O) = other	(Bk) = black	
	(Pk) = pink	
	(Pr) = purple	

All artifacts and records have been prepared for curation following NFNCS and OSA standards. Upon acceptance of the final report, these materials will be transferred to the Office of State Archaeology Research Center (OSARC) for final curation.

Historic Structures Survey Methods

The historic structures investigations included systematic recordation and photography of the exterior and interior of all seven structures on the property.

5. BACKGROUND RESEARCH RESULTS

HISTORY OF THE PROJECT AREA

Historic maps dating from the mid-nineteenth to mid-twentieth century were consulted to determine potential former historic structure locations in the project area. Those maps indicate that the area was likely used as agricultural land from the mid-1800s until it was purchased for the RTP.

The earliest detailed map examined is the 1871 Bevers map of Wake County (this part of Durham County was then within Wake County) (Bevers 1871). That map depicts Cornwallis Road running east west approximately along its current location (Figure 5.1). One structure (labeled "C.P.") is shown in the general project area, but due to the scale it is not possible to determine if it was within the project tract. The ca. 1909 Miller Map of Durham County (Miller 1909) depicts a "Col. School" in the general project area (Figure 5.2), and the subsequent 1920 soils map (Wells and Brinkley 1920) suggests that that building (then designated Page School) was probably situated just north of Cornwallis Road within the project tract (Figure 5.3).

As the maps suggest, Page School was one of a number of African-American schools in Durham County in the early 1900s. Not all of those schools were actually owned by the County school board, and the ownership of the Page school has not been determined. As of 1926 the school was described as one of the "old type" schools (Abel 2009:86). The school was destroyed by a windstorm in August 1929, and was rebuilt as a Rosenwald School in 1930, apparently at a new site some distance to the northeast (see below).

A 1940 aerial photograph (USDA 1940) shows the project tract as pasture or fallow agricultural land, and does not appear to show any structures on the tract (Figure 5.4). The earliest USGS quadrangle showing the project area is the 1943 Durham South 1:62,500 scale quadrangle (USGS 1943). That map shows a single structure along the north side of Cornwallis Road in the general project area, but it was situated well to the west of the project tract (Figure 5.5). Interestingly, by 1943 Page School was situated some distance to the northeast, along the railroad (USGS 1943). Finally, an undated Research Triangle Foundation map (Figure 5.6) shows the Forest Service Tract as well as a nearby cemetery on what was to become IBM Property (see below), and confirms that no structures were situated there when the land was acquired.

By the late 1950s, the project tract had been purchased for inclusion in what was to become the Research Triangle Park (RTP). The RTP is a public/private research park that was created in 1959 as a result of efforts by a number of academicians, state government leaders, and businessmen. It currently covers over 7,000 acres in the center of a triangle formed by the University of North Carolina at Chapel Hill, Duke University in Durham, and North Carolina State University in Raleigh (Link 1995). It is home to over 140 organizations and 45,000 employees, and as such is the largest research park in the United States.

The idea for the RTP developed in the early 1950s, as a result of proposals by Howard Odum (a Sociology Professor at UNC-Chapel Hill), Romeo Guest (a Durham businessman), and others to develop a research park to help raise the economic status of North Carolina, which was then heavily dependent on low-paying jobs in agriculture, forestry, furniture, and textile industries. As early as 1952, Odum had suggested that the state should take advantage of the centralized area between the three local research universities. The leaders of the movement (who also including Robert Hanes, the president of Wachovia Bank and Trust Company) determined to try to attract modern industries to a proposed park through private endeavors, with cooperation from the universities, instead of through government-sponsored action (Link 1995; Powell 2006; Weddle et al. 2006).

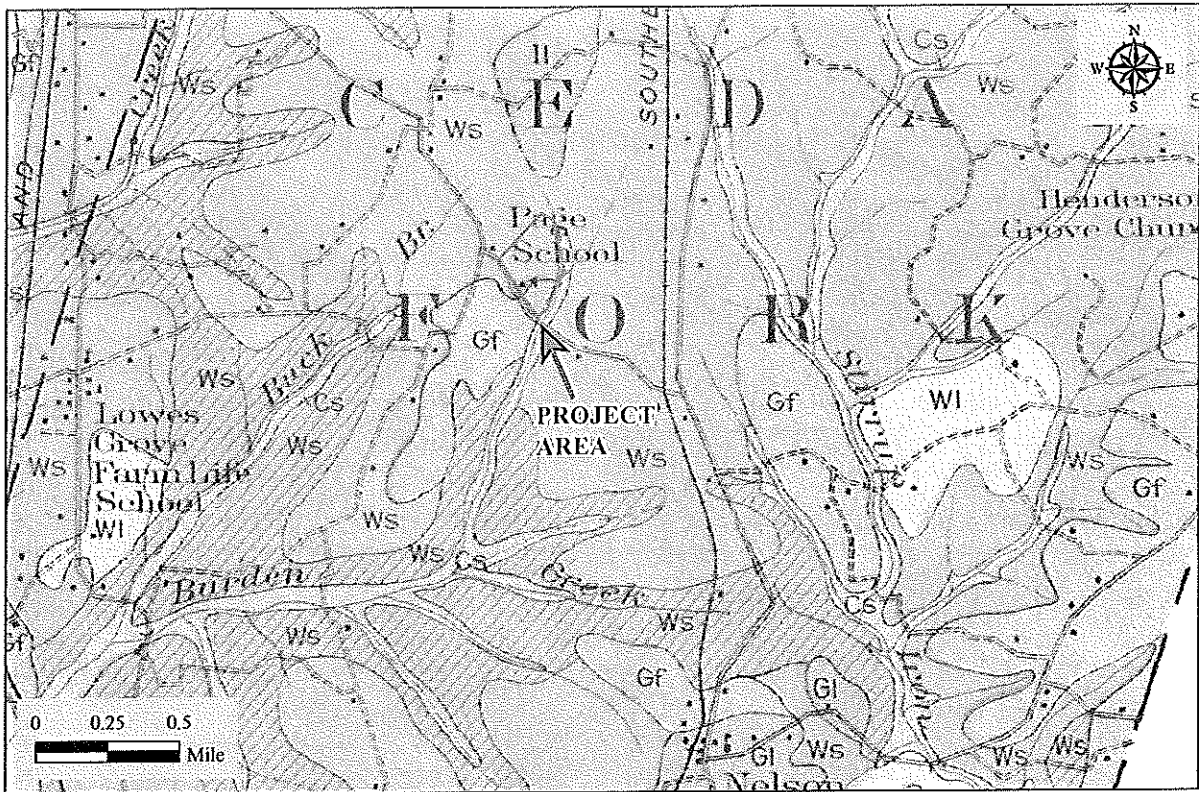


Figure 5.3. Approximate project location as shown on the 1920 Durham County soils map.

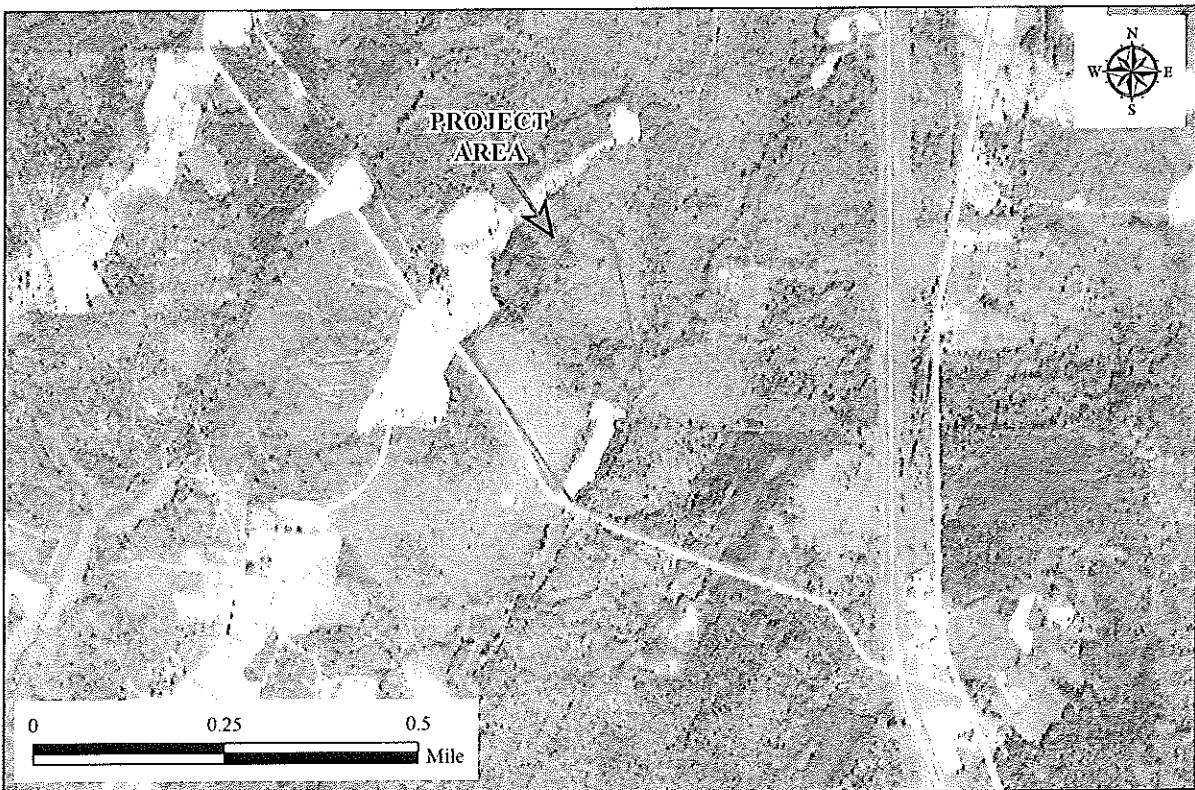


Figure 5.4. Approximate project location as shown on a 1940 aerial photograph.

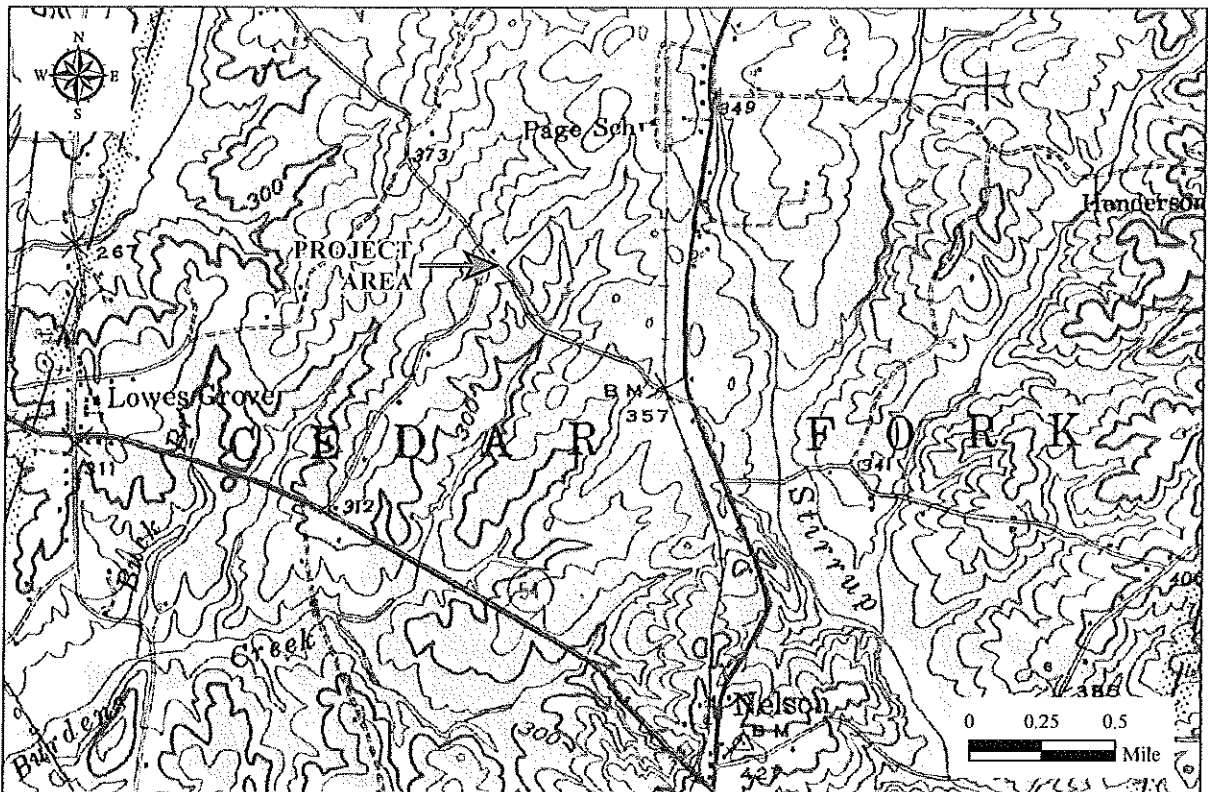


Figure 5.5. Approximate project location as shown on the 1943 Durham South quadrangle map.

