



United States Department of the Interior

TAKE
PRIDE IN
AMERICA

NATIONAL PARK SERVICE
P.O. Box 37127
Washington, D.C. 20013-7127

IN REPLY REFER TO:

H32(413)

MAY 7 1993

Ms. Marsha Wykle
Bent Creek
Route 3, Box 1249
Asheville, NC 28806

Dear Ms. Wykle:

Thank you for your recent inquiry regarding the listing of the Bent Creek Campus of the Appalachian Forest Experiment Station, Asheville, North Carolina, in the National Register of Historic Places.

We are pleased to inform you that the station was listed in the National Register on April 29, 1993. Properties in North Carolina are nominated to the National Register by the State Historic Preservation Officer, Dr. William S. Price, Jr. We recommend that you contact Dr. Price directly if you require further information. His address and telephone number are:

Dr. William S. Price, Jr., SHPO
Director
Division of Archives & History
Dept. of Cultural Resources
109 East Jones Street
Raleigh, NC 27601-2807
(919) 733-7305

Per your request, we are enclosing a copy of the certification sheet from the Bent Creek nomination. We appreciate your interest in the historic preservation programs of the National Park Service. Please let us know if we may provide further information or assistance.

Sincerely,

Patrick W. Andrus

Carol D. Shull
Chief of Registration
National Register of Historic Places
Interagency Resources Division

Enclosure

RECEIVED

MAR 20 1993

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Bent Creek Campus of the Appalachian Forest Experiment Station

other names/site number _____

2. Location

street & number Rt. 3 Box 1249 N/A not for publication

city or town Asheville vicinity

state North Carolina code NC county Buncombe code 021 zip code 28806

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Evan J. DeBlois 3/22/93
Signature of certifying official/Title Date
Forest Service
State of Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

William J. Phipps 20 April 93
Signature of certifying official/Title Date
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- entered in the National Register.
 See continuation sheet.
- determined eligible for the National Register
 See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain): _____

for Signature of the Keeper

Date of Action

Mary M. W...

4/29/93

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

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State of Federal agency and bureau

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State or Federal agency and bureau

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 See continuation sheet.
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 See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:)

Signature of the Keeper

Date of Action

Bent Creek Campus
Name of Property

Buncombe, N.C.
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property
(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property
(Do not include previously listed resources in the count.)

| Contributing | Noncontributing | |
|--------------|-----------------|------------|
| 16 | 1 | buildings |
| | | sites |
| 1 | 1 | structures |
| | | objects |
| 17 | 2 | Total |

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

GOVERNMENT/other: research facility
GOVERNMENT/government office
DOMESTIC/single dwelling
DOMESTIC/multiple dwelling
DOMESTIC/secondary structure

Current Functions
(Enter categories from instructions)

GOVERNMENT/other: research facility
GOVERNMENT/government office
DOMESTIC/single dwelling
DOMESTIC/secondary structure

7. Description

Architectural Classification
(Enter categories from instructions)

Other: Rustic
Craftsman

Materials
(Enter categories from instructions)

foundation STONE
walls WOOD/Shake
roof ASBESTOS
other CONCRETE
ASPHALT

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Areas of Significance

(Enter categories from instructions)

CONSERVATION

ARCHITECTURE

SOCIAL HISTORY

Period of Significance

1925-1942

Significant Dates

1925

1931

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Bearden, Walter C.

Pyke, Charles F.

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

USDA Forest Service

Bent Creek Campus
Name of Property

Buncombe, N.C.
County and State

10. Geographical Data

Acreeage of Property approx. 35 acres

UTM References

(Place additional UTM references on a continuation sheet.)

| | | | |
|---|------|---------|----------|
| 1 | 17 | 354850 | 39300000 |
| | Zone | Easting | Northing |
| 2 | 17 | 355500 | 39300000 |

| | | | |
|---|------|---------|----------|
| 3 | 17 | 355500 | 3929500 |
| | Zone | Easting | Northing |
| 4 | 17 | 354850 | 3929500 |

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title J. Daniel Pezzoni
organization _____ date August 30, 1992
street & number 928 Clearwater Ave. telephone (703) 366-7657
city or town Roanoke state VA zip code 24019

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name _____
street & number _____ telephone _____
city or town _____ state _____ zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Bent Creek Campus of the Appalachian Forest
Experiment Station, Buncombe Co., N.C.

Section number 7 Page 1

NARRATIVE DESCRIPTION

Summary

The Bent Creek Campus of the Appalachian Forest Experiment Station is a complex of buildings located on the Brevard Highway (NC 191) at the main entrance to the Bent Creek Experimental Forest in Buncombe County, North Carolina. The campus is located on the high ground on the west bank of the French Broad River at an elevation of just over 2,100 feet above sea level. The campus has two sections: a west section centered on an insectary and a garage dating to 1925-1928, and an east section with laboratories, insectaries, residences, and auxiliary buildings dating to 1931-1934 arranged around a loop road. The buildings of each half of the campus are of similar construction and styling; typically, the buildings are one-story high (often with basement or garret stories), of frame construction with wood shake siding painted a cream color or stained dark brown, and with gable roofs sheathed in asphalt or asbestos shingle roofing that replaces the original chestnut roof shingles. The interiors of the buildings often have modernizations such as dropped ceilings or paneling but almost without exception original design features such as fireplaces and stairs, hardware, and wall sheathing survive. The buildings are Rustic-style in inspiration; they were designed to harmonize with their natural setting through the use of natural or indigenous forms, materials, finishes, and details. The wooded setting of the campus, the informal grouping of the buildings, and the use of natural materials and vegetation as landscaping contributes to the overall rustic effect.

Following this summary is an inventory that lists each resource in the Bent Creek Campus district by its historic name or function, followed by its date of construction, status as contributing or noncontributing to the historic character of the district, and a description. Following the inventory is a discussion of the integrity of the campus. More information on the architectural character of the district is contained in the Architecture Context and Analysis section of this report.

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Experiment Station, Buncombe Co., N.C.Section number 7 Page 2

Inventory

1. **Pump House.** 1927-28. Contributing structure.
This small, one-story frame building originally served as a pump house that provided water to the original laboratory. The pump house has wood shake siding and stands above a concrete reservoir fed by a spring.
2. **Original Insectary.** 1927-28. Contributing building.
This small, one-story frame building originally served for the rearing of insects (originally southern pine beetles). The insectary has wood shingle siding stained dark brown, white trim, a tongue-and-groove door hung on an overhead track, four-pane Craftsman-style windows, a poured concrete foundation, and an interior with exposed structural elements. In the 1940s and 1950s the insectary was used as a wood shed by employees living in the original laboratory. The insectary is now used for storage. The original laboratory at Bent Creek (built in 1925 and demolished in 1976) formerly stood by this insectary and the original garage.
3. **Original Garage.** 1925. Contributing building.
This small, one-story frame building was built "in the form of a two car garage" but it served as an insectary until the 1927-28 insectary was built. The garage has wood shingle siding stained dark brown, white trim, modern plywood garage doors, sliding six-pane windows, and a poured concrete foundation. During the late 1980s the garage served as an office for the horticulturalist of the North Carolina Arboretum; it is now used for storage.
4. **Wood Shed.** 1933-34. Contributing building.
This one-story frame building originally served as a wood shed. The wood shed has a central drive-through, telephone pole major upright supports, front and rear elevations sheathed in slatted vertical boards, cedar shake siding stained dark brown on the gable ends, standing seam metal-sheathed roofing, and Craftsman-style eaves brackets.
5. **Four-vehicle Garage (West).** 1931-34. Contributing building.
This one-story frame building with garret originally served as a garage. The garage has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, vertical board garage doors with "Z" bracing hung on overhead tracks, 6-over-6 and 4-over-4-sash windows, an exterior stair to the garret on the north gable end, and a fieldstone foundation.
6. **Four-vehicle Garage (East).** 1931-34. Contributing building.

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This one-story frame building with garret originally served as a garage (the garret may have used as bunk space during the 1930s). The garage has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, vertical board garage doors with "Z" bracing hung on overhead tracks, 6-over-6 and 4-over-4-sash windows, an exterior stair to the garret on the north gable end, and a fieldstone foundation.

7. **Shop.** 1932-33. Contributing building.

This one-story, fieldstone-faced, poured concrete building originally served as a carpentry and blacksmithing workshop. It was constructed with funds left over from other building projects and the installation of a telephone system. The shop has a wood-shingle sheathing painted a cream color in the gable, brown trim, large board doors with "Z" bracing hung on decorative strap hinges, banks of large 6-over-6-sash windows with brick sills, a fieldstone-faced stove flue on the north gable end, and an interior with unfinished concrete walls and floor. The shop is still used for small-scale construction and maintenance projects.

8. **Laboratory No. 3.** 1931. Contributing building.

This one-story frame building with fieldstone basement story originally served as a laboratory. The laboratory has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, 6-over-6-sash windows, a fieldstone-faced flue cap, a stone front stoop, and an interior with dropped ceilings and modern paneling. The laboratory is now used as an entomology office.

9. **Storage Shed.** 1950s. Noncontributing building.

This one-story frame building serves for the storage of paint and oil. The shed has a shed roof and corrugated metal siding.

10. **Laboratory No. 1.** 1931. Contributing building.

This one-story frame building with sub-surface, fieldstone basement originally served as a laboratory. The laboratory has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, 6-over-6-sash windows, a fieldstone-faced flue cap, a concrete front stoop, a fieldstone-faced exterior stairwell to the basement, and an altered southeast (rear) corner. The building is now used as a pathology laboratory.

11. **Upper Insectary.** 1930s. Contributing building.

This small, one-story frame building originally served as an insectary. The building has cedar shake siding painted a cream color, brown trim, and a poured concrete foundation. Originally the insectary had screened openings on all four sides; these have been covered in plywood. The insectary is now used for storage.

