

# **DRAFT**

**PHASE I IDENTIFICATION SURVEY FOR CULTURAL RESOURCES  
ALONG PROPOSED CHANGES TO THE LAKE-RIDGE TRAIL  
IN STEELE CREEK PARK, CITY OF BRISTOL,  
SULLIVAN COUNTY, TENNESSEE**

**Submitted to:**

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**Lead Government Agency:**

**FEDERAL HIGHWAY ADMINISTRATION**

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## MANAGEMENT SUMMARY

The City of Bristol, Tennessee is planning to make improvements to the Lake-Ridge Trail in Steele Creek Park. Improvements will include 0.90 miles of new alignment to reduce trail gradient in steeper areas. The areas of new trail will generally be four to five feet in width with several switchbacks requiring cut and fill work up to 20 feet in width. The surface area to be affected by new trail construction includes about 1.1 acres (0.0017± square miles).

New trail construction will be predominantly along the steep side slopes of the Beaver Creek Knobs with minor relatively level areas along the ridge crest and where the trail will cross a narrow section of the Steele Creek floodplain.

A review of state archaeological site files and results of a survey of historic structures within Sullivan County revealed that no archaeological sites or potentially significant standing structures have been previously recorded within the tract.

A Phase I identification survey for cultural resources along proposed sections of new trail alignment was conducted on December 9, 2001. Field activities included a pedestrian survey of all areas of new alignment and subsurface testing within relatively level portions of new alignment.

No evidence of prehistoric or significant historic period cultural activity was encountered within the areas surveyed.

Proposed construction activities along the areas of new trail alignment will have no effect on historic properties and no additional cultural resource investigations are recommended for this project.

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## INTRODUCTION

On November 27, 2001, Calvert W. McIlhany of Bristol, Virginia was requested by Mr. Kevin Hamed, Steele Creek Park Nature Center Manager, to perform a Phase I identification survey for cultural resources along 0.9 miles of proposed new alignment for the Lake-Ridge Trail. The project area is located along the steep slopes of the Beaver Creek Knobs overlooking Steele Creek Park Lake within the Bristol City limits in Sullivan County, Tennessee (Figure 1).

This project will be funded through a Federal Highway Administration grant to the Bristol, Tennessee Department of Leisure Services. The grant is for a transportation enhancement project as defined under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

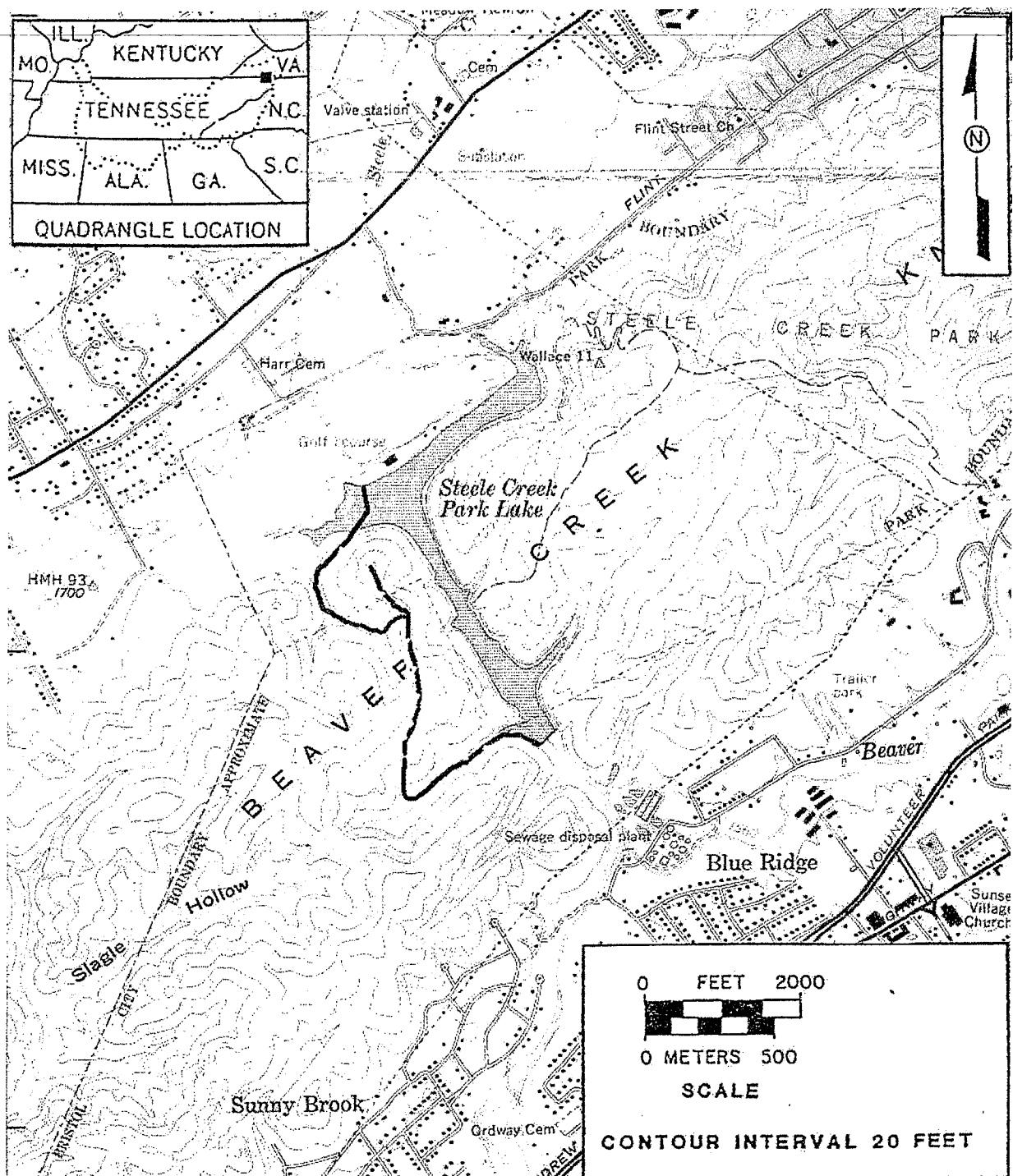
An identification survey for cultural resources along proposed new sections of the trail was conducted on December 9, 2001 by Calvert W. McIlhany. The survey was conducted in order to comply with Section 106 of the National Historic Preservation Act of 1966 and its implementing instructions as codified in 36 CFR 800 (51 FR 31115, September 2, 1986).