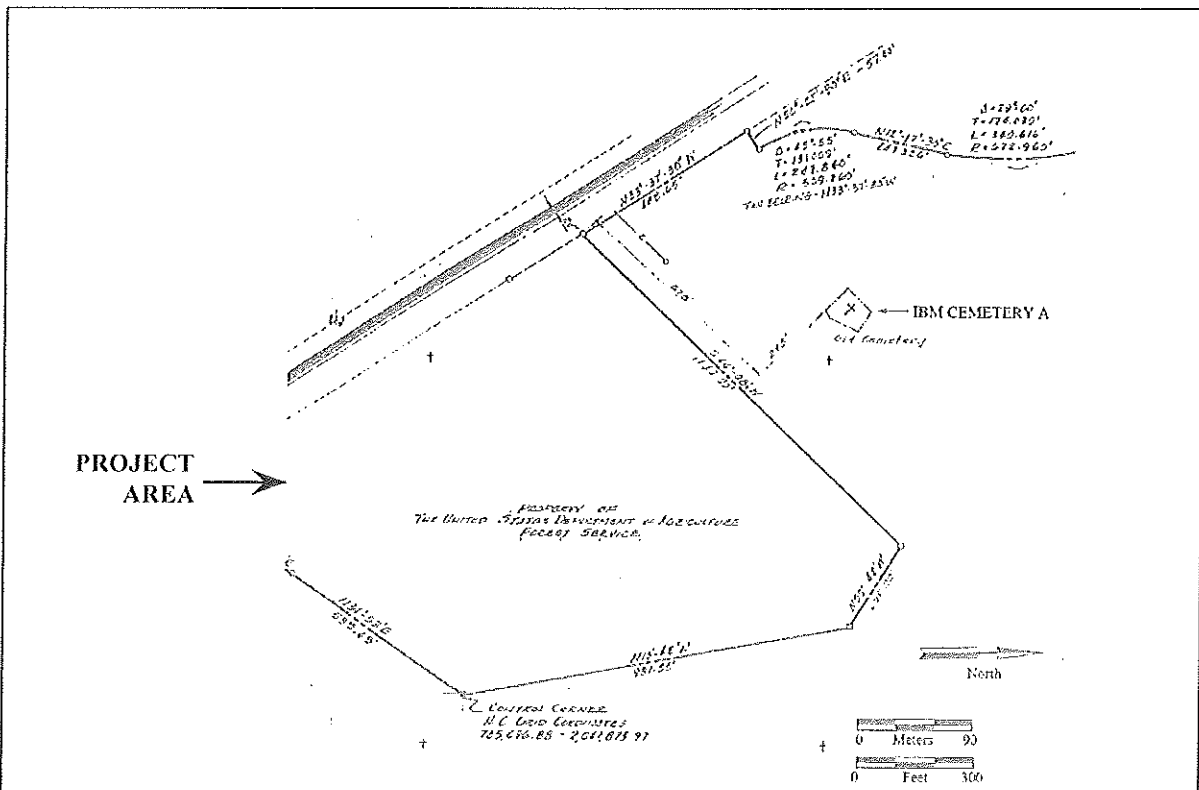


Figure 5.6. Research Triangle Foundation map of Forest Service tract.

In 1957 Guest and Karl Robbins (an investor) formed a corporation called the Pinelands Company to purchase land for a research center where academic, business, and government enterprises could work together. The Research Triangle Foundation was formed in 1958 to solicit contributions, and by January of 1959 over 1.45 million dollars had been raised. This funding was used to purchase control of the venture from Robbins and the for-profit Pinelands Corporation. In late 1958 the Research Triangle Institute was created (Link 1995:74), and in May 1959 the Chemstrand Corporation (a subsidiary of Monsanto that was involved in developing synthetic fibers and was later responsible for the development of Astroturf) became the first company to begin construction in the RTP (Link 1995:79).

In October 1960, North Carolina Governor Luther Hodges announced that the Forest Service would build a biological laboratory in the park, on land that was to be donated by the Research Triangle Foundation (Link 1995:84, 130). The Forest Service laboratory was completed in 1962 and was soon followed by other government and private sector facilities. By the mid-1960s, public confidence in the feasibility of the Park's long-term success was solidified: International Business Machines (IBM) announced its plans for a 400-acre, 600,000 square foot research facility in RTP, and the U.S. Department of Health, Education, and Welfare publicized its plans to establish its National Environment Health Service Center there (Link 1995:87–88; Powell 2006; Weddle et al. 2006). With both corporate and government laboratories, the project was the South's most successful high-technology venture (Bartley 1995:68). Today it is one of the top five research centers in the United States (Link 1995; Powell 2006; Weddle et al. 2006).

PREVIOUS ARCHAEOLOGICAL SURVEYS AND IDENTIFIED RESOURCES

A review of the files and records at the OSA in Raleigh and information provided by the NFsNC indicates that there has been no previous archaeological survey of the Forestry Sciences Laboratory Site. The nearest previous archaeological work consists of background research and fieldwork conducted in the late 1990s and early 2000s in association with the then-proposed Triangle Transit Authority Regional Rail Project, which was intended to follow the North Carolina Railroad corridor situated about 500 m east of the project area (Webb 2000, 2001; Webb and Millis 1999; Webb and Pickett 2001).

Only two archaeological sites (31DH118 and 31DH677) have previously been recorded within a 1-mile radius of the project area. 31DH118 was located about 1,000 m north of the facilities, within what is now the IBM complex, and consists of a single Morrow Mountain (Middle Archaic) projectile point that was recovered in 1965 by Gerald Smith during construction of the IBM complex and is now curated at the UNC Research Laboratories of Archaeology (Accession No. 2048A8; Daniel and Davis 1996:A-28). The second site, 31DH677, consists of the Pinelands Cemetery (also known as the Hayes-Peace Cemetery [Cemetery Census 2013]), which was developed beginning in the 1960s to hold human remains moved from various locations in RTP and elsewhere in the area (Webb 2001; Webb and Pickett 2001). Although data are inconclusive, it is believed that up to 300 or more graves may be present, including some that were moved from a location on the IBM property some 600 feet west of the Forest Service Property line (Webb and Pickett 2001:13). Pinelands Cemetery is situated approximately 525 m east of the present study area.

PREVIOUSLY RECORDED HISTORIC STRUCTURES

There are no previously recorded historic structures within or adjacent to the project area. At least four structures in the RTP have previously been surveyed, however, including the Burroughs-Wellcome Building (DH 2601), the Microelectronics Corporation of North Carolina Building (DH 2602), the National Humanities Center Building (DH 2603), and the Union Carbide Building (DH 2604). In addition, the Research Triangle Park has been recorded as DH 2533.

6. ARCHAEOLOGICAL SURVEY RESULTS

The archaeological survey of the Southern Research Station Site included excavation of a total of 107 transect and delineation shovel tests, as well as systematic inspection for such potential above-ground features as chimney falls and cemeteries. One archaeological site (31DH743) and one isolated find (31DH742) were identified (Table 6.1; Figures 6.1 and 6.2). No archaeological indications of the former Page School were identified.

Table 6.1. Archaeological Resources Identified by the Southern Research Station Site Survey.

Site	Component(s)	Shovel Tests		Artifacts			Recommendation
		Total*	Prehistoric	Lithic	Ceramic	Total	
31DH743	Prehistoric: Archaic?	19	6	19	0	19	Not Eligible
31DH742	Prehistoric: Unknown	5	1	1	0	1	Not Eligible

* Includes all shovel tests within 15 m of positive tests

31DH743

Component:	Prehistoric: Archaic?
Max. dimensions:	60 m north-south × 15 m east-west
UTMs (NAD 27):	E693152 N3975525
Landform:	Ridge slope
Elevation:	ca. 316 ft AMSL
Soil Type:	White Store sandy loam
Recommendation:	Not eligible

Description. 31DH743 is a low density prehistoric lithic artifact scatter located on a slight ridge slope above an ephemeral drainage in the eastern part of the property (Figures 6.3 and 6.4). As currently defined, the site measures about 60 m north-south by about 15 m east-west; the site is bisected by a paved road and is bounded on the west by the disturbed area around the greenhouse building; the northern, eastern, and southern boundaries are marked by sterile shovel tests. The undisturbed areas are forested in mixed pines and hardwoods.

The on-site soils are mapped as White Store sandy loam (6–10% slope), a moderately well-drained soil found on interfluvies (USDA NRCS 2013). A typical soil profile encountered in shovel testing consisted of a yellowish brown (10YR 5/4) sandy loam Ap horizon (plow zone) that was up to 20 cm in thickness and was underlain by a reddish brown (2.5YR 5/4) B horizon.

A total of 19 artifacts were recovered from six of 19 shovel tests excavated at 15-m intervals along the ridge finger; all artifacts were recovered from the plow zone and no surface artifacts were recovered. Artifact density ranged from 1 to 10 artifacts per positive shovel test. The assemblage includes the distal portion of an unidentified metavolcanic PP/K (Figure 6.5a) and a second non-diagnostic PP/K or biface (Figure 6.5b), as well as 17 debitage fragments (16 metavolcanic and one quartz). Most of the debitage fragments are small (1 to 2 cm) and appear to result from mid-to-late stages of biface production. The apparent PP/Ks are not temporally diagnostic, but based on its size and robust nature at least one (see Figure 6.5a) likely dates to the Archaic period.

Summary and Recommendation. 31DH743 is a small, low to moderate density prehistoric lithic scatter that may date to the Archaic period and appears to be limited to plow zone contexts. The site's low artifact density and limited nature suggest that it is unlikely to provide substantial information on the prehistory of the North Carolina Piedmont. Consequently, 31DH743 is recommended not eligible for the NRHP.

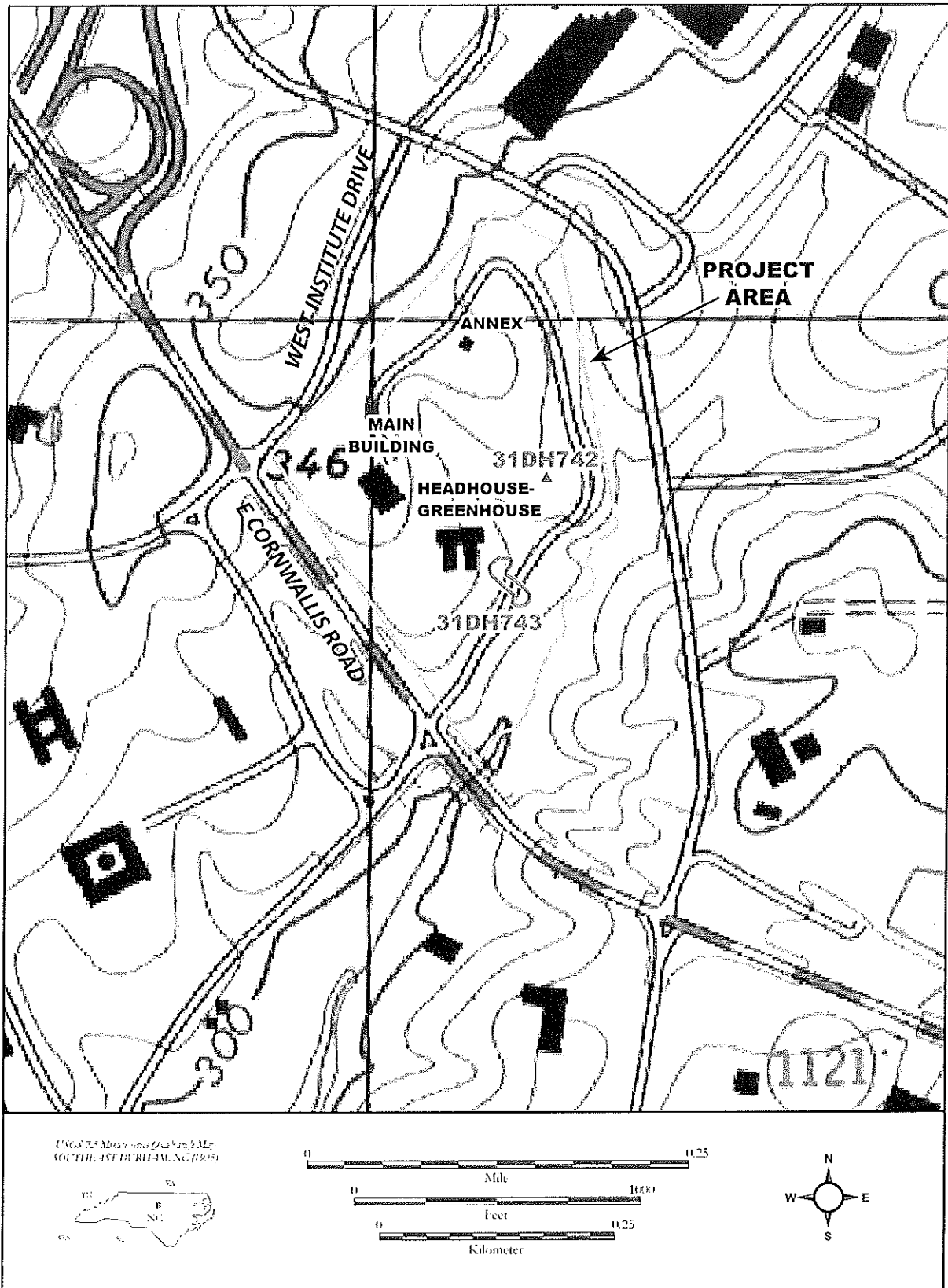


Figure 6.1. Archaeological resources identified during the Southern Research Station site survey.

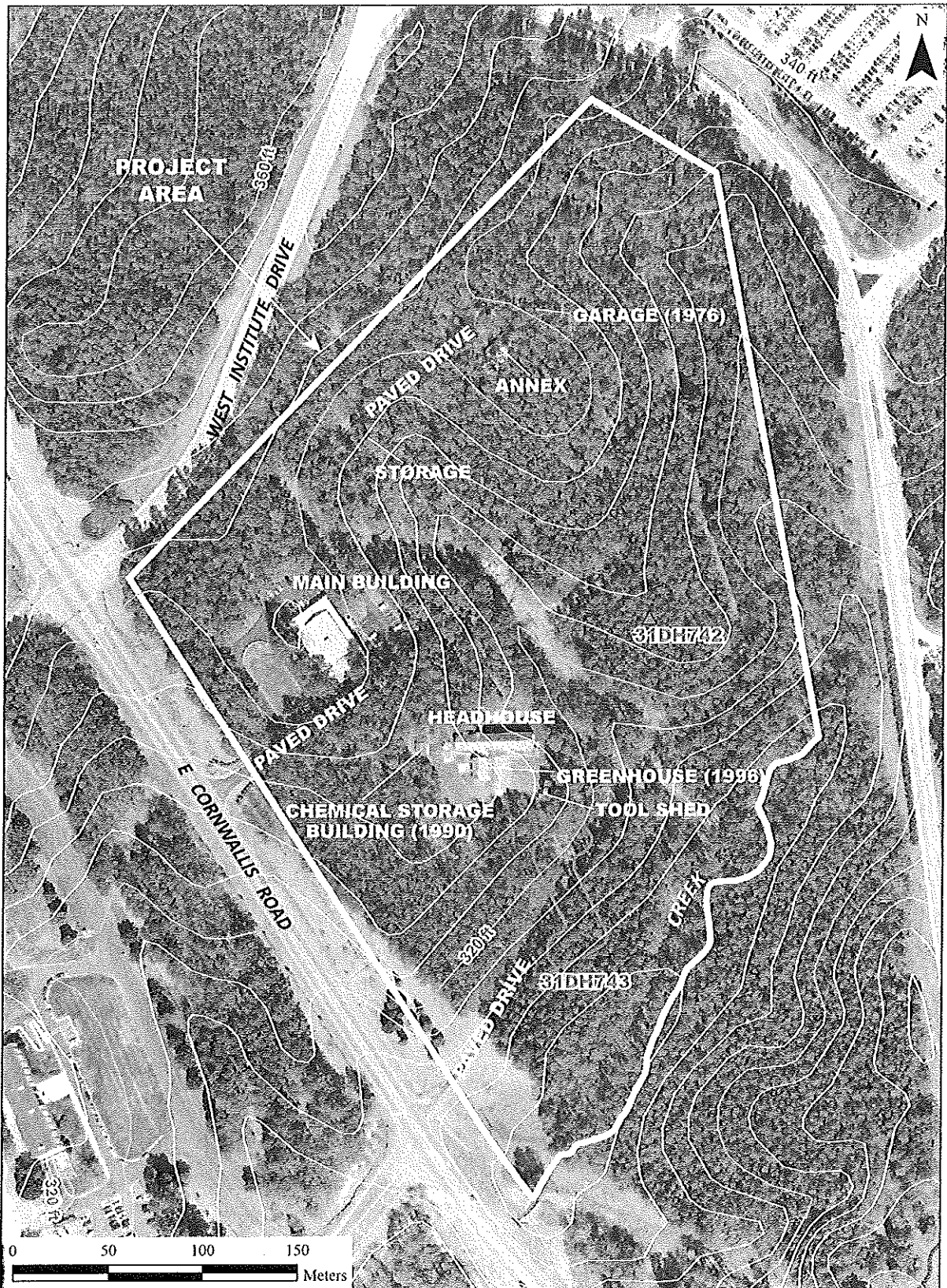


Figure 6.2. Aerial photograph showing archaeological site locations.