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Experiment Station, Buncombe Co., N.C.Section number 7 Page 4

12. **Laboratory No. 2.** 1931. Contributing building.
This one-story frame building with fieldstone basement originally served as an entomology laboratory (the upper and lower insectaries are located on either side of it). The laboratory has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, 6-over-6-sash windows, a fieldstone-faced flue cap, a concrete front stoop, and an irregular rough-sawn board-sheathed first-story room. The building is now used as offices and a break room.
13. **Lower Insectary.** 1930s. Contributing building.
This small, one-story building has a fieldstone-faced poured concrete half-wall that supports upright posts with Craftsman-style brackets in the roof eaves. Originally the insectary had screened openings on all four sides; these have been covered in plywood. The insectary is now used for storage.
14. **Laboratory No. 4.** 1932. Contributing building.
This one-story frame building with fieldstone basement originally served as a laboratory. The laboratory has chestnut shake siding painted a cream color, hewn corner and wall posts, 6-over-6-sash windows, a fieldstone-faced flue cap, and stone light wells for the basement windows. The building is now used as an office.
15. **Superintendent's Office.** 1931. Contributing building.
This one-story frame building with fieldstone basement story originally served as a ranger's or caretaker's residence; in 1934, when the superintendent's house was built next to it, it was converted to the superintendent's office. The office has chestnut shake siding painted a cream color, brown trim, hewn corner posts, 6-over-6-sash windows, and an interior with original doors and door hardware. The building is now used as an administrative office.
16. **Superintendent's House.** 1933-34. Contributing building.
This one-story frame building with garret story and fieldstone basement story originally served as the superintendent's residence. The house has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, 6-over-6-sash windows, a front porch with paired hewn posts engaged under a gabled extension of the main roof, and an interior with original varnished yellow pine wall paneling, chestnut exterior doors and pine interior doors hung on decorative strap hinges, a stone fireplace, and built-in corner cabinets in the dining room. The house is still used as the superintendent's residence.
17. **Two-vehicle Garage.** 1933. Contributing building.
This one-story fieldstone-faced poured concrete building originally served as a garage for

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Experiment Station, Buncombe Co., N.C.Section number 7 Page 5

the Superintendent's House. The garage has wood shingle sheathing in the gables painted a cream color, brown trim, 6-over-6-sash windows, and exposed poured concrete walls on the interior.

18. **Information Sign.** *Circa* 1963; 1990. Noncontributing structure. Fiberglass shed-roofed open wooden shelter containing wood map and text panels. In front of the sign is a planting bed; behind the sign is a metal weather station. The sign was constructed about 1963; the center panel was replaced and a brass plaque added in 1990.
19. **Bunk House and Mess Hall.** 1931. Contributing building. This one-story frame building with fieldstone basement story has a first story that originally served as a dormitory and showers and a basement story that contained a kitchen and dining room. The building has chestnut shake siding painted a cream color, brown trim, hewn corner and wall posts, 6-over-6-sash windows, a fieldstone-faced flue cap, and an interior with dropped ceilings and modern paneling in the first story, a winder stair, and a stone fireplace and batten doors with "Z" braces hung on decorative strap hinges in the basement story.

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Experiment Station, Buncombe Co., N.C.Section number 7 Page 6

Integrity Statement

As a district, the Bent Creek Campus retains its historic and architectural integrity. The majority of the buildings constructed at the site survive, with the exception of the 1925 laboratory and the 1931 greenhouse (which was located across the loop road from Laboratory No. 1). The surviving buildings have good exterior integrity; virtually no additions have been made to the buildings and the only significant alterations have been the replacement of the original roof shakes with asbestos roofing shingles, and the capping of many of the original stone stoops with concrete. Significant interior features such as fireplaces, stairs, and doors and door hardware survive, although many buildings have had interior modernizations such as dropped ceilings and paneling. Most of the buildings continue in their original capacity as laboratories, offices, and residences. Although many historic furnishings survive *in situ*, probably most if not all of the original laboratory equipment has been removed. The campus still has its original wooded character and many original landscape features such as road-side and foundation plantings, flagstone walkways, and retaining walls. Later landscaping is generally in keeping with the original. Certain locations in the nominated area may have archaeological potential, particularly the level area along Bent Creek, which was used for a variety of purposes before and during Forest Service ownership, and the 1925 laboratory site. There are no significant modern intrusions in the nominated area.

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Experiment Station, Buncombe Co., N.C.Section number 8 Page 7

NARRATIVE STATEMENT OF SIGNIFICANCE

Summary

The Bent Creek Campus, located in the Bent Creek Experimental Forest south of Asheville in Buncombe County, North Carolina, was developed as the primary research facility of the Appalachian Forest Experiment Station of the U.S. Forest Service.¹ 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. The Bent Creek Campus played an important role in the research program of the Forest Service and in the development of scientific forestry in the United States. The virtually unaltered laboratories, insectaries, residences, and auxiliary structures at Bent Creek were built between 1925 and the mid-1930s. Construction of the buildings provided work for the unemployed during the Great Depression. The campus is notable architecturally in that it anticipated the design philosophy that characterized Forest Service architecture during the New Deal. The restrained, Rustic-style Bent Creek buildings were designed to harmonize with their natural setting through the use of natural and locally traditional forms, materials, finishes, and details. The wooded setting of the campus, the informal grouping of the buildings, and the use of native materials and vegetation as landscaping contribute to the overall rustic effect. The Bent Creek Campus continues to serve the Forest Service as a research facility.

Justification of Criteria

The Bent Creek Campus of the Appalachian Forest Experiment Station is eligible for listing in the National Register of Historic Places under Criterion A in the area of Conservation. The campus is of national historic significance as the primary research facility of the Appalachian Forest Experiment Station, which in turn played an important role in the research program of the Forest Service and in the development of scientific forestry during the first half of the twentieth century. The complex is also eligible for listing under Criterion A in the area of Social History as the product of federal unemployment programs during the Hoover and Roosevelt administrations. The Bent Creek Campus is eligible for listing under Criterion C in the area of Architecture as a sophisticated early occurrence of Rustic styling in Forest Service architecture. The period of significance for the campus extends from 1925 (the date the earliest surviving buildings were built) through 1931 (a year of major building activity) to 1942, encompassing the early years of the operation of the campus and the adjacent Bent Creek Experimental Forest.

United States Department of the Interior
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Experiment Station, Buncombe Co., N.C.Section number 8 Page 8**Historical Background and Conservation and Social History Contexts**

The Appalachian Forest Experiment Station was established on July 1, 1921, in Asheville, N.C., as an agency of the Forest Service charged with undertaking "forest investigations on National Forests and on private lands, in cooperation with owners, logging operators, State Foresters and others."² In actuality, the station and its mission of forest conservation had their beginnings several decades earlier. In the 1890s, the discipline of scientific forestry grew out of the realization that the nation's forests required sustained-yield management if a major disruption of the forest products industry was to be averted. Central to the discipline were the objectives of reducing disease, pest, and fire damage to forests, encouraging forest regeneration, and promoting the efficient harvesting of forest products. Over the following decades, the agenda of scientific forestry was translated into government policy, in large part through the efforts of scientific forestry proponent and Forest Service director Gifford Pinchot.³

One component of the new federal initiative in scientific forest management was the establishment of forest experiment stations. "As originally conceived, the forest experiment stations were local institutions, to work immediately upon the immediate forest problems in a rather restricted locality."⁴ The first station was the Fort Valley Experiment Station, established near Flagstaff, Arizona in 1908 to "study the problems of the forest on the ground and at first hand; to accumulate scientific data upon which forestry procedure suited to American conditions might be based."⁵ By 1913 five more stations had been established in national forests in California, Colorado, Idaho, Utah, and Washington. (Up until 1911 National Forests had only been established in the West.)⁶ During the first twenty years of its existence, the primary work of the Fort Valley station was the study of the ponderosa pine; also, the station served as a ranger training center and forestry research and field school destination during the period. The buildings constructed at Fort Valley by 1915 were designed in the Craftsman style with occasional Rustic-style details such as fieldstone walls and chimneys and rough log porch posts.⁷

Fort Valley and the other western experiment stations were of major importance to the development of the research program of the Forest Service and to scientific forestry in general, and they served as the prototypes for later stations, but insufficient funding, physical isolation, and a restricted interpretation of their function limited the ability of the early stations to provide adequate services to the regions where they were located.⁸ By 1921, three of the six initial stations had been discontinued, and the need for a more effective system of regionally-oriented stations was perceived.⁹ Consequently, the Appalachian Forest Experiment Station and its sister station, the Southern Forest Experiment Station in New Orleans, La., were established as part of a restructuring of the Branch of Research of the Forest Service.¹⁰ The Appalachian and Southern experiment stations and those that followed in the 1920s were intended to "be conducted on a regional basis for the benefit of all the forests in each region, both public and

United States Department of the Interior
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Experiment Station, Buncombe Co., N.C.Section number 8 Page 9private."¹¹

Asheville was chosen as the location of the Appalachian Forest Experiment Station for a number of reasons. The bustling resort city was centrally located in the southern Appalachians, which harbored the last remaining extensive hardwood forests, of paramount concern to the forest products industry. Also, Asheville was one of the early centers of the conservation movement. Beginning in 1889, Frederick Law Olmsted and then Gifford Pinchot carried out a program of scientific forest management of the 200-square-mile Vanderbilt holdings centered on Biltmore Estate. In 1898 the nation's first school of scientific forestry was established at Biltmore.¹²

The directorship of the Appalachian Forest Experiment Station was assigned to Earl H. Frothingham, a Forest Service silviculturalist. Under Frothingham were Ferdinand W. Haasis, who had experience at the Fort Valley Experiment Station; E. F. McCarthy, who had taught forestry in New York and served as a forest researcher in Canada; forester Clarence F. Korstian, who later became dean of the Duke University School of Forestry, and Josephine Laxton of Asheville, clerk. In July 1930 another member of the staff was Margaret Stoughton, the only woman forester in the Forest Service during the period. Initially the staff worked out of the offices of the Pisgah National Forest in Asheville; over the following years the station moved from address to address until 1930 when a permanent home was secured in the new Federal Building.¹³ The station's service area was defined as the states of Maryland, Virginia, West Virginia, and North Carolina, the eastern parts of Kentucky and Tennessee, the northern parts of Alabama and Georgia, and the northwestern tip of South Carolina. (Later Maryland was removed from the station's purview and the rest of South Carolina was added due to its relative proximity to Asheville.)¹⁴