The scope of work for the survey included a surface examination of all sections of new trail alignment. Sections of the trail which are located on steep terrain ( $> 15\%$  slope) were subjected to surface examination only to check for the presence of potential rock shelters, stone mounds, or historic structural remains. Relatively level areas ( $<15\%$  slope) where the ground surface was obscured by vegetation were shovel tested at no more than 50 foot intervals to check for the presence of cultural materials and/or subsurface deposits.

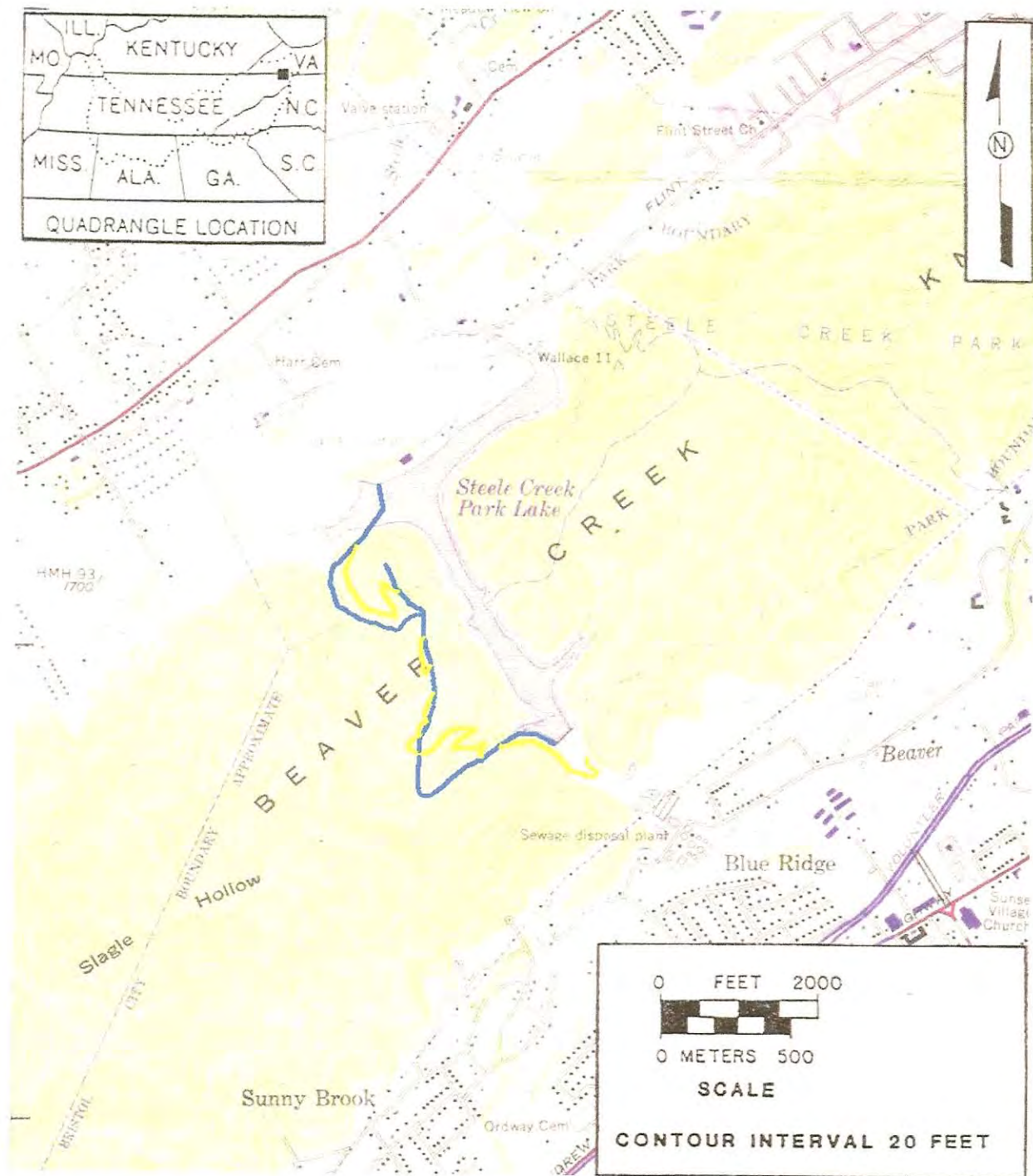
Field testing was based on a research strategy which would consider the results of previous local and regional archaeological research, general topography and landforms within the project area, and reported or suspected past cultural activities which might be expected to be encountered during the survey. Procedures for lab processing, analysis, and report preparation were also addressed with respect to meeting requirements outlined in the SHPO Standards and Guidelines for Archaeological Resources Management Studies revised in October 1999 by Tennessee Division of Archaeology.