Figure 6.3. 31DH743 site map.



Figure 6.34 31DH743, looking northwest.



Figure 6.5. Metavolcanic bifaces from 31DH743.

31DH742

Component:	Prehistoric: Unknown
Max. dimensions:	Isolated Find
UTMs (NAD 27):	E693191 N3975637
Landform:	Ridge
Elevation:	ca. 326 ft AMSL
Soil Type:	White Store sandy loam
Recommendation:	Not eligible

Description. 31DH742 consists of an isolated metavolcanic debitage fragment recovered from a shovel test on a low ridge in the east-central part of the property, west of the access road (Figure 6.6; see Figures 6.1 and 6.2). Despite the excavation of four additional shovel tests at 15-m intervals surrounding the find spot, no additional artifacts were recovered. Due to its isolated nature, 31DH742 lacks the potential to provide meaningful information on the prehistory of the region and is recommended not eligible for the NRHP.



Figure 6.6. 31DH742 site map.

7. HISTORIC STRUCTURES EVALUATION

SETTING

The USDA Forest Service Southern Research Station Research Triangle Park Forestry Sciences Laboratory and Administrative Site is located on a 28.56-acre lot at 3041 East Cornwallis Road in Durham, North Carolina (Figure 7.1). The property is screened from the road by rows of evergreen trees. A paved driveway runs along the east side of the property and leads to both the front and rear of the building. To the front of the building, the drive is circular with a landscaped island. The island has a coursed stone wall that is stepped slightly with the gently sloping lot. The high end of the wall creates a focal point and has a flag pole (Figure 7.2). To the rear of the building, a paved road winds through the northern section of the property, providing access to the support structures. These buildings are scattered on the property rather than clustered and are screened from each other by trees. The road eventually wraps around to the Head House (see below) and provides a secondary entrance from East Cornwallis Road. The original landscaping and shrubbery were provided by the Lakewood Garden Center (The Durham Sun 1962a:6B).

There are seven structures on the property, including the Forestry Sciences Laboratory Building (constructed in 1962), the Head House/Lab (1964), the old Chemical Storage Building (1962), the new Chemical Storage Building (1990), the Office Annex (1965), the Garage or "Blue Building" (1970), and the Greenhouse (1996).

NC HPO NUMBER DH 3502: MAIN LABORATORY BUILDING

Description

The main laboratory building, constructed in 1962, is of Duralite™ concrete-block construction with stone veneer exterior walls (Figures 7.3–7.5). Taken from regional quarries, the North Carolina bluestone possesses a variegated pattern of many colors and shapes. The one-story building has an exposed basement on the southeast (side) and northeast (rear) elevations, which was finished after the original construction. It has a flat roof and a central core with a side-gable roof covered with standing-seam metal and clerestory windows, providing daylight to the laboratory spaces. According to the architectural drawings, "marine-grade" plywood sheathing with wood battens covers the gable ends, which also have wood louvers. A stone-veneered chimney with gray granite cap projects from the apex of the gable roof; although due to the lack of a fireplace on the interior, it is most likely for a boiler. The core is surrounded on all four elevations with flat-roofed spaces housing offices.

Highlighting the U.S. Forest Service shield on the façade is a panel of eight Carolina bluestone tiles with sawn edges (Figure 7.6). These eight tiles are 2 inches thick and project 1 inch beyond the stone veneer. A square projecting window bay for the library is off the southeast elevation (Figure 7.7). It has a stretcher-bond brick veneer exterior with projecting stone blocks along the façade wall, creating a decorative pattern (Figure 7.8). The native bluestone blocks are 8 × 2¼ × 8 inches with sawn edges that project 4 inches beyond the face of the brick. A stuccoed square window bay projects off the southeast end of the library and has full-height plate glass windows allowing natural light into the library space. The windows of the main core consist of single and paired, fixed-pane-over-single-light casement windows with a metal panel below (Figure 7.9). The main entrance features a single-leaf wood door flanked by full-height plate glass windows and topped by a transom, all with wood surrounds. The entrance is accessed by a set of flat poured-concrete stairs on concrete piers. It is sheltered by a flat-roofed overhang with exposed square beams (Figure 7.10). Secondary entrances are located on both the northwest (side) and northeast (rear) elevations. Due to the elevation change, the rear entrance with double-leaf doors enters at a landing from



Figure 7.1. Site plan.



Figure 7.2. Landscaped entrance at RTP Forestry Sciences Laboratory, looking west.



Figure 7.3. DH 3502: Main Laboratory Building, façade, looking northeast.



Figure 7.4. DH 3502: Main Laboratory Building, northwest (side) and northeast (rear) elevations, looking southeast.



Figure 7.5. DH 3502: Main Laboratory Building, southeast (side) and northeast (rear) elevations, looking west.

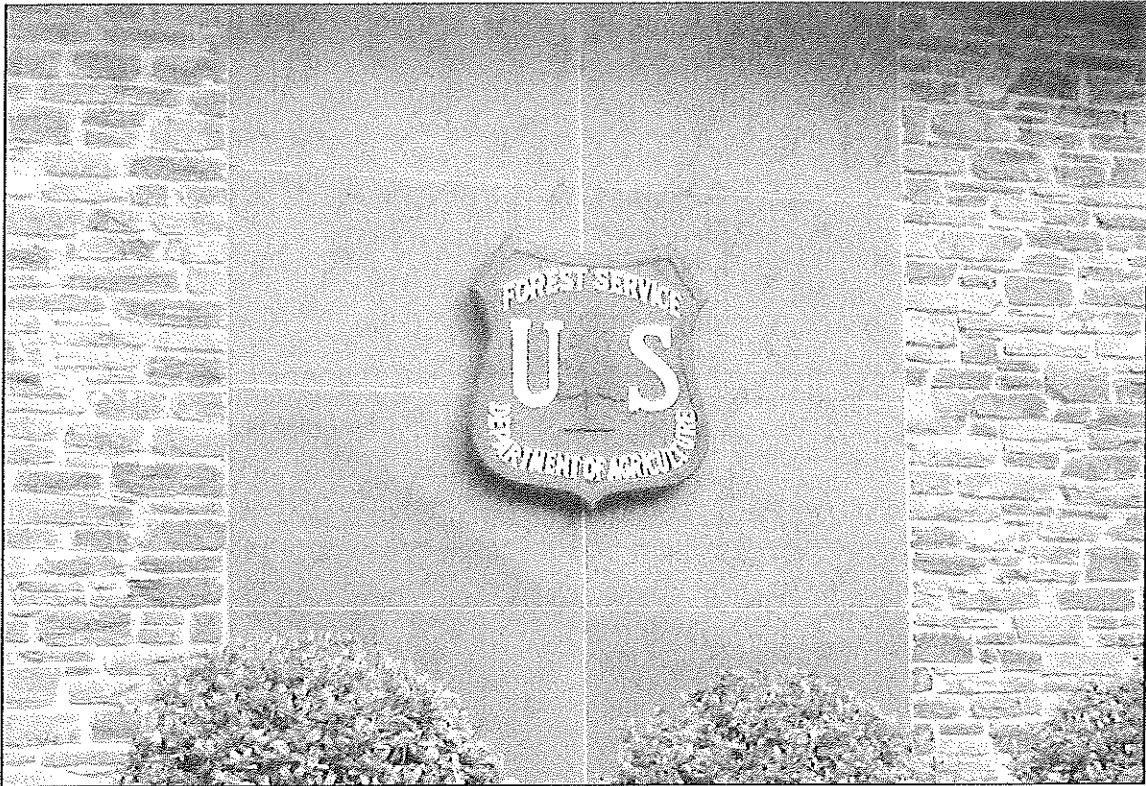


Figure 7.6. DH 3502: Main Laboratory Building, USDA-Forest Service shield and stone panel, looking northeast

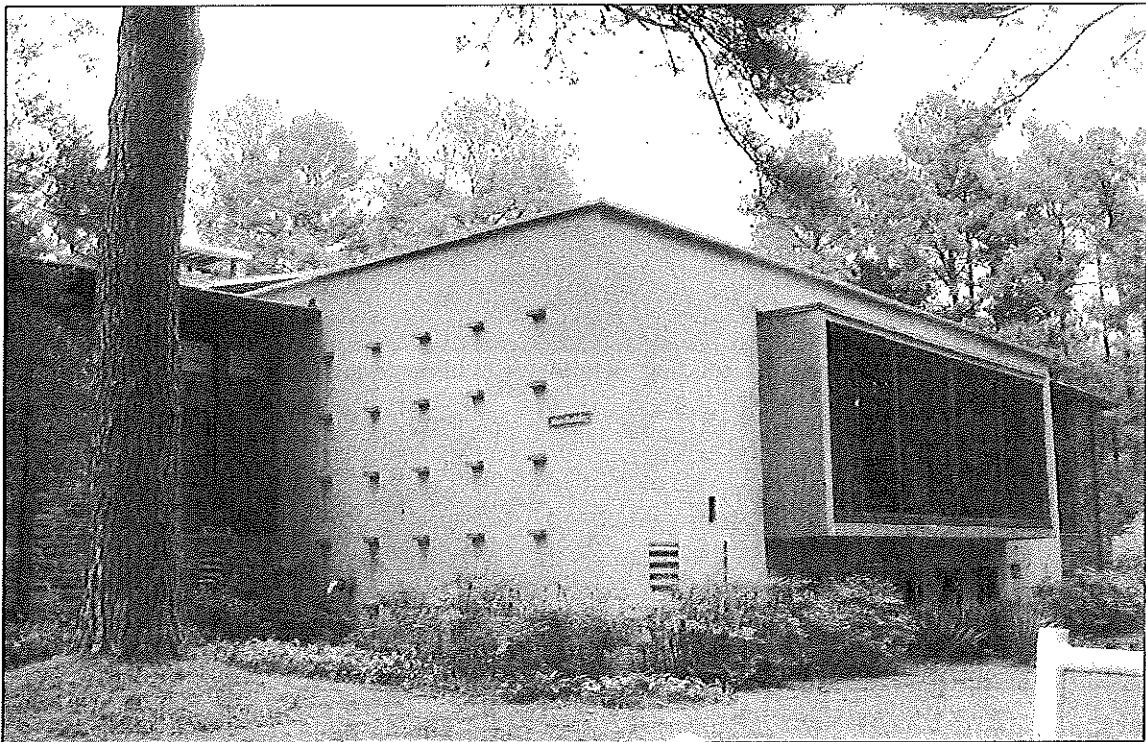


Figure 7.7. DH 3502: Main Laboratory Building, library section, looking north.

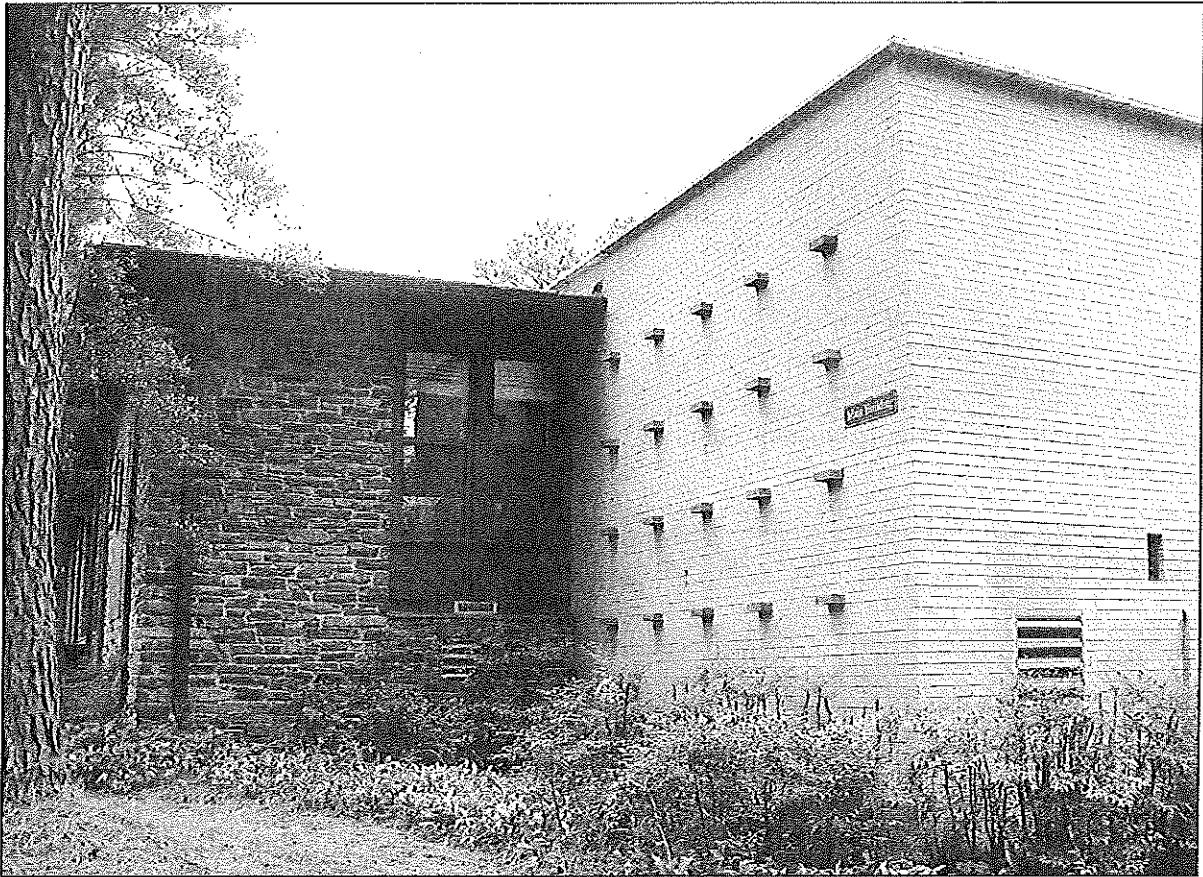


Figure 7.8. DH 3502: Main Laboratory Building, detail view of library wall, looking north.