During the first months of the station's existence, the staff worked to establish the new facility's usefulness to its service area, making contacts with the four National Forest Supervisors and nine State foresters in the region and with private owners of forest land.¹⁵ In July the staff made its first field trip to "study the spruce-fir type [forest]" on the Champion Fiber Company holdings in Swain County, N.C.¹⁶ Clarence Korstian spent 1921 in Madison, Wisconsin, planning cooperative work with the Forest Service/University of Wisconsin Forest Products Laboratory. The first projects of the station were intended "to provide an opportunity to become acquainted with the region and its most urgent problems."¹⁷ Two early projects were the formulation of minimum measures to boost forest productivity, and a survey of experiments that were carried out in the Pisgah National Forest while it was under Vanderbilt ownership (published as *Forest Plantations at Biltmore, North Carolina* by Ferdinand W. Haasis [1930]). In 1922 the first experimental plots were established in the Pisgah, probably in the area later to become the Bent Creek Experimental Forest. The 1921-1922 budget for the station was under \$20,000.¹⁸

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Interest in the Bent Creek area of the Pisgah as the location for an experimental forest came early. The station needed a large acreage in close proximity to Asheville in order to establish strictly-controlled experimental plots. The Bent Creek area proved ideal on account of its varied topography, diverse timber types, and its location at the entrance to the Pisgah on the Brevard Highway (NC 191) ten miles from Asheville. In June 1925, 150 acres were reserved for use by the station, and in January 1926, 1,100 acres of national forest land was transferred to the station. An additional 5,200 acres were added to the original experimental forest in 1935, bringing the total to 6,300 acres, the present extent of the Bent Creek Research and Demonstration Forest.

The first buildings to be constructed in the newly-acquired forest--a two-story frame laboratory and a two-vehicle garage--were built on a hillside overlooking Bent Creek in 1925.¹⁹ The laboratory doubled as a "bunk and mess house" for field parties and was used for one of the early meetings of the Appalachian Forest Research Council.²⁰ Station personnel Averell and McCarthy supervised a carpenter and two helpers in the construction of these early buildings, and the station offered plans and specifications for the laboratory to any other station that might be interested.²¹ In 1927-1928 a pump house and an insectary were added to the complex. The insectary was used for the breeding of southern pine beetles as part of a cooperative arrangement with entomologists from the USDA Bureau of Entomology--one of several joint-use arrangements worked out with other government agencies during the period.²² A water supply with concrete reservoirs was installed as a fire-prevention measure during this period.²³

By establishing a permanent field research facility, the Appalachian Forest Experiment Station differed from its sister station in New Orleans. The Southern Forest Experiment Station did not have a National Forest at its door step; instead the station established temporary "sub-stations" in public and private forests throughout its service area. Not until the New Deal was the Southern Forest Experiment Station able to establish permanent facilities in its experimental forests in Arkansas, Florida, and Mississippi, with laboratories and housing constructed by the Civilian Conservation Corps (C.C.C.).²⁴

By 1931, the growing responsibilities of the Appalachian Forest Experiment Station and the cooperative arrangements with other agencies led to an increase in permanent and temporary staff that necessitated expanded research facilities. Consequently, the station embarked on an ambitious building program at Bent Creek. Construction work on the new Bent Creek Campus--located on the Brevard Highway at the entrance to the road to the 1925-1928 buildings--began in the spring of 1931 with the grading of the campus loop road. Construction on a four-mile-long fire-control access road through the center of the experimental forest was begun at the same time. By the summer of 1931 the site of the new campus had become "a beehive of constructional [sic] activities" with three laboratories, a bunk house and mess hall building, a

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ranger's residence, and a greenhouse under construction.²⁵ The buildings were described at the time as:

"All a story and a half in front and all but one are two stories in the rear. The basement stories are built of weathered field stones and the upper stories will be built with exposed upright beams of hand-hewn chestnut and the siding and roofs of hand-riven chestnut shingles. The hardware is to be of hand-wrought hammered steel."²⁶

Between 1931 and 1934 another laboratory, a dwelling, a shop, an insectary, a wood shed, garages, a pump house, and an incinerator were added to the complex. At some point in the 1930s a second insectary was built.²⁷

The Appalachian Forest Experiment Station played an important role in local relief efforts during the early years of the Great Depression. The initial activities of the station were in keeping with the Hoover administration's emphasis on volunteer, locally-initiated relief that minimized federal involvement.²⁸ In December 1930 the station and various relief and civic organizations in Asheville arranged for unemployed men to be trucked to the Bent Creek Experimental Forest in order to cut fire wood for a community woodyard in Asheville. The unemployed men were largely drawn from the construction trades and were recompensed with groceries paid for from the proceeds of the woodyard. The fire wood was cut in areas of the forest that were in need of thinning, a task that the station would have needed to contract for otherwise. As station forester Jesse Buell commented on the program at the time:

"Thus in a serious emergency the community had made the most of an opportunity to help itself without the humiliation of a soup kitchen or bread line, and at almost no cost to the city or county, 1,300 families had been cared for from Christmas until April [1930-1931], and best of all, every man of the 1,300 had preserved his self-respect, for none had received a dole."²⁹

Approval for the construction of the four-mile forest road and the new laboratory complex--made possible by \$31,000 in emergency relief funds--was also a response to local unemployment. The forest road, referred to by its indigent builders as "the Hardtimes Road," was built "without the use of machinery so that the maximum number of men [could be] hired."³⁰ The construction projects at Bent Creek reflected the Hoover administration's approach to combating unemployment. Throughout the 1920s, Herbert Hoover had advocated increased spending on public works projects during economic downturns.³¹ Public works projects increased nationwide in 1930 and 1931.³²

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The emergency relief funds directed towards the Bent Creek Experimental Forest at the end of the Hoover administration were continued and increased during the Roosevelt administration. Relief funding for the Appalachian Forest Experiment Station climbed to \$140,033 in fiscal year 1933-1934. During the summer of 1934, E.R.A. and C.C.C. crews constructed ten miles of roads, twenty-four miles of trails, and sixty-two miles of firebreaks in the experimental forest. The station employed as many as 350 persons during 1933-1934, including twenty women clerical workers at the Asheville headquarters.³³ By 1935 the Bent Creek Experimental Forest contained "seventeen buildings, . . . a network of roads, trails, compartment boundaries, pipe lines, telephone lines . . . representing a total outlay of nearly \$30,000."³⁴ In 1935 an Emergency Conservation Work Camp (No. F-22) was established at Rocky Cove approximately 1-1/2 miles southwest of the Bent Creek campus.³⁵ The Rocky Cove Camp--soon renamed the Bent Creek Camp and administered by the Civilian Conservation Corps--was apparently dismantled by 1956.³⁶

One project of the Appalachian Forest Experiment Station during the later 1930s was the development of a fire danger rating system that was adopted by twenty-three Eastern and Southeastern states. The fire danger rating project exemplified the cooperative regional focus of the station, since it required close cooperation between the station's personnel and foresters in the twenty-three states.³⁷ By 1939, when future Forest Service head Richard E. McArdle was director of the Appalachian Forest Experiment Station, the station's technical staff numbered twenty-five and the station had at its disposal six experimental forests: four on forest service lands at Bent Creek; Coweeta, N.C.; Fernow, W.V.; and Toccoa, Ga.; and two on a cooperative basis with Berea College in Kentucky and the Georgia Mountain Experiment Station at Blairsville. The Appalachian Forest Experiment Station had also contributed to the 1933 Copeland Report, the New Deal blue-print for federal forest management, and had begun the publication of a number of newsletters and report series including the Technical Notes series and the Forest Survey Releases, which reported on the findings of the station's survey of forest resources in the Mid-Atlantic states.³⁸

World War II disrupted the work of the station. In late 1942 it was reported that the station was "now engaged 100% in war work and the few other remaining projects are being wound up or shelved for the duration." The eleven staff members remaining at the station worked on assignments for the War Production Board, including a study of "visibility and camouflage."³⁹ In 1945, conscientious objectors were being quartered in the Bunk House and Mess Hall.⁴⁰

After World War II, forest research centers proliferated in the South; by 1956 over twenty had been established.⁴¹ Forest and range experiment stations numbered eight in 1976.⁴² From 1987 to 1990 the North Carolina Arboretum (formerly the Western North Carolina Arboretum) operated out of a trailer on the site of the conference center at Bent Creek and conducted

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programs at the adjoining amphitheater.⁴³ In 1990 the Arboretum moved to its present facility north of the Bent Creek campus on NC 191.⁴⁴ The Appalachian Forest Experiment Station (the name was changed to the Southeastern Forest Experiment Station in 1947), the Bent Creek Experimental Forest, and the Bent Creek complex of laboratories continue to serve the Forest Service in their original capacity as a regional research center.⁴⁵

Architecture Context and Analysis

The buildings of the Bent Creek Campus are Rustic-style in inspiration; they were designed to harmonize with their natural setting through the use of natural and locally traditional forms, materials, finishes, and details. Early examples of the Rustic Style in America date to the third quarter of the nineteenth century. In western North Carolina the style became popular at the turn of the twentieth century for resort buildings such as George Vanderbilt's Buckspring Lodge (late 1890s) and the Pisgah National Forest Inn (1919)--both located on Mount Pisgah near Bent Creek--Backus Lodge near Lake Toxaway, N.C., and the extensive vacation complex at Linville, N.C.⁴⁶ The Rustic Style was commonly employed for the facilities of the National Park Service during the early 20th century, but except in the case of ranger residences its use by the Forest Service was rare until the New Deal years. In the Pacific Northwest, a region of considerable Forest Service activity, the facilities of the service prior to 1933 were typically small clusters of simple, "carpenter-built" buildings that would not have been out of place in the small towns of the region.⁴⁷ This uninspired approach to design characterizes the original insectary and garage built at Bent Creek between 1925 and 1928. Only the stained wood shake siding of the buildings relates them to their setting, although taken out of context the buildings could easily be construed as belonging to the Craftsman style.