Prior to conducting the survey, a literature search, examination of historic maps, and a check of Tennessee Division of Archaeology (TDA) site files was conducted. These sources indicated that no cultural resources had been previously recorded within the project's area of potential effect.

No cultural resources were encountered during the survey which were felt to meet significance criteria for inclusion in the National Register of Historic Places and no further work is recommended for the project area.



**Figure 1.** Section of 1959 Bristol, Tennessee-Virginia 7.5. minute USGS topographic Quadrangle (photorevised 1968 and 1978) showing location of project area. Existing trail in blue and proposed trail in yellow.



**Figure 1.** Section of 1959 Bristol, Tennessee-Virginia 7.5. minute USGS topographic Quadrangle (photorevised 1968 and 1978) showing location of project area. Existing trail in blue and proposed trail in yellow.

## ENVIRONMENTAL AND BACKGROUND DATA

The area examined during the survey includes 0.9 miles of new alignment for sections of the Lake-Ridge Trail in Steele Creek Park. The trail is located predominantly along the steep side slopes of the Beaver Creek Knobs. Minor portions of the proposed new trail alignment are situated along a relatively level ridge crest and where the trail will cross a narrow section of the Steele Creek floodplain.

Topographically, the project area is located along the southeastern margin of the limestone ridges and valleys division of the Great Valley portion of the Ridge and Valley physiographic province. The shale knobs encompassing the project area have been maturely dissected resulting in steep valley slopes overlooking narrow, V-shaped drainage ways. Drainage for the project area is provided by Steele Creek which flows into Beaver Creek about 300 meters (m) southeast of the project area (United States Department of Agriculture, Soil Conservation Service [USDA,SCS] 1953:4-7). Elevation within the project area ranges from about 466.3 m where the trail will cross Steele Creek to about 582.2 m where the trail crosses the crest of the Beaver Creek Knobs.

Bedrock underlying the project area has been mapped as Ordovician age Sevier shale. However, several outcrops of carbonate rocks representing the underlying Cambrian and Ordovician age Knox group occur on either side of the Beaver Creek Knobs (Hardeman 1966). Soils along the ridge top and side slopes have been mapped as Dandridge silt loam, steep and very steep phases with slopes ranging from 30% to over 50%. Soils within the Steele Creek floodplain have been mapped as Lindsides silt loam (USDA,SCS 1953:31, 33, 86 and Soil Map Sheet 3).

The floral community of the project area falls within the Ridge and Valley section of the Oak-Chestnut Forest Region (Braun 1950:192). Chestnut was the dominant tree of mesic forests prior to its elimination by blight in the early twentieth century. Forests of the valley floors are prevailingly oak with white oak the most characteristic species. Forests of ravine slopes along streams are beech or mixed mesophytic (Braun 1950:226).