Figure 7.9. DH 3502: Main Laboratory Building, window and stone detail, looking northeast.

which one must go upstairs to reach the main level. A vehicular entrance is also located on the basement level of the northeast (rear) elevation (Six Associates 1962). An ADA ramp has been added to the northwest (side) elevation at an unknown time.

The interior of the building consists of laboratory space within the central core. An interior hallway runs parallel to the front of the building, along the southeast side of the building and separates the open laboratory from the offices on the rear side of the building. The exterior rooms consist of offices, storage space, restroom facilities, and the library on the southeast end (see Figure 7.15, below). The hallways have concrete-block interior walls for the laboratory space along the southeast hall, an open space along the rear walkway, and wood paneling along the front hallway. The front and side halls have wood-paneled walls for the exterior rooms, drop ceilings, and gray marble floors in two alternating shades (Figure 7.11). The offices that look directly onto the laboratory space have windows and transoms versus full paneled walls (Figure 7.12). A unique interior feature is the reception area, which has a glass wall with geometric wood appliqué in various types of wood and was part of the original design (Figure 7.13, see Figure 7.15). Finished at an unknown time, but according to the original design, the 6,000-square-foot basement now has additional office space and a lunch room (The Durham Sun 1962a:6B). The west half is still crawl space.

Historical Narrative

When the USDA Forest Service was created in 1905, it was quickly recognized that research was needed to guide the new agency's efforts (Steen 1976:131). European experience, which provided the best example of forestry management at the time, was not an adequate basis for American forestry because of the different species, climates, and social and economic conditions prevailing in the United States. At the time, field studies were conducted throughout the United States, but all of the investigators were headquartered in Washington, D.C. (Grosvenor 1999).

A significant change in research organization occurred in 1908 with the establishment of a system of forest experiment stations. The first station was established at Fort Valley in the Coconino National Forest in Arizona, with similar stations built in Colorado, Idaho, California, Washington, and Utah. These "stations," however, were small and localized—akin to what were later called "field centers" or "work centers" or even "experimental forests." In 1915, research in the Forest Service was consolidated within the newly established Research Branch. Established in 1921, the Appalachian Forest Experiment Station and its sister station, the Southern Forest Experiment Station in New Orleans, were the first Forest Service experiment stations created to serve regional constituencies. Research at these two stations and the ones that came afterward was intended to be conducted "on a regional basis for the benefit of all the forests in each region, both public and private" (Grosvenor 1999; Steen 1976).

By 1952, Forest Service capital improvement projects nationwide were focused on rehabilitation, relocation, replacement, or reconstruction of older research facilities. However, construction funding remained low, with only \$100,000 available nationwide for capital improvement projects. The following years were characterized by continued decentralization and specialization, resulting in increased workloads for both rangers and staff (Grosvenor 1999). The early 1960s ushered in another era in Forest Service administration that demanded an architectural response. New educational and other social economic programs brought accelerated public works, Job Corps, prison work camps, Youth Conservation Corps, and other programs to the National Forests. These work programs provided educational opportunities, vocational training, and practical skills in construction and other forestry activities for the young and/or unemployed. Congress allocated increased funding for these and similar programs, resulting in a huge increase in Forest Service design and construction projects (Grosvenor 1999).

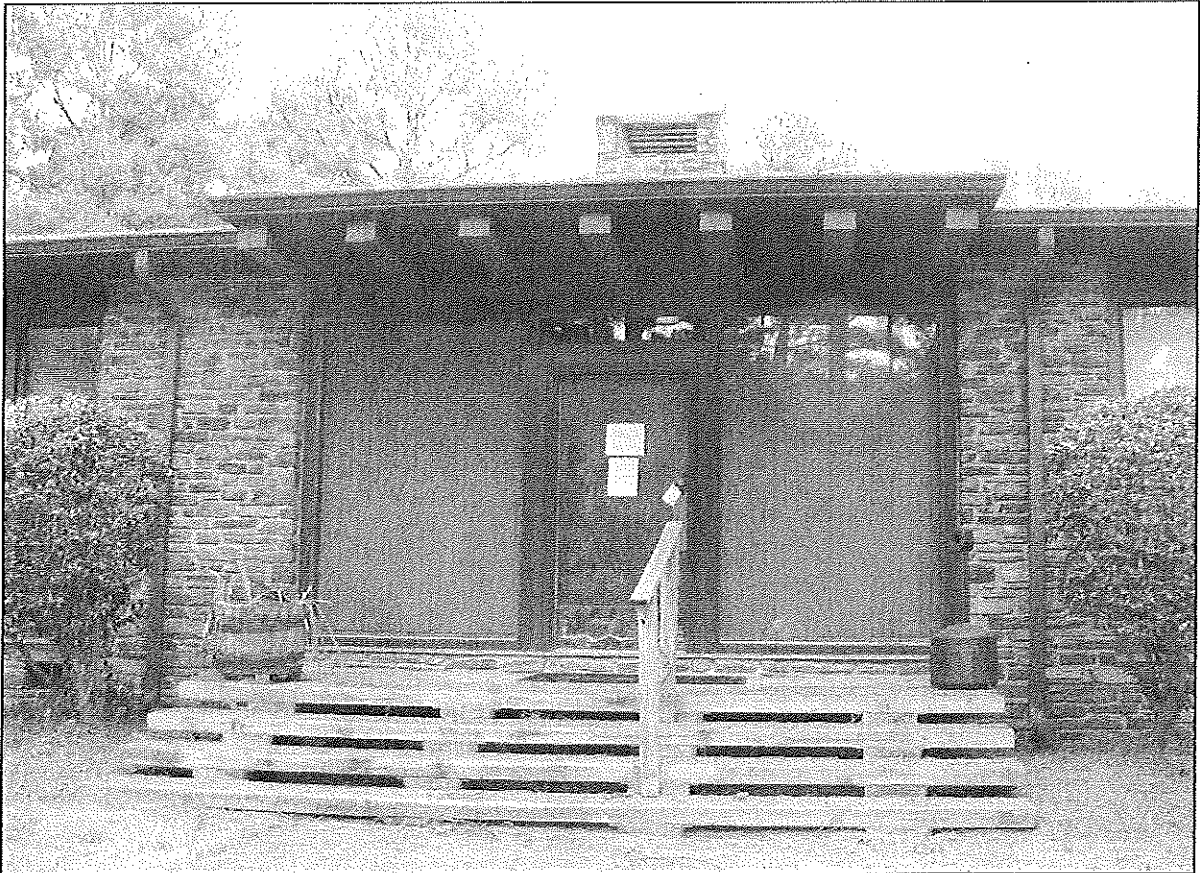


Figure 7.10. DH 3502: Main Laboratory Building, main entrance, looking northeast.



Figure 7.11. DH 3502: Main Laboratory Building, interior hallway, looking southwest to front hall.

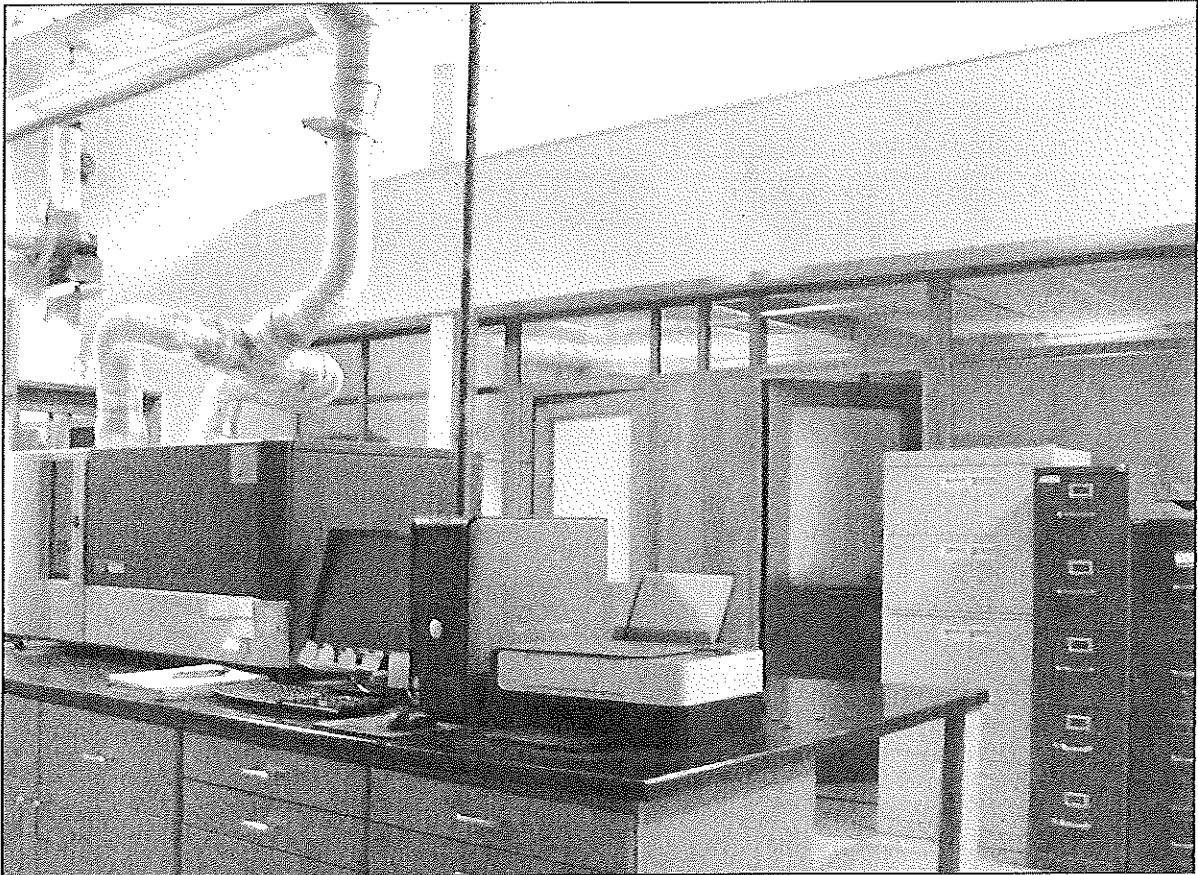


Figure 7.12. DH 3502: Main Laboratory Building, laboratory space and offices, looking northwest.

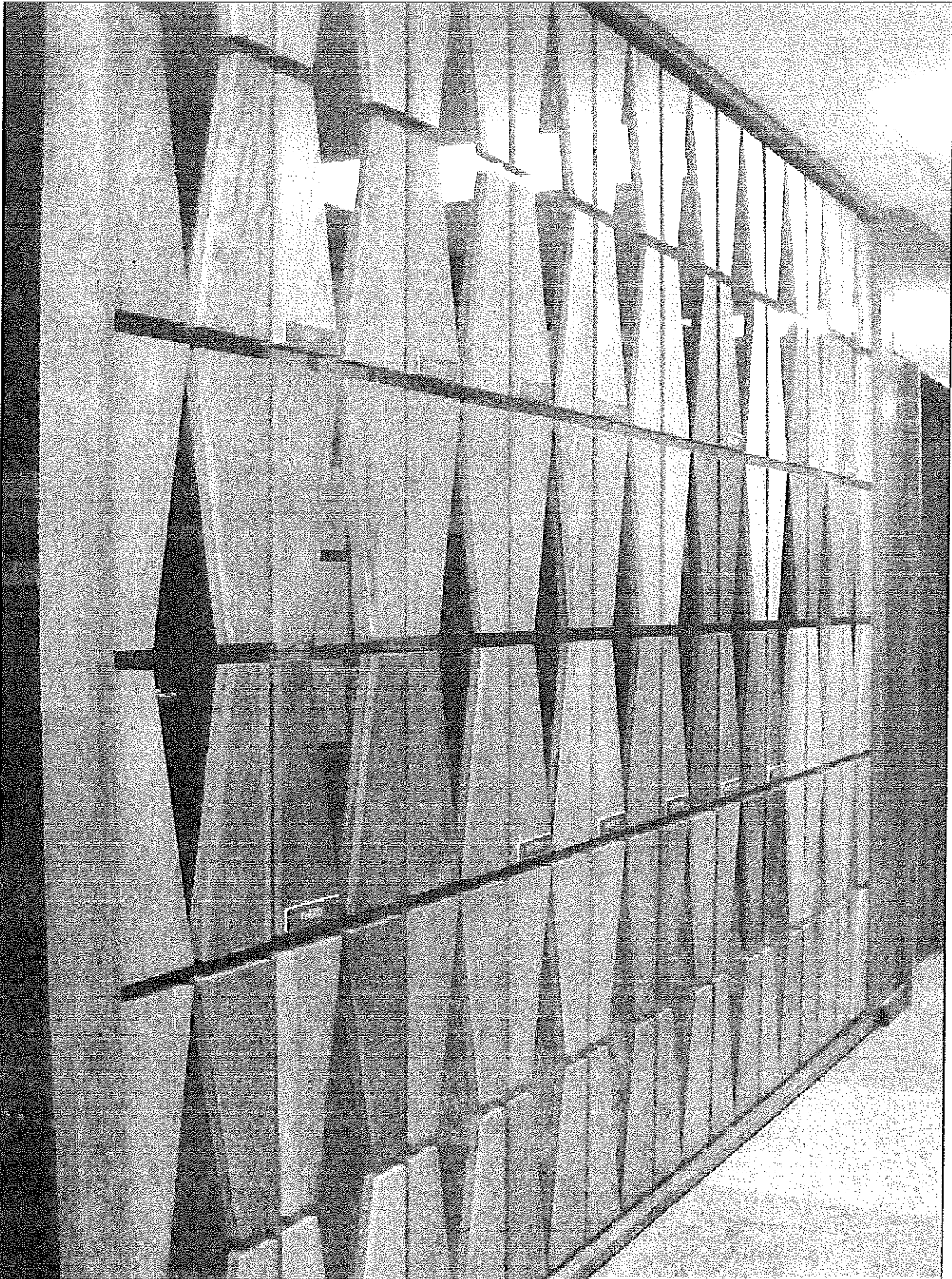


Figure 7.13. DH 3502: Main Laboratory Building, decorative screen at reception area, looking northwest.