In contrast, the buildings constructed in 1931 are the product of a design professional conversant in the Rustic style, Asheville native Walter C. Bearden (*ca.* 1898-1977). Bearden was first mentioned in Asheville business directories in 1926 when he was listed as a checker for the Jackson-Campbell Company real estate and home construction firm.⁴⁸ In the early 1930s Bearden worked as a lumberman and a draftsman; after World War II he became a prominent engineer in Asheville.⁴⁹ Bearden's work in the lumber industry probably familiarized him with the staff of the experiment station.

The restrained, one-story frame buildings designed by Bearden rely primarily on allusions to the local vernacular building tradition for their rustic effect, as in the use of chestnut shakes for siding and (originally) roofing, the rough hewing of the exposed structural corner posts and the applied wall posts, and the fieldstone foundations. The choice of design and materials for the 1931 buildings was ideally suited to the local availability of materials and the traditional building

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know-how of local workmen. A photograph taken by assistant silviculturalist Jesse H. Buell in July 1931 shows workmen splitting chestnut shakes for the siding and roofing of the buildings. Interior detailing such as the stone fireplace in the bunk house and the decorative strap hinges used on doors in all of the buildings hearken back in a more general romanticized way to American vernacular building traditions.

A notable aspect (although not particularly rustic) of the 1931 buildings is the use of modular design. The four laboratories measure eighteen feet by thirty feet in plan, the Superintendent's Office measures eighteen feet by twenty-two feet, and the Bunk House measures eighteen feet by thirty-four feet. The laboratories and the Bunk House have three-bay front elevations divided by the applied hewn wall posts; the Superintendent's Office has a shorter window-door-window front elevation with hewn corner posts but without wall posts. The front elevations of laboratories No. 2 and No. 3 are mirror opposites. The front elevation of Laboratory No. 1 is similar to that of Laboratory No. 2 except that it is missing the window next to the front door. The front elevation of Laboratory No. 4 is identical to that of Laboratory No. 2; since Laboratory No. 4 dates to the Summer of 1932, it apparently represents a reuse of the design for Laboratory No. 2.⁵⁰ In plan all the buildings are a variation on the same theme: a single interior space on the first and basement stories (sometimes with smaller rooms partitioned off) with a stair and stove flue along one gable end (except for the longer Bunk House, which has a chimney mass that rises in a more central position). The modular design of the buildings is in part a reflection of the \$2,500 construction cost limit placed on each building.⁵¹

Bearden's drawings for the 1931 buildings showed blank pine transoms over the main entries. However, after the buildings were finished, Bearden presented the station with "four attractive carved wooden plaques to go over the laboratory and bunk house doors." These plaques depicted "game and wildlife scenes--a running herd of deer; a grouse; a bear; and a panther stalking a deer."⁵² The transom showing the herd of deer survives in an office at Bent Creek.⁵³

Later buildings at Bent Creek employed the same architectural vocabulary as the earlier buildings, yet in a more idiosyncratic and expressive manner. The experimental forest's first resident ranger, Edwin Miles Manchester, and National Industrial Recovery Act (N.I.R.A.) "architect-foreman" Charles F. Pyke were responsible for these later designs. Manchester designed the rock-encased shop and two-car garage built on the campus in 1932 and 1933.⁵⁴ Pyke, who served in the California civil service before moving to Asheville, designed and built the Superintendent's House in 1933-1934.⁵⁵ The Superintendent's House faithfully adheres to the chestnut shake siding, fieldstone foundation, hewn corner and wall posts, and simple gabled massing of the 1931 buildings, yet it is less restrained in exploiting the potential of the architectural vocabulary established by Bearden. For example, the front elevation is enlivened by a gabled porch supported by two pairs of hewn posts that derive from the hewn corner and

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wall posts of the earlier buildings. Compared to the competent but unimaginative stone fireplace in the 1931 Bunk House, the fireplace in the living room of the Superintendent's House makes playful use of the inherent properties of stone. Even as originally designed, the Superintendent's House fireplace was relatively pedestrian, with stone chimney breasts, a lintel composed of multiple stones, and a hewn chestnut shelf supported by simple wooden brackets, but during construction Pyke departed from his original design, substituting a single large boulder for the lintel and projecting stones to support the mantel shelf. In addition to his work at Bent Creek during the period, Pyke designed Rustic-style buildings for the branch experimental forests at Coweeta and Toccoa.⁵⁶

Also of note at Bent Creek is the variation in the finishes of the structural corner and applied wall posts of buildings. The posts on the four-vehicle garages are given a decorative, pocked surface, as if chips were removed with a large wood-working chisel, whereas the posts on the Superintendent's House have a more traditional, naturalistic (although exaggerated) finish of rough chop marks produced by a foot adze or similar tool. Remnants of the original furnishings survive at Bent Creek. In the break room in Laboratory No. 2 are maple trestle tables that were made at Bent Creek by C.C.C. craftsmen in the 1930s.⁵⁷ In 1934 or 1935 the Veterans Hospital at Oteen, N.C. donated furniture to the station, some of which may still be in use.⁵⁸

The informal grouping of the 1930s buildings and the campus landscaping are other Rustic-style characteristics. Rhododendrons were put in as foundation plantings and were planted along roads and walkways at the apparent urging of W. C. Bearden and Charles F. Pyke.⁵⁹ Flagstone walkways with wide spaces between the flags were laid out. The area within the 1931 loop road is criss-crossed with these walkways. Steep slopes and the areas around some building foundations were supported by fieldstone retaining walls. Stone retaining walls were also used around the 1925-1928 buildings, as were plantings of hemlock, rhododendron, yucca, day lilies, and daffodils. A drainage ditch was dug in the woods to the west side of the 1931-34 buildings; this ditch was enlarged in the 1960s.⁶⁰ Landscaping compatible with the original work was added throughout the post-World War II era; during the late 1940s and early 1950s foresters with the station culled defective trees around the Bent Creek buildings, a practice which probably took place earlier as well.⁶¹

The district includes the site of the "white pine bud-pruning" experimental plot, located on the north bank of Bent Creek. This plot was established before 1945 (probably in the 1930s) and was used to study the effects of pruning on young white pines.⁶² The white pine plot was apparently established in an open level area that originally served as a "garden patch" for an adjacent homestead and was used by foresters (perhaps students bunking at the original laboratory) for archery practice in 1930. In 1930-1931 this area was used as a base camp for unemployed men brought to the forest to cut fire wood.⁶³ The original Bent Creek arboretum

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was located in this area, also.

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Endnotes

1. Traditionally, "campus" was not used to describe the complex of laboratories and other buildings at Bent Creek. Usually the complex was referred to simply as "Bent Creek." Because the site had no specific name during the period of significance, the term "campus," which has been applied to it in more recent times, has been adopted. The "Appalachian Forest Experiment Station" was the official name of the station until 1947.
2. "History of Appalachian Forest Experiment Station" (typescript; ca. 1940), p. 5 (hereafter cited as "History"). Although the author of this history has not been identified, the wealth of detail about the early operations of the station suggests that a member of the station staff prepared the report.
3. Samuel P. Hays, Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920 (New York: Atheneum, 1980), pp. 28-38.
4. E. N. Munns, "The Organization and Development of the Federal Forest Experiment Stations." In *Proceedings of the ... annual convention of the Association of Land Grant Colleges and Universities* (Northampton, Ma.: Metcalf Printing and Publishing, 1926) 186.
5. Darrell H. Smith, *The Forest Service, Its History, Activities and Organization* (Washington, D.C.: The Brookings Institution, 1930) 38.
6. William W. Bergoffen, 100 Years of Federal Forestry, USDA Forest Service Agriculture Information Bulletin No. 402 (Washington: U.S. Government Printing Office, 1976), p. 25.
7. Raymond Price, History of Forest Service Research in the Central and Southern Rocky Mountain Regions, 1908-1975. (Fort Collins, Co.: USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, 1976), p. 24.
8. Edwin Bjorkman, "The Appalachian Forest Experiment Station, 1921-1934." *Ca.* 1935, p. 28.
9. Susan Olberding, research on the Fort Valley Experiment Station (work in progress); "History," pp. 2-4.
10. Bjorkman, p. 35; E. L. Demmon, "Twenty Years of Forest Research in the Lower South, 1921-1941." Journal of Forestry 40 (January, 1942), p. 33.
11. Smith, *The Forest Service*: 58.

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12. Hays, Conservation and the Gospel of Efficiency, p. 28; "History," pp. 3-4; USDA Forest Service, 100 Years of Federal Forestry: 25; Henry Clepper, Professional Forestry in the United States, (London and Baltimore: The Johns Hopkins Press, 1971), pp. 34-36. In 1914 the government purchased 86,700 acres of the Vanderbilt holdings to form the nucleus of the Pisgah National Forest, the first National Forest to be created from a private holding.
13. "History," pp. 5, 12.
14. USDA Forest Service, Appalachian Forest Experiment Station, "1927-1928 Annual Report," p. 41.
15. In 1925 an advisory board, the Appalachian Forest Research Council, was established for the station. The council's purpose was "to enlist the interest and cooperation of the principal industries of the region in the development of forest research and forestry in general" (Appalachian Forest Experiment Station, "1927-1928 Annual Report," p. 6.
16. USDA FS, AFES. Monthly Report, July, 1921.
17. Elwood R. Maunder, *Clarence F. Korstian: Forty Years of Forestry, An Oral History Interview* (New Haven, Ct.: Forest History Society, 1969) 32.
18. Ibid, pp. 5-9; USDA Forest Service, "Annual Report of the Appalachian Forest Experiment Station for 1938," (Asheville, N.C.: Appalachian Forest Experiment Station, 1939), p. 1; Clepper, Professional Forestry in the United States, p. 36.
19. USDA FS, AFES. Monthly Report. July, 1925. The two-vehicle garage was completed around August 1, and the laboratory was completed in September.
20. Bjorkman, p. 63; Appalachian Forest Experiment Station, "1927-1928 Annual Report," p. 8.
21. USDA FS, AFES. Monthly Report. July, 1925; Monthly Report. September, 1925.
22. "History," pp. 11, 14; James F. Renshaw, The Southern Appalachian Research Center, (Asheville, N.C.: Southeastern Forest Experiment Station, 1956), pp. 5, 8; Appalachian Forest Experiment Station, "1927-1928 Annual Report," p. 8.
23. Bjorkman, p. 63.