The broad alluvial valleys of rivers such as the Tennessee and its major tributaries have been called the most productive natural environments in the southeast. Lewis and Kneberg (1946:42-43) have described this area as "particularly adapted to aboriginal life in the richness and variety of wild food products and was capable of supporting rather large populations on this basis alone." These same factors affected land selection and settlement by the first Euro-American settlers who entered this area during the late eighteenth century.

Floral resources provided a major source of food as well as a variety of other products for prehistoric inhabitants of this region. Nuts, seeds, roots, berries, and leaves of a wide variety of plant species undoubtedly provided a major portion of the dietary supplement on a seasonal basis. In addition, floral resources were used for firewood,

building materials, fibers for constructing a variety of utensils and fabrics, as well as medicinal purposes.

At the time of Euro-American contact, a faunal assemblage including numerous species of mammals, birds, reptiles, amphibians, fish, and mollusks existed in the broad alluvial valleys of the upper Tennessee River drainage. Faunal materials recovered from archaeological contexts in this region suggest that white tailed deer, turkey, bear, elk, and a variety of fresh water mollusks provided a major portion of the protein intake of prehistoric inhabitants of the area.

The climate of Sullivan County is temperate and continental with short moderate winters and long warm summers. Precipitation is fairly well distributed throughout the year with maximum rainfall during the summer months and a seasonal minimum during the autumn (USDA,SCS 1953:7-9). Data compiled at the Weather Bureau Station at Rogersville, in adjacent Hawkins County, show an average annual precipitation of 44.54 inches and a mean annual temperature of 57.0° F. The average growing season in Sullivan County is 187 days (USDA,SCS 1953:8-9).

Several periods of climatic change have been documented for Late Pleistocene and Holocene times in eastern Tennessee.

A full glacial period, dating from 19,000 to 14,000 BP, is characterized by retreat of the Laurentide Ice Sheet to the north. While tundra conditions prevailed at the higher elevations, boreal forests dominated by jack pine and spruce covered much of the area (Delcourt and Delcourt 1981:9).

The late glacial period, between 14,000 and 10,000 BP, saw the boreal forests replaced first by mixed conifer-northern hardwood forests followed by the northward advance of oak-hickory and mixed hardwood forests. Spruce and fir populations were stranded and persisted through the Holocene as relict "islands" at higher elevations in the southern Appalachians (Delcourt and Delcourt 1981:9).

In the early Holocene, a cool, moist climate favored the widespread expansion of species-rich mixed hardwood forests from 34° to 37° North Latitude in eastern North America (Delcourt and Delcourt 1981:9)

The Mid-Holocene interval from 8,000 to 4,000 BP was marked by increased warmth and aridity in the Great Plains. Major vegetation changes in the mideastern and southeastern United States reflect a similar climatic pattern. Mixed hardwood forests were areally restricted to favorable gorge and slope habitats in the Allegheny Plateaus. In the central and southern Appalachians, oak-chestnut forests became areally dominant (Delcourt and Delcourt 1981:9)

Analysis of pollen from Buckles Bog on the Appalachian Plateau of Maryland provides a similar sequence of floral succession. Tundra vegetation existed in this area



until around 12,000 BP when it was replaced by open spruce woodland. This boreal woodland was then replaced by a mixed deciduous-coniferous forest around 10,500 BP. Later in the Holocene, this forest cover was replaced by deciduous forest. The composition of this forest changed with successive sequential maximum frequencies of hemlock, beech, and hickory with a corresponding increase of oak until the present forest composition was reached (Maxwell and Davis 1972:522-527).

Alluvial deposits along the North Fork of the Holston River at Saltville, Virginia have produced an extensive record of Late Pleistocene megafauna which are now extinct. Late Pleistocene faunal material from New Paris No. 4 sinkhole in Pennsylvania was dated at  $11,300 \pm 1000$  BP (Guilday et al. 1964). At Hosterman's Pit, 65 miles northeast of New Paris No. 4, a date of  $9,340 \pm 1000$  BP was obtained for a completely modern assemblage of faunal material (Guilday 1967). A similar time frame may be suggested for the change from Pleistocene to modern fauna in eastern Tennessee.

## LITERATURE REVIEW

In conjunction with the survey, a literature search was conducted to determine whether any properties within or in the immediate vicinity of the project area were listed, nominated, or potentially eligible for inclusion in the National Register of Historic Places. A check of archaeological site location maps maintained by the Tennessee Division of Archaeology indicated that no previously recorded sites existed within the project area (Suzanne Hoyal, personal communication, December 6, 2001).

A printout of library entries maintained by the Tennessee Division of Archaeology contains references to 72 publications for Sullivan County. These entries include reports on archaeological site testing (n=10), dissertation or general reference materials which mention sites within Sullivan County (n=3), cultural resource management surveys (n=18), and Department of Transportation bridge replacement or highway corridor surveys (n=41).