The main laboratory building of the Research Triangle Park Forestry Sciences Laboratory was erected in 1962 on a 26-acre site in the RTP on land donated to the Federal government by the Research Triangle Foundation, a private non-profit organization that manages the RTP. The site was ideally located so that Forest Service scientists would have close contact with fellow researchers and scientists at Duke University, the University of North Carolina at Chapel Hill, and North Carolina State University, as well as access to the universities' libraries (The Durham Sun 1962a:6B).

The RTP Forestry Sciences Laboratory was developed as a soil and tree research facility for the Appalachian Forest Experiment Station of the Forest Service. As part of a decentralization plan and a focus on regional variances initiated just prior to World War II, research at the facility concentrated on regional problems and solutions, such as the southern pine beetle. As with its research focus, the U.S. Forest Service relied on its regions, versus a single architect in Washington D.C., to provide designs for research buildings on the experimental forest and station headquarters and laboratories. Within each region, either a Forest Service architect was hired or private architectural firms were used for building designs. As there was no regional architect from 1942 to 1968 in Region 8, the Asheville architectural firm of Six Associates was hired for the design and execution of the RTP facility (Figure 7.14).

Six Associates began in 1942 as an Asheville architectural firm established by a group of six western North Carolina architects: William Waldo Dodge Jr., Henry Irvin Gaines, Anthony Lord, William Stewart Rodgers, Earle G. Stillwell, and Charles Waddell. The founders organized Six Associates as a consortium with the goal of qualifying for defense contracts during World War II (Brown and Bushong 2010). The firm's principals and their diverse backgrounds brought the firm several commissions during the war, including hospitals and factories in Georgia, Tennessee, and North Carolina. Post-war growth in the Southeast resulted in further commissions for factories, college buildings, and hospitals, making Six Associates one of the most respected modern design firms in North Carolina. Much of their work was in western North Carolina, but their practice extended beyond the region as well. Their work in the 1950s and 1960s typically expressed the International Style, sometimes employing forms and materials with a regional flavor in the handling of natural materials including wood and stone (Brown and Bushong 2010).

Although this was their only building designed for the U.S. Forest Service, the firm executed several other commissions in the Raleigh-Durham area. William Stewart Rodgers designed the Duke Law School in 1962 and a residence hall at Duke in 1966. He also designed the 1964 Asheville Airport, which features stone supports and varying horizontal roof planes. William B. McGhee, who joined in 1957, is credited with designing another residence hall at Duke University in 1967. William Waldo Dodge designed several other buildings in the RTP, including the addition to the Technitrol building in 1965, the Burrughs, Welcome & Co. Building in 1970, and the plant additions to Troxler Electronic Laboratories in 1973-1974 (American Institute of Architect Historical Directories). None of the founders are still alive, but Six Associates is still an active architectural firm, although it ceased to exist under that name in the mid-1990s when the office was bought by Ellis/Naeyaert/Genheimer Associates (ENGA). ENGA subsequently merged with Harley Ellington Pierce Yee and became Harley Ellis. In 2002, the office was bought by Callaway, Johnson, Moore & West (Brown and Bushong 2010).

The architecture of US Forest Service buildings was generally characterized by the use of wood or stone siding with pitched rather than flat roofs, but by the 1960s more and more of the materials used were characteristic of the particular regions in which they were built (Grosvenor 1999). When comparing the Research Triangle Main Laboratory building to others built at the same time in various parts of the US, a similar aesthetic is seen in the use of stone exteriors, the horizontality of form, and the cantilevered roofs, as architects in all of the regions were seeking to blend the modern aesthetic with the earlier "Forest Service Rustic" common in the 1930s. Based on other buildings designed by Six Associates and the general aesthetic of the US Forest Service buildings, there was likely a Forest Service aesthetic that Six Associates followed (Figures 7.15-7.19).

No 1 - Rural
Rustic
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project
historical ?

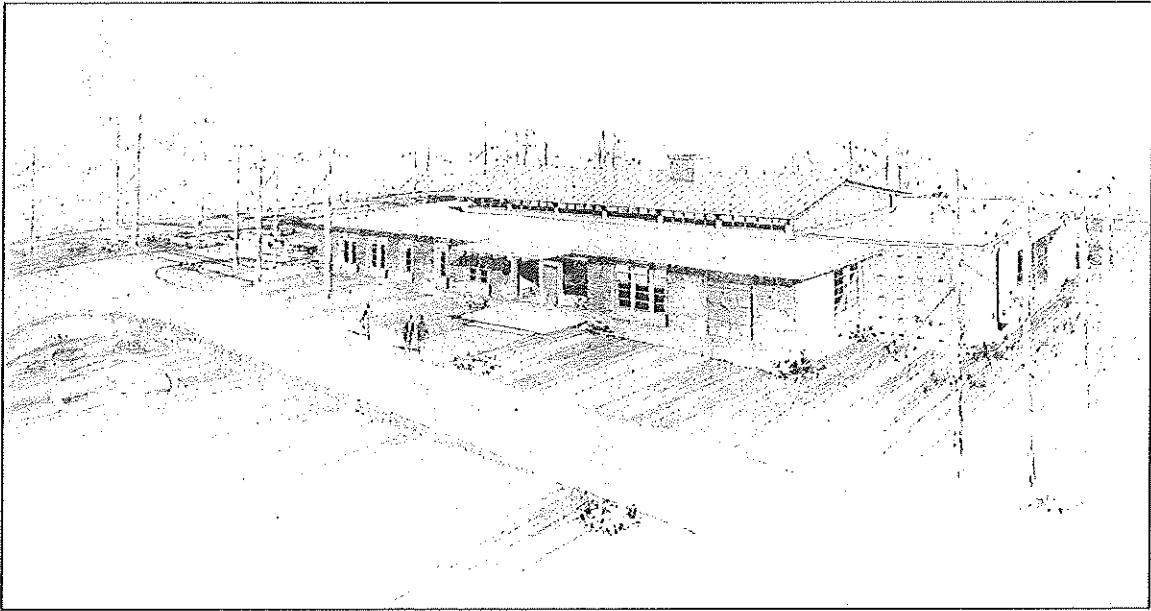


Figure 7.14. DH3502: Main Laboratory, 1962 Six Associates Rendition Drawing (Located at the Research Triangle Park Forestry Sciences Laboratory).

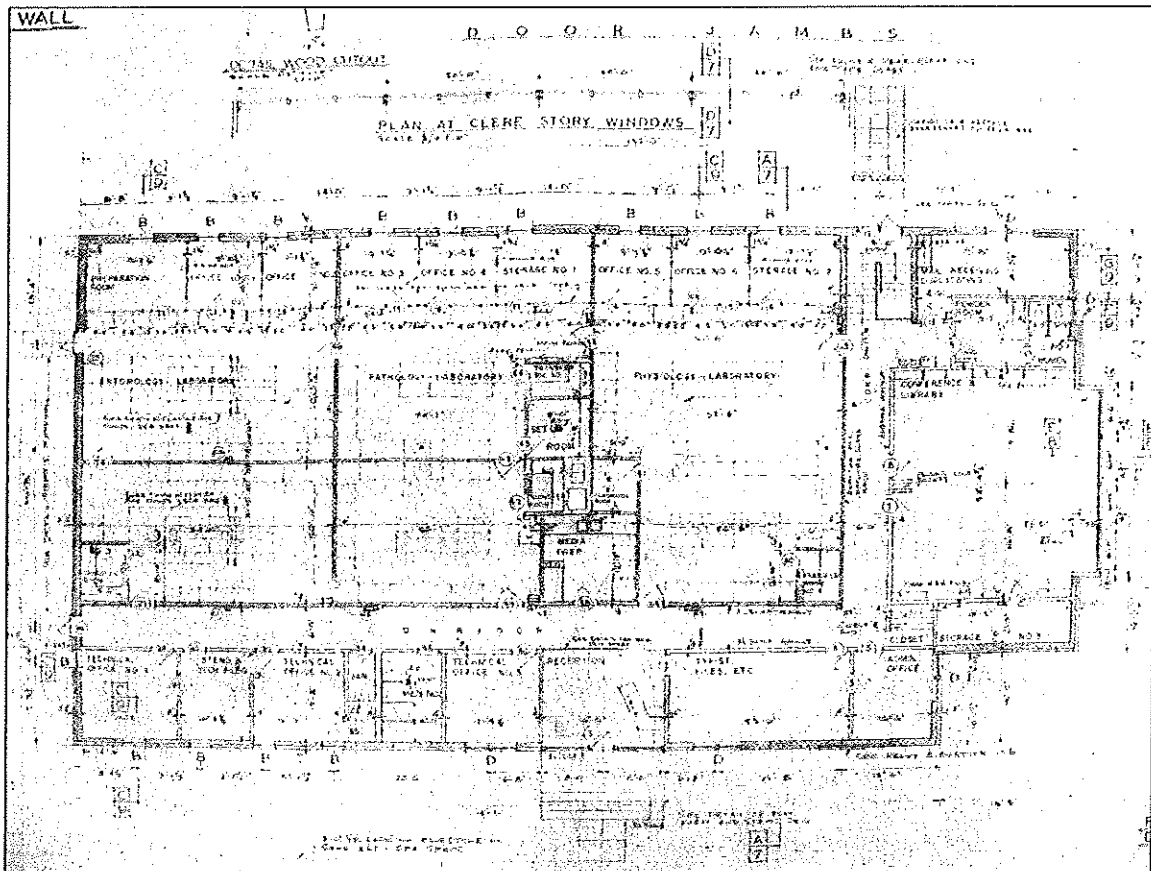


Figure 7.15. DH3502: Main Laboratory, 1962 Six Associates Main Floor Plan (Located at the Research Triangle Park Forestry Sciences Laboratory).

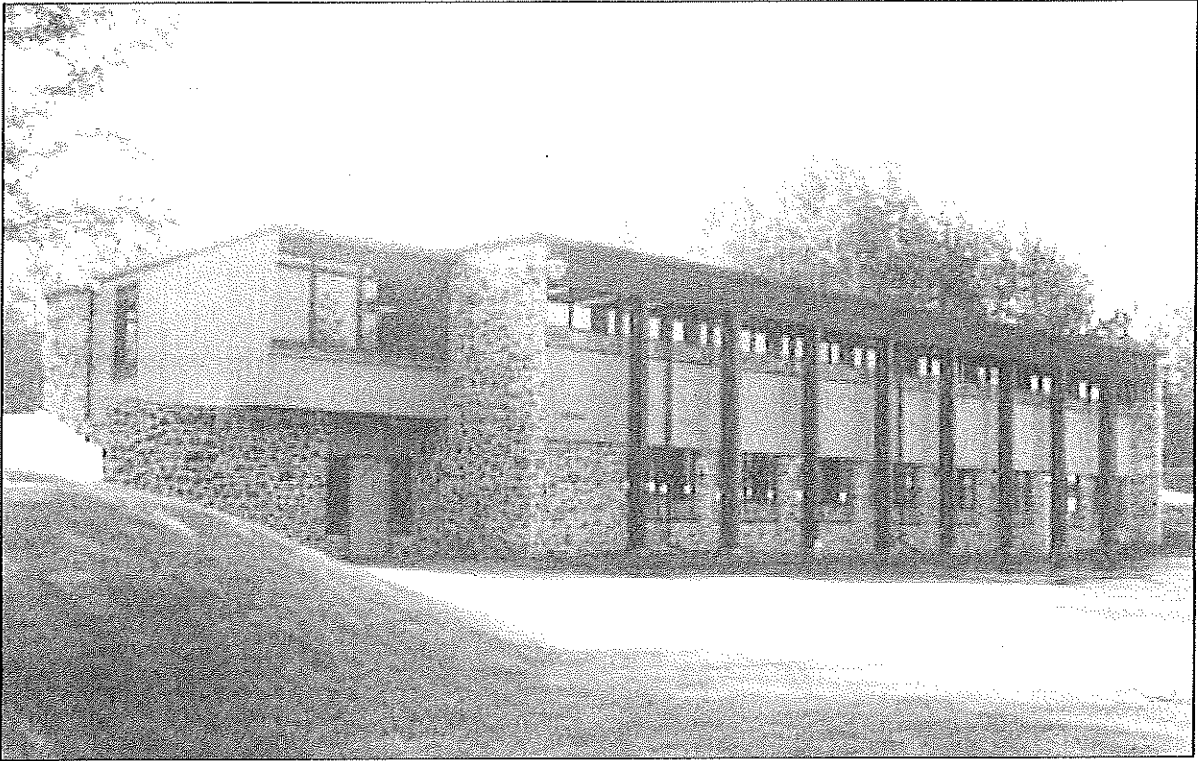


Figure 7.16. 1960 Northern Institute of Forest Genetics, Rhinelander, Wisconsin (source: Grosvenor 1999).