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24. Jim Barnett, Project Leader for Forest Management Research, Pineville Research Center, Southern Forest Experiment Station, telephone interview, Pineville, La., June 17, 1992. The possibility exists that the former lodge, laboratory, and other buildings at the Southern Forest Experiment Station's OluStee Experimental Forest near Lake City, Fl., were built in 1932, before the New Deal (Verne L. Harper, quoted in Elwood Maunder et al. Early Forest Service Research Administrators. Interviews with Verne Lester Harper, George M. Jemison, Clarence L. Forsling. (Santa Cruz, Ca.: Forestry History Society, 1978), p. 3; however, a former research scientist at OluStee, Ralph Clements, states that the buildings at OluStee were built by the CCC.
25. Bjorkman, p. 69.
26. USDA FS, AFES. Monthly Report. July, 1931.
27. "History," p. 16; Construction drawings and historical photographs at Bent Creek Research and Demonstration Forest Campus, Asheville, N.C.; Appalachian Forest Experiment Station annual reports from the 1920s and 1930s.
28. Eugene Lyons, *Herbert Hoover, A Biography* (Garden City, N. Y.: Doubleday and Company, Inc., 1964) 284-289.
29. Jesse H. Buell, "Pisgah Forest Aids the Unemployed ..." *American Forests* v. 37 n. 12 (December 1931) 734-765.
30. USDA FS, AFES. Monthly Report. January, 1931.
31. Arthur M. Schlesinger, Jr. *The Crisis of the Old Order, 1919-1933*. (Cambridge, Ma.: The Riverside Press, 1957) 85-86.
32. Jordan A. Schwarz, *The Interregnum of Despair, Hoover, Congress, and the Depression* (Urbana, Chicago, London: University of Illinois Press, 1970) 144.
33. USDA FS, AFES. "1933-34 Annual Report," p. 1; Charles and Margaret Abell, telephone interview, Corvallis, Or., August 9, 1992.
34. Bjorkman, p. 75.
35. Emergency Conservation Work Report, Camp No. F-22, June 2, 1936. Original report at the National Archives, Washington, D.C.; Appalachian Forest Experiment Station Annual Report, 1934/1935. The site of this camp is located outside the district boundaries.

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36. Renshaw: 19; Civilian Conservation Corps Camp Report, Camp No. F-22, October 6, 1937. Original report at the National Archives, Washington, D.C.
37. Maunder et al, Early Forest Service Research Administrators, p. 174.
38. "History," pp. 17-19; Michael Frome, The Forest Service, (New York: Praeger Publishers, 1971); USDA Forest Service, Appalachian Forest Experiment Station, "Forest Survey Release No. 1," (July, 1939). During the 1920s, station personnel made several "radio addresses" on Station WWNC, Asheville (Appalachian Forest Experiment Station, "1927-28 Annual Report," p. 51).
39. "Appalachian Station Shelves Peace-Time Duties For War Job." *Asheville Times*, November 20, 1942.
40. Ed English interview.
41. USDA Forest Service, "Annual Report ... 1938," p. 1; Elwood L. Demmon and Philip A. Briegleb, "Progress in Forest and Related Research in the South," Journal of Forestry 54 (October, 1956), p. 674.
42. Bergoffen, 100 Years of Federal Forestry, p. 198.
43. The 1988 amphitheater has wooden benches facing a wooden platform. The 1992 conference center is a one-story frame building with T111 siding, a porch, and deck.
44. Marsha Wikle, telephone interview, Asheville, N.C., July 1992.
45. Maunder et al, Early Forest Service Research Administrators ..., p. 171.
46. Page Pless, "Pisgah National Forest Inn," National Register of Historic Places Inventory--Nomination Form, 1982; Claudia Brown, "Linville Historic District," National Register of Historic Places Inventory--Nomination Form.
47. Elizabeth Gail Throop, Regional Historian, USDA Forest Service Pacific Northwest Region. Telephone interview, Portland, Or., June 17, 1992.
48. *Asheville, North Carolina, City Directory* (Asheville, N.C.: The Miller Press, 1926).
49. *Miller's Asheville, North Carolina City Directory* (Asheville, N.C.: The Miller Press, 1931); *Baldwin's and Advocate's Asheville, North Carolina ... City Directory* (Asheville, N.C.: Baldwin Directory Company and The Asheville Advocate, 1935); "Bearden Dies Here; Engineer,"

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Asheville Times, September 16, 1977.

50. USDA FS, AFES. Monthly Report. June-September, 1932.

51. USDA FS, AFES. Monthly Report. February, 1931.

52. USDA FS, AFES. Monthly Report. January, 1931.

53. The other carved transoms were removed during recent years when it appeared possible that the campus might be demolished, and are now in private ownership.

54. Manchester's name appears on the drawings for the work shop.

55. Abell interview.

56. Abell interview.

57. Marsha Wikle, Bent Creek Demonstration and Research Forest, USDA Forest Service. Interview, Asheville, N.C., May 4, 1992.

58. Appalachian Forest Experiment Station, "1934-1935 Annual Report," p. 4.

59. Abell interview.

60. Hooper interview.

61. Robert Campbell, telephone interview, Brevard, N.C., July 5, 1992.

62. Campbell interview.

63. Buell, "Pisgah Forest": 735-736.

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In addition to the primary and secondary sources referred to in the bibliography, this report relied upon the insights of a number of individuals. Interviews were conducted with Charles and Margaret Abell, former foresters with the Appalachian Forest Experiment Station, Corvallis, Or.; Jim Barnett, Project Leader for Forest Management, Pineville Research Center, Southern Forest Experiment Station, Pineville, La.; Stephen Boyce, former Director, Southeastern Forest Experiment Station, Asheville, N.C.; Robert Campbell, former forester, Southeastern Forest Experiment Station, Asheville, N.C.; Ralph Clements, former research scientist, Forestry Sciences Laboratory, Southeastern Forest Experiment Station, Lake City, Fl.; Evan De Bloois, Historic Preservation Officer, Forest Service, Washington, D.C.; Ed English, former Superintendent, Bent Creek Experimental Forest; Martha Fullington, Architectural Historian,

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N.C. Division of Archives and History Western Office, Asheville, N.C.; Ralph Hooper, Superintendent, Bent Creek Demonstration and Research Forest, Asheville, N.C.; Susan Olberding, Historian, Flagstaff, Az.; Steve Rogers, Architectural Historian, Tennessee Historical Commission, Nashville, Tn.; Rodney J. Snedeker, Forest Archeologist, North Carolina National Forests, Asheville, N.C.; Harold K. Steen, Executive Director, Forest History Society, Inc., Durham, N.C.; Elizabeth Gail Throop, Regional Historian, Forest Service Pacific Northwest Region, Portland, Or.; Reba Wells, National Register contact, Arizona Historic Preservation Office, Phoenix, Az.; and Marsha Wikle, Bent Creek Demonstration and Research Forest, Asheville, N.C., who served as the Forest Service contact for the project. Claudia Brown of the N. C. Division of Archives and History, and Rodney Snedeker and Marsha Wikle of the Forest Service assisted in the preparation of the registration form. The reference staff of the Roanoke Public Library, Roanoke, Va., processed numerous inter-library loan requests for the project.

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GEOGRAPHICAL DATA

Verbal Boundary Description

The Bent Creek Campus of the Appalachian Forest Experiment Station historic district is bounded as follows: beginning on the west side of NC 191 (Brevard Road) at the point where it crosses Bent Creek, follow the north bank of the creek approximately 1,700' westward to the forest road that comes down to the creek from the campus, then follow the west and north shoulders of the road (including historic retaining walls and drainage ditches within the nominated parcel) until it intersects a north-south line that runs 200' west of Laboratory No. 2, then follow this north-south line approximately 600' northward until it intersects an east-west line that passes through the midpoint of the intersection of the Bent Creek Campus loop road and the road to the greenhouse complex, then follow this east-west line approximately 300' to where it meets the aforementioned midpoint, then follow the midline of the greenhouse road north-northwestward 75', then follow a line eastward 275' to the west side of NC 191, then follow the west side of NC 191 southeastward approximately 1,100' to the beginning. These boundaries are illustrated on two exhibit pages accompanying this nomination.

Boundary Justification

The boundaries of the Bent Creek Campus of the Appalachian Forest Experiment Station historic district are determined so as to include within the nominated area the principal contributing buildings and structures associated with the historic development and activities of the facility. Natural and man-made features such as Bent Creek, a forest road, and NC 191 (Brevard Road) are chosen as the south, east, and most of the west boundaries of the nominated area. The remaining boundaries are formed by artificial north-south and east-west lines that were chosen due to the absence of suitable natural or man-made features. The north boundary line is chosen so as to carefully exclude buildings associated with the post-1942 greenhouse complex located just to the north of the campus loop road. The road linking the 1920s and 1930s sections of the campus was chosen as a boundary so as to exclude the modern conference center and amphitheater.

The historic buildings and structures of the Bent Creek Campus are the primary focus of this report; consequently, a relatively small portion of the Bent Creek Demonstration and Research Forest is included in the boundaries. However, experimental plots, roads, and other landscape features and archaeological sites located throughout the Bent Creek Demonstration and Research Forest may constitute historic resources that could potentially be listed in the National Register, perhaps as an expanded Bent Creek district.