Historic references reviewed during the literature search included publications on the general history of Sullivan County and the state of Tennessee as well as early maps of the area. For the most part, these sources were found in the Sullivan County Library in Blountville, Tennessee; the Bristol, Virginia Public Library; the special collections at the East Tennessee State University Library in Johnson City, Tennessee; and the author's personal library.

No attempt will be made in this report to provide a complete review of past cultural activity in the vicinity of the current project area. However, a brief historical overview for Sullivan County and the surrounding area is presented below.

Early Spanish, French, and British explorers and traders passed through the Tennessee Valley sporadically from the mid sixteenth to late eighteenth centuries. The first permanent settlement within the present day boundaries of Sullivan County was in 1765 in Holston Valley. By 1771, this area was known as the North of the Holston Settlement in western Virginia. A North Carolina - Virginia boundary survey conducted in 1779 resulted in designating this area as belonging to the state of North Carolina (Aiken 1979:1-2).

Island Road, which followed a series of previous game trails and Indian paths extending down the Great Valley from southwestern Virginia, was the oldest wagon road in Tennessee and the first road in the Southwestern Territory. In 1761, Major Andrew Lewis and three companies of militia under the command of Colonel Adam Stephen constructed a military road from Chilhowie, Virginia to the Long Island of the Holston River at the present day location of Kingsport, Tennessee. When the road was completed, the militia erected Fort Robinson at the western end of the road to treat for peace with the Cherokee Indians (Spoden 1977:2).

Migration to present day Sullivan County became general by about 1770 with Island Road serving as a principal migration route throughout the late eighteenth century. The County was organized in 1779 under the government of North Carolina. Sullivan County became part of the newly established state of Tennessee in 1796. The site for Blountville, the county seat, was granted in 1792 and the first courthouse was erected in 1795 (USDA,SCS 1953:11).

In 1775, the Treaty of Sycamore Shoals resulted in the Transylvania Purchase of 20 million acres of land including immense portions of the states of Tennessee and Kentucky from the Cherokees (Merritt 1950:10-11). Even as the treaty was being signed, Daniel Boone and a party of 30 men set out from Long Island to blaze the 200 mile long Wilderness Trail through the Cumberland Gap into central Kentucky (Kincaid 1947:94-98). This trail served as a catalyst for the passage of settlers into eastern Tennessee and Kentucky.

In 1773, Colonel James King surveyed a large area along the Beaver Creek drainage below present day Bristol in Sullivan County. King later purchased several thousand acres on Beaver Creek. King made his home in a previously standing house, which he called Holly Bend, about 1790. Holly Bend was located adjacent to Beaver Creek about one kilometer (km) south of the current project area. About 1794, King established an iron works near the mouth of Steele Creek, about 0.5 km downstream from current project area (Phillips 1992:vii-viii and 1-3). Portions of the current project area may well have been included in the King tract.

Prior to development of the project area as a recreational park, this portion of the Beaver Creek Knobs appears to have been little disturbed except for timber cutting activities. Lands along the Beaver Creek valley just to the south have been subjected to residential and commercial development along the Highway 11E corridor leading southward from southern Bristol toward Johnson City.

The expectation of encountering undisturbed evidence of significant cultural activity along the steep side slopes (>15%) of the Beaver Creek Knobs would be extremely low. Types of prehistoric activities which might have occurred along the steep slopes would include game kill/butchering sites and gathering of floral resources such as nuts and berries. Evidence of these activities would be expected to be confined to the ground surface and to undergo horizontal disturbance as a result of erosion, soil creep, and historic period timber extraction activities. The shale bedrock underlying the knobs is not conducive to the development of cliff lines with overhangs which could have provided shelter, storage, or temporary occupation sites.

Relatively level areas along the ridge crests and saddles would have a moderately high expectation of cultural activity. Prehistoric sites in these areas might be expected to include temporary campsites or resource extraction/processing sites occupied on a seasonal basis. These areas generally tend to represent erosional settings with limited

areas subjected to colluvial deposition due to reduced gradient at the base of adjacent slopes.

The Steele Creek floodplain at the southeastern end of the project area is relatively narrow with poorly drained alluvial and colluvial deposits adjacent to the stream bank. This area would have been frequently inundated during heavy precipitation episodes. Prehistoric cultural activity in this area would be expected to include temporary sites for extraction and processing a variety of resources associated with the nearby aquatic and lower valley slope settings. The gap where Steele Creek cuts through the knobs may also have been used as a transportation corridor between the broad stream valleys on both sides of the Beaver Creek Knobs.