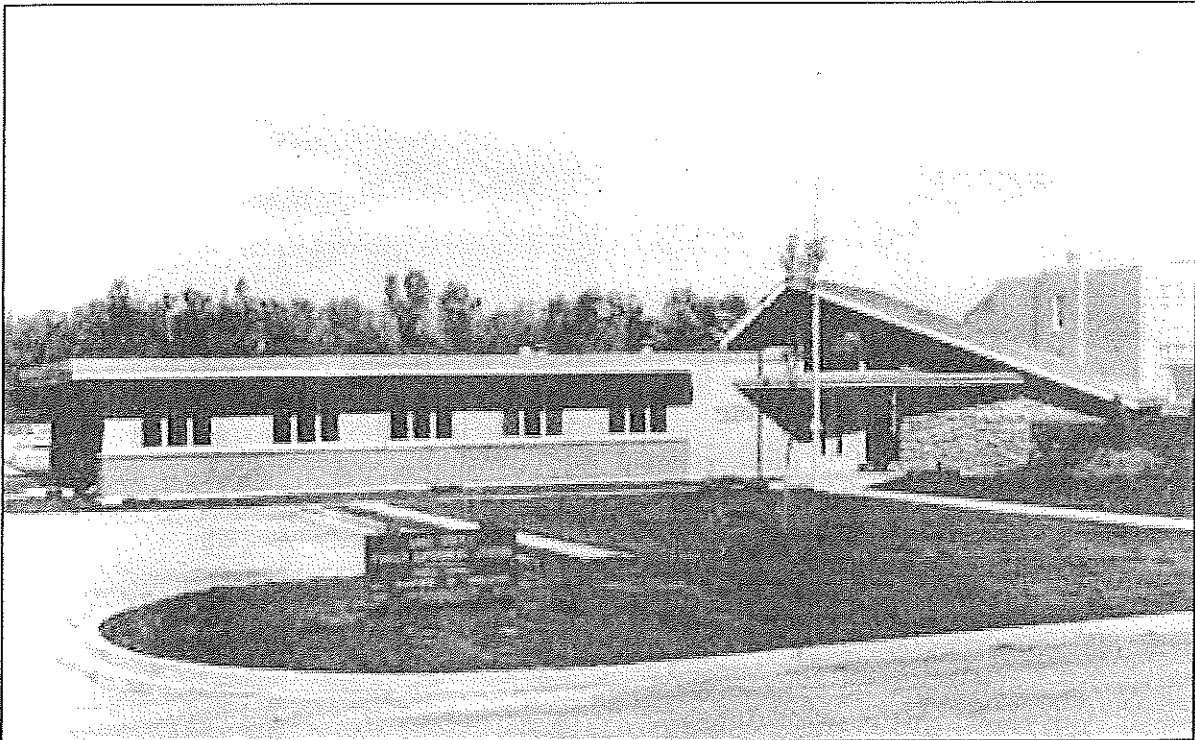


Figure 7.17. 1962 Shelterbelt Laboratory, Bottineau, North Dakota (source: Grosvenor 1999).

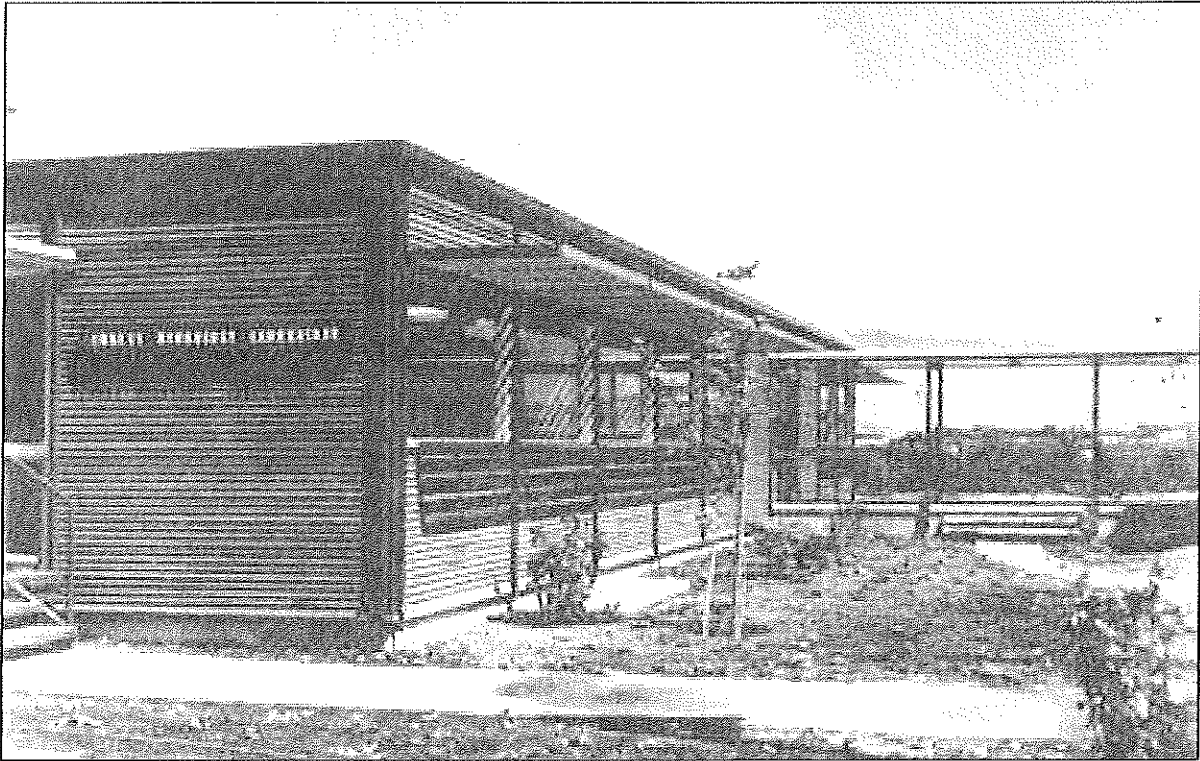


Figure 7.18. 1963 Forest Service Hydrology Laboratory, Wenatchee, Washington (source: Grosvenor 1999).



Figure 7.19. 1966 Silviculture Laboratory, Sewanee, Tennessee (source: Grosvenor 1999).

This Main Laboratory Building was built by the contractor Robert H. Pinnix, Inc. of Gastonia, North Carolina at a cost of \$388,184. The building provided office and laboratory space for 12 research scientists and 13 assistants. Additional service buildings, a greenhouse, and nursery were part of the original expansion plans (The Durham Sun 1962a:6B). Dedicated on October 19, 1962, the Research Triangle Park Forestry Sciences Laboratory was the only project on the East Coast with a full-time program studying forest soils, physiology, diseases, and insects (The Durham Sun 1962b:7B). Four of the original men assigned to the facility were also appointed as adjunct professors to the Duke University Forestry School: Dr. W.A. Campbell (forest pathology); Dr. Robert L. Barnes (forest-tree physiology), Dr. W.E. Clark (forest entomology); and Dr. Louis Metz (forest soils) (Mushak 1985).

ANCILLARY STRUCTURES

DH 3503: Head House Building

The Head House (a service building attached to the greenhouse), constructed in 1962–1963, was designed by Gudger, Baber, and Wood of Asheville, North Carolina (Gudger et al. 1962). Used as a laboratory workspace for the greenhouse, it is of concrete-block construction with stretcher-bond brick exterior walls. The building features an asphalt-shingled front-gable roof with two cross-gables on the east end of the south elevation. An exterior-side brick chimney is on the north elevation. The windows are 1/1 vinyl sash with rowlock sills. There are multiple, single-leaf entrances leading to work areas and laboratory space, most of which are topped by a flat concrete hood. A roll-up door is present on the west elevation. Due to the sloping of the land, a fully exposed basement is present on the north and east elevations. A secondary vehicular entrance on the basement level has been remodeled into a pedestrian entrance (Figures 7.20 and 7.21). The original large greenhouses, constructed in 1962, were replaced in 1996 with a single smaller greenhouse (Google Earth Historical Images).

DH 3504: Annex

Constructed in 1965, the single-story annex is of concrete-block construction with stretcher-bond brick veneer. The building has an asphalt-shingled, side-gable roof with overhanging eaves and T-III siding is used on the gable ends. The windows are 1/1 double-hung sash with rowlock sills. The building has several single-leaf entrance doors leading to laboratory, storage, and office space. The entrances on the northeast elevation are sheltered by a metal awning with metal posts. A vehicular entrance on the northwest elevation has been enclosed with T-III siding (Figure 7.22). A corrugated metal garage, erected in 1970, is located immediately north of the building.

DH 3505: Chemical Storage (Old)

Constructed in 1962, the single-story chemical storage building is of concrete-block construction with stretcher-bond brick veneer. The building has an asphalt-shingled, side-gable roof with overhanging eaves and weatherboard in the gable ends. The windows are fixed single-lights with rowlock sills. The building has symmetrically placed, single-leaf entrance doors leading to the two-room interior (Figure 7.23). Originally used for chemical storage, the building was converted for use as a storage building after the new chemical storage building was constructed in 1990 south of the Head House.

Non-Contributing Buildings

There are three non-contributing properties on the project tract: a 1970 garage (Figure 7.24), a 1990 chemical storage building (Figure 7.25), and a 1996 greenhouse (Figure 7.26). The garage is located immediately north of the annex and is metal framed with corrugated metal siding. The concrete-block

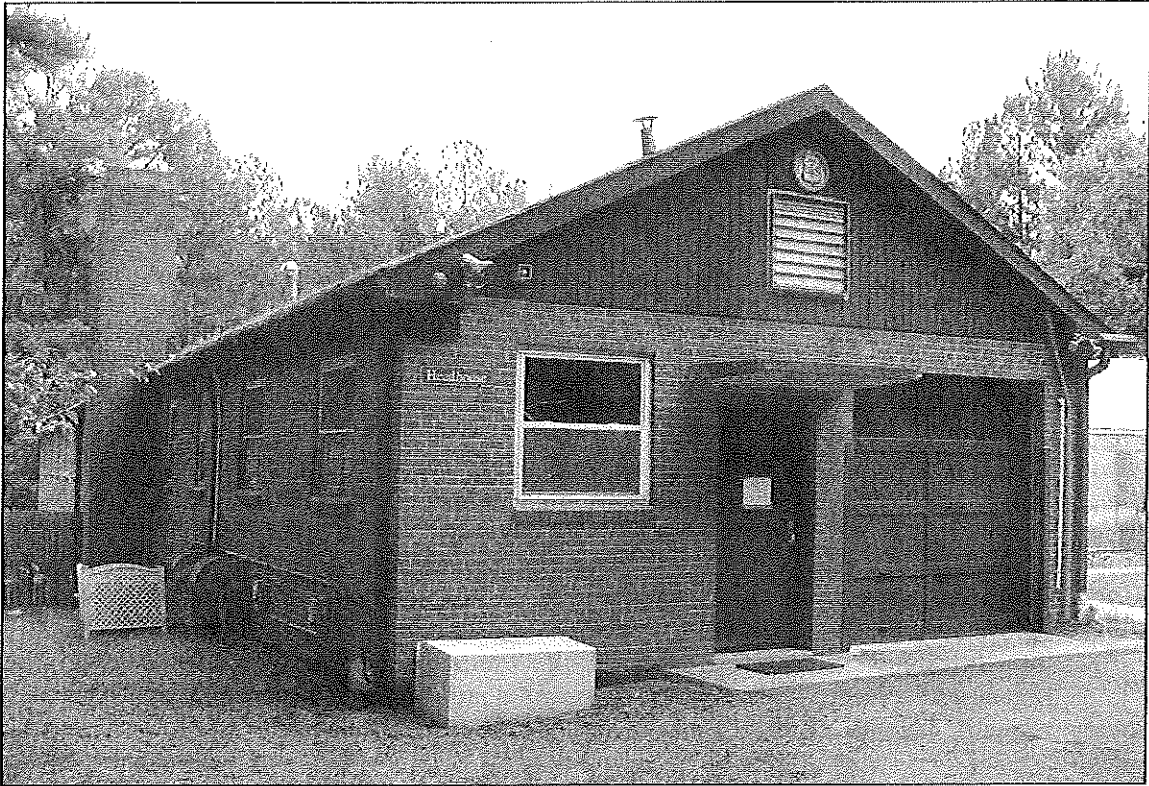


Figure 7.20. DH 3503: Headhouse, west (entrance) and north (side) elevations, looking southeast.



Figure 7.21. DH 3503: Headhouse, south (long) and east (short) elevations, looking northwest.



Figure 7.22. DH 3504: Annex, façade and northeast elevation, looking south.



Figure 7.23. DH 3505: Old Chemical Storage Building, façade and northeast elevation, looking south.

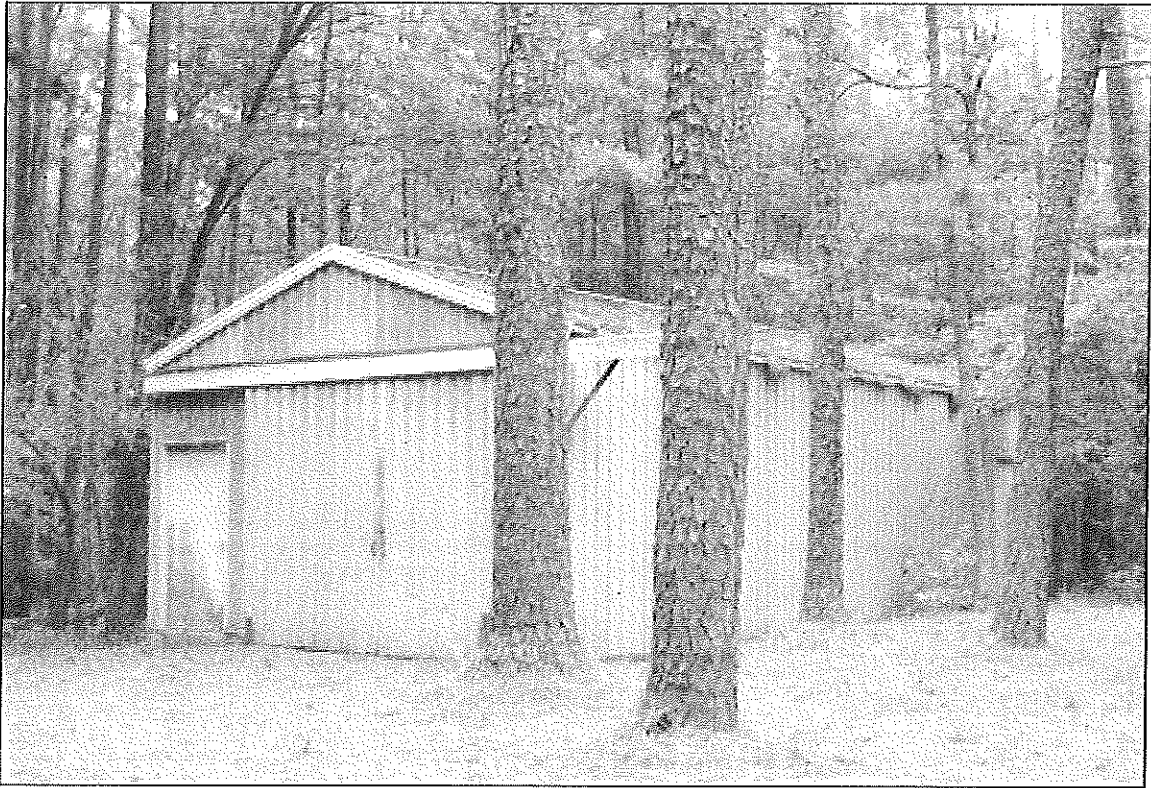


Figure 7.24. Garage (Blue Building).