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PHOTOGRAPHS

1. 1. Bent Creek Campus of the Appalachian Forest Experiment Station (same for all photos).
2. Buncombe County, N.C. (same for all photos).
3. Photographer: J. Daniel Pezzoni (same for all photos).
4. Date of photo: May 1992 (same for all photos).
5. Location of negative: Bent Creek Research and Demonstration Forest offices (Bent Creek Campus), Asheville, N.C.
6. Bent Creek Campus. View of the four-vehicle garages, Shop, and Laboratory No. 1.
Direction of view: northward.
7. The photograph number appears at the top of each heading.

2. 6. Bent Creek Campus. Laboratory No. 4. Direction of view: southeastward.

3. 6. Bent Creek Campus. Bunk House and Mess Hall. Direction of view: southward.

4. 6. Bent Creek Campus. Original insectary. Direction of view: southward.

5. 6. Bent Creek Campus. Superintendent's House (Superintendent's Office in background).
Direction of view: northward.

6. 6. Bent Creek Campus. Superintendent's House interior: fireplace in living room.

7. 6. Bent Creek Campus. Laboratory No. 2 interior: first-story room (present break room)
showing 1930s dining room tables.

8. 6. Bent Creek Campus. Carved transom (curated in an office in the Bunk House and
Mess Hall).

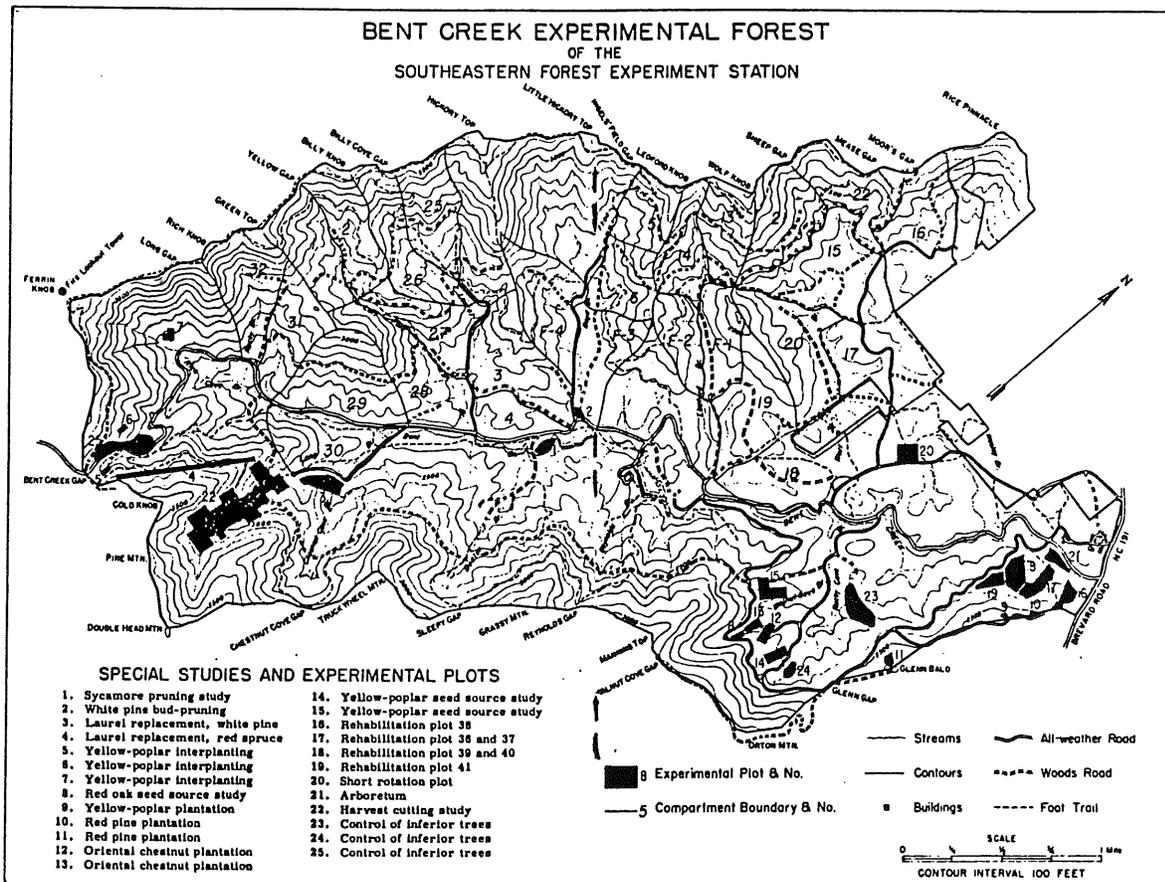
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Experiment Station, Buncombe Co., N.C.

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Map of the Bent Creek Experimental Forest, from James F. Renshaw, The Southern Appalachian Research Center (1956) (after page 17). The Bent Creek Campus is located at the extreme eastern end of the forest.



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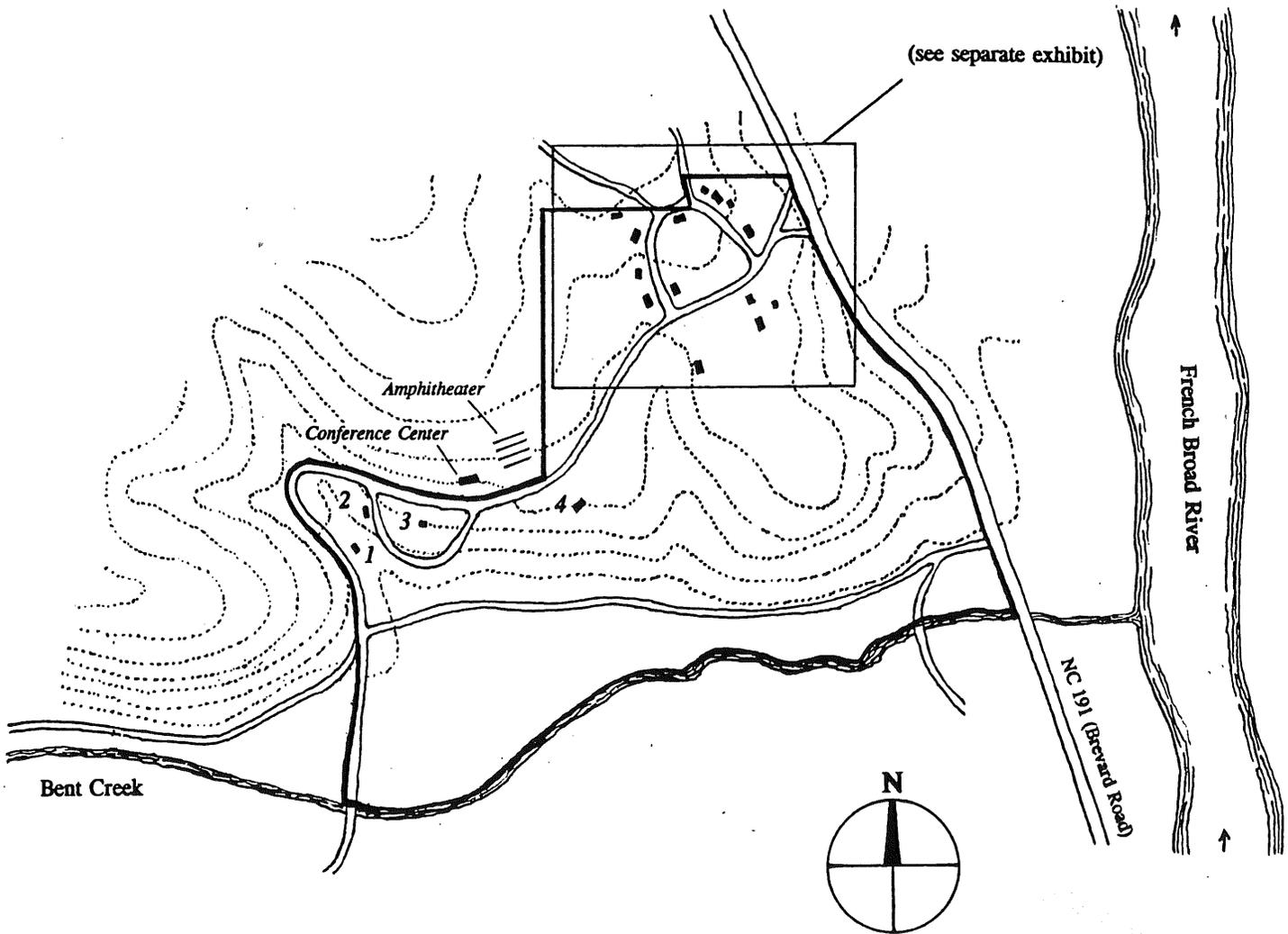
Bent Creek Campus of the Appalachian Forest
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Map of Nominated Area

Scale: 1" = approx. 400'
Heavy line indicates boundary
of nominated area.