Historic period use of the side slopes and crest of the knobs might be expected to have included timber extraction, cutting fuel for the iron furnace at the mouth of Steele Creek, and possible extraction of iron ore. Use of the Steele Creek floodplain might have included a transportation route associated with the nearby iron furnace as well as agricultural and milling themes.

## FIELD METHODS

The primary objective of the Phase I cultural resource survey was to determine whether evidence of prehistoric or significant historic period cultural activities was present within the project area. Specific research questions and goals addressed during the survey are listed below:

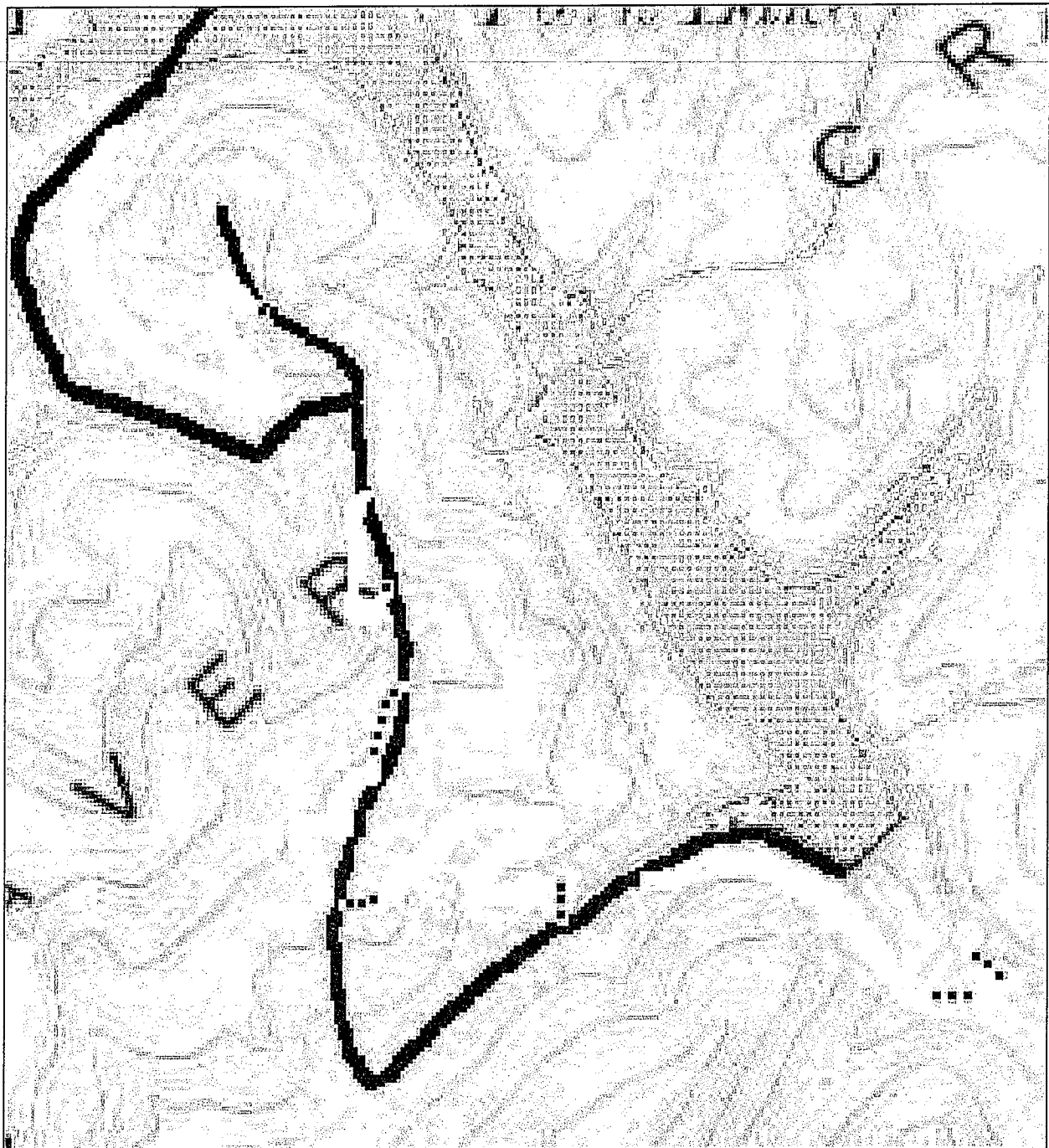
1. What types of cultural resources are present within and in the immediate vicinity of the project area which may be affected by proposed development of the golf course?
2. What is the nature of their location and distribution?
3. What is the present condition of each resource?
4. How do the cultural resources relate to topographic features, natural resources, routes of travel, cultural resources outside of the project area, or other factors?
5. What criteria (such as physical condition, uniqueness, or being representative of a particular class of resources) may be applied to evaluate site significance?
6. Define site boundaries for each cultural resource encountered during the survey.
7. Evaluate potential project impacts with respect to identified cultural resources and recommend measures to avoid or mitigate the effects of these impacts, if warranted.