Figure 7.25. New Chemical Storage Building.



Figure 7.26. New Greenhouse Building.

chemical storage building is located south of the main entrance of the Head House. The 1996 greenhouse, which replaced a larger original greenhouse, is located east of the Head House.

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

Criterion A: The Forestry Sciences Laboratory complex is recommended NHRP-eligible under Criterion A on the state level for its association with the role the research program performed for the USDA Forest Service in the southeastern United States as well as its role in the development of the RTP. The period of significance coincides with its 1962 construction date. Not only did the laboratory contribute to the growth of the RTP, but it was the largest research station established on the East Coast to develop new technologies and management programs for dealing with southeast regional forestry problems such as pests, diseases, soils, and forest physiology.

As one of the first complexes to be constructed within the RTP, the site was ideally located so that Forest Service scientists would have close contact with fellow researchers and scientists, and facilities, at Duke University, the University of North Carolina at Chapel Hill, and North Carolina State University. The facilities were constructed on land donated to the Federal government by the Research Triangle Foundation, which was developing the RTP. The willingness of government and corporate entities to construct facilities within the RTP allowed for continued growth, resulting in one of the most successful high-technology ventures in the U.S. At its completion in 1962, the laboratories provided the Forest Service with a full-time program studying forest soils, physiology, diseases, and insects. The facility reflects the early development period within the RTP, as well as the shift within the U.S. Forest Service to provide smaller de-centralized research facilities.

Criterion C: The U.S. Forest Service Sciences Laboratory complex is recommended eligible under Criterion C as an intact example of mid-twentieth-century design. Reflecting the trend within the Forest Service to blend the modern aesthetic with the rustic nature of past buildings, the laboratory exhibits a naturalistic component unique to the RTP, but comparable to other U.S. Forest Service buildings constructed during the same time period. While the principal ancillary buildings on site were constructed over a period spanning several years after 1962, they are considered contributing resources to the complex, as they reflect the original expansion plans. The buildings retain their overall original form and exterior design features. Based on original construction drawings, both the interior and exterior remain unchanged, except for the finished basement, which was in the original expansion plans. The complex retains all aspects of integrity.

This resource is not known to be associated with individuals significant to local, state, or national history, and it is recommended not eligible under Criterion B. The U.S. Forest Service Sciences Laboratory complex is not likely to yield any new information pertaining to the history of building design or technology. Therefore, this resource is recommended not eligible under Criterion D.

8. SUMMARY AND RECOMMENDATIONS

TRC Environmental Corporation (TRC) has completed a cultural resources assessment of the USDA Forest Service Southern Research Station Research Triangle Park Forestry Sciences Laboratory and Administrative Site, Durham County, North Carolina. The study area is located at 3041 E. Cornwallis Road within the RTP in the North Carolina Piedmont and covers about 26.9 acres. It contains a maintained lawn area, an administrative campus with seven structures, and a wooded, undeveloped area.

The archaeological survey included systematic 30-m interval shovel testing along those parts of the site lacking buildings or impervious surfaces and exhibiting less than 15 percent slope, as well as a visual inspection of the ground surface for cultural remains. A minimum of three tests were excavated on each habitable landform, and close-interval tests were excavated to delineate find locations. A total of 107 survey and delineation shovel tests were excavated. One previously undocumented site (31DH743) and one isolated find (31DH742) were recorded. Both resources are low density lithic scatters. They appear to lack the potential to provide substantial additional information concerning the prehistory of the region and are recommended not eligible for the NRHP.

The historic structures survey included background research and detailed examination of the seven structures on the site, which include the Forestry Sciences Laboratory Building (constructed in 1962), the Head House/Lab (1964), the old Chemical Storage Building (1962), the new Chemical Storage Building (1990), the Office Annex (1965), the "Blue Building" (1970), and the Greenhouse (1996). As a result of the study, TRC recommends that the Forest Service Sciences Laboratory complex (including the Laboratory Building, the Annex, the Head House, and the old Chemical Storage Building) be determined NHRP-eligible under Criterion A on the state level for its roles in the research program of the Forest Service in the southeastern United States and in the development of the RTP. The complex is also recommended eligible for the NRHP under Criterion C as an intact example of mid-twentieth-century design.

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APPENDIX 1. ARTIFACT INVENTORY

Appendix J. Artifact Inventory

Site#	Bag#	Unit#	Provenience	Stratum	Depth		ArtCode	ArtType	RawMat	RawMat Code	Cortex?	Count	Size (cm)	Wt (g)	Comments
					(cm)	(cm)									
31SW743	1	L1	T9.11	I	0-32	LDEB	Flake, Broken	MV	MV-A-GY-FB	N	1	1-2	0.3	bifacial thinning flake	
31SW742	2	L1	T5.09	I	0-28	LDEB	Flake, Complete	MV	MV-A-W	N	1	1-2	0.2	bifacial thinning flake	
31SW743	3	L1	N515 E500	I	0-32	LDEB	Shatter	Quartz	MV-PP-Gy	Y	1	1-2	0.6		
31SW743	3	L1	N515 E500	I	0-32	LDEB	Flake	MV	MV-PP-GY-FB	N	1	1-2	0.6		
31SW743	3	L1	N515 E500	I	0-32	LDEB	Shatter	MV	MV-PP-GY-FB	N	1	1-2	0.3		
31SW743	4	L1	N530 E500	I	0-30	LBIF	Biface	Distal	MV-A-FB-W	N	1	1-2	6.2	Distal; prob from large finished PP/K (Archaic?)	
31SW743	4	L1	N530 E500	I	0-30	LBIF	Biface	Medial	MV-QPP-W	N	1	1-2	7.9	Medial and proximal? Roughly lanceolate biface, poorly thinned, poss not bifacial thinning flake	
31SW743	4	L1	N530 E500	I	0-30	LDEB	Flake, Complete	MV	MV-A-W	N	1	1-2	0.1		
31SW743	5	L1	N545 E500	I	0-24	LDEB	Flake, Complete	MV	MV-A-Gy	N	3	1-2	1.7		
31SW743	5	L1	N545 E500	I	0-24	LDEB	Flake, Broken	MV	MV-A-W	N	1	<1	0.1		
31SW743	5	L1	N545 E500	I	0-24	LDEB	Flake, Broken	MV	MV-A-DKGy	N	1	2-3	1.2	fracture plane?	
31SW743	5	L1	N545 E500	I	0-24	LDEB	Flake, Complete	MV	MV-A-W	N	1	2-3	1.2		
31SW743	5	L1	N545 E500	I	0-24	LDEB	Flake, Complete	MV	MV-QP-FB-DKG;	N	1	1-2	0.3		
31SW743	5	L1	N545 E500	I	0-24	LDEB	Shatter	MV	MV-QP-Gy	N	2	1-2	1.2		
31SW743	5	L1	N545 E500	I	0-24	LDEB	Flake, Broken	MV	MV-QP-Gy	N	1	1-2	0.4		
31SW743	8	L1	N545 E515	I	0-20	LDEB	Flake, Broken	MV	MV-A-FB-DKGy	N	1	1-2	0.3	bifacial thinning flake	
31SW743	9	L1	N545 E515	I	0-28	LDEB	Flake, Broken	MV	MV-A-W	N	1	1-2	0.4		

North Carolina State Historic Preservation Office

Historic Property Survey Summary

County: **Durham**

SSN: **DH 3502** Blockface#

Quad:
PIN: 0748-01-15-4515
X: Y:
DOT Project #:
OSA#:

Update Mo: Yr:
 No Alt Alt Det Rehab
 Removed Outbldg Loss
 No Acc. Not Fnd FileMsg
 Newly ID'd Needs Resch.

Property Name: **U.S. Forest Service Sciences Laboratory: Main Laboratory Building**
Street or 911 Address: **3041 E. Cornwallis Road**
Location Description: **Research Triangle Park**
Town/vicinity: **Durham**
District: **None ()**
District Dates: NRdate: SLdate: DOEdat:
Local District:

Recommended for SL StudyList SLDate: NR NRDate: NR #: **None**
 DOE DOEDate:
DOE Type: Local Status: Ownership: **Public - federal**

Principal Resource Material Integrity: **High** Condition: **Good** Location Integrity: **Original**

Architectural Data: Date(s): **1962**
Major Style Group(s) **Misc. Modernist**
Construction: **Masonry Veneer**
Ext. Material: **Stone** Later Covering: **None**
Height: **1 story** Roof: **Flat,Side Gable** Plan: **Other** Core Form (Domestic):
Design Source and attribution: **Six Associates**

Major Theme: **Science** 2nd Theme:
Group Association: Religious Affiliation
Historic Function: **Laboratory**

Written Summary

The main laboratory building, constructed in 1962, is of Duralite (TM) concrete-block construction with stone veneer exterior walls. Taken from local quarries, the North Carolina bluestone possesses a variegated pattern of many colors and shapes. The one-story building has an exposed basement on the southeast (side) and northeast (rear) elevations which was finished after the original construction. It has a flat roof and a central core with a side-gable roof covered with standing-seam metal and clerestory windows which daylight the laboratory spaces. According to the architectural drawings, "marine-grade" plywood sheathing with wood battens covers the gable ends, which also have wood louvers. A stone-veneered chimney with gray granite cap projects from the apex of the gable roof; although due to the lack of a fireplace on the interior, it is most likely for a boiler. The core is surrounded on all four elevations with flat-roofed spaces housing offices.

Highlighting the US Forest Service shield on the façade is a panel of eight Carolina bluestone tiles with sawn edges. These eight tiles are 2" thick and project 1" beyond the stone veneer. A square projecting window bay for the library is off the southeast elevation. It has a stretcher-bond brick veneer exterior with projecting stone blocks along the façade wall creating a decorative pattern. The native bluestone blocks are 8"x 2¼"x 8" with sawn edges that project 4" beyond the face of the brick. A stuccoed square window bay projects off the southeast end of the library and has full-height plate glass windows allowing natural light into the library space. The windows of the main core consist of single and paired, fixed-pane-over-single-light casement windows with a metal panel below. The main entrance features a single-leaf wood door flanked by full-height plate glass windows and topped by a transom, all with wood surrounds. The entrance

Wednesday, December 11, 2013

is accessed by a set of flat poured-concrete stairs on concrete piers. It is sheltered by a flat-roofed overhang with exposed square beams. Secondary entrances are located on both the northwest (side) and northeast (rear) elevations. Due to the elevation change, the rear entrance with double-leaf doors enters at a landing where inside one has to go up the stairs to reach the main level. A vehicular entrance is also located on the basement level of the northeast (rear) elevation (Six Associates Drawings 1962). An ADA ramp has been added to the northwest (side) elevation at an unknown time.

The interior of the building consists of laboratory space within the central core. An interior hallway runs parallel to the front of the building, along the southeast side of the building, and separates the open laboratory from the offices on the rear side of the building. The exterior rooms consist of offices, storage space, restroom facilities, and the library on the southeast end. The hallways have concrete-block interior walls for the laboratory space along the southeast hall, an open space along the rear walkway, and wood paneling along the front hallway. The front and side halls have wood-paneled walls for the exterior rooms, drop ceilings, and gray marble floors in two alternating shades. The offices that look directly onto the laboratory space have windows and transoms versus full paneled walls. A unique interior feature is the reception area, which has a glass wall with geometric wood appliqué in various types of wood and was part of the original design. Finished at an unknown time, but according to the original design, the 6,000-square-foot basement now has additional office space and a lunch room (The Durham Sun October 18, 1962: 6B). The western-half is still crawl space.

The Research Triangle Park Forestry Sciences Laboratory was developed as a soil and tree research facility for the Appalachian Forest Experiment Station of the U.S. Forest Service. As part of a decentralization plan and a focus on regional variances initiated just prior to World War II, research at the facility concentrated on regional problems and solutions, such as the southern pine beetle. As with its research focus, the U.S. Forest Service relied on its regions, versus a single architect in Washington D.C. to provide designs for research buildings on the experimental forest and station headquarters and laboratories. Within each region, either a Forest Service architect was hired or private architectural firms were used for building designs. As there was no regional architect from 1942 to 1968 in Region 8, the Asheville architectural firm of Six Associates was hired for the design and execution of the Forest Service's RTP research laboratory.

Six Associates began in 1942 as an Asheville architectural firm established by a group of six western North Carolina architects: William Waldo Dodge, Jr., Henry Irvin Gaines, Anthony Lord, William Stewart Rodgers, Earle G. Stillwell, and Charles Waddell. The founders organized Six Associates as a consortium of architects who joined together with the goal of qualifying for defense contracts during World War II. The firm's principals and their diverse backgrounds brought the firm several commissions during World War II, including hospitals and factories in Georgia, Tennessee, and North Carolina. Post-war growth in the Southeast resulted in further commissions for factories, college buildings, and hospitals, making Six Associates one of the most respected modern design firms in North Carolina. Much of their work was in western North Carolina, but their practice extended beyond the region as well. Their work in the 1950s and 1960s typically expressed the International Style, sometimes employing forms and materials with a regional flavor in the handling of natural materials including wood and stone.

Although this was their only building designed for the US Forest Service, there were several other commissions executed by the firm in the Raleigh-Durham Area. William Stewart Rodgers designed the Duke Law School in 1962 and a residence hall at Duke in 1966. He also designed the 1964 Asheville Airport which features stone supports and varying horizontal roof planes. William B. McGhee, who joined in 1957, is credited with another residence hall at Duke University in 1967. William Waldo Dodge designed several other buildings in the Research Triangle Park including the addition to the Technitrol Building in 1965, the Burroughs, Welcome & Co. building in 1970, and the plant additions to Troxler Electronic Laboratories in 1973-74. Although none of the founders are still alive, Six Associates is still an active architectural firm, although it ceased to exist under that name in the mid-1990s. The office was bought out by Ellis/Naeyaert/Genheimer Assoc. (ENGA). Then ENGA merged with Harley Ellington Pierce Yee and became Harley Ellis. In 2002, the office was bought out by Callaway, Johnson, Moore & West which it is

today.