- | | |
|-----------------------|--------------------|
| 1. Pump House | 3. Original Garage |
| 2. Original Insectary | 4. Wood Shed |



National Register of Historic Places Continuation Sheet

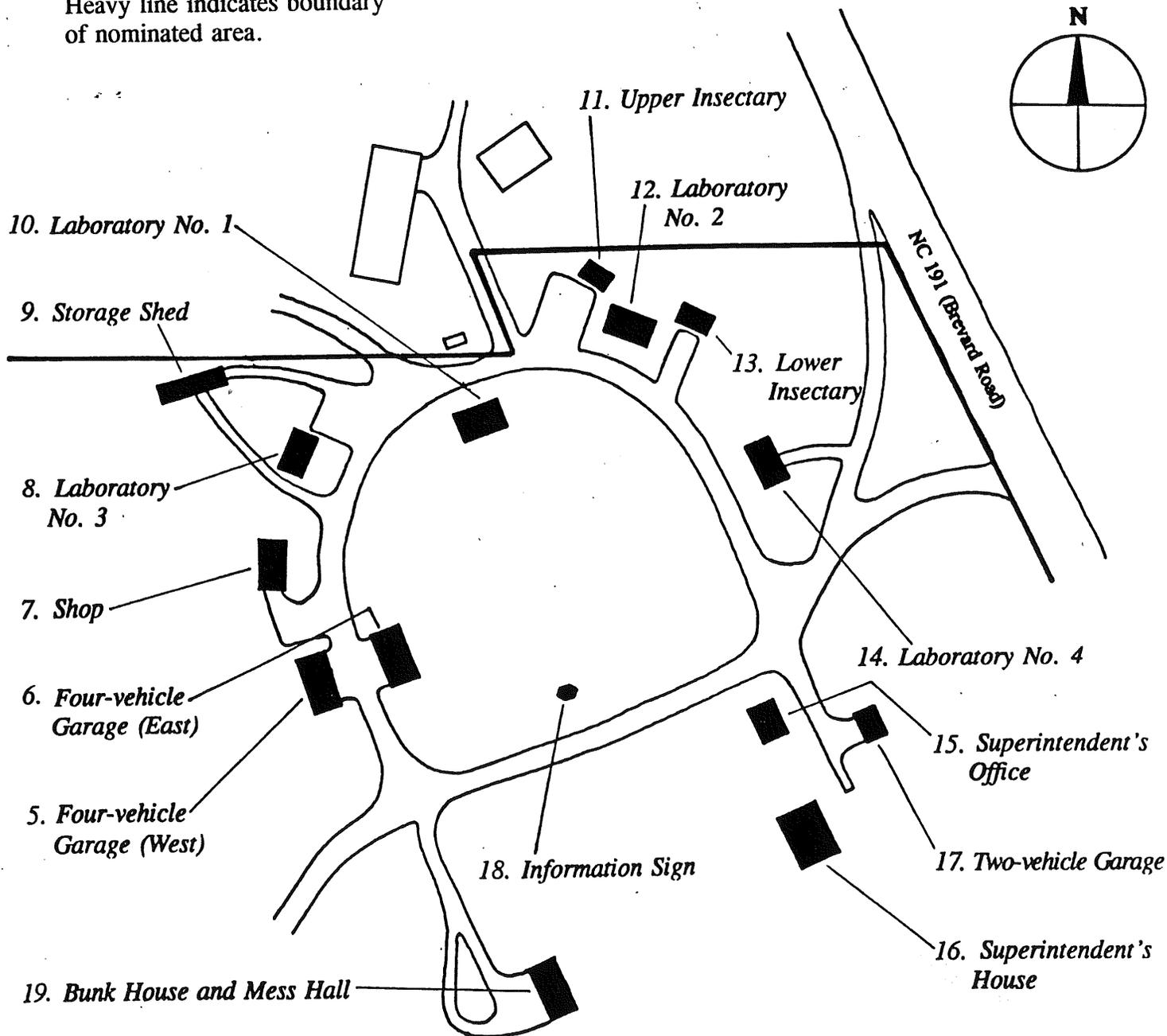
Bent Creek Campus of the Appalachian Forest
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Map of East Section of Campus

Scale: 1" = 100'

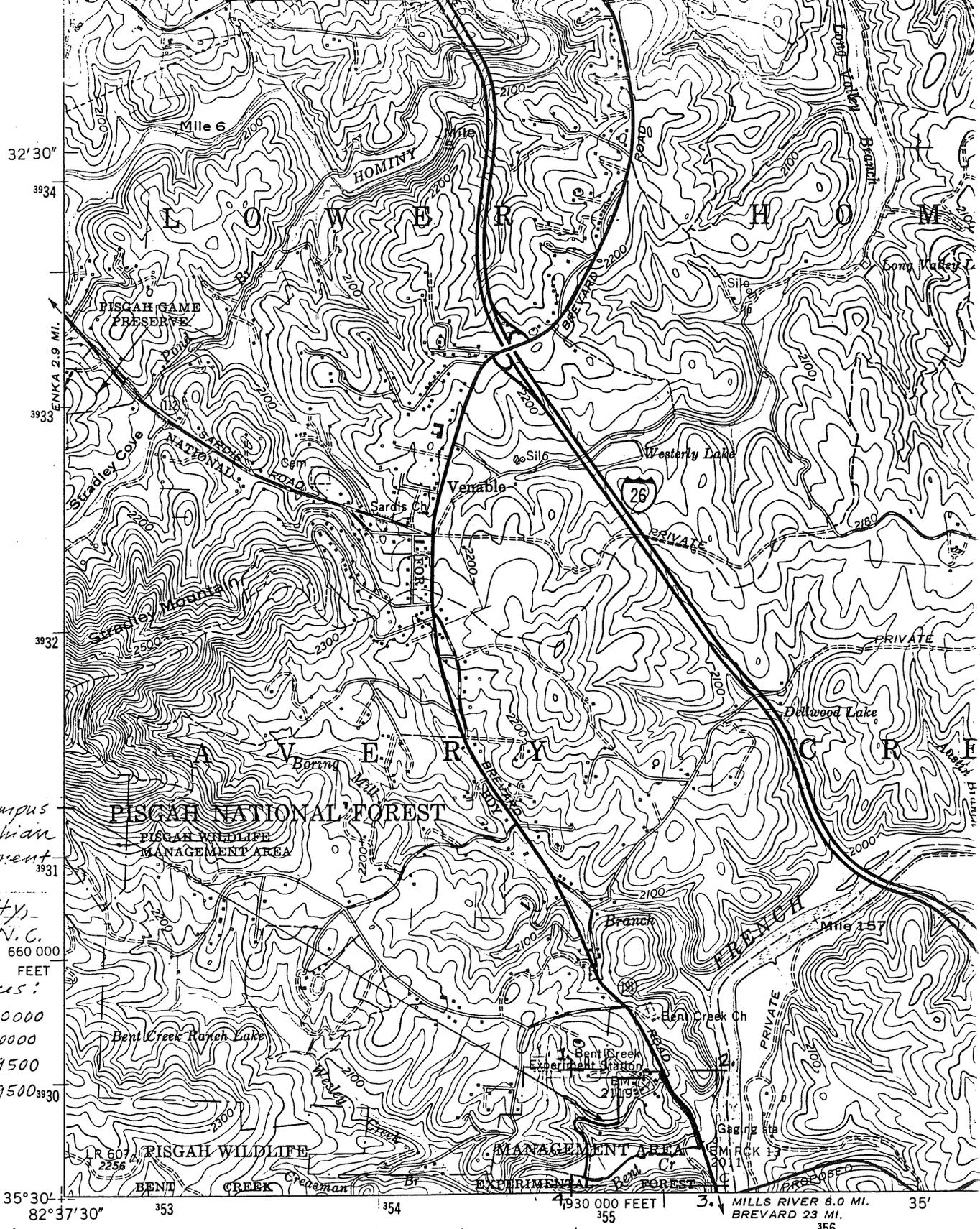
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of nominated area.



Bent Creek Campus
of the Appalachian
Forest Experiment
Station
Asheville vicinity,
Buncombe Co., N.C.

UTM References:
1. 17/354850/3930000
2. 17/355500/3930000
3. 17/355500/3929500
4. 17/354850/3929500

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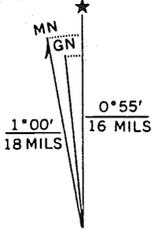
Mapped and edited by Tennessee Valley Authority
Published by the Geological Survey

Control by USC&GS, USGS, and TVA

Revised by TVA in 1961 by photogrammetric methods using
aerial photographs taken 1960 and by reference to TVA-USGS
quadrangle dated 1943. Map field checked by TVA, 1961

Polyconic projection. 1927 North American datum
10,000-foot grid based on North Carolina
rectangular coordinate system
1000 meter Universal Transverse Mercator Grid ticks,
Zone 17, shown in blue

Fine red dashed lines indicate selected fence and field lines



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Register of Historic Places on Sheet

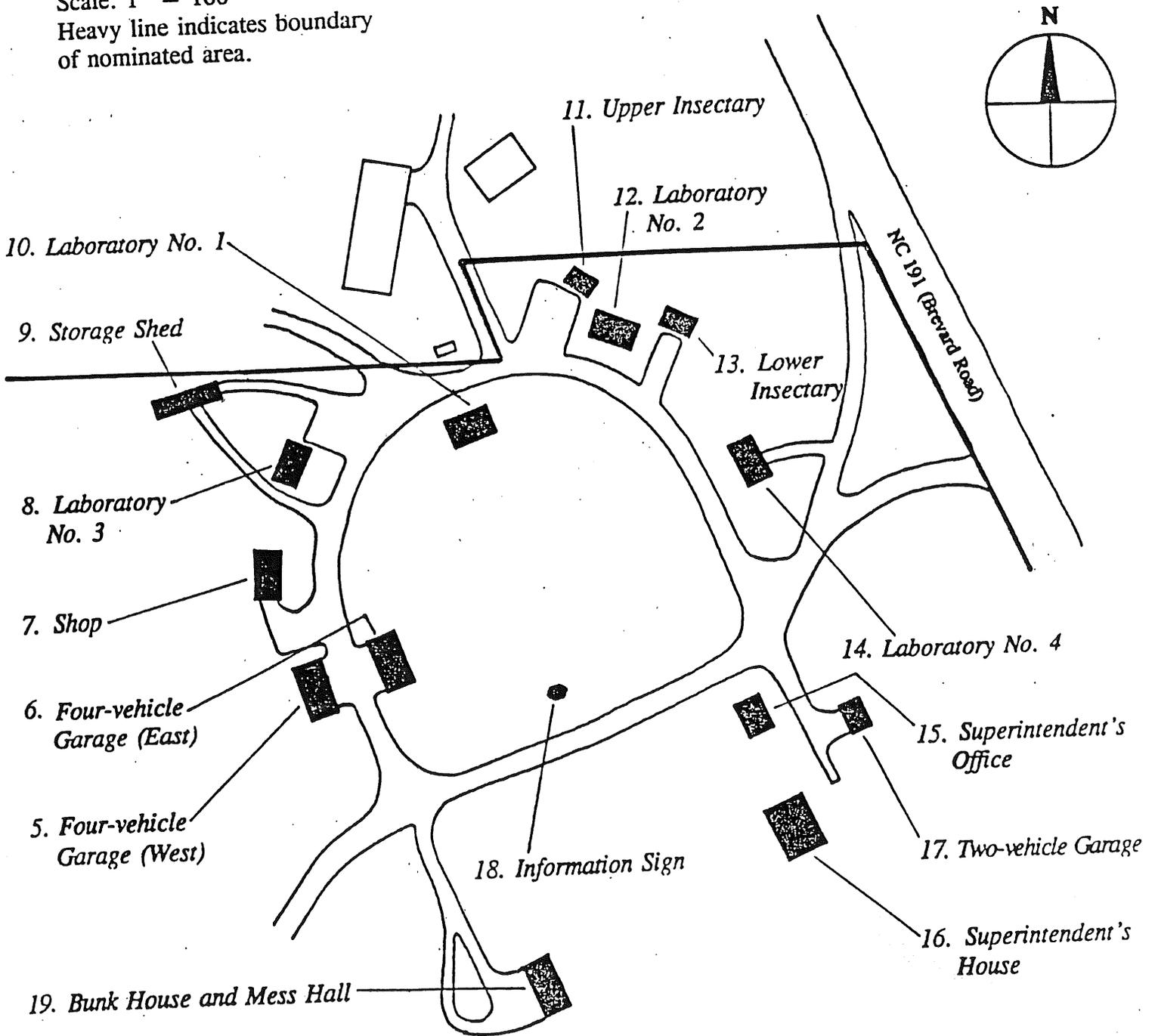
Bent Creek Campus of the Appalachian Forest
Experiment Station, Buncombe Co., N.C.