Field examination of the project area included a pedestrian survey augmented by subsurface testing. The 0.9 miles of proposed new trail examined during the survey is situated primarily along the crest and steep side slopes of the Beaver Creek Knobs. At the time the survey was conducted, the area was forested. Most of the ground surface was obscured by leaves and organic matter which reduced surface visibility to less than 10%. However, frequent exposures of the underlying mineral soils existed along animal paths, eroded areas, and drip lines around the base of larger trees. The area where the trail crosses the Steele Creek floodplain has been subjected to extensive subsurface disturbance due to placement of an adjacent road and a sewer line which follows the east bank of the creek below the dam.

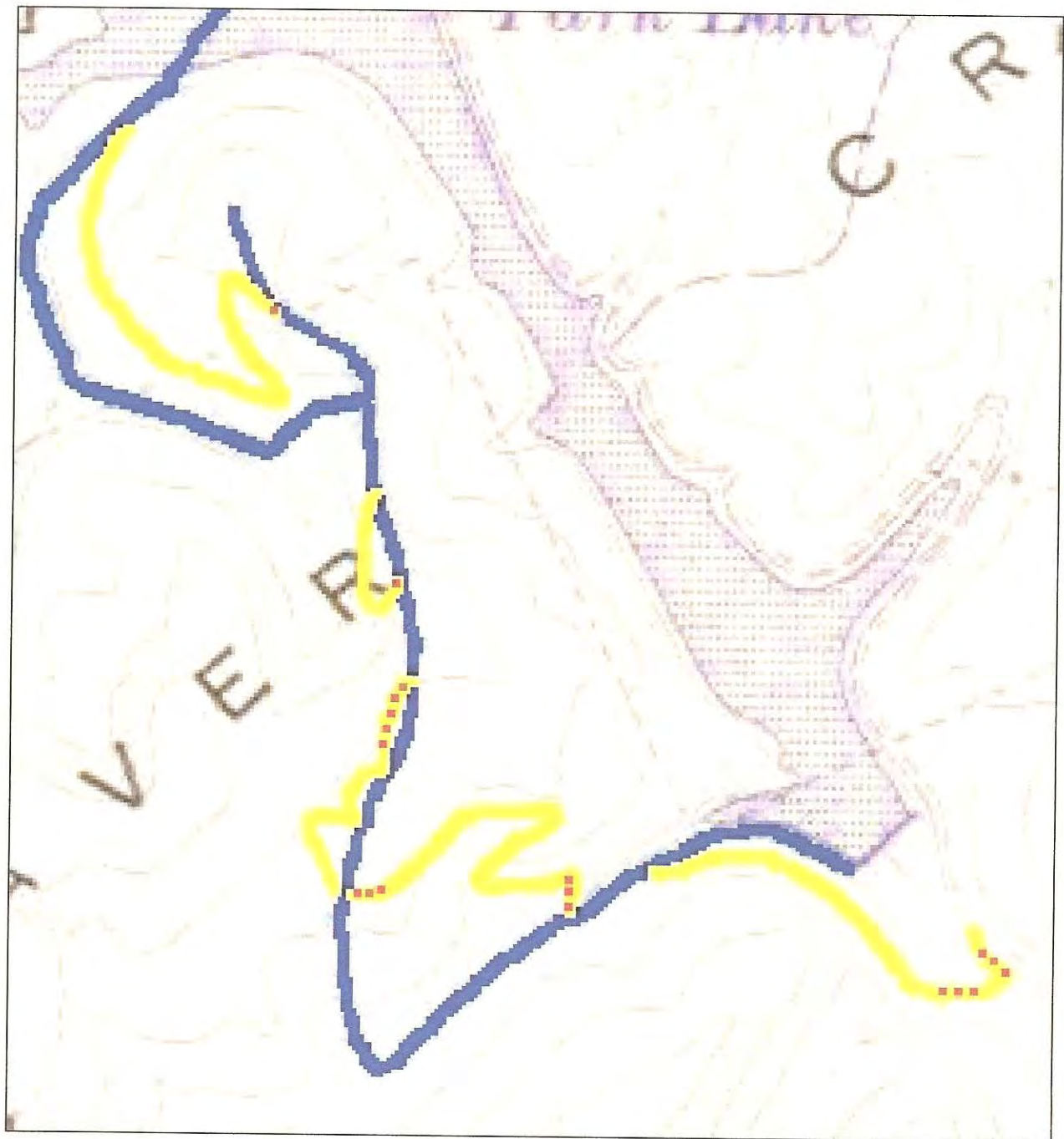
The survey was conducted by walking the flagged centerline of the proposed new trail segments. The survey route was modified on an opportunistic basis to include any noted areas of exposed ground surface.