As was true earlier, the architecture of U.S. Forest Service buildings was characterized by the use of wood or stone siding with pitched rather than flat roofs, but by the 1960s more and more of the materials are characteristic of the particular region in which they were built. When comparing the Research Triangle Main Laboratory Building to others built at the same time in various parts of the US, a similar aesthetic is seen in the use of stone exteriors, the horizontality of form, and the cantilevered roofs as architects in all of the regions were seeking to blend the modern aesthetic with the earlier "Forest Service Rustic" common in the 1930s. Based on other buildings designed by Six Associates and the general aesthetic of the U.S. Forest Service buildings, it suggests there was a Forest Service aesthetic that Six Associates may have had to conform to.

This Main Laboratory Building was built by the contractor Robert H. Pinnix, Inc. of Gastonia, North Carolina at a cost of \$388,184. The building provided office and laboratory space for 12 research scientists and 13 assistants. Additional service buildings, a greenhouse, and nursery were part of the original expansion plans (The Durham Sun October 18, 1962: 6B). Dedicated on October 19, 1962, the Research Triangle Park Forestry Sciences Laboratory was the only project on the East Coast with a full-time program studying forest soils, physiology, diseases, and insects (The Durham Sun October 18, 1962: 7B). Four of the original men assigned to the facility were also appointed as adjunct professors to the Duke University Forestry School: Dr. W.A. Campbell (forest pathology); Dr. Robert L. Barnes (forest-tree physiology), Dr. W.E. Clark (forest entomology); and Dr. Louis Metz (forest soils) (The Durham Herald 1962).

Outbuildings/Features

Actions



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-01



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-02



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-03



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-04



DH3502_DurhamRTP_USFSLabratroyBldg_09-13_ER-05



DH3502_DurhamRTP_USFSLabratroyBldg_09-13_ER-06



DH3502_DurhamRTP_USFSLabratroyBldg_09-13_ER-07



DH3502_DurhamRTP_USFSLabratroyBldg_09-13_ER-08



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-09



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-10



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-11



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-12



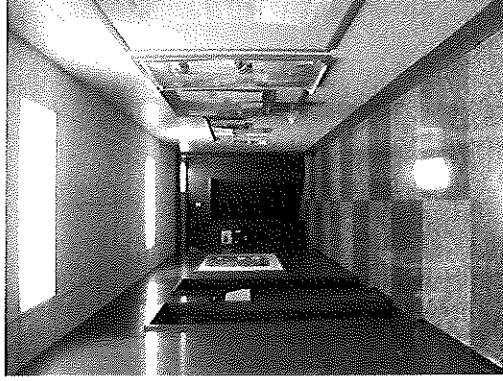
DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-13



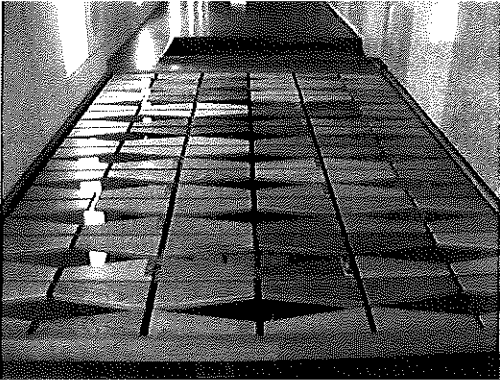
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DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-15



DH3502_DurhamRTP_USFSLab
ratoryBldg_09-13_ER-16



DH3502_DurhamRTP_USFSLabrat
oryBldg_09-13_ER-17



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-18



DH3502_DurhamRTP_USFSLaboratoryBldg_09-13_ER-19



DH3502_DurhamRTP_USFSLabra
toryBldg_09-13_ER-20

North Carolina State Historic Preservation Office

Historic Property Survey Summary

County: **Durham**

SSN: **DH 3503** Blockface#

Quad: Durham South
PIN: 0748-01-15-4515
X: Y:
DOT Project #:
OSA#:

Update Mo: Yr:
 No Alt Alt Det Rehab
 Removed Outbldg Loss
 No Acc. Not Fnd FileMsg
 Newly ID'd Needs Resch.

Property Name: **U.S. Forest Service Sciences Laboratory: Headhouse**
 Street or 911 Address: **3041 E. Cornwallis Road**
 Location Description: **Research Triangle Park**
 Town/vicinity: **Durham**
 District: **None ()**
 District Dates: NRdate: SLdate: DOEdat:

Recommended for SL StudyList SLDate: NR NRDate: NR #: **None**
 DOE DOEDate:
 DOE Type: Local Status: Ownership: **Public - federal**

Principal Resource Material Integrity: **High** Condition: **Good** Location Integrity: **Original**

Architectural Data: Date(s): **1962-63**
 Major Style Group(s) **Std Comm/Indust**
 Construction: **Load Bearing Masonry**
 Ext. Material: **Brick** Later Covering: **None**
 Height: **1 story** Roof: **Front Gable** Plan: **Irregular** Core Form (Domestic):
 Design Source and attribution: **Grudger, Baber, and Wood**

Major Theme: **Science** 2nd Theme:
 Group Association: Religious Affiliation
 Historic Function: **Laboratory**

Written Summary

The headhouse, constructed in 1962-63, was designed by Gudger, Baber, and Wood of Asheville, North Carolina (Grudger, Baber, and Wood 1962). Used as a laboratory workspace for the greenhouse, it is of concrete-block construction with stretcher-bond brick exterior walls. The building features an asphalt-shingled front-gable roof with two cross-gables on the east end of the south elevation. An exterior-side brick chimney is on the north elevation. The windows are 1/1 vinyl sash with rowlock sills. There are multiple, single-leaf entrances leading to work areas and laboratory space, most of which are topped by a flat concrete hood. A roll-up door is present on the west elevation. Due to the sloping of the land, a fully exposed basement is present on the north and east elevations. A secondary vehicular entrance on the basement level has been remodeled into a pedestrian entrance.

Outbuildings/Features

FeatureType	Material	CircaDate	Condition	Contrib
Chemical Storage	Concrete Block	1990	Fair	N
The new chemical storage building was constructed in 1990 south of the headhouse.				
Greenhouse	Metal	1996	Good	N
The original large greenhouses, constructed in 1962, were replaced in 1996 with a single smaller greenhouse (Google Earth Historical Images).				

Actions



DH3503_DurhamRTP_USFSHeadhouse_09-13_ER-02



DH3503_DurhamRTP_USFSHeadhouse_09-13_ER-04



DH3503_DurhamRTP_USFSHeadhouse_09-13_ER-01



DH3503_DurhamRTP_USFSHeadhouse_09-13_ER-03

North Carolina State Historic Preservation Office

Historic Property Survey Summary

County: **Durham**

SSN: **DH 3504** Blockface#

Quad: Durham South
PIN: 0748-01-15-4515
X: Y:
DOT Project #:
OSA#:

Update Mo: Yr:
 No Alt Alt Det Rehab
 Removed | Outbldg Loss
 No Acc. Not Fnd FileMsg
 Newly ID'd Needs Resch.

Property Name: **U.S. Forest Service Sciences Laboratory: Annex**
Street or 911 Address: **3041 E. Cornwallis Road**
Location Description: **Research Triangle Park**
Town/vicinity: **Durham**
District: **None ()**
District Dates: NRdate: SLdate: DOEdat:
Local District:

Recommended for SL StudyList SLDate: NR NRDate: NR #: **None**
 DOE DOEDate:
DOE Type: Local Status: Ownership: **Public - federal**

Principal Resource Material Integrity: **High** Condition: **Fair** Location Integrity: **Original**

Architectural Data: Date(s): **1965**
Major Style Group(s) **Std Comm/Indust**
Construction: **Load Bearing Masonry**
Ext. Material: **Brick** Later Covering: **None**
Height: **1 story** Roof: **Side Gable** Plan: **Irregular** Core Form (Domestic):
Design Source and attribution: **Not specified**

Major Theme: **Science** 2nd Theme:
Group Association: Religious Affiliation
Historic Function: **Laboratory**

Written Summary
Constructed in 1965, the single-story annex is of concrete-block construction with stretcher-bond brick veneer. The building has an asphalt-shingled, side-gable roof with overhanging eaves and T-III siding is used on the gable ends. The windows are 1/1 double-hung sash with rowlock sills. The building has several single-leaf entrance doors leading to laboratory, storage, and office space. The entrances on the northeast elevation are sheltered by a metal awning with metal posts. A vehicular entrance on the northwest elevation has been enclosed with T-III siding.

Outbuildings/Features

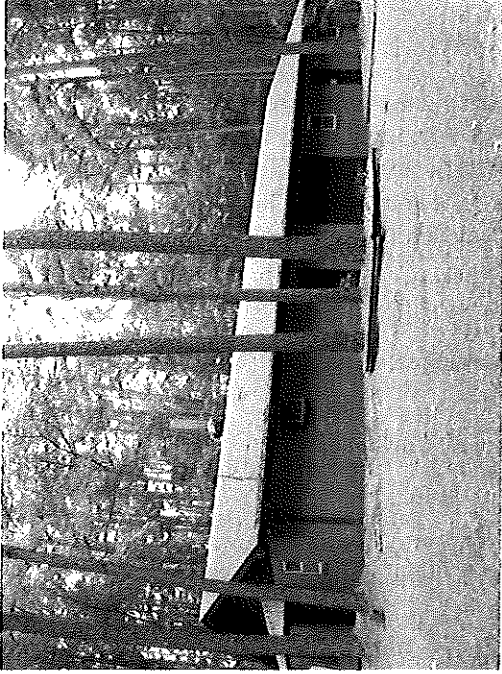
FeatureType	Material	CircaDate	Condition	Contrib
Garage	Metal	1970	Fair	N

A corrugated metal garage, erected in 1970, is located immediately north of the building.

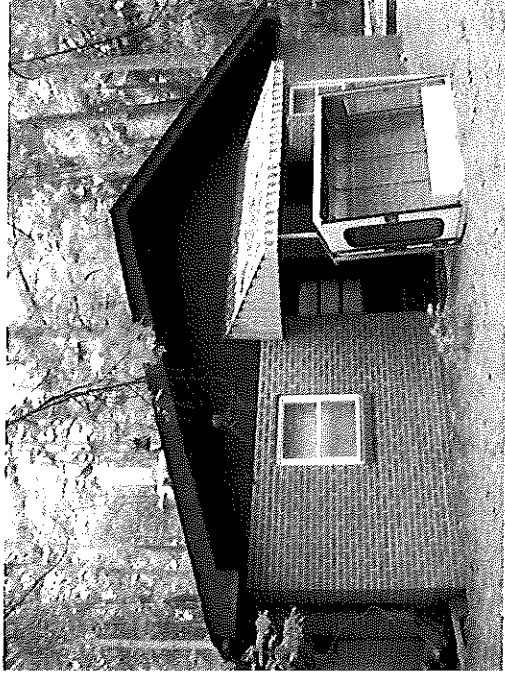
Actions



DH3504_DurhamRTP_USFSAnnex_09-13_ER-02



DH3504_DurhamRTP_USFSAnnex_09-13_ER-01



DH3504_DurhamRTP_USFSAnnex_09-13_ER-03

North Carolina State Historic Preservation Office

Historic Property Survey Summary

County: **Durham**

SSN: **DH 3505** Blockface#

Quad: Durham South
PIN: 0748-01-15-4515
X: Y:
DOT Project #:
OSA#:

Update Mo: Yr:
 No Alt Alt Det Rehab
 Removed Outbldg Loss
 No Acc. Not Fnd FileMsg
 Newly ID'd Needs Resch.

Property Name: **U.S. Forest Service Sciences Laboratory: Chemical Storage (Old)**
Street or 911 Address: **3041 E. Cornwallis Road**
Location Description: **Research Triangle Park**
Town/vicinity: **Durham**
District: **None ()**
District Dates: NRdate: SLdate: DOEdat:
Local District:

Recommended for SL StudyList SLDate: NR NRDate: NR #: **None**
 DOE DOEDate:
DOE Type: Local Status: Ownership: **Public - federal**

Principal Resource Material Integrity: **High** Condition: **Fair** Location Integrity: **Original**

Architectural Data: Date(s): **1962**
Major Style Group(s) **Std Comm/Indust**
Construction: **Load Bearing Masonry**
Ext. Material: **Brick** Later Covering: **None**
Height: **1 story** Roof: **Side Gable** Plan: **2-room** Core Form (Domestic):
Design Source and attribution: **Not specified**

Major Theme: **Industry** 2nd Theme:
Group Association: Religious Affiliation
Historic Function: **Storage**

Written Summary

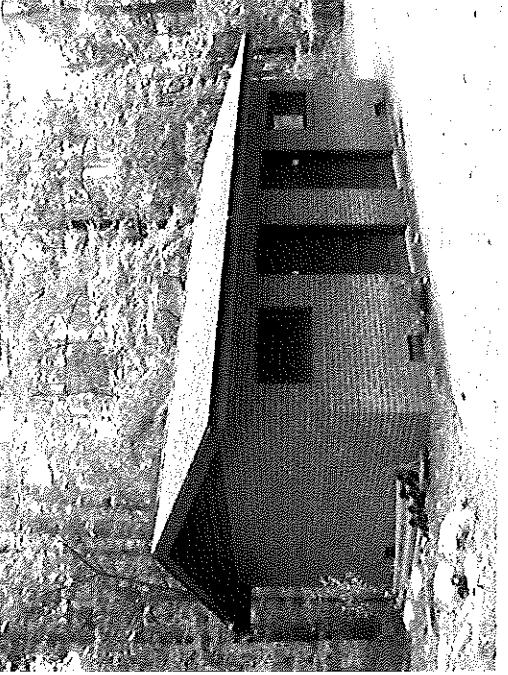
Constructed in 1962, the single-story chemical storage building is of concrete-block construction with stretcher-bond brick veneer. The building has an asphalt-shingled, side-gable roof with overhanging eaves and weatherboard in the gable ends. The windows are fixed single-lights with rowlock sills. The building has symmetrically placed, single-leaf entrance doors leading to the two-room interior. Originally used for chemical storage, the building was converted for use as a storage building after the new chemical storage building was constructed in 1990 south of the headhouse

Outbuildings/Features

Actions



DH3505_DurhamRTP_USFSOldChemicalStorage_09-13_ER-02



DH3505_DurhamRTP_USFSOldChemicalStorage_09-13_ER-01