Number Exhibit Page 30

Map of East Section of Campus

Scale: 1" = 100'

Heavy line indicates boundary
of nominated area.



Department of the Interior
**Register of Historic Places
Nomination Sheet**

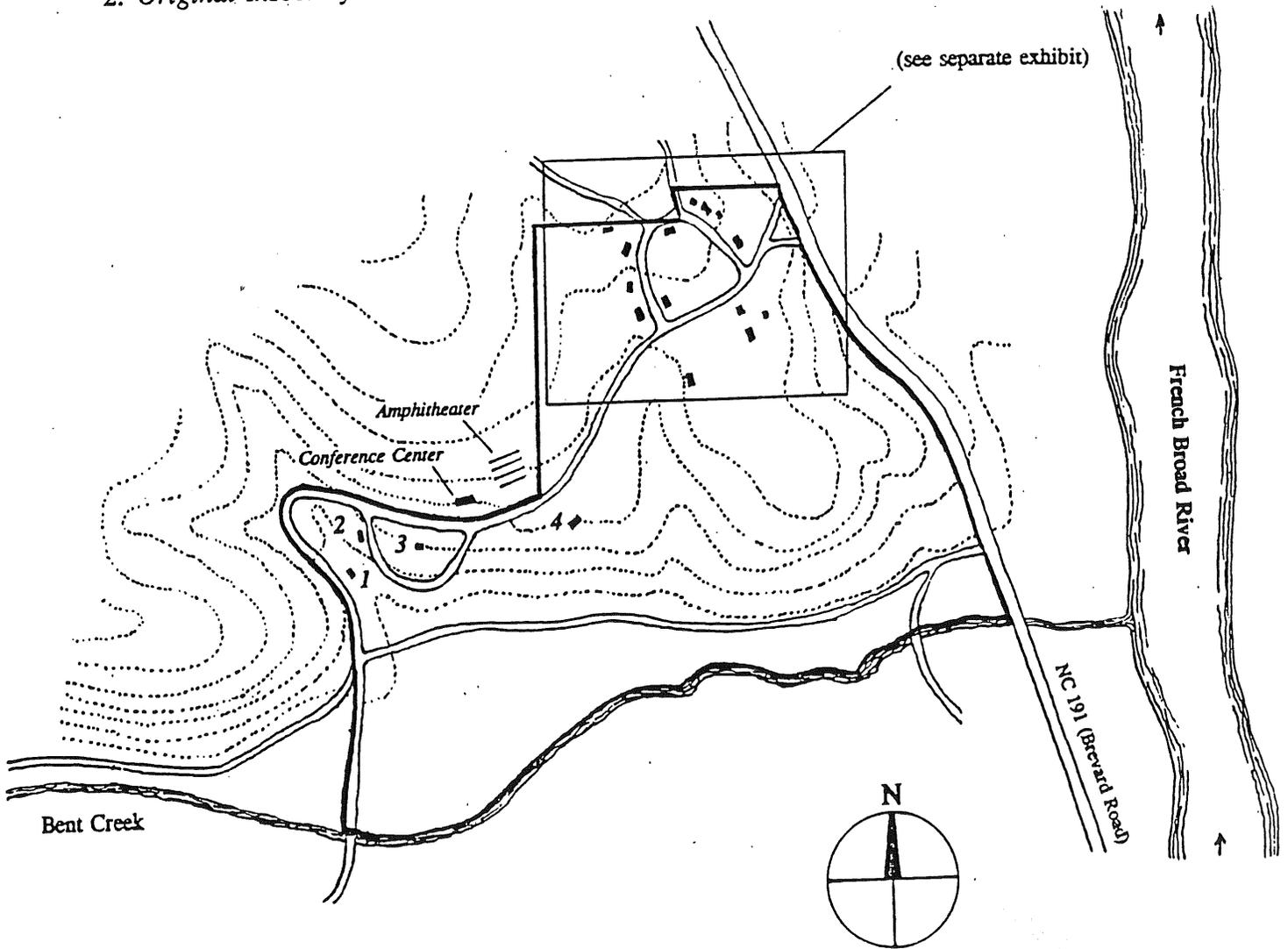
Bent Creek Campus of the Appalachian Forest
Experiment Station, Buncombe Co., N.C.

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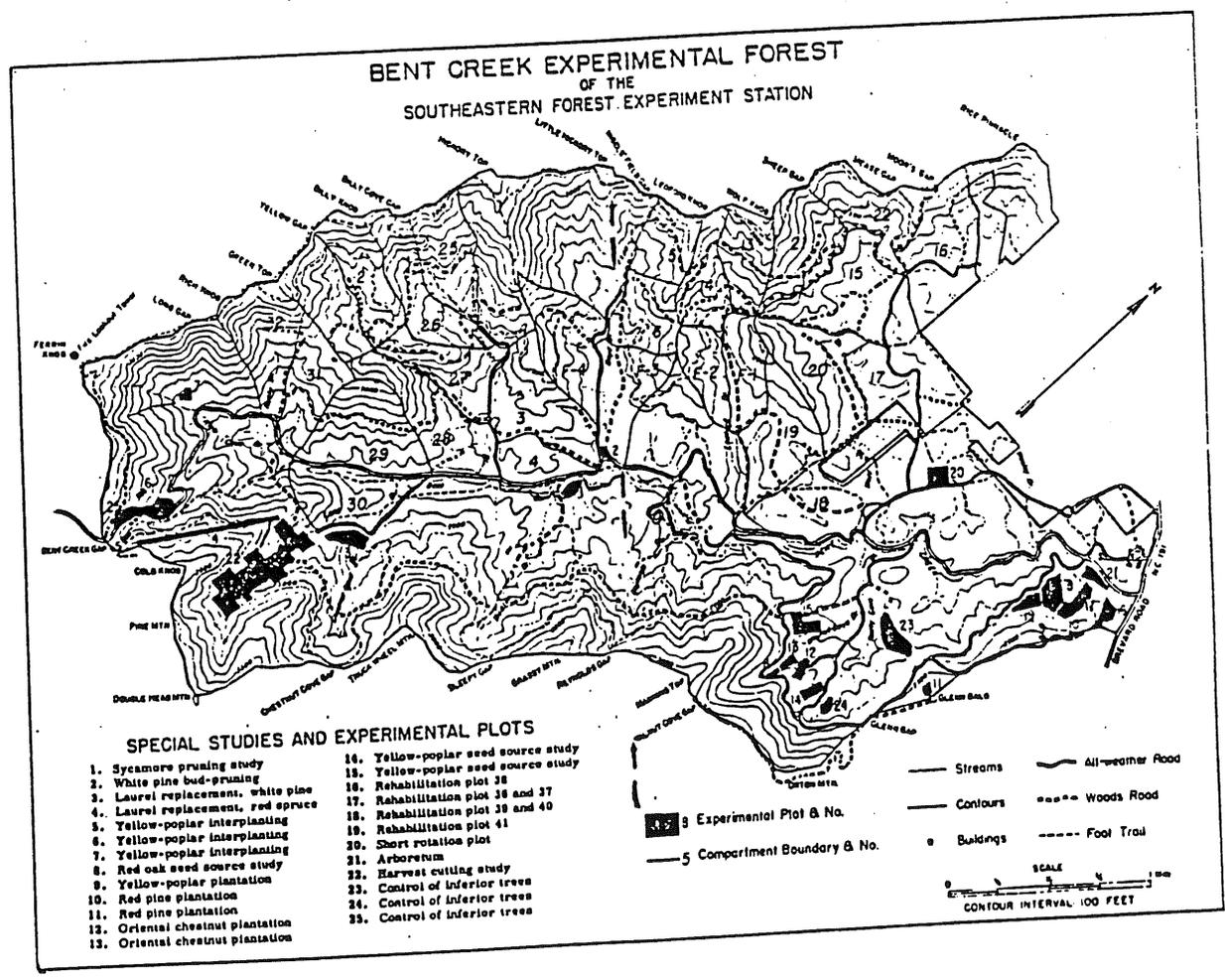
Map of Nominated Area

Scale: 1" = approx. 400'
Heavy line indicates boundary
of nominated area.

- | | |
|-----------------------|--------------------|
| 1. Pump House | 3. Original Garage |
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Map of the Bent Creek Experimental Forest, from James F. Renshaw, The Southern Appalachian Research Center (1956) (after page 17). The Bent Creek Campus is located at the extreme eastern end of the forest.



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**Bent Creek
Research and Demonstration
Forest Campus**

- LEGEND**
- 1. Pump House
 - 2. Original Insectary
 - 3. Original Garage
 - 4. Wood Shed