In relatively level areas where vegetation obscured surface visibility for an extended distance, shovel tests were excavated at intervals of approximately 15¼ m to check for the presence of cultural materials or undisturbed cultural strata. In areas exhibiting an intact A-horizon soil zone, each shovel test was 30 to 40 centimeters (cm) in diameter and was excavated by natural soil zones until sterile subsoil was encountered. Excavated soil from each shovel test was screened through ¼ inch wire mesh to check for the presence of cultural materials. Areas with steeply sloping terrain (>15%) were subjected to visual inspection to check for surface indications of cultural activity but were not subjected to shovel testing.

Figure 2 shows the location of shovel tests (n=19) which were excavated within undisturbed portions of the new trail route. Figure 3 includes representative soil profiles from shovel tests in upland areas and the Steele Creek floodplain.



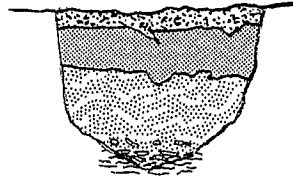
**Figure 2.** Map showing location of shovel tests excavated during survey. Existing trail in blue, proposed trail in yellow, shovel tests in red. Scale: 1"=500'.



**Figure 2.** Map showing location of shovel tests excavated during survey. Existing trail in blue, proposed trail in yellow, shovel tests in red. Scale: 1"=500'.

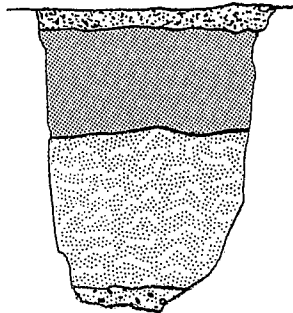
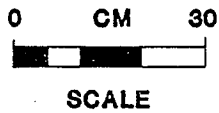


### SHOVEL TEST 3 ALONG RIDGE CREST



ORGANIC MAT – 10YR 3/2 VERY DARK GRAY-BROWN LOAM  
 10YR6/4 LIGHT YELLOW-BROWN SILT LOAM  
 10YR6/6 BROWNISH-YELLOW SILT LOAM  
 SHALE BEDROCK

### SHOVEL TEST 17 STEELE CREEK FLOODPLAIN



ORGANIC MAT – 10YR3/3 DARK BROWN LOAM  
 10YR4/2 DARK GRAY-BROWN SILT LOAM  
 10YR4/4 DARK YELLOW-BROWN SILTY CLAY LOAM  
 10YR6/4 LIGHT YELLOW-BROWN SILTY CLAY W/GRAVEL

Figure 3. Representative soil profiles from shovel tests excavated during survey.

## LABORATORY AND ANALYTICAL METHODS

Cultural materials observed during the survey included items of recently discarded trash and litter. All cultural materials encountered during the survey were examined in the field. They were then replaced at the find spot and not retained for permanent curation. All field notes, shovel test records, and maps generated during the course of the survey will be provided to the Tennessee Division of Archaeology for permanent curation.

## RESULTS OF INVESTIGATIONS

Given the steeply sloping nature of most of the area where trail improvements are proposed, it is not surprising that no significant cultural resources were encountered during the survey. The few level areas along the ridge crests and narrow saddle topographic settings have a higher expectation of cultural activity than the side slopes. However, larger more level terrain exists in adjacent areas making it less likely that prehistoric or early historic period inhabitants of the area would have selected the particular areas chosen for trail improvements.

The same rationale may be applied to the relatively level portion of the Steele Creek floodplain crossed by the proposed trail. The portion of the floodplain to be crossed by the trail is relatively narrow and low lying. More extensive and better drained areas in other portions of the floodplain would have been more likely to have been the scene of significant cultural activities.

## RECOMMENDATIONS

A Phase I identification survey for cultural resources along proposed sections of new alignment for the Lake-Ridge Trail in Steele Creek Park was conducted for the City of Bristol, Tennessee on December 9, 2001. Field activities included a pedestrian survey of all areas of new alignment and subsurface testing within relatively level portions of new alignment.

No evidence of prehistoric or significant historic period cultural activity was encountered in the areas surveyed.

Proposed construction activities along the areas of new trail alignment will have no effect on structures or sites which are on or eligible for inclusion in the National Register of Historic Places. No additional cultural resource investigations are recommended for this project.

